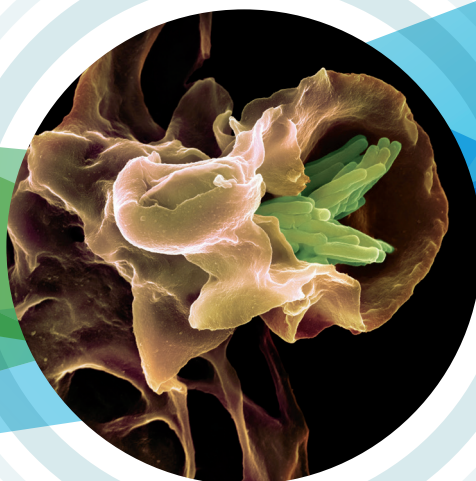




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Tuberculosis surveillance and monitoring in Europe

2020

2018 data

Tuberculosis surveillance and monitoring in Europe

2020

2018 data

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Suggested citation for full report.

European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2020 – 2018 data. Stockholm: ECDC; 2020.

Tables and figures should be referenced: European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2020 – 2018 data.

ECDC Paper

ISBN 978-92-9498-458-6; ISSN 1977-3986;
doi: 10.2900/0737073; TQ-AO-20-001-EN-C

ECDC PDF

ISBN 978-92-9498-457-9; ISSN 2443-5538;
doi: 10.2900/673523; TQ-AO-20-001-EN-N

WHO ISBN

ISBN 978 92 890 5490 4

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Acknowledgements

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

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

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

The entire report is available online at www.ecdc.europa.eu/en/publications-data/tuberculosis-surveillance-and-monitoring-europe-2020 and www.euro.who.int/tb

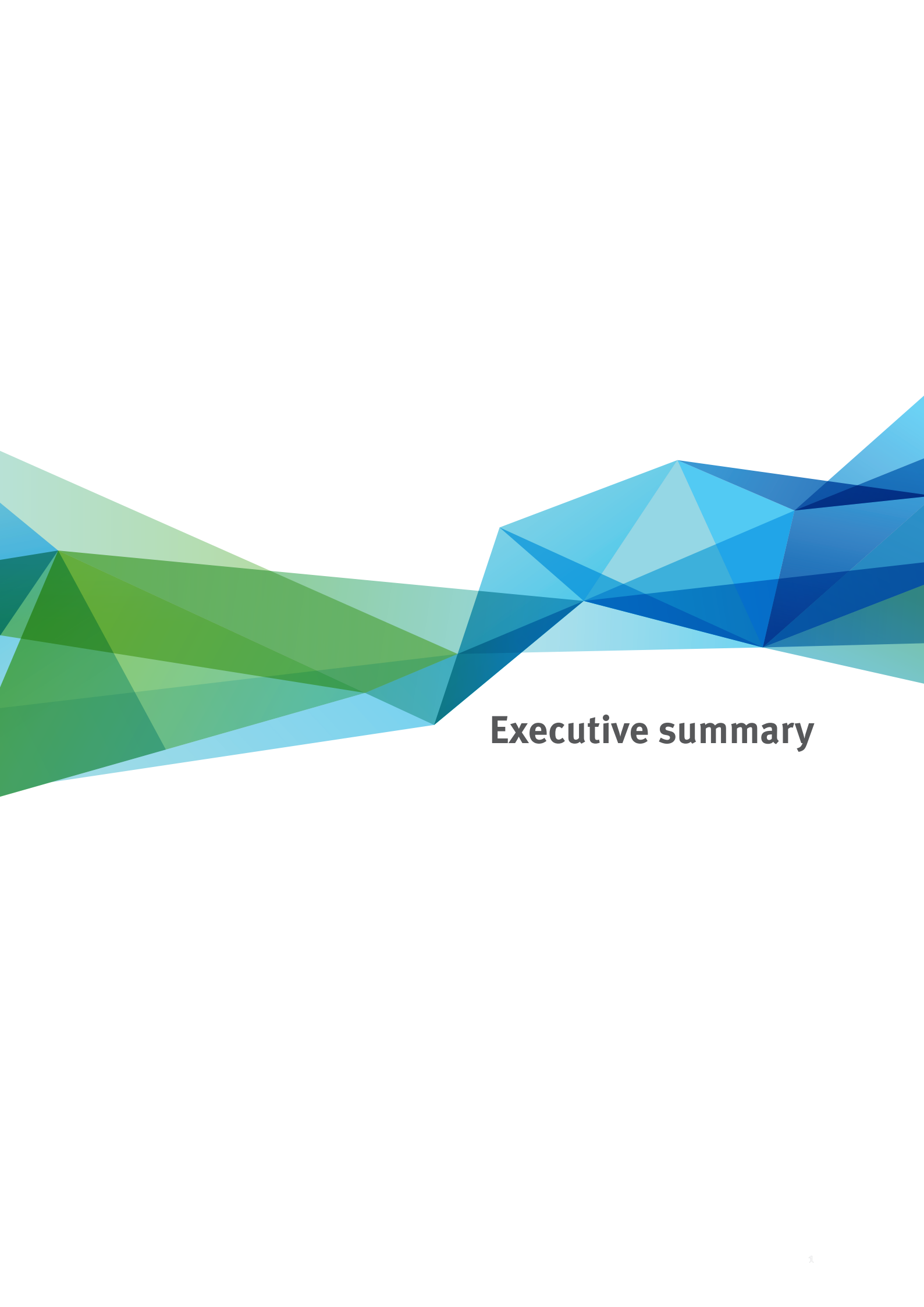
ECDC and the WHO Regional Office for Europe would like to thank the nominated operational contact points for TB surveillance from EU/EEA Member States and the TB surveillance focal points from the non-EU/EEA Member States and areas of the WHO European Region for providing data and valuable comments on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

Albania: Donika Mema; Andorra: Clara Palma Jordana; Armenia: Hayk Davtyan; Austria: Bernhard Benka; Azerbaijan: Sevinj Taghiyeva; Belarus: Dzmitry Klimuk; Belgium: Maryse Wanlin, Wouter Arrozala de Oñate; Bosnia and Herzegovina: Snježana Brčkalo; Bulgaria: Tonka Varleva; Croatia: Goranka Petrović; Cyprus: Kleomenis Benidis, Maria Koliou; Czech Republic: Jiří Wallenfels, Pavel Slezák; Denmark: Peter Henrik Andersen; Estonia: Piret Viiklepp; Finland: Hanna Soini, Outi Lyytikäinen; France: Jean-Paul Guthmann; Georgia: Mamuka Chinchauruli, Nino Lomtadze; Germany: Nita Perumal, Walter Haas; Greece: Ourania Kalkouni; Hungary: Gabor Kovács; Iceland: Guðrún Sigmundsdóttir, Thorsteinn Blondal; Ireland: Sarah Jackson, Joan O'Donnell; Israel: Yana Levin; Italy: Stefania D'Amato; Kazakhstan: Elena Arbuzova; Kyrgyzstan: Jekaterina Maljukova; Latvia: Dace Mihalovska; Liechtenstein: Marina Jamnicki Abegg; Lithuania: Edita Davidavičienė, Kęstutis Miškinis; Luxembourg: Pierre Weicherding; Malta: Analita Pace Asciak, Tanya Melillo; Monaco: Jean Lorenzi; Montenegro: Stevan Lučić; Netherlands: Erika Slump, Gerard de Vries; North Macedonia: Maja Zakoska; Norway: Karin Rønning, Trude Margrete Arnesen; Poland: Stefan Wesołowski, Maria Korzeniewska-Koseła; Portugal: Paulo Nogueira, Raquel Duarte; Republic of Moldova: Andrei Corloteanu; Romania: Domnica Ioana Chiotan, Nicoleta Valentina Cioran; Russian Federation: Sergey Sterlikov; Serbia: Maja Stosic; Slovakia: Ivan Solovič; Slovenia: Petra Svetina; Spain: Maria Araceli Arce Arnáez, Rosa Cano Portero; Sweden: Maria Axelsson, Jerker Jonsson; Switzerland: Ekkehardt Altpeter; Tajikistan: Firuza Sharipova; Turkey: Aysegul Yildirim; Turkmenistan: Aisoltan Charyeva; Ukraine: Larissa Korinchuk; United Kingdom: Arlene Reynolds, Cathriona Kearns, Colin Campbell, Eisin McDonald, Grace Smith, Jennifer Davidson, Jim McMenamin, Lucy Thomas, Maeve Lalor; Uzbekistan: Salihdjan Alimov. Also Kosovo: Xhevat Kurhasani.

¹ For the purposes of this publication, all references to "Kosovo", including in the bibliography, should be understood/read as "Kosovo (in accordance with Security Council resolution 1244 (1999) and the ICJ opinion on the Kosovo Declaration of Independence)".

Abbreviations

AFB	acid-fast bacilli
ART	antiretroviral therapy
CI	confidence interval
CISID	Centralized Information System for Infectious Diseases
DRS	drug-resistance surveillance
DST	drug-susceptibility testing
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
HIV	human immunodeficiency virus
HPCs	high-priority countries (Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, the Republic of Moldova, Romania, the Russian Federation, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan)
ICJ	International Court of Justice
LTBI	latent tuberculosis infection
MDR	multidrug resistance
MDR-TB	multidrug-resistant tuberculosis
RR-TB	rifampicin-resistant tuberculosis
RR/MDR-TB	rifampicin-resistant and multidrug-resistant tuberculosis
TB	tuberculosis
TESSy	The European Surveillance System
TME	WHO Tuberculosis Monitoring and Evaluation platform
TOM	treatment outcome monitoring
UNSCR	UN Security Council Resolution
WRD	WHO-recommended rapid diagnostics
XDR	extensive drug resistance
XDR-TB	extensively drug-resistant tuberculosis



Executive summary

Executive summary

The WHO European Region

Despite the notable progress achieved in the fight against tuberculosis (TB) in the WHO European Region and the ongoing decline in incidence seen as a result, TB and its drug-resistant form in particular, still poses a public health threat in most countries and areas within the Region and should not be underestimated.

TB burden

The year 2018 saw a further decrease in TB, with 259 000 incident TB cases (225 000–296 000) estimated in the WHO European Region, corresponding to 28 cases (24–32) per 100 000 population. During the period 2009–2018 and between 2014 and 2018, the average annual decline in the TB incidence rate was 5.1%, which is the fastest decline among all WHO regions. If this pace of decline is maintained, the Region will achieve the 2020 End TB Strategy milestone to reduce TB incidence rate in 2020 by 20% against the 2015 baseline, even though it will fall slightly short of reaching the Regional action plan target of a 25% reduction in the TB incidence rate.

In 2018, there were an estimated 23 000 TB deaths among human immunodeficiency virus (HIV)-negative people in the European Region, a cumulative 56% decrease since 2009 and equivalent to 2.5 deaths per 100 000 population (range 2.4–2.6). With a decline of 11.5% between 2017 and 2018, this rate is notably higher than the average global decline in TB mortality (3.6% between 2017 and 2018).

In 2018, there were an estimated 77 000 new cases of rifampicin-resistant and multidrug-resistant TB (RR/MDR TB) in the Region, with 49 000 estimated among notified bacteriologically-confirmed pulmonary TB patients. This represents around 16% of the 484 000 global RR/MDR TB burden in the same cohort. The proportion of RR/MDR TB among new and previously-treated TB cases in the Region also significantly exceeds the global average, with 18% in new and 54% in previously-treated cases compared to 3.4% and 18% respectively.

HIV prevalence in incident TB cases was estimated to be 12% in 2018, marking the second year of halted growth after an unprecedented increase from 3% to 12% during the period 2007–2016. There were an estimated 30 000 HIV-positive TB cases in the Region, with the Russian Federation (53%) and Ukraine (27%) contributing to the highest burden of coinfection.

TB disease notification and treatment outcomes

Overall, a 19% decrease was observed in the notification rates of new TB cases and relapses during the period 2014–2018 (incident TB cases), from 30.3 to 24.5 cases per 100 000 population. In 2018, 227 240 incident TB cases

were notified, amounting to 88% of the estimated new and relapse cases in the Region.

The percentage of newly-notified TB patients tested using WHO-recommended rapid diagnostic tests increased from 45.3% in 2015 to 66.3% in 2018, overachieving the initial target of 30% set in the Tuberculosis Action Plan for the WHO European Region 2016–2020, but remaining below the global End TB Strategy target of 90%.

A total of 189 992 patients with pulmonary TB (84%) were notified among incident TB cases, 67% of which were laboratory-confirmed, marking another year of increase in the number of laboratory-confirmed TB diagnoses which began in 2013 with a baseline of 57.1%.

Among bacteriologically-confirmed pulmonary TB cases, 84% were tested for first-line drug susceptibility (DST).

Overall, 29.1% of pulmonary TB patients who were reported as having tested for drug susceptibility had MDR TB. Prevalence of MDR TB among new and previously-treated bacteriologically-confirmed pulmonary TB cases was 18.3% and 49.1% respectively.

There has been an increasing trend in extensively-drug-resistant TB (XDR TB) and with 94.7% second-line DST coverage, 19.2% of pulmonary MDR TB cases had XDR TB in 2018. In absolute numbers, XDR TB cases among pulmonary TB cases increased from 999 in 2014 to 6 672 in 2018, largely due to the increase in the number of countries reporting on second-line DST data.

Of the new and relapsed TB patients notified from countries reporting HIV testing data, 91.5% were screened for HIV. A total of 24 365 TB cases were detected with HIV-positive status, which is 13.1% of those tested, representing a slight increase on last year (12.8% in 2017).

A total of 17 435 (73.1%) of HIV-positive patients are reported to have received antiretroviral therapy (ART). ART coverage has been increasing over the last five years but is still far below the WHO target of universal ART coverage for TB/HIV-co-infected patients.

Despite universal treatment coverage for TB and RR/MDR TB patients, the treatment success rate in the Region remains below the respective regional targets of 85% and 75%. The successful treatment outcome for both incident TB and RR/MDR TB cohorts were 77.1% and 57.4% respectively, which is comparable with the previous year's results.

Conclusions

Analysis of the 2018 TB surveillance data shows that the Member States are making good progress. This progress was particularly impressive in terms of efforts to reduce TB mortality and notification (as a proxy of TB incidence)

and to increase testing coverage of new and relapse TB patients using WHO recommended rapid tests, indicating that overall the Region is on the right track in its efforts to contain TB epidemic. Most of the high-priority countries have already achieved or are on track to reach the 2020 milestones of the global End TB Strategy and the targets articulated in the Tuberculosis Regional Action Plan for the WHO Europe Region.

However, although there is evidence of slow improvement, the treatment success rates for new and relapse cases and RR/MDR TB patients are still below regional and global targets. Despite the efforts made, the burden in relation to RR-TB and TB/HIV is still considerable, underlining the need to introduce more innovative and effective approaches to the diagnosis and treatment of TB and MDR-TB.

European Union and European Economic Area countries

Epidemiology and treatment outcome

In 2018, 52 862 cases of tuberculosis TB were reported in 30 European Union and European Economic Area (EU/EEA) countries (Latvia did not report any case-based data), resulting in a notification rate of 10.2 per 100 000 population in the EU/EEA. The overall notification rate and the rates in most countries have been decreasing over the last five years.

Of all notified TB cases, 40 625 (76.9%) were newly diagnosed and 36 047 (68.2%) were confirmed by culture, or smear and nucleic acid amplification test. Overall, adult age groups had a higher new and relapse TB notification rate than children under 15 years. Children under 15 years accounted for 4.0% of all new and relapse TB cases, corresponding to a notification rate of 2.5 per 100 000 population. The highest rates among those aged 0–4 years were reported in Portugal, Romania, Slovakia and Spain (Table 9). For every female new and relapsed case of TB in the EU/EEA, two male new and relapsed cases were reported. Thirty-five per cent of all TB cases reported in the EU/EEA were of foreign origin, but, with the exception of Malta, less than 25% of TB cases from countries with TB notification rates higher than 10 per 100 000 population were reported as being of foreign origin.

Of 26 881 cases with the relevant DST results, 999 (3.7%) had MDR TB; the highest percentage (more than 10%) of MDR TB cases were reported from Estonia and Lithuania. XDR TB was reported for 19.6% of 808 MDR TB cases tested for second-line drug susceptibility. After remaining at 0.3 per 100 000 population from 2014 to 2016, the rate of notified MDR TB cases decreased to 0.2 in 2017 and remained the same in 2018 (Table VII). Between 2014 and 2017, resistance to second-line anti-TB drugs among pulmonary MDR TB cases increased from 19.7% to 23.5%, before decreasing to 20.4% in 2018 (Table VIII). Over 55% of these pulmonary XDR TB cases were reported from Lithuania and Romania.

Even though in 2018 the number of countries reporting data on HIV coinfection, (which had increased between

2016 and 2017) decreased, the data remain incomplete. Of all TB cases with reported HIV status, 4.2% were coinfecting with the virus. TB in prisons remains poorly reported; for the 17 EU/EEA countries reporting data, the notification rate amounted to 217 new and relapse TB cases per 100 000 inmates, that is, a relative risk of 14.7 compared to the general population in the same countries.

Of all 55 337 TB cases notified in 2017 with a treatment outcome reported in 2018, 67.6% were treated successfully and 6.9% died. Of 1 182 MDR TB cases notified in 2016 with a treatment outcome reported in 2018, 49.9% were treated successfully and 15.7% died.

Conclusions

In 2018, 30 of 31 EU/EEA countries reported TB notification data. There was a further decline in the overall TB notification rate (10.2 per 100 000 population) continuing the trend observed since 2002. However, in order to achieve the United Nations Sustainable Development Goal 3 target of an 80% reduction in the TB incidence rate in 2030 compared to 2015, the target notification rate at EU/EEA level would have to be 2.4 per 100 000. Therefore, while the continuing decline is encouraging, there is some way to go before the EU/EEA countries meet the targets for elimination of TB by 2030.

Of the 55 337 TB cases notified in 2017 with a treatment outcome reported in 2018, only two-thirds (67.6%) were treated successfully, and 7% died during TB treatment. The overall MDR TB notification rate among cases with relevant DST results declined in the EU/EEA countries in 2018 and the number of XDR TB cases was low compared with the total number of reported TB cases.

Data on HIV coinfection and TB in prisons remain incomplete in the EU/EEA, with a decline in the number of countries reporting HIV status in 2018.

Monitoring progress towards TB elimination

In 2018, 20 of 26 WHO Regional action plan indicators were effectively monitored and evaluated using routine surveillance data. Of the 20 targets monitored, nine were achieved at the Regional level. The progress in reducing the burden of TB mortality and notifying new and relapse TB patients (as a proxy of TB incidence) was particularly impressive for the Region. Most high-priority countries have already achieved or are on track to achieve the 2020 milestones of the global End TB Strategy, as well as Regional action plan targets.

In addition, a substantial increase in HIV testing and ART coverage has been observed over the past few years and an increase in coverage of WHO-recommended rapid diagnostics has also been documented.

Although eleven targets set under the Regional action plan were not achieved, improvement has been observed against the baseline data. The treatment success rate of new and relapse TB cases as well as RR/MDR TB cases are still below the global and Regional targets, however, a comparison of data collected in 2016 with that for 2019 indicates

a slow but sustainable increase in both incident TB and RR/MDR TB cohorts, from 75.78% to 77.1% and 48.8% to 57.4% respectively.

Unfortunately, the Region will fall short of achieving six targets, including the percentage of RR/MDR TB among new and previously treated TB cases, prevalence of HIV among new and relapse TB cases, preventive treatment coverage among children under five years and treatment success rate for TB patients in prison. Despite the efforts made, the burden related to RR-TB and TB/HIV is still increasing, indicating the need to introduce more innovative and effective approaches to address those issues. Prevention efforts, including contact tracing, latent tuberculosis infection (LTBI) treatment coverage and ART coverage among people living with HIV, needs to be intensified.

Резюме

Европейский регион ВОЗ

Несмотря на заметные успехи, достигнутые в борьбе с туберкулезом (ТБ) в Европейском регионе ВОЗ, и последовавшую за этим стабильную тенденцию к снижению заболеваемости, туберкулез и, в особенности, его лекарственно-устойчивые формы, по-прежнему представляет угрозу для общественного здоровья в большинстве стран Региона, и эту угрозу не следует недооценивать.

Бремя туберкулеза

В 2018 г. было отмечено дальнейшее снижение заболеваемости туберкулезом: в Европейском регионе ВОЗ расчетное число новых случаев и рецидивов туберкулеза составило 259 000 (225 000–296 000), что соответствует 28 случаям (24–32) на 100 000 населения. В 2009–2018 гг. и в период с 2014 г. по 2018 г. среднегодовое снижение заболеваемости туберкулезом составило 5,1%, что является самым быстрым темпом снижения среди всех регионов ВОЗ. Если подобный темп снижения сохранится, то Регион достигнет основного рубежа, намеченного в Стратегии по ликвидации туберкулеза к 2020 г., – сократить показатель заболеваемости туберкулезом в 2020 г. на 20% по сравнению с исходным уровнем 2015 г. Однако даже такой темп не вполне достаточен для достижения целевого ориентира, обозначенного в Региональном плане действий по борьбе с туберкулезом, – сократить показатель заболеваемости туберкулезом на 25%.

По оценкам, в 2018 г. в Европейском регионе от туберкулеза умерли 23 000 человек, не инфицированных вирусом иммунодефицита человека (ВИЧ), что представляет собой совокупное сокращение на 56% с 2009 г. и эквивалентно 2,5 смертям на 100 000 населения (в диапазоне 2,4–2,6). Снижение на 11,5% за период 2017–2018 гг. заметно превышает темп сокращения среднемирового показателя смертности от туберкулеза (3,6% в 2017–2018 гг.).

В 2018 г. в Регионе, согласно расчетам, были зарегистрированы 77 000 новых случаев туберкулеза с устойчивостью к рифампицину и множественной лекарственной устойчивостью (РУ/МЛУ-ТБ), из которых 49 000 представляют пациентов с бактериологически подтвержденным туберкулезом легких – около 16% от 484 000 (бремя РУ/МЛУ ТБ в мире в той же самой когорте). Доля РУ/МЛУ-ТБ среди новых и ранее леченных случаев туберкулеза в Регионе также значительно превышает среднемировой показатель: 18% новых и 54% ранее леченных случаев по сравнению с 3,4% и 18%, соответственно.

В 2018 г. расчетная распространенность ВИЧ-инфекции среди новых случаев и рецидивов туберкулеза составила 12%, что знаменует собой второй год приостановления роста после беспрецедентного увеличения с 3% до 12% в 2007–2016 гг. В этот период расчетное число

случаев туберкулеза среди ВИЧ-инфицированных в Регионе составило 30 000, причем наибольшее бремя коинфекции пришлось на Российскую Федерацию (53%) и Украину (27%).

Регистрация случаев туберкулеза и исходы лечения

В целом в период 2014–2018 гг. показатели регистрации новых случаев и рецидивов туберкулеза сократились на 19% – с 30,3 до 24,5 случаев на 100 000 населения. В 2018 г. было зарегистрировано 227 240 случаев ТБ, что составляет 88% от расчетного числа новых случаев и рецидивов туберкулеза в Регионе.

Доля впервые зарегистрированных пациентов с туберкулезом, прошедших тестирование с использованием рекомендованных ВОЗ быстрых диагностических тестов, увеличилась с 45,3% в 2015 г. до 66,3% в 2018 г., превысив 30% – первоначальный целевой ориентир, установленный в Региональном плане действий по борьбе с туберкулезом, но оставаясь ниже глобального 90% целевого ориентира Стратегии по ликвидации туберкулеза.

В общей сложности, среди новых случаев и рецидивов туберкулеза было зарегистрировано 189 992 случая туберкулеза легких (84%), из которых 67% имели лабораторное подтверждение; таким образом, отмечено начавшееся в 2013 г. увеличение числа лабораторно подтвержденных диагнозов туберкулеза в сравнении с исходными значениями на уровне 57,1 %.

Среди случаев туберкулеза легких с бактериологическим подтверждением 84% тестировались на лекарственную чувствительность (ТЛЧ) к противотуберкулезным препаратам первого ряда.

У 29,1% больных туберкулезом легких, тестировавшихся на лекарственную чувствительность, был обнаружен МЛУ-ТБ. Распространенность МЛУ-ТБ среди новых и ранее леченных случаев туберкулеза легких с бактериологическим подтверждением составила 18,3% и 49,1%, соответственно.

Наблюдалась тенденция к росту туберкулеза с широкой лекарственной устойчивостью (ШЛУ-ТБ), так что в 2018 г. при охвате тестированием на лекарственную чувствительность (ТЛЧ) к противотуберкулезным препаратам второго ряда на уровне 94,7% в 19,2% случаев легочного МЛУ-ТБ был диагностирован ШЛУ-ТБ. В абсолютных цифрах число случаев ШЛУ-ТБ среди больных туберкулезом легких увеличилось с 999 в 2014 г. до 6 672 в 2018 г., в основном, вследствие увеличения числа стран, подающих сведения о ТЛЧ к препаратам второго ряда.

91,5% новых случаев и рецидивов туберкулеза из стран, предоставляющих данные о тестировании на

ВИЧ, прошли скрининг на ВИЧ-инфекцию. Всего среди лиц с ВИЧ-положительным статусом было выявлено 24 365 случаев туберкулеза, что составляет 13,1% от числа обследованных – некоторое увеличение по сравнению с прошлым годом (12,8% в 2017 г.).

Согласно данным отчетов, антиретровирусную терапию (АРТ) в общей сложности получили 17 435 (73,1%) ВИЧ-положительных пациентов. За последние пять лет охват АРТ демонстрирует тенденцию к росту, но он все еще намного ниже целевого ориентира ВОЗ по всеобщему охвату АРТ пациентов с сочетанной инфекцией ТБ/ВИЧ.

Несмотря на всеобщий охват лечением больных туберкулезом и РУ/МЛУ-ТБ, показатель успешного лечения в Регионе остается ниже соответствующих региональных целевых ориентиров – 85% и 75%. Успешный исход лечения как в когортах новых случаев и рецидивов туберкулеза, так и среди пациентов с РУ/МЛУ-ТБ зафиксирован в 77,1% и 57,4% случаев, соответственно, что сопоставимо с результатами предыдущего года.

Выводы

Анализ данных эпиднадзора за туберкулезом за 2018 г. показывает, что государства-члены добиваются значительных успехов. Прогресс наиболее ощутим в области снижения смертности от туберкулеза и сокращения показателей регистрации (в качестве прокси-показателя заболеваемости туберкулезом), а также повышения охвата тестированием новых случаев и рецидивов туберкулеза с использованием рекомендованных ВОЗ быстрых диагностических тестов (БДТ). Полученные данные указывают на то, что Регион в целом находится на правильном пути в своих усилиях по сдерживанию эпидемии туберкулеза. Большинство высокоприоритетных стран уже достигли или движутся в направлении достижения рубежей, намеченных на 2020 г. Глобальной стратегии по ликвидации туберкулеза, и целевых ориентиров согласно формулировкам Регионального плана действий по борьбе с туберкулезом.

Несмотря на наличие свидетельств медленного улучшения ситуации, показатель успешного лечения новых случаев и рецидивов у пациентов с РУ/МЛУ-ТБ все еще ниже региональных и глобальных целевых ориентиров. Вопреки предпринимаемым усилиям бремя РУ-ТБ и ТБ/ВИЧ все еще остается значительным, что подчеркивает необходимость внедрения более новаторских и эффективных подходов к диагностике и лечению туберкулеза и ЛУ-ТБ.

Страны Европейского Союза и Европейской экономической зоны

Эпидемиология и исходы лечения

В 2018 г. в 30 странах Европейского Союза и Европейской экономической зоны (ЕС/ЕЭЗ) было зарегистрировано 52 862 случая туберкулеза (ТБ) (Латвия не представила данных по случаям заболевания); таким образом,

показатель регистрации в ЕС/ЕЭЗ составляет 10,2 на 100 000 населения. В последние пять лет отмечено снижение как общего показателя регистрации, так и показателей регистрации в большинстве стран.

Из всех зарегистрированных случаев заболевания туберкулезом у 40 625 (76,9%) пациентов диагноз был установлен впервые, а у 36 047 (68,2%) диагноз был подтвержден при помощи культурального анализа или мазка и теста амплификации нуклеиновых кислот. В целом, у взрослых показатель регистрации новых случаев и рецидивов туберкулеза был выше, чем у детей младше 15 лет. На долю детей в возрасте до 15 лет приходилось 4,0% всех новых случаев и рецидивов туберкулеза, что соответствует показателю в 2,5 на 100 000 населения. Самые высокие показатели среди детей в возрасте 0–4 лет были отмечены, в Испании, Португалии, Румынии и Словакии (Таблица 9). На каждый новый случай и рецидив туберкулеза среди женщин в ЕС/ЕЭЗ было зарегистрировано два новых случая и рецидива среди мужчин. Тридцать пять процентов всех случаев туберкулеза, зарегистрированных в ЕС/ЕЭЗ, были иностранного происхождения, но, за исключением Мальты, менее 25% случаев туберкулеза из стран с показателями регистрации туберкулеза, превышающими 10 на 100 000 населения, отмечены как случаи иностранного происхождения.

Из 26 881 случаев с релевантными результатами тестирования чувствительности к лекарственным препаратам (ТЛЧ), в 999 (3,7%) случаях диагностирован туберкулез с множественной лекарственной устойчивостью (МЛУ-ТБ); наиболее высокий процент (свыше 10%) случаев МЛУ-ТБ был зарегистрирован в Литве и Эстонии. Туберкулез с широкой лекарственной устойчивостью (ШЛУ-ТБ) был зарегистрирован у 19,6% из 808 случаев МЛУ-ТБ с результатами тестирования чувствительности к противотуберкулезным препаратам второго ряда. В период с 2014 г. по 2016 г. показатель регистрации случаев МЛУ-ТБ стабилизировался на уровне 0,3 на 100 000 населения, после чего снизился до 0,2 в 2017 г., оставаясь тем же самым в 2018 г. (Таблица VII). В период 2014–2017 гг. устойчивость к противотуберкулезным препаратам второго ряда среди случаев МЛУ-ТБ легких увеличилась с 19,7% до 23,5%, снизившись до 20,4% в 2018 г. (Таблица VIII). Свыше 55% всех случаев ШЛУ-ТБ легких были зарегистрированы в Литве и Румынии.

Хотя число стран, подавших сведения о сочетанной инфекции с вирусом иммунодефицита человека (ВИЧ), возросшее в период 2016–2017 гг., сократилось в 2018 г., полученные данные остаются неполными. Из всех случаев регистрации туберкулеза с известным ВИЧ-статусом в 4,2% имела место коинфекция с вирусом. Регистрация туберкулеза в тюрьмах остается неудовлетворительной; для 17 подающих сведения стран ЕС/ЕЭЗ показатель регистрации составил 217 новых случаев и рецидивов туберкулеза на 100 000 заключенных, что соответствует относительному риску (ОР) 14,7 в сравнении с общей популяцией в тех же странах.

Из всех 55 337 случаев туберкулеза, зарегистрированных в 2017 г., сведения об исходе лечения которых

подавались в 2018 г., 67,6% были успешно пролечены, а 6,9% пациентов умерли. Из 1 182 случаев МЛУ-ТБ, зарегистрированных в 2016 г., сведения об исходе лечения которых подавались в 2018 г., 49,9% были успешно пролечены, а 15,7% пациентов умерли.

Выводы

В 2018 г. 30 из 31 страны ЕС/ЕЭЗ подали сведения о регистрации туберкулеза. Отмечалось дальнейшее снижение общего показателя регистрации туберкулеза (10,2 на 100 000 населения) в продолжение тенденции, наблюдавшейся с 2002 г. Однако для достижения Цели 3 в области устойчивого развития Организации Объединенных Наций, предусматривающей снижение заболеваемости туберкулезом на 80% в 2030 г. по сравнению с 2015 г., целевой ориентир показателя регистрации на уровне ЕС/ЕЭЗ должен составлять 2,4 на 100 000 населения. Поэтому, хотя неуклонное снижение и обнадеживает, предстоит преодолеть нелегкий путь, прежде чем страны ЕС/ЕЭЗ достигнут целей Стратегии по ликвидации туберкулеза к 2030 г.

Из 55 337 случаев туберкулеза, зарегистрированных в 2017 г., сведения об исходах лечения которых подавались в 2018 г., только две трети (67,6%) были успешно пролечены, а 7% пациентов умерли на фоне противотуберкулезного лечения. В странах ЕС/ЕЭЗ в 2018 г. снизился общий показатель регистрации МЛУ-ТБ среди случаев с релевантными результатами тестирования чувствительности к лекарственным препаратам, а число случаев ШЛУ-ТБ было низким в сравнении с общим количеством зарегистрированных случаев туберкулеза.

Данные ЕС/ЕЭЗ о конифекции ВИЧ/ТБ в тюрьмах остаются неполными при уменьшении количества стран, подавших сведения о ВИЧ-статусе в 2018 г.

Мониторинг прогресса в деле ликвидации туберкулеза

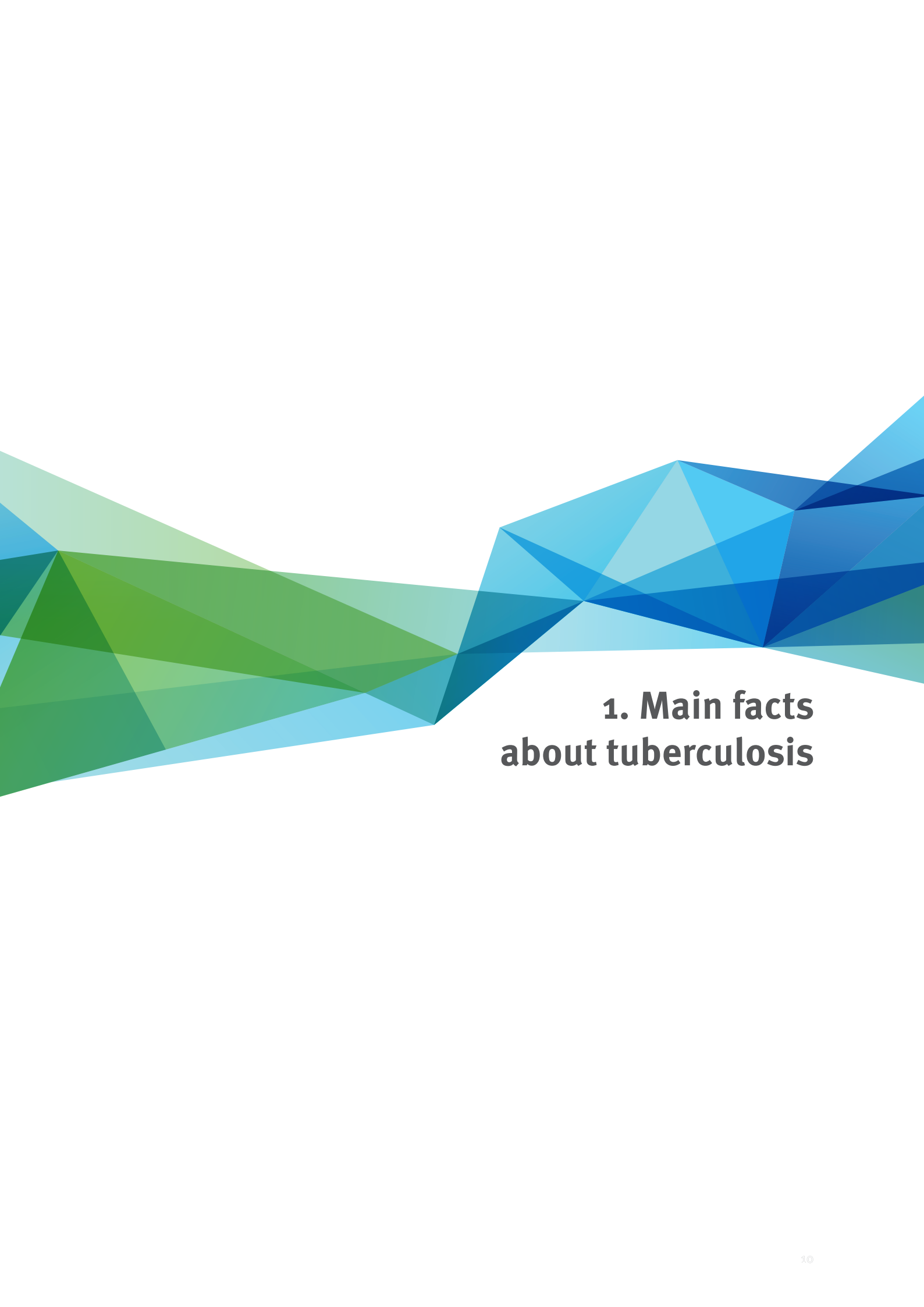
В 2018 г. 20 из 26 индикаторов Регионального плана действий ВОЗ эффективно отслеживались и оценивались с использованием данных планового эпиднадзора. Из 20 подлежащих мониторингу целей девять были достигнуты на региональном уровне. Особенно впечатляющим для Региона стал прогресс в сокращении бремени смертности от туберкулеза и показателей регистрации новых случаев и рецидивов туберкулеза (в качестве прокси-показателя заболеваемости туберкулезом). Большинство высокоприоритетных стран уже достигли или движутся в направлении достижения рубежей, намеченных в Глобальной стратегии по ликвидации туберкулеза на 2020 г., а также целевых ориентиров Регионального плана действий по борьбе с туберкулезом.

Кроме того, за последние несколько лет документально подтверждено значительное увеличение охвата тестированием на ВИЧ-инфекцию и АРТ наряду с повышением охвата тестированием с применением рекомендованных ВОЗ быстрых диагностических тестов.

Хотя одиннадцать целей, намеченных в Региональном плане действий, достигнуты не были, отмечается улучшение по сравнению с исходным состоянием.

Показатель успешного лечения новых случаев и рецидивов туберкулеза, а также случаев РУ/МЛУ-ТБ все еще ниже глобальных и региональных целевых ориентиров; однако сравнение данных, собранных в 2016 г., с данными за 2019 г. указывает на медленное, но устойчивое увеличение и когорт новых случаев и рецидивов туберкулеза, и когорт пациентов с РУ/МЛУ-ТБ с 75,78% до 77,1% и с 48,8% до 57,4%, соответственно.

К сожалению, Регион не достигнет шести целевых ориентиров, в том числе таких, как доля РУ/МЛУ-ТБ среди новых и ранее леченных случаев туберкулеза, распространенность ВИЧ-инфекции среди новых случаев и рецидивов туберкулеза, охват профилактическим лечением детей в возрасте до пяти лет и показатель успешного лечения больных туберкулезом пациентов в тюрьмах. Несмотря на предпринимаемые усилия, бремя, связанное с РУ-ТБ и ТБ/ВИЧ, все еще увеличивается, что указывает на необходимость внедрения более новаторских и эффективных подходов для решения этих проблем. Нужно активизировать усилия по профилактике, включая отслеживание контактов, а также по повышению охвата лечением латентной туберкулезной инфекции (ЛТИ) и охвата АРТ людей, живущих с ВИЧ.



1. Main facts about tuberculosis



1. Main facts about tuberculosis

TB is an infectious disease caused by a group of *Mycobacterium* species called the *Mycobacterium tuberculosis* complex [1]. TB ranks among the top 10 causes of death on a global scale [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, for example, when an individual with pulmonary TB expels bacteria into the air by coughing.

Approximately 25% of the world's population is infected with *M. tuberculosis* [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]. Multidrug-resistant (MDR) and extensively drug-resistant (XDR) TB require longer treatments with more drugs and are associated with lower success rates.

WHO estimated that 10 million people fell ill with TB in 2018. Most cases were thought to occur in the WHO South-East Asia Region (44%), the WHO African Region (24%) and the WHO Western Pacific Region (18%). Smaller

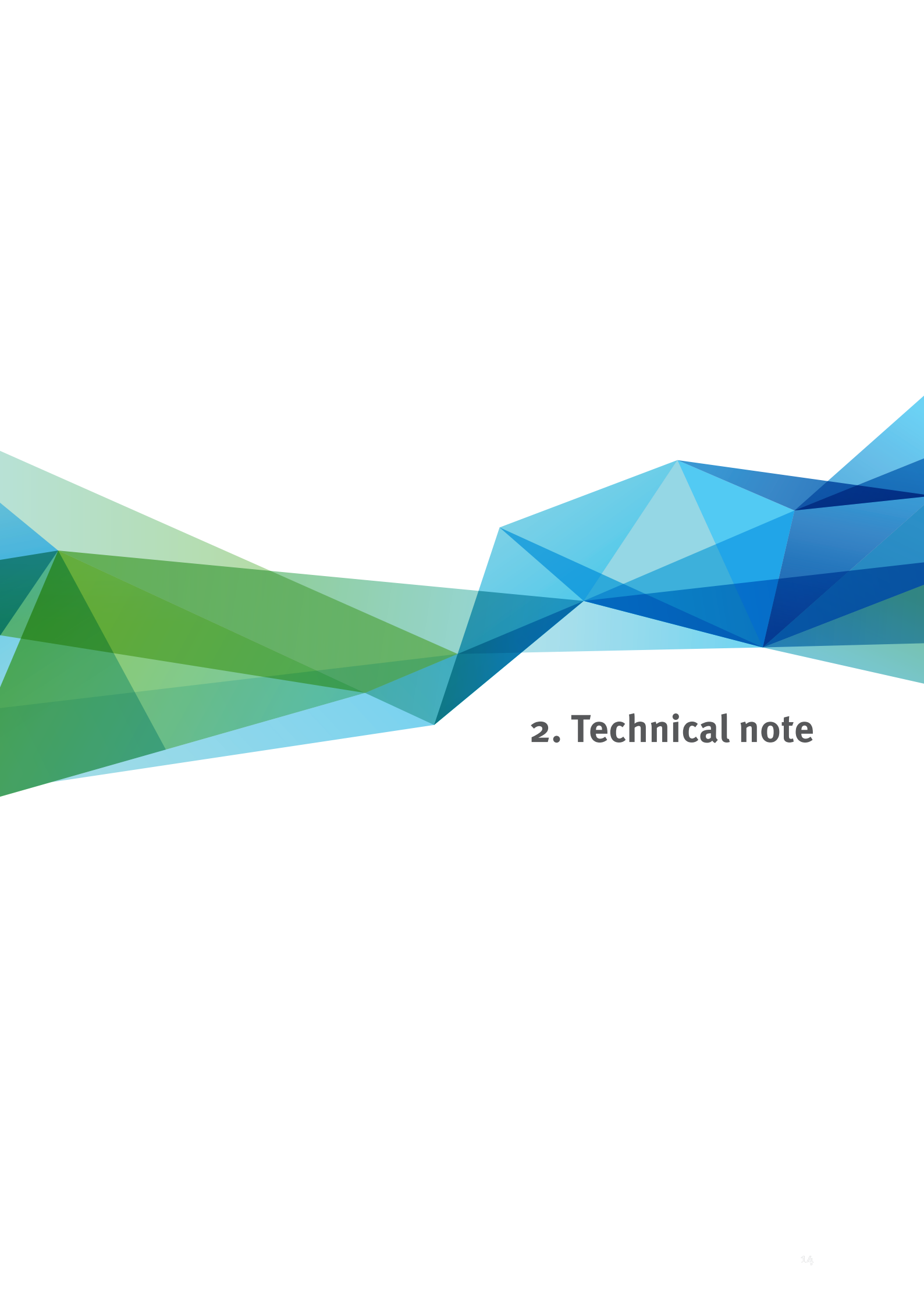
proportions of cases were estimated for the WHO Eastern Mediterranean Region (8%) and the WHO Region of the Americas (3%). The WHO European Region accounted for 3% of all cases [2].

Overall, this report shows that in the 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 or people coinfecting 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.

References

1. Lawn SD, Zumla AI. Tuberculosis. *Lancet* 2011;378(9785): 57–72.
2. World Health Organization (WHO). Global Health Estimates 2016: Disease burden by Cause, Age, Sex, by Country and by Region, 2000–2016. Geneva: World Health Organization; 2018. Available from: https://www.who.int/healthinfo/global_burden_disease/estimates/en/index1.html
3. Houben RMGJ, Dodd PJ (2016) The Global Burden of Latent Tuberculosis Infection: A Re-estimation Using Mathematical Modelling. *PLOS Medicine* 13(10): e1002152. Available from: <https://doi.org/10.1371/journal.pmed.1002152>
4. World Health Organization (WHO). Global tuberculosis report 2019. Geneva: WHO; 2019. Available from: <https://apps.who.int/iris/bitstream/handle/10665/329368/9789241565714-eng.pdf>



2. Technical note



Technical note

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

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

The report covers the 53 countries of the WHO European Region and Liechtenstein. These are collectively referred to as the European Region.

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 3 October 2019.

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 2018 electronically to the ECDC–WHO Regional Office for Europe Joint TB Information System via a common portal.¹ TB surveillance data from the EU/EEA countries were later redirected 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 WHO's Tuberculosis Monitoring and Evaluation (TME) platform in aggregated format. In all, 30 out of 31 EU/EEA Member States reported case-based data. All countries in the European Region were also asked to provide updates for 2015, 2016 and 2017 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 2018 data (Annex 2) has not undergone changes compared to the previous year.

Reporting completeness (Annexes 3 and 4) varied among countries and areas due to differences in legislation, specifics of national surveillance systems and TB case ascertainment. Readers should be cautious when making comparisons across countries, even though the quality and comparability of reported data have improved in recent

years and the reporting completeness is generally high in the EU/EEA, with a few exceptions, such as HIV status and 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 [3]. Population denominators were obtained from United Nations Population Division statistics [4] 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 [5] (10 May 2019) for the EU/EEA countries and from United Nations Population Division statistics for all other countries and areas.

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

TB/HIV coinfection

Case-based HIV status for 2018 was reported by Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Greece, Hungary, Iceland, Ireland, Lithuania, Luxembourg, the Netherlands, Norway, Portugal, Romania, Slovakia, Slovenia, Spain and the United Kingdom. The proportion of HIV/TB 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 reported new and relapse TB cases with known HIV status in 2018, start or continuation on antiretroviral therapy (ART) was reported by eight EU/EEA Member States.

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 74% of EU/EEA countries reporting the latter for the last six years (2013–2018). 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 (CISID)/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

¹ ECDC/WHO Europe Joint Surveillance can be accessed at: <http://www.ecdcwhosurveillance.org/>

gatifloxacin, levofloxacin and moxifloxacin were added in 2013, bedaquiline and delamanid in 2016 and pyrazinamide in 2017. Case-based information on DST is collected in countries/areas where DST results are linked to TB case notifications (29 countries in 2018). Where individual DST data are not available, data have been obtained from WHO's Tuberculosis Monitoring and Evaluation platform (TME) in aggregated format, when possible and deemed adequate. Information on the organisation and laboratory practices for anti-TB DST in the country/area is collected using the TME module of the joint TB surveillance system. From 2019 onwards, when collecting data to report resistance to anti-TB drugs, EU/EEA Member States are required to report the resistance pattern used on initiation of the treatment to TESSy, irrespective of the method used for drug susceptibility testing 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 nationwide; 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 are considered incomplete for Albania, Bosnia and Herzegovina, Italy, Georgia, Latvia (did not report case-based data), Kazakhstan, Kyrgyzstan, Serbia, Tajikistan and Turkmenistan. France reported complete national DRS data only for rifampicin resistant TB cases.

EQA systems are essential for ensuring accurate diagnosis of TB and drug-resistant TB. Implementing EQA by organising regular EQA rounds and identifying training needs is one of the key activities of the European TB Reference Laboratory Network (ERLTB-Net) [6]. The EQA test results for 2018 are published in Annex 5.

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

Treatment outcome monitoring

EU/EEA countries have provided treatment outcome data since the reporting year 2002, through the submission of 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 XDR TB treatment outcome for cases reported three years earlier.

As part of the 2019 data call, for 2018 data, outcome data were collected for TB cases reported in 2017, MDR TB cases in 2016 and XDR TB cases in 2015. 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 (TOM) 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 TOM cohorts with those initially notified as pulmonary and culture- or smear-positive, depending on the type of cohort.

Geographical areas

The following 31 EU/EEA countries are presented separately in tables and in Chapter 3: Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia (case-based data not reported for 2018), Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

The 23 remaining (non-EU/EEA) countries in the WHO European Region are: Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Israel, Kazakhstan, Kyrgyzstan, Moldova, Monaco, Montenegro, North Macedonia, Russia, San Marino, Serbia, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

Data from Serbia include TB cases reported from Kosovo,² 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* [7] 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 (did not report case-based data for 2018), Lithuania, Moldova, Romania, Russia, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

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

² For the purposes of this publication, all references to "Kosovo", including in the bibliography, should be understood/read as "Kosovo (in accordance with Security Council resolution 1244 (1999))".

2.2 Definitions

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 [2]. This classifies cases as “possible”, “probable” or “confirmed”. Possible cases meet clinical criteria only. Probable cases are defined by the additional detection of acid-fast bacilli (AFB), *M. tuberculosis* complex nucleic acid or granulomata. Confirmed cases require a positive culture or detection of both AFB 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]. They define a “case of tuberculosis” as a patient in whom TB has been confirmed by bacteriology or diagnosed by a clinician. A “bacteriologically confirmed TB case” is one from whom a biological specimen is positive by smear microscopy, culture or WHO-recommended rapid diagnostics (WRD) such as Xpert MTB/RIF. A “clinically diagnosed TB case” is one that does not fulfil the criteria for bacteriological confirmation, but has been diagnosed with active TB by a clinician or other medical practitioner who has decided to give the patient a full course of TB treatment.

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

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 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 cases and relapses of TB are **incident TB cases**.

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 should be 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).

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, whereas 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.

Origin of cases

The geographic origin of a TB case is classified according to the place of birth of a person with TB disease (i.e. born in the country/born outside of the country) for Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Iceland, Ireland, Israel, Italy, Kyrgyzstan, Latvia, Liechtenstein, Lithuania, Luxembourg,

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

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

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 re-infection with resistant bacilli.

MDR refers to resistance to at least isoniazid and rifampicin.

XDR refers to resistance to: (i) isoniazid and rifampicin (that is, MDR); (ii) a fluoroquinolone; and (iii) one or more of the following injectable drugs: amikacin, capreomycin or kanamycin [1].

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, multidrug resistance, polydrug resistance or extensive drug resistance.

Treatment outcome

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 rifampicin-resistant TB (RR-TB). For non-EU/EEA countries 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 drug susceptibility testing 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.

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 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”.³ For 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”.⁴ Non-EU/EEA countries and areas evaluate treatment outcomes according to the WHO definition.

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” only applies to the EU/EEA Member States. The categories are as follows.

Cured is 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 is 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 is treatment completed but does not meet the criteria to be classified as cure or treatment failure.

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

Treatment failed for MDR TB case is treatment terminated or the need for permanent regimen change of at least two anti-TB drugs because of:

- lack of conversion by the end of the intensive phase; or
- bacteriological reversion in the continuation phase after conversion to negative; or
- evidence of additional acquired resistance to fluoroquinolones or second-line injectable drugs; or
- adverse drug reactions.

³ The degree of adherence to the 12-month limit is unknown, and a number of countries are known to exceed it.

⁴ The degree of adherence to the 24-month limit is unknown.

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

Lost to follow-up is 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 is:⁵

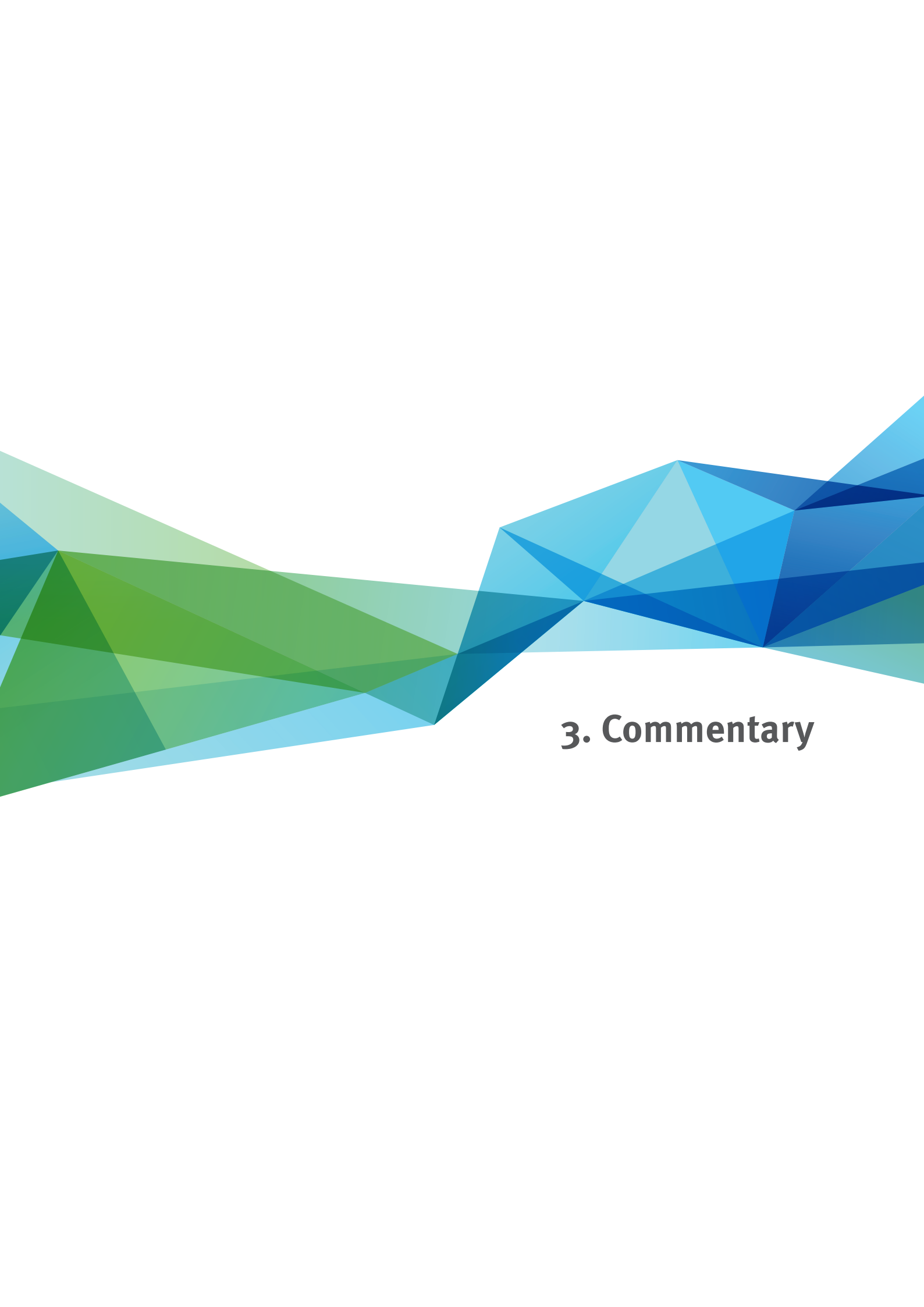
- a patient reported as still on treatment at 12 months without any other outcome during treatment; or
- a patient reported as still on treatment at 12 months and still on treatment at 24 months without any other outcome.

Not evaluated is 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”.

References

1. Definitions and reporting framework for tuberculosis – 2013 revision, updated December 2014. Geneva: World Health Organization; 2015. Available from: https://apps.who.int/iris/bitstream/handle/10665/79199/9789241505345_eng.pdf?sequence=1
2. EU Commission. 2018/945: Commission Decision of 22 June 2018 on the communicable diseases and related special health issues to be covered by epidemiological surveillance as well as relevant case definitions. OJ L 170, 6.7.2018:47–48.
3. Global tuberculosis report 2018. Geneva: World Health Organization; 2018:28. Available from: <https://apps.who.int/iris/bitstream/handle/10665/274453/9789241565646-eng.pdf>
4. World population prospects: the 2017 revision, medium variant. In: United Nations DESA/Population Division [website]. New York (NY): United Nations DESA/Population Division; 2017. Available from: <https://www.un.org/development/desa/publications/world-population-prospects-the-2017-revision.html>
5. Eurostat [website]. Brussels: Eurostat; 2018. Available from: <https://ec.europa.eu/eurostat/home>
6. European Reference Laboratory Network for TB (ERLTB-Net). In: European Centre for Disease Prevention and Control [website]. Stockholm: ECDC; 2019. Available from: <https://www.ecdc.europa.eu/en/about-us/partnerships-and-networks/disease-and-laboratory-networks/erltb-net>
7. Plan to stop TB in 18 high-priority countries in the WHO European Region, 2007–2015. Copenhagen: WHO Regional Office for Europe; 2007. Available from: http://www.euro.who.int/__data/assets/pdf_file/0005/68180/E91049.pdf?ua=1



3. Commentary



3. Commentary

3.1 The WHO European Region

TB burden estimates (incidence and mortality, HIV and MDR)

An estimated 259 000 new and relapse TB cases (range 225 000–296 000) occurred in countries and areas of the WHO European Region in 2018, equivalent to an average incidence of 28 cases (24–32) per 100 000 population. This represents about 2.6% of the total burden of TB in the world.

The absolute number of incident TB cases in the WHO European Region fell by 15 000 in 2018 compared to the previous year. About 83% of the estimated TB cases in the Region occur in the 18 high-priority countries (HPCs), where estimated TB incidence was 52.5 cases per 100 000 population, which is over four times higher than the EU/EEA average. The six countries with the absolute highest number of incident TB cases over 10 000 were the Russian Federation (79 000), Ukraine (36 000), Uzbekistan (23 000), Romania (13 000), Turkey (13 000) and Kazakhstan (12 000). The number relative to population (incidence rate) was highest in Kyrgyzstan (116 per 100 000 population), followed by the Republic of Moldova (86), Tajikistan (84), Georgia and Ukraine (80 each).

The estimated number of TB cases in the Region has been decreasing consistently since 2000. During the period 2009–2018, the average annual decline in the TB incidence rate was 5.1%, with 6.0% between 2017 and 2018, which is notably higher than the global rate of decline for TB incidence (2.0%), and the fastest decline in the world compared to other regions [1]. The cumulative reduction for the period 2015–2018 was 15.2%, indicating that the Region is on track to achieve the 2020 End TB Strategy milestone to reduce the TB incidence rate in 2020 by 20% against the 2015 baseline, but will fall short of achieving the Regional action plan target of a 25% reduction in the TB incidence rate. It should nevertheless be emphasized that all the HPCs in the Region have also experienced a decline in the TB incidence rate. During the period 2009–2018, the high-priority countries with the highest annual rate of decline were Estonia (–9.2%), Belarus (–8.7%) Kazakhstan (–8.5%), Armenia (–8.4%) and Azerbaijan (–8.0%).

There were an estimated 23 000 TB deaths among HIV-negative people in the European Region in 2018, equivalent to 2.5 deaths per 100 000 population (range 2.4–2.6). Considerable variation was seen across the Region, ranging from less than one TB death per 100 000 population in western European countries to more than 10 per 100 000 in HPCs. The TB mortality rate was highest in Turkmenistan (10.4 deaths per 100 000), followed by Azerbaijan (10.1) and Ukraine (8.4). Together, the 18 HPCs accounted for over 87% of TB deaths in the Region.

Between 2009 and 2018, the TB mortality rate at regional level fell cumulatively by 57%, from 5.8 to 2.5 deaths per 100 000 population, (Table 1) which on average is a decline of 9.1% per year. This decline was over 12% between 2017 and 2018, which is notably higher than the global rate of decline for TB mortality (3.6% between 2017 and 2018). With a cumulative reduction of 26% between 2015 and 2018, the Region is on track to reach the End TB Strategy milestone of a 35% reduction in the total number of TB deaths between 2015 and 2020 [1].

An estimated 12.0% (range 7.5–16.0%) of incident TB cases in 2018 were coinfecting with HIV (Table 2). The proportion of TB cases coinfecting with HIV was highest in Turkmenistan (24.0%), followed by Ukraine (23.0%), the Russian Federation (20.0%), Malta (16.0%) and Armenia (10.0%). The top five countries with the highest absolute number of TB/HIV coinfection cases were the Russian Federation (16 000) and Ukraine (8 200), amounting to 81% of the total number of cases, followed by Uzbekistan (1000), Kazakhstan (730) and Turkmenistan (650).

Nine out of the 30 countries with the highest MDR TB burden in the world are in the WHO European Region.⁶ In 2018, there were an estimated 49 000 incident cases of rifampicin-resistant and multidrug-resistant TB (RR/MDR TB) in the WHO European Region among notified bacteriologically confirmed pulmonary TB cases, with MDR TB accounting for 84%.

An estimated 18% (95% CI: 16–19%) of newly diagnosed patients and 54% (95% CI: 47–61%) of previously treated patients had RR/MDR TB. If all TB patients were tested for drug resistance to rifampicin and isoniazid, it is estimated that around 77 000 (range 69 000–95 000) would be detected.

TB notification and trends

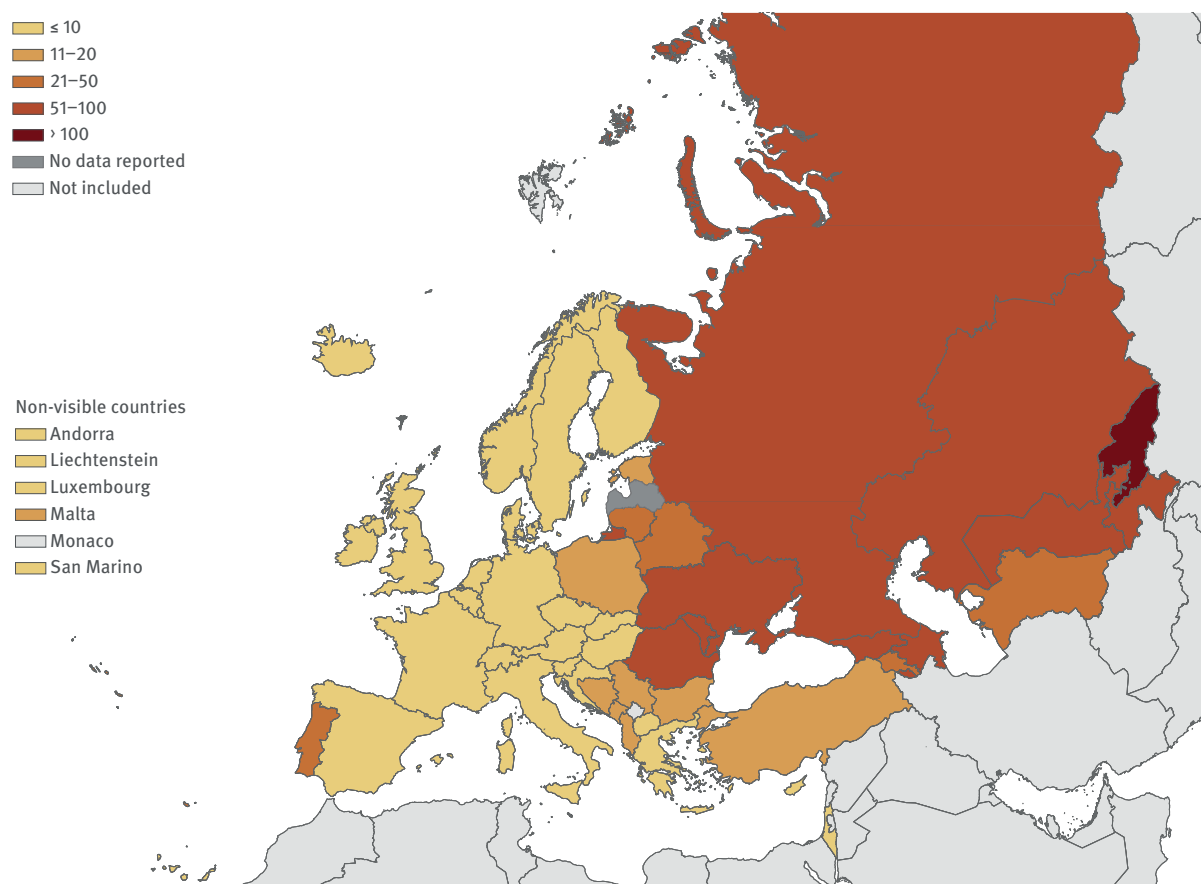
In 2018, 269 859 TB patients were reported from 52 countries⁷ in the WHO European Region, 227 240 of which were new, relapses or had an unknown previous treatment history (Table 4). This represents 84% of all TB cases notified in 2018.

The notification rate of new and relapse cases varies widely among countries, from zero (San Marino) to 100.5 (Kyrgyzstan) per 100 000 population (Map 1 and Table 4).

Thirty-six countries, all located in the western and central part of the Region and mostly high-income countries, had low notification of new and relapse cases (less than 20 cases per 100 000) in 2018. Seven reported new or relapse

6 The top 10 countries with the highest global MDR TB burden (in alphabetical order) are: Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, the Republic of Moldova, the Russian Federation, Somalia, Tajikistan, Ukraine and Uzbekistan.

7 Monaco did not report and San Marino reported zero cases in 2019.

Map 1. TB notification rates of new TB cases and relapses per 100 000 population, European Region, 2018

case rates of between 20 and 50 per 100 000 population and nine reported between 50 and 100 cases per 100 000 population (the Republic of Moldova (74.6), Kazakhstan (70.0), Tajikistan (62.9), Ukraine (59.9), Romania (59.3), Georgia (57.9), the Russian Federation (53.7), Azerbaijan (50.6) and Uzbekistan (50.5)). Kyrgyzstan was the only country reporting above 100 new and relapse cases per 100 000 population. The 18 HPCs with new and relapse case notifications account for about 83% of the regional burden. The largest proportion of new and relapse cases (78 258, or 34.4%) comes from the Russian Federation, even though the Russian Federation accounts for only 16% of the Region's population. Most HPC rates continue to show a decreasing trend compared to the previous year, with the exception of Kazakhstan and Turkmenistan.

During the period 2014–2018, an overall downward trend of 19.0% was observed in the notification of incident TB cases, from 30.3 to 24.5 cases per 100 000 population (Table 4). This trend reflects a genuine reduction in the spread of the disease, significantly influenced by the decrease in notification rates in the Region's 18 HPCs, from 58.5 to 46.0 per 100 000 population. The notification rate of new and relapse cases in the 18 HPCs is almost twice as high as for the Region overall (46.0 cases per 100 000, compared to 24.5 for the Region) and about five times higher than the rate in the EU/EEA (9.8 cases per 100 000 population) (Fig. 3.1.1).

Previous treatment history

In 2018, previously treated cases represented 9.9% and 32.3% in the EU/EEA and non-EU/EEA respectively (Table 5). The average in the 18 HPCs was 31.8%, impacting the pan-European average of 27.9%. Previously treated cases accounted for 15% or more of all TB cases in 14 countries: Azerbaijan (45.4%), Russia (39.0%), Kazakhstan (33.1%), Kyrgyzstan (30.8%), Ukraine (29.8%), Moldova (29.1%), Belarus (25.8%), Georgia (24.9%), Turkmenistan (24.8%), Uzbekistan (23.4%), Armenia (22.0%), Romania (19.8%), Lithuania (19.3%) and Estonia (17.7%). Reasons for the high percentage of previously treated cases include clinical failure or poor treatment adherence in previous treatment episodes, and possible re-infection and misclassification during the current treatment episode.

Disease localisation

Pulmonary localisation was notified in about 84% of the incident TB cases in the Region in 2018 (Table 7). The proportion of patients with pulmonary localisation in the non-EU/EEA countries was higher than in the EU/EEA. Extrapulmonary TB was notified on average for 16.4% of all incident TB cases in the Region. Seven countries reported more than 30% of their TB cases having extrapulmonary localisation: Finland, the Netherlands, Norway, Sweden, Turkey, the United Kingdom and Uzbekistan.

Fig. 3.1.1 Trend in TB notification rate per 100 000, WHO European Region, between 2014 and 2018

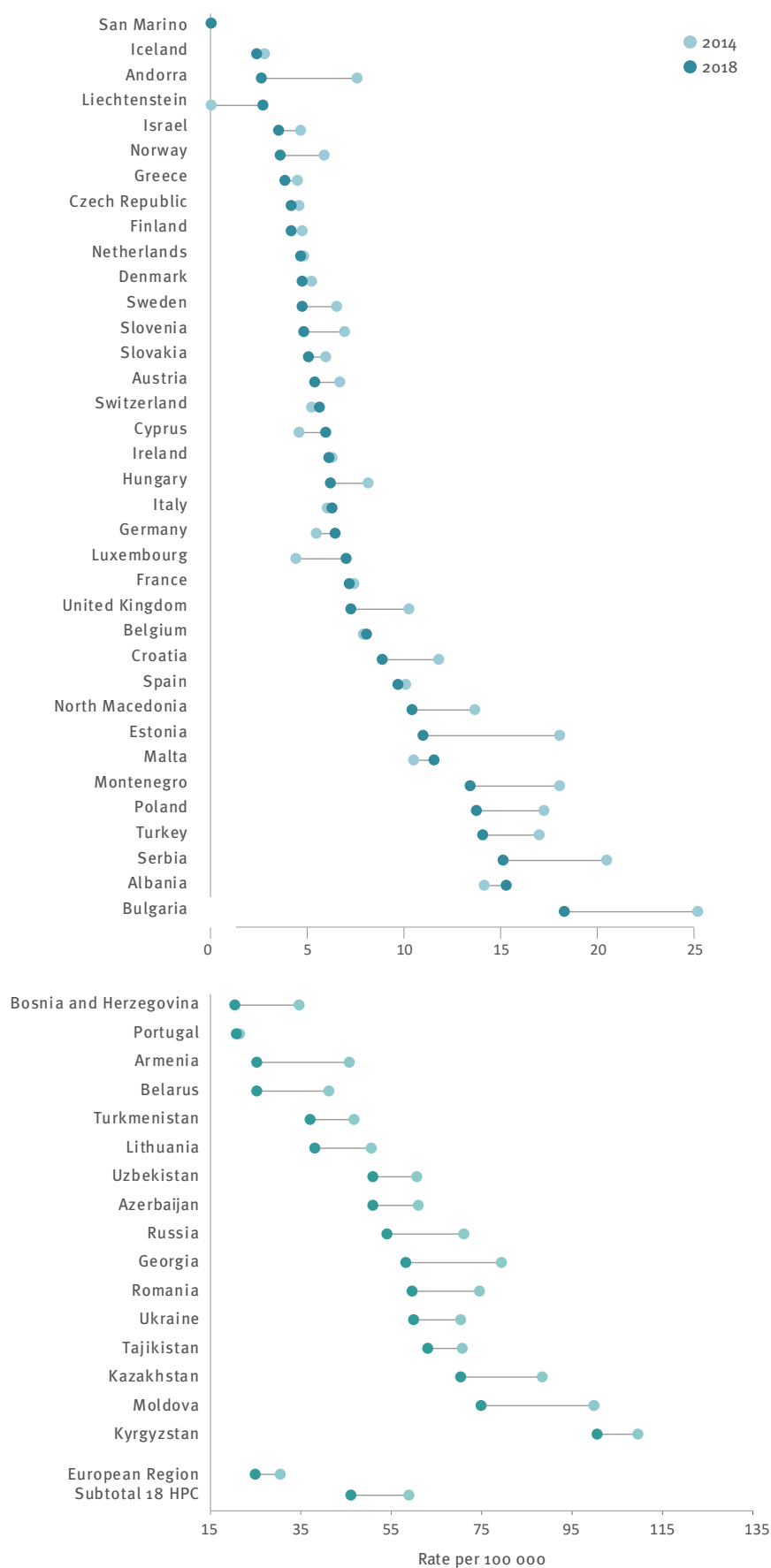
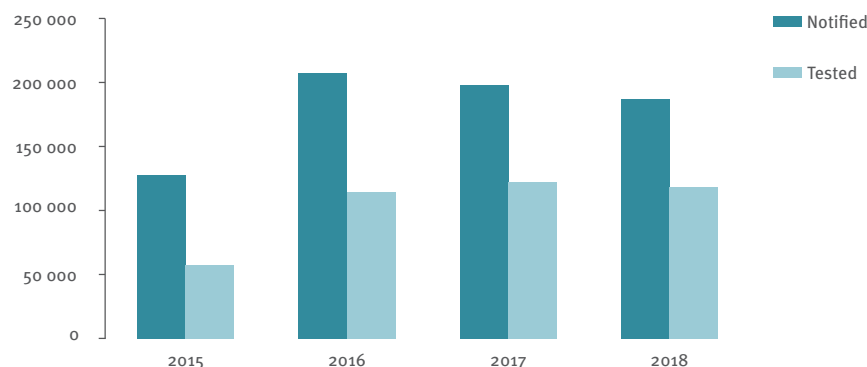


Fig. 3.1.2 New and relapse TB cases tested using WHO-recommended rapid diagnostics, such as Xpert MTB/RIFa, European Region, 2015–2018



Bacteriological confirmation

Bacteriological confirmation of TB diagnosis was reported for 126 648 (66.7%) of all 189 992 new and relapse pulmonary cases in the Region (Table 7). Testing of cases using WHO-recommended rapid diagnostics (WRD) (such as Xpert MTB/RIF) was much lower in the EU/EEA countries (27.9%) than in the non-EU/EEA countries (78.2). Nevertheless, the four-year trend shows a continuing increase in usage of WRDs across the Region, from 55.2% in 2016 to 66.3% in 2018 (Table XV) (Figure 3.1.2). Testing also varied considerably among countries, from 0.5% to 93.2% in Bulgaria and Moldova respectively. Bacteriological confirmation of new and relapse pulmonary cases was below 60% in five countries, underlining the need to strengthen diagnostics: Turkmenistan (48.5%), Armenia (52.2%), Russia (53.9%), Uzbekistan (54.8%) and Hungary (59.3%). In 34 countries, bacteriological confirmation of new and relapse pulmonary cases was 75% and above.

Age and sex

There is wide variation in the distribution of age- and sex-specific notification rates across countries (Table 9). Notification rates in eastern European countries are highest in young adults (25–44 years) and subsequently decrease, while in the countries of central Asia and in Turkey, 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 with at least 100 new and relapse TB cases, the proportion of TB cases notified in children (0–14 years) varied at country level from below 1% (Albania, Bosnia and Herzegovina, Belarus, Finland, Hungary and Turkmenistan) to 14.7% (Slovakia) of all new cases and relapses. The difference in proportions of childhood TB cases across the countries and areas may reflect differences in case-finding practice (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 around 3.9%.

There were twice as many males as females reported among all incident TB cases, but large variation was observed for male predominance in the sex distribution of TB cases, ranging from almost even distribution to over three times greater in Armenia. In most countries, gender differences in notification rates appear to be more significant among middle-aged and older adults. TB rates in males and females appear to be more similar in children and younger adults (0–14 and 15–24 years). This gender difference in TB case notification most probably reflects the overrepresentation of males in the various TB risk groups, notably homeless people, prisoners, seasonal migrant workers, people living with HIV, men who have sex with men and people who inject drugs.

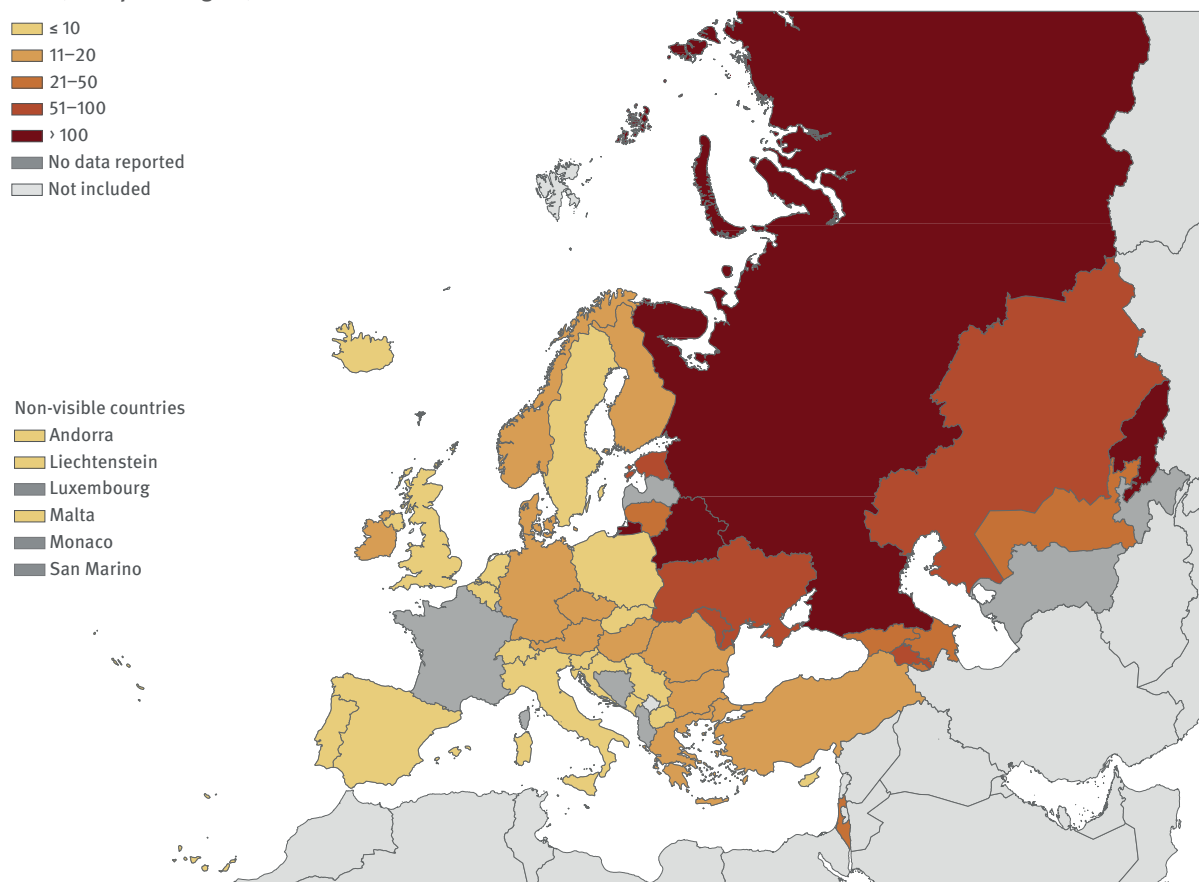
Drug resistance

Fifty countries in the Region reported on first-line anti-TB DST results in 2018.

Overall, DST coverage in the Region, at least for rifampicin and isoniazid among bacteriologically confirmed pulmonary TB cases, was 83.5%, with 34 countries achieving coverage of 85% or higher. However, coverage in six countries was less than 50%: Serbia (38.2%), Spain (37.6%), Albania (30.3%), Tajikistan (18.1%), France (4.0%) and Bosnia and Herzegovina (0.4%). The percentage of confirmed MDR TB cases among 81 106 new pulmonary TB cases tested for first-line DST in the Region was 18.3%, which is slightly higher than the rate observed in 2017 (17.6%) (Map 2, Fig. 3.1.3, Table 12 and Table V). While 15 countries reported no MDR TB or less than 1% among new TB cases, the rate was over 20% in eight (Table 12). With the exception of Estonia, Latvia and France, prevalence was lower than 5% in all EU/EEA countries, with an average of 2.3% (Fig. 3.1.4).

Four HPC countries had an MDR TB prevalence ranging from 10–19% among new cases tested for first-line DST: Armenia (17.2%), Kazakhstan (16.0%), Lithuania (11.7%) and Georgia (11.5%). Three had 20–29% MDR TB among new cases: Estonia (22.0%), Moldova (24.4%), and Ukraine (22.3%); and four had an MDR TB prevalence over 30%:

Map 2. Percentage of notified TB cases with multidrug resistance among new pulmonary laboratory confirmed TB cases, European Region, 2018



Tajikistan (72.7%), Belarus (36.6%), Russia (31.8%) and Kyrgyzstan (30.4%). The percentage of MDR TB in Tajikistan is over-estimated. Actual prevalence of RR-TB among new pulmonary TB cases in 2018 was 28.0% (Table 30). As most of the RR-TB patients in Tajikistan were detected using WRD (such as Xpert MTB/RIF) and those identified as RR-TB were then tested for other first-line TB drugs, the percentage of MDR TB among new TB cases with DST results is not representative.

The percentage of confirmed MDR TB cases among 43 850 previously treated pulmonary bacteriologically confirmed TB cases whose isolates were tested for first-line DST was 49.1%, which is slightly higher than the 2017 rate (47.3%) (Fig. 3.1.3, Table 12 and Table VI).

Fourteen countries had between 15% and 49% MDR TB among previously treated TB cases tested for first-line DST. The rate was even higher in some HPCs: Tajikistan (83.3%), Belarus (69.4%), Russia (62.9%), Moldova (60.9%) and Kyrgyzstan (70.0%) (Fig. 3.1.5, Table 12).

The rate of MDR TB notification among new bacteriologically confirmed pulmonary TB cases with available DST results at regional level was 1.6 per 100 000 in 2018. This represents an average annual decrease of 2.3% between 2014 and 2018 (Table V).

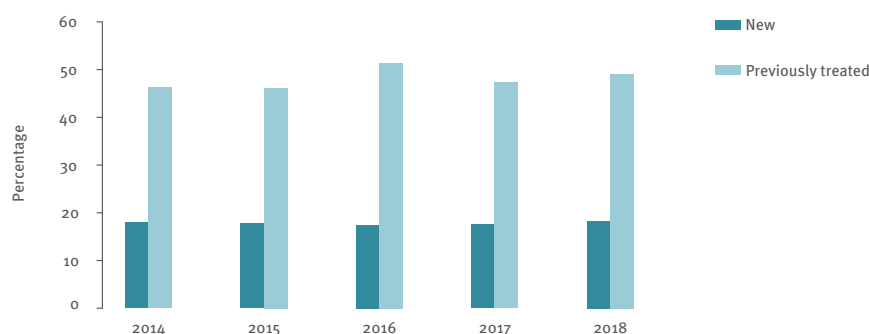
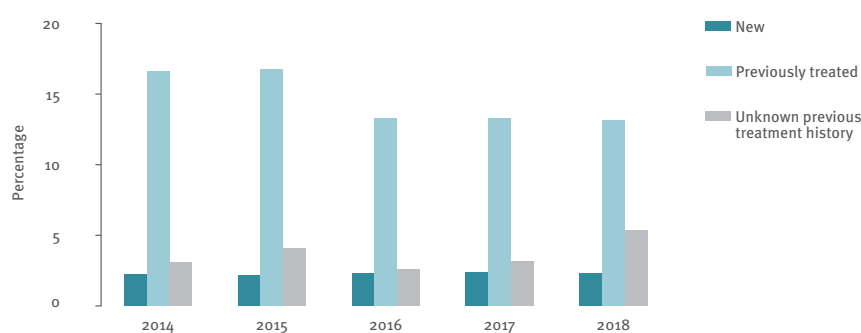
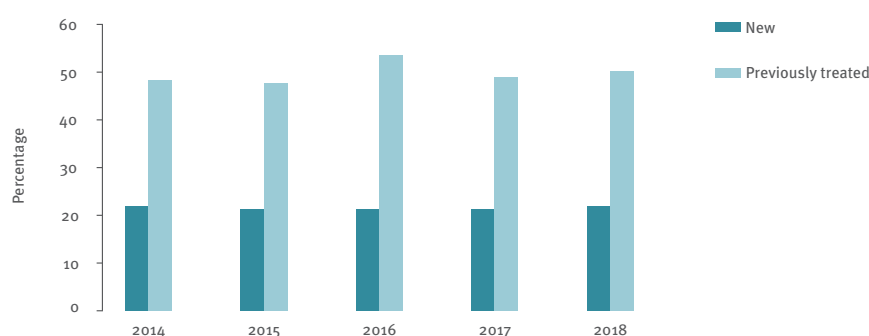
Trends in the MDR percentage among new bacteriologically confirmed pulmonary TB cases and trends in the

notification rate have differed by country in recent years (Table V). At sub-regional level, the proportion of MDR among new pulmonary TB cases remained stable in the EU/EEA sub-region over the last five years, ranging between 2.2% to 2.4%. Similarly, the rate of notified MDR TB cases remained stable at around 0.1 case per 100 000 population. The MDR percentage among new bacteriologically confirmed pulmonary TB cases in the non-EU/EEA countries increased slightly, from 18.0% in 2014 to 18.3% in 2018 but the rate per 100 000 population declined from 1.8 to 1.6 per 100 000 population during the same period.

Forty-seven countries reported on second-line DST data among pulmonary TB patients in 2018. Data on second-line DST were available for about 94.7% of all notified pulmonary MDR TB cases. Of the 34 723 pulmonary MDR TB cases subjected to second-line DST, 6 672 (19.2%) were XDR TB (Table 14).

XDR TB cases are rising in absolute terms; 999 cases were notified among pulmonary MDR TB cases in 2015 and 6 672 in 2018, and this is largely due to the increase in the number of countries reporting on second-line DST data (Table VIII).

In EU/EEA countries, where 81% of MDR TB cases were tested for second-line drugs, the prevalence of XDR among MDR cases was 20.1%.

Fig. 3.1.3 Percentages of MDR among laboratory-confirmed pulmonary TB cases, European Region, 2014–2018**Fig. 3.1.4** Percentages of MDR among laboratory-confirmed pulmonary TB cases, EU/EEA, 2014–2018**Fig. 3.1.5** Percentages of MDR among laboratory-confirmed pulmonary TB cases, 18 high-priority countries, 2014–2018

Among the countries reporting at least 30 MDR cases with second-line DST results, six reported over 20% XDR prevalence among MDR TB cases: Lithuania (34.1%), Poland (29.3%), Estonia (26.7%), Georgia (21.4%), Russia (20.7%) and Romania (20.6%).

There is no clear trend in relation to XDR TB prevalence in countries with a long history of second-line drug DST surveillance among pulmonary MDR TB cases (with data reported every year from 2014 to 2018). An alarming peak in XDR was observed in Belarus in 2016, (45.6% prevalence), however this decreased to 18.8% in 2018 (Table VIII).

Similar reversing trends have been observed in Estonia and Romania, while in Armenia, Georgia, Moldova and Turkey XDR prevalence among MDR TB cases has increased over the past five years (Table VIII).

Of the 49 001 laboratory-confirmed RR/MDR TB patients notified, 43 813 (89.4%) were enrolled into MDR TB treatment programmes and another 16.9% were enrolled into XDR treatment. Three HPCs reported a gap of over 5% between the number of patients enrolled and the number diagnosed: Kyrgyzstan (73.9%), Turkey (78.9%), and Tajikistan (80.4%). The rest of the HPCs reported a gap of

over 5% in treatment coverage (Azerbaijan, Georgia, Kazakhstan, Moldova and Russia) have over 95% treatment coverage if XDR TB treatment is taken into account (Table 16).

In 2018, access to XDR TB treatment at regional level was 93.3%, which is higher than the 88.5% treatment coverage reported in the previous year. This trend is influenced by the Russian Federation as it accounts for more than half of the XDR TB patients detected in the Region.

TB/HIV coinfection

Forty countries provided surveillance data on TB/HIV coinfection (Table 17). Of the 203 006 new and relapse TB patients notified in the reporting countries, 185 673 were screened for HIV (91.5%). Ten HPCs achieved a testing level above 90%: Armenia, Azerbaijan, Belarus, Estonia, Georgia, Moldova, Russia, Tajikistan, Ukraine and Uzbekistan. A total of 24 365 TB cases were detected with HIV-positive status, representing 13.1% of those tested versus 12.8% recorded in 2017.

Among those countries reporting representative HIV testing (above 50% HIV testing coverage), four documented a significant overlap of the HIV and TB epidemics by exceeding 10% HIV prevalence among new and relapse TB cases (Table 17): Ukraine (23.0%), Russia (20.0%), Spain (10.6%) and Armenia (10.3%). Six countries with representative routine surveillance had 5–10% HIV prevalence among TB patients: Portugal (9.4%), Estonia (8.9%), Moldova (8.6%), Belarus (7.7%), Belgium (7.1%) and Kazakhstan (5.9%).

Twenty-seven countries in the Region provided information on ART enrolment among TB cases with HIV-positive status in 2018. Of 23 840 HIV-positive TB cases, 17 435 (73.1%) had received ART. This is much higher than in 2017 (66.6%), but far below the WHO target of universal ART coverage. However, four of the HPCs did achieve coverage of over 90%: Armenia, Belarus, Georgia and Kazakhstan.

Country of origin

TB patients of foreign origin represent 8.5% of all TB cases notified Region-wide: 34.5% in EU/EEA countries, and only 2.0% in non-EU/EEA countries and areas (Table 10). TB patients of foreign origin represent a large majority in several countries: Iceland, Liechtenstein (100% each), Malta (96.4%), Cyprus (94.2%), Norway (86.4%), Sweden (86.2%), Israel (83.9%), Luxembourg (81.0%) and the Netherlands (76.8%).

TB in prisons

Thirty-six countries in the Region provided information on TB case detection and treatment in prisons during 2018 (Table 19). Overall, 9 890 (5.1%) of the new and relapse TB cases in the Region were reported from prisons, 9 476 (95.8%) of which were in the HPCs. The proportion of TB cases in prisons represented about 2.0 % of the country total in EU/EEA countries and in non-EU/EEA countries the proportion was 5.9%. The notification rate in prisons in the non-EU/EEA countries was 886 new TB cases per 100 000 population, which is about four times higher than in

the EU/EEA sub-region (217 per 100 000). The overall notification rate for new TB cases in prisons in the WHO European Region was 749 per 100 000 population. The TB notification rate exceeded 1 000 cases per 100 000 detainees in six countries: Azerbaijan, Kazakhstan, Kyrgyzstan, Moldova, Russia and Ukraine. The highest TB-related risks in prison (relative to incidence in the general population) are calculated to be in Slovakia (40.7) followed by Czech Republic (24.9), Ukraine (23.8), Russia (23.5) and Azerbaijan (22.1).

Treatment outcome

The treatment success rate among 187 137 new TB cases and relapses having started treatment in 2017 was 77.1% (Table 21). In the HPCs, the average rate of cases cured or for whom treatment was completed was 78.2%. The treatment success rate was slightly lower in the EU/EEA countries than in non-EU/EEA countries (75.5% versus 77.5%), both showing results comparable with the previous year. Only 19 countries achieved an 85% treatment success rate in this treatment cohort. Another nine were close to the target, with success rates of 80–85%. Six countries had treatment success rates below 60%, with a very high proportion of cases not evaluated.

A total of 15 073 (8.1%) cases were reported to have died in the same cohort, 4.4% to have been lost to follow-up and 4.0% 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 – 0.7% in the EU/EEA versus 4.8% in non-EU/EEA countries (Table 21). Countries reporting fatal outcomes in excess of 10% were Croatia (18.0%), the Czech Republic (13.5%), Estonia (18.1%), Hungary (12.7%), Slovenia (18.0%), Moldova (10.5%) and Russia (10.6%): Russia accounted for almost half of the deaths in the Region in absolute numbers.

The treatment success rate among the 7 081 child TB cases in the 2017 cohort was 92.0% (Table 22). The treatment success rate in EU/EEA countries was somewhat lower than in the non-EU/EEA countries (85.7% versus 94.4%). Among child TB cases in the Region, 0.9% died, another 0.9% failed and 1.1% were lost to follow-up.

Of the 15 736 TB/HIV coinfecting patients who started treatment throughout the Region in 2017, only 8 089 (51.4%) had a successful treatment outcome (Table 24). Reporting of treatment outcome for TB/HIV improved significantly to around 63% of notified cases, which is around twice as high as the 29% reporting completeness for the previous year.

In the 2016 cohort, treatment outcome was notified for 46 193 laboratory-confirmed RR/MDR TB cases reported by 45 countries (Table 26). The treatment success rate for the whole Region was 57.4%, which is comparable to the 57.2 % rate reported for the 2015 RR/MDR TB treatment cohort. The treatment success rate for RR/MDR TB patients was higher in non-EU/EEA countries than in the EU/EEA (57.6% versus 49.9%). The countries that performed best were Belgium (83.3%), Norway (90.9%) and Sweden (both 92.0%).

In the Region as a whole, 14.0% of RR/MDR TB cases died, 11.8% failed and 10.5% were lost to follow-up.

Conclusion for the WHO European Region

As in past years, the fastest annual decline in TB incidence in the world was observed in the WHO European Region in 2018 (5.1%). The cumulative reductions for the period 2015–2018 were 15.0%, indicating that the Region is on track to achieve the 2020 End TB Strategy milestone to reduce the TB incidence rate in 2020 by 20% against the 2015 baseline, as well as to achieve the Regional action plan target of a 25% reduction in the TB incidence rate.

There were an estimated 23 000 TB deaths among HIV-negative people in 2018, with considerable variation across the Region, and 87% of TB deaths being attributed to the 18 HPCs. Twelve per cent of incident TB cases were estimated to be coinfecting with HIV, marking the second year of halted growth after the unprecedented increase from 3% to 12% during 2007–2016. Two countries, the Russian Federation and Ukraine, account for almost 81% of the estimated TB/HIV coinfecting patients in the Region.

Eighty-eight per cent of the estimated new and relapse cases were notified in the Region in 2018, which is substantially higher than the global detection rate of 69%.

The Region is faced with the challenge of having a high burden of RR/MDR TB. Nine of the 30 countries with the highest RR/MDR TB burden in the world are in the WHO European Region (Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, the Republic of Moldova, the Russian Federation, Tajikistan, Ukraine and Uzbekistan). Around 77 000 people in the Region are estimated to become ill with RR/MDR TB each year, and it is of the utmost importance to have the capacity at country level to rapidly detect resistant TB. Over the past four years there has been a rapid uptake of WRD, with 63.4% of incident TB cases tested using this platform in 2018, compared to 45.3% in 2015.

Overall, most countries achieved a coverage of 85% or higher for first-line DST among bacteriologically confirmed pulmonary TB cases, but countries should aim to have universal coverage. Ninety-three per cent of all notified RR/MDR TB cases in the Region had second-line DST available, with most countries reporting coverage close to 100%.

TB is a major cause of death among people living with HIV, so rapid detection and appropriate treatment are vital. In 2018, 81% of an estimated 30 000 HIV patients coinfecting with TB were detected, and 73% of them were offered ART. Only 63% of coinfecting patients notified in 2017 had TB treatment outcomes available in 2018. This underlines the need to strengthen collaboration between TB and HIV programmes and to improve surveillance of coinfection in the Region.

Most countries offer universal access to TB and MDR TB treatment. Eighty-nine per cent of the RR/MDR TB cases and 93% of the XDR TB cases notified in 2018 were enrolled into the respective treatment programmes. The regional

average is heavily influenced by the Russian Federation, as it includes more than half of all MDR TB and XDR TB patients detected in the Region.

The treatment outcome for both incident TB and RR/MDR TB cohorts were 77.1% and 57.4% respectively, which is comparable with the results for the previous year.

3.2 European Union and European Economic Area countries

Data completeness

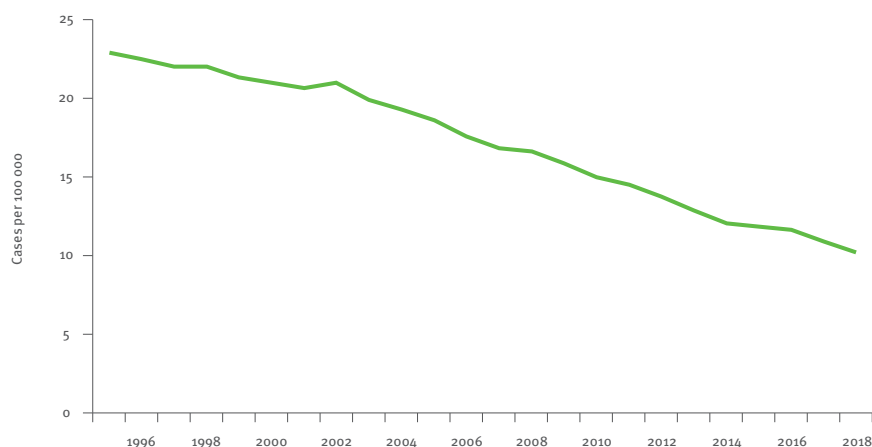
TB notification data for 2018 were reported by 30 countries (no case-based data from Latvia for 2018). The reporting of non-mandatory variables in 2018 was complete or near complete for age, gender, TB site and variables defining the origin of a case (Annex 3). Previous treatment history was available for 86.7% of cases, which was higher than in the previous three years (82.1%, 76.8% and 84.3% for 2017, 2016, and 2015 data, respectively) but lower than that reported in 2014 (87.7%). However, the over-80% completeness for this variable masked substantial differences across countries. For example, previous treatment history was not available from Luxembourg and only available for 57.1% of cases from France.

The reporting completeness for culture results (82.5%) was the same as that reported for 2017 data, with only five countries remaining below 75.0% (France, Greece, Iceland, Malta and the United Kingdom). Reporting completeness for microscopy (84.1%) was higher than that reported for 2017 data (82.9%). For 2018, drug-susceptibility reporting completeness was 74.6% for the first-line TB drugs, isoniazid and rifampicin, however no adequate data on DST were available from Italy and France. Second-line DST reporting completeness was 100% for the countries that reported at least one MDR-TB case. Six countries (Cyprus, Iceland, Italy, Liechtenstein, Malta and Slovenia) reported no MDR-TB cases (Table 13).

In 2018, the number of countries reporting HIV status decreased from 23 in 2017 to 21. HIV status was available for 45.0% of all cases reported in 2018. Austria, Finland, France, Germany, Italy, Liechtenstein, Malta, Poland and Sweden did not report HIV status. Furthermore, HIV status reporting completeness was less than 10% for Croatia and Hungary. In 2018, treatment outcome at 12 months, 24 months and 36 months was available for 70.0% of all reported cases, 98.0% of MDR-TB and 96.4% of XDR TB cases, respectively. Greece, Italy, Malta and Poland did not report treatment outcome.

Time and place

In 2018, 52 862 cases of TB were reported in 30 EU/EEA countries (Table 3). Five countries reported more than 5 000 cases (France, Germany, Poland, Romania and the United Kingdom) accounting for 63% of all reported cases, with Romania alone accounting for 23.0% of all TB cases reported in 2018.

Fig. 3.2.1 TB notification rate per 100 000 population by year of reporting, EU/EEA, 1995–2018

Data source: ECDC Surveillance Atlas of Infectious Diseases. <http://www.ecdc.europa.eu/en/data-tools/atlas/Pages/atlas.aspx>

The EU/EEA notification rate in 2018 was 10.2 per 100 000 population (Table 1), continuing the downward trend observed since the launch of European enhanced TB surveillance in 1996 (Figure 3.2.1). Assuming that Latvia would have reported a similar number of cases as for 2017 (552 cases), the overall EU/EEA notification rate for 2018 would have been 10.3 per 100 000 population. During the period 2014–2018, the average annual decline in the notification rate was 4.0% (Table 3).

As in previous years, country-specific notification rates differed considerably in 2018, ranging from 2.3 in Iceland to 62.5 per 100 000 in Romania. Rates were below 10 per 100 000 in 23 countries and below 20 per 100 000 in 27 countries. The highest notification rates in the EU/EEA were reported from Bulgaria, Estonia, Lithuania, Malta, Poland, Portugal and Romania (Table 3).

Notification rates in the majority of countries have fallen since 2013 (Table 3). The downward trend was particularly pronounced in Estonia and Norway, where the average annual rate of decrease exceeded 10%.

Previous treatment, laboratory confirmation and TB site

The distribution of cases by previous treatment history was similar in 2018 to that reported in previous years: 40 625 (76.9%) of 52 862 TB cases reported in 2018 were newly diagnosed, 5 213 (9.9%) had been previously treated for TB and 7 024 (13.3%) had an unknown previous treatment status (Table 5). The Member States with the lowest proportions of new cases had the highest proportions of cases with unknown previous treatment status. The proportion of previously treated cases was above 10% in seven countries: Bulgaria, Estonia, Hungary, Lithuania, Poland, Romania and Slovenia.

Laboratory confirmation was reported for 36 047 (68.2%) of the 52 862 TB cases reported in 2018 (Table 8). Country-specific proportions of laboratory-confirmed cases ranged from 25.0% in Iceland to 100% in Liechtenstein. Of the five

HPCs, Estonia and Lithuania had proportions of confirmed cases above 80%. The proportion of laboratory-confirmed TB cases remained steady in 2018 compared to 2017 (68.1%).

Of all 52 862 TB cases reported in 2018, 36 406 (68.9%) were diagnosed with pulmonary TB, 11 857 (22.4%) with extrapulmonary TB, 4 419 (8.4%) with a combination of both and 180 (0.3%) had no TB site reported (Table 6). The proportion of extrapulmonary TB was highest in the Netherlands (42.2%), Norway (39.7%) and the United Kingdom (41.8%), and lowest in Hungary (3.0%) and Liechtenstein (0%).

Of 38 926 new and relapse pulmonary TB cases reported in 2018, 31 589 (81.2%) were confirmed by culture, smear and/or nucleic acid amplification test (Table 7). Iceland and Hungary reported the highest proportions of new and relapse pulmonary TB cases diagnosed only clinically (50.0% and 40.7%, respectively), followed by Bulgaria (39.3%).

According to the EU case definition, 36 047 (68.2%) of 52 862 TB cases reported in 2018 would be classified as confirmed, 4 802 (9.1%) as probable and 12 013 (22.7%) as possible (Table 8). Six countries reported less than one tenth of their TB cases as possible cases (i.e. only clinically diagnosed). When analysing all reported TB cases for the percentage of clinically diagnosed cases, Iceland had the highest proportion (50.0%), followed by Bulgaria (45.5%) and Hungary (40.8%). It is unclear if the high proportions of only clinically diagnosed cases in Bulgaria and Hungary reflect a potential risk that TB is being over diagnosed in these countries, or if it is linked to underreporting of laboratory results to the national surveillance systems.

Age and sex

Of 50 455 new TB cases and relapses reported in 2018, 32 488 (64.4%) were aged between 25 and 64 years (Table 9). The highest notification rate was observed in the age group 25–44 years (12.5 per 100 000). Overall, adults over 64 years accounted for less than 20% of all cases, but

more than one third of all cases reported by Croatia, Finland, Iceland and Slovenia were in this age group.

Children under 15 years accounted for 2 035 (4.0%) of 50 455 new TB cases and relapses reported in 2018 and had a lower notification rate than the adult age groups (Table 9). The notification rate for all TB cases in children under 15 years of age was 2.6 per 100 000 (Table III). Romania reported a notification rate of 17.8 per 100 000 children under 15 years. The highest rates of new and relapse TB cases among 0–4-year-olds were noted in Romania (18.9 per 100 000) and Slovakia (8.0 per 100 000) and the highest rates for 5–14-year-olds were reported from Romania (17.1 per 100 000) and Bulgaria (6.9 per 100 000).

In 2018, the male-to-female ratio in new TB cases and relapses was 2.0, higher than the ratio reported in 2017 (Table 9). All EU/EEA Member States reported more male than female new and relapse TB cases, except Cyprus, Iceland and Norway. For children under 15 years, the male-to-female ratio among new and relapsed cases was 1.0.

Origin of cases

Of the 52 862 TB cases notified in 2018, 33 365 (63.1%) were born in, or were citizens of, the reporting country (referred to as “native”), 18 246 (34.5%) were of foreign origin and 1 251 (2.4%) were of unknown origin (Table 10). From countries with TB notification rates higher than 10 per 100 000 population, with exception of Malta, 25% or less were reported as being of foreign origin. The annual number and proportion of native TB cases has been declining since 2014 (from 42 144 to 33 365, and from 68.2% to 63.1%, respectively) (Table IV). The proportion of TB cases of foreign origin increased over the same period from 28.2% in 2014 to 34.5% in 2018, while the proportion of cases of unknown origin decreased. Of the 18 246 cases of foreign origin in 2018, 10 533 (57.7%) were reported by France, Germany and the United Kingdom. Country-specific proportions of foreign-origin TB cases ranged from 0.3% in Romania to above 85% in Cyprus, Iceland, Liechtenstein, Malta, Norway and Sweden.

Drug resistance

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

Of 33 319 laboratory-confirmed TB cases notified in 2018, 26 881 (80.7%) had isoniazid and rifampicin susceptibility testing results reported (Table 13). Resistance to any anti-TB drug was reported for 3 090 (11.5%) cases. Overall, MDR-TB was reported for 999 (3.7%) of 26 881 cases with the relevant DST results, with the highest proportion reported in France (100%), followed by Estonia (24.6%) and Lithuania (17.1%). After remaining at 0.3 per 100 000 population from 2013 to 2016, the rate of notified MDR-TB cases decreased to 0.2 in 2017 and remained at 0.2 in 2018 (Table VII).

In 2018, XDR TB was reported for 158 (19.6%) of 808 MDR-TB cases with results for second-line DST (Table 15). Lithuania and Romania reported 66.5% of all reported XDR TB cases. The proportion of XDR TB cases among pulmonary MDR-TB

cases with results for second-line DST increased from 19.7% in 2014 to 23.5% in 2017, before decreasing to 20.4% in 2018 (Table VIII). Between 2014 and 2018, Lithuania and Romania reported more than 55% of the pulmonary XDR TB cases annually.

Of 20 718 new confirmed pulmonary TB cases with DST results, 471 (2.3%) were resistant to isoniazid and rifampicin (Table 12). In contrast, 422 (13.1%) of 3 210 previously treated confirmed pulmonary TB cases with DST results were resistant to isoniazid and rifampicin. Compared with new pulmonary cases, previously treated pulmonary TB cases had an almost six-fold higher risk of being reported as resistant to isoniazid and rifampicin.

TB/HIV coinfection

HIV status was reported for 23 783 (75.1%) of 31 683 TB cases from the 21 countries that reported HIV status of TB cases (Table 18). Of the 23 783 cases with known HIV status, 991 (4.2%) were reported as HIV positive. The proportion of co-infected cases among countries with at least 50% reporting completeness for HIV status was highest in Iceland, Portugal and Spain (12.5%, 9.6% and 11.2%, respectively). Between 2014 and 2017, there was a decreasing proportion of HIV-coinfected TB cases reported (4.6% in 2014 to 4.0% in 2017) but in 2018 there was a slight increase to 4.2% (Table IX).

TB in prisons

For 2018, 17 EU/EEA countries reported 583 new and relapsed TB cases in prisons, resulting in a notification rate of 217 per 100 000 inmates and a relative risk of 14.7 compared to the general population in the same countries (Table 19). TB cases in prisons accounted for 2.0% of all new and relapse cases notified in the 17 reporting EU/EEA countries, but this proportion was above 4% in the Czech Republic, Greece, Lithuania and Slovakia.

Treatment outcome

Of the 45 499 TB cases notified in 2017 with a treatment outcome reported in 2018, 30 764 (67.6%) were treated successfully, 3 125 (6.9%) died, 440 (1.0%) experienced treatment failure, 1 771 (3.9%) were lost to follow-up, 2 400 (5.3%) were still on treatment in 2018 and 6 999 (15.4%) had not been evaluated (Table 20). Greece, Italy, Malta and Poland did not report treatment outcome. Among the 36 918 TB cases notified in 2017 and classified as new and relapse cases, including those with unknown previous treatment history and excluding those that were started on second-line treatment, 27 867 (75.5%) had been treated successfully (Table 21). In countries where at least 75% of these new confirmed TB cases and relapses had a known outcome, treatment success ranged from 37.6% in Portugal to 100.0% in Liechtenstein. The overall proportion of successfully treated cases among these new TB cases and relapses decreased from 77.1% in cases notified in 2013 to 75.5% in cases notified in 2017 (Table X). In three countries (Croatia, Estonia and Slovenia), over 15.0% of the new and relapse cases notified in 2017 died, including those with unknown previous treatment history and excluding those started on second-line treatment. In

contrast, the proportion was less than 10.0% in 20 of the 25 countries that reported treatment outcome for this cohort.

Of 1 052 MDR-TB cases notified in 2016 with a treatment outcome reported in 2018, 506 (48.1%) were treated successfully, 180 (17.1%) died, 123 (11.7%) experienced treatment failure, 119 (11.3%) were lost to follow-up, 49 (4.7%) were still on treatment in 2018 and 75 (7.1%) had not been evaluated (Table 27). In addition to the countries that did not report treatment outcome data or data on DST (Croatia, Iceland, Liechtenstein), Malta and Slovenia did not report any MDR-TB cases for 2016. Overall, the 24-month treatment success rate for RR/MDR-TB remains low, although it has improved (from 44.2% for cases reported in 2012 to 49.9% for cases reported in 2016) (Table XII).

Thirteen countries reported 174 XDR TB cases for 2015 and a treatment outcome for these cases in 2018: 65 (37.4%) were treated successfully, 38 (21.8%) died, 41 (23.6%) experienced treatment failure, 22 (12.6%) were lost to follow-up and eight (4.6%) were not evaluated (Table 29). Overall, the 36-month XDR TB treatment success rate remains low; variations over time should be interpreted with caution due to the small number of cases (Table XIV).

Of 813 HIV-positive TB cases notified in 2017 (who were not started on second-line treatment and had a treatment outcome reported in 2018), 488 (60.0%) were reported as successfully treated, 79 (9.7%) died, eight (1.0%) experienced treatment failure, 46 (5.7%) were lost to follow-up, 104 (12.8%) were still on treatment in 2018 and 88 (10.8%) were not evaluated (Table 24).

WHO disease burden estimates

According to WHO, the estimated TB incidence in the EU/EEA overall (excluding Liechtenstein) was 11.2 per 100 000 population in 2018 (Table 1 and Table II). The incidence in 22 of the 30 countries with estimates was less than 10.0 per 100 000 population and incidence was estimated to be under 20.0 per 100 000 population in 25 countries (Table 1 and Table II). The overall number of estimated TB deaths, excluding HIV deaths in people who were HIV positive, was 3 730 for the EU/EEA in 2018, which represented a decrease against the 4 000 estimated for 2017 and the 6 400 estimated for 2009 (Table I).

Conclusions for the European Union/European Economic Area

In 2018, 30 of 31 EU/EEA countries reported TB notification data. The overall crude TB notification rate continued the decline observed since 2002, dropping to 10.2 per 100 000 population. As in previous years, a few countries reported large numbers of cases, including Romania, which accounted for 23% of all reported cases in 2018.

Overall, the decreasing notification rates observed in most countries are reassuring, but when the situation is evaluated with the aim of achieving an 80% reduction in the TB incidence rate in 2030 compared to 2015 (a United Nations

Sustainable Development Goal 3 target), the challenge ahead becomes evident. The target at EU/EEA level is a notification rate of 2.4 per 100 000 (80% reduction of 2015 TB notification rate of 11.9 per 100 000). Furthermore, if the mean annual change in rate (2014–2018) in low-incidence EU/EEA countries continues at the current pace, WHO estimates [2] that the WHO target of TB elimination by 2050 in European low-incidence countries will not be met by approximately four-fifths of the countries currently in this group.

In the EU/EEA, the annual number and proportion of native TB cases has been declining since 2014 and in 2018, over a third of TB cases were of foreign origin. An ECDC public health guidance document concluded that screening for active TB or latent TB infection among newly-arrived migrants from high-incidence countries is likely to be both effective and cost-effective for TB disease prevention [3]. However, as the majority of cases notified in the EU/EEA are native cases, additional measures are needed to reach the target.

Data on HIV coinfection remained incomplete in the EU/EEA. The number of countries reporting HIV status was lower in 2018 than in 2017. HIV status was provided for less than half of all reported TB cases, limiting the conclusions that can be drawn. Between 2014 and 2017, the proportion of HIV-co-infected TB cases decreased, but in 2018 the proportion increased slightly to 4.2% for the EU/EEA overall.

Data on TB in prisons remain even scarcer for the EU/EEA than data on HIV status. Only 17 countries provided such data for 2018. Although the proportion of inmates among all new and relapse TB cases in these countries was low, the data indicate that for inmates the risk of being reported as a TB case is 14.7 times higher. In 2018, ECDC and the European Monitoring Centre for Drugs and Drug Addiction public health guidance concluded that despite limited evidence, but given current TB knowledge and the characteristics of prison settings, it is advisable to offer universal testing for active TB upon entry into prison so that treatment can be initiated and transmission prevented [4].

In 2018, the overall MDR-TB notification rate among cases with relevant DST results declined in the EU/EEA and the number of XDR TB cases was low compared to the total number of reported TB cases. However, given the high number of drug-resistant TB cases in the European Region HPCs bordering the EU/EEA, countries need to remain vigilant and prepared to diagnose and treat drug-resistant TB.

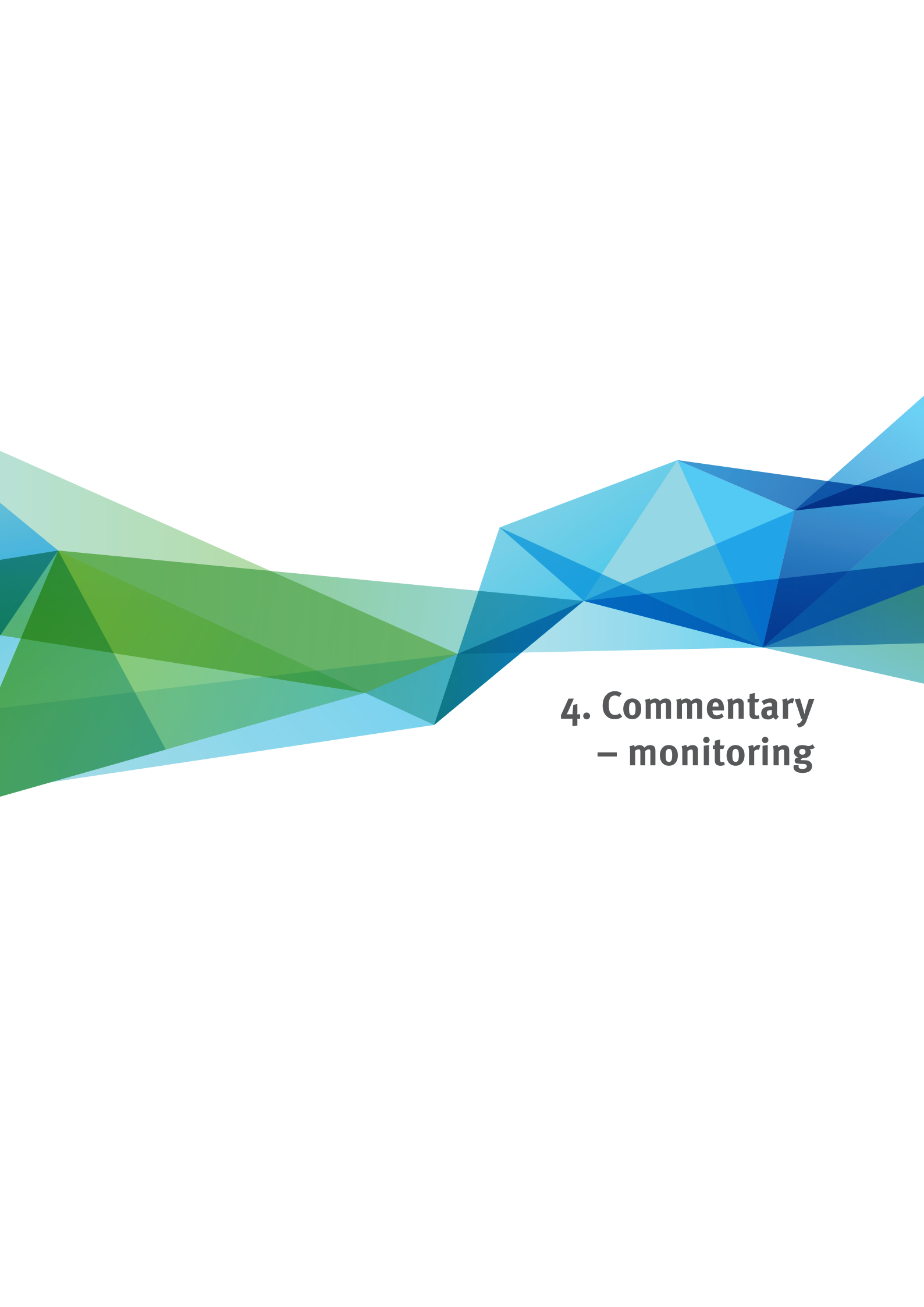
The surveillance data indicate that treatment success rates after 12 months are considerably below the WHO target of 85% [5]. Moreover, although the success rate for MDR-TB has improved, the treatment success rate after 24 months is low, as is the treatment success rate after 36 months for XDR TB.

Finally, ECDC notes that at a United Nations high-level meeting on 26 September 2018, the EU/EEA countries

reaffirmed their commitment to ending the epidemic in all countries [6]. The TB situation reflected in this report indicates that the countries face several challenges in achieving this goal and need to intensify their public health measures against TB. As previously, ECDC remains committed to supporting the EU/EEA countries in these efforts.

References

1. Global tuberculosis report 2019. Geneva: World Health Organization; 2017:37. Available from: https://www.who.int/tb/publications/global_report/en/
2. Towards TB elimination: an action framework for low incidence countries. Geneva: World Health Organization 2014. Available from: https://www.who.int/tb/publications/elimination_framework/en/
3. Public health guidance on screening and vaccination for infectious diseases in newly arrived migrants within the EU/EEA. Stockholm: ECDC; 2018. Available from: <https://www.ecdc.europa.eu/en/news-events/ecdc-issues-migrant-screening-and-vaccination-guidance>
4. Public health guidance on active case finding of communicable diseases in prison settings. Stockholm and Lisbon: ECDC and EMCDDA; 2018. Available from: <https://www.ecdc.europa.eu/en/publications-data/public-health-guidance-active-case-finding-communicable-diseases-prison-settings>
5. Roadmap to implement the tuberculosis action plan for the WHO European Region 2016–2020. Towards ending tuberculosis and multidrug-resistant tuberculosis. Copenhagen: WHO Regional Office for Europe; 2016. Available from: <http://www.euro.who.int/en/publications/abstracts/roadmap-to-implement-the-tuberculosis-action-plan-for-the-who-european-region-20162020.-towards-ending-tuberculosis-and-multidrug-resistant-tuberculosis-2016>
6. Resolution adopted by the General Assembly on 10 October 2018. Political declaration of the high-level meeting of the General Assembly on the fight against tuberculosis. New York (NY): United Nations; 2018 (A/ RES/73/3). Available from: <https://www.who.int/tb/unhlmonTBDDeclaration.pdf>

The background features a complex, abstract geometric design composed of numerous overlapping triangles. The color palette is primarily green and blue, with shades ranging from light mint and pale blue to deep forest green and navy blue. The triangles are arranged in a way that creates a sense of depth and movement, with some shapes appearing to recede into the background while others project forward. The overall effect is a modern, minimalist aesthetic.

4. Commentary – monitoring

4. Commentary – monitoring

4.1 WHO European Region

To address the challenges to tuberculosis and M/XDR TB prevention and care, the WHO Regional Office for Europe, working in close consultation with representatives from the countries, experts and communities, has developed the Tuberculosis action plan for the WHO European Region 2016–2020 [1]. This action plan is based on lessons learned while implementing the seven areas of intervention of the Consolidated Action Plan to Prevent and Combat Multidrug- and Extensively Drug-Resistant Tuberculosis in the WHO European Region 2011–2015 [2] and is in line with the global WHO End TB Strategy and other health policy guidance, such as the European policy for health and well-being: Health 2020 [3]. The plan was endorsed at the 65th meeting of WHO's Regional Committee for Europe in its resolution EUR/RC65/17.

The Tuberculosis action plan for the WHO European Region 2016–2020 is supported by a monitoring and evaluation (M&E) framework. The framework consists of 26 indicators that enable performance monitoring in the action plan's areas of intervention and follow on from the Berlin Declaration on Tuberculosis of 2007 [4]. Nine are core indicators for monitoring and reporting to the WHO Regional Committee for Europe. In addition, selection of indicators was harmonised with the End TB Strategy's recommended top 10 global indicators. The status of the core indicators, which is analysed on an annual basis, is included in the surveillance report every second year and is presented below.

Indicator 1.A.1 Coverage of population at risk with systematic screening for active TB and LTBI

WHO global TB database only collects information on coverage of TB screening outcomes among the household contacts of bacteriologically confirmed TB cases. In 2018, a total of 21 countries reported on coverage of TB screening among household contacts. Overall, 97% of household contacts were screened for TB. All 13 HPCs that provided data, achieved the targeted 80% of screening coverage.

Indicator 1.B.1 Percentage of newly notified TB patients diagnosed using WHO-recommended rapid tests (G)

There were no base-line data available and the target was first set to 30% and later updated to 90%, based on the global targets for the End TB Strategy. In 2018, a total of 46 countries reported data on the proportion of newly-notified patients diagnosed using WHO-recommended rapid tests. As is shown in Figure 4.1.1, at regional level the target has not been achieved: only 66% of new and relapse cases were diagnosed using rapid tests. This figure was even higher for the 18 HPCs, reaching 74%. Of the 18 HPCs, two met the target, 14 countries did not meet the target and three (Latvia, Lithuania and Turkey) did not provide information.

At EU/EEA sub-regional level, only 28% of cases were diagnosed using rapid tests (Figure 4.1.1).

Indicator 1.B.2. First-line DST coverage (%) among all bacteriologically confirmed TB cases (G)

The action plan aims to ensure provision of drug susceptibility testing (DST) for all bacteriologically confirmed tuberculosis cases. In 2018, a total of 50 countries reported on DST routine surveillance data. Coverage of DST among all notified TB cases confirmed by culture was 89%, which is lower than the 91% level recorded at the baseline. In all, 14 of 16 high-priority countries had DST coverage above 90% (Figure 4.1.2). Latvia and Turkmenistan did not report complete routine drug-resistance surveillance data.

Indicator 1.B.3. RR/MDR TB case detection rate (%) (G)

As of 2016, WHO began generating RR-TB estimates instead of MDR TB. The reason for this is that, due to the intensive roll-out of WHO-recommended rapid diagnostic testing, a considerable number of drug-resistant TB cases are being diagnosed based on Xpert MTB/RIF results only and RR-TB is also a good proxy for MDR TB. Therefore, the MDR TB detection rate has been slightly modified. This indicator is now 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 2018, a total of 45 413 RR/MDR TB cases were detected among bacteriologically confirmed pulmonary TB patients notified in the WHO European Region. This is 93% of all estimated cases, indicating comprehensive RR/MDR case detection at regional level.

Indicator 1.B.4 TB notification rate per 100 000 population (E)

The Regional action plan aims to reduce the TB incidence rate by 25% by 2020 against the 2015 baseline. In order to achieve this, countries should have at least a 5.5% annual reduction in the notification of new and relapse TB cases.

Between 2014 and 2018, the total average annual decline of TB notification was 5.1%, which is quite close to the target of 5.5% annual reduction. If this trend continues, a regional target of 25% decline in notification by 2020 against the 2015 baseline will be achieved. Of 51 Member States, 43 have seen a decline in the TB notification rate over the last five years, including all the 18 HPCs (Figure 4.1.3).

Indicator 1.B.5 TB case detection rate (%)

In 2018, a total of 227 240 incident TB cases were notified in 52 countries across the WHO European Region,

Fig. 4.1.1 Percentage of new and relapse TB patients notified in 2018 that were diagnosed using WHO-recommended rapid tests in 18 high-priority countries and WHO European Region, 2018

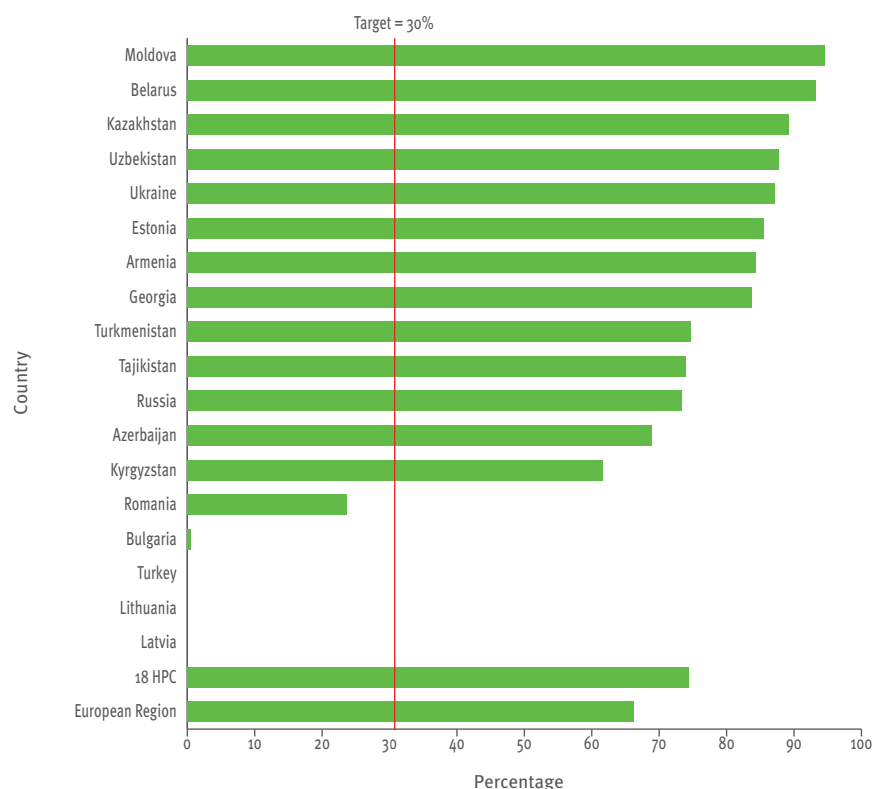


Fig. 4.1.2 First-line DST coverage (%) among all bacteriologically confirmed TB cases (G1) by 18 high-priority countries and WHO European Region, 2018

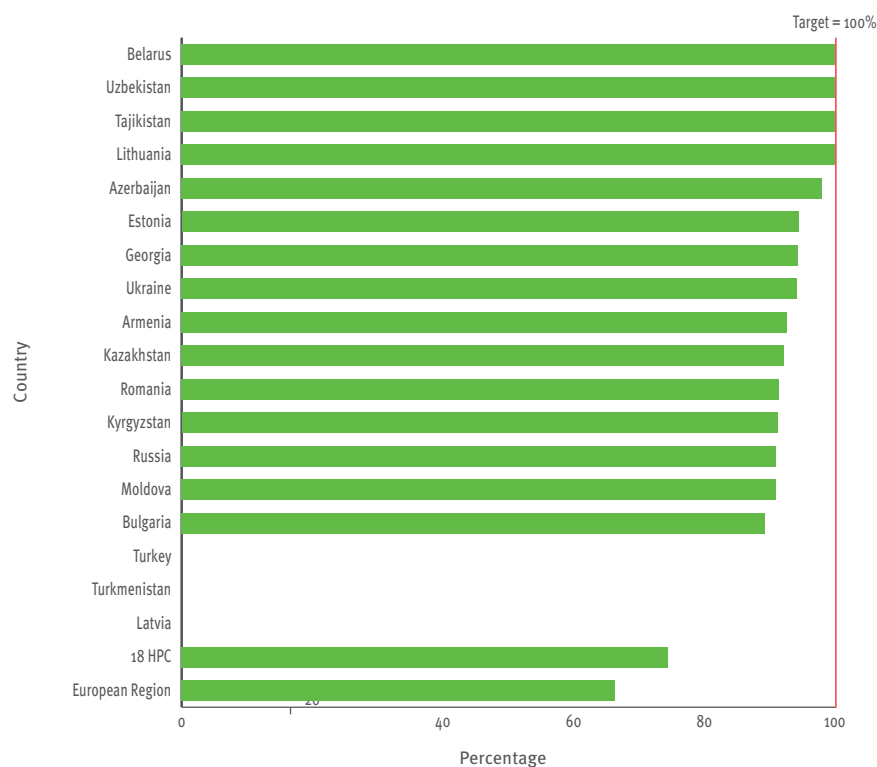
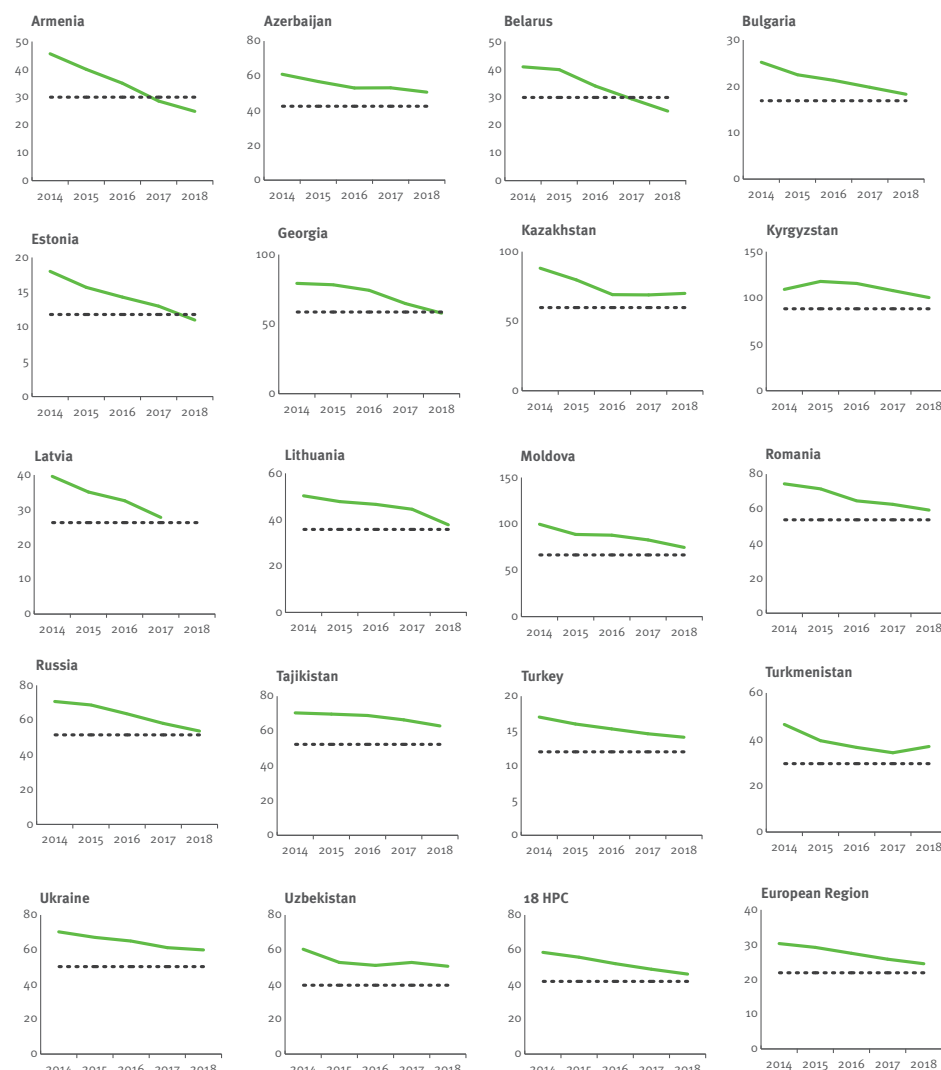


Fig. 4.1.3 Trend in new and relapse TB notification rate per 100 000 population (E) for 18 high-priority countries and WHO European Region, 2014–2018



Horizontal dashed lines indicate the 2020 milestone target of 25% reduction in TB incidence against the 2015 baseline, assuming that notification is the proxy of TB estimated incidence

compared with an estimated 259 000 cases. This represents a case detection rate of 88%, which is higher than the 84% baseline measured in 2014. In 14 of the 18 high-priority countries, the case detection rate is above 75%. Thus, detection of TB cases in the Region is improving and most of the countries are on track to increase the number of TB cases detected.

Indicator 1.B.6 Percentage of RR/MDR TB among new TB patients (E)

The Regional action plan aims to reduce RR/MDR prevalence among new TB cases. At Regional level, the prevalence of MDR-TB among 82 106 new pulmonary TB cases tested for first-line DST in the Region was 18.3%, which is comparable to the rate observed in 2015 (18.3%). Among 88 826 new pulmonary TB patients with test results for rifampicin, the proportion of patients with rifampicin resistance was 21.6%, suggesting that rifampicin resistance is still increasing in the Region. Thus, the Region is not on the track to reduce the percentage of RR-resistance among new TB

patients. Furthermore, in 11 of the 16 HPCs reporting DST data the MDR prevalence among new pulmonary TB cases was higher than or comparable to 2015 data. Azerbaijan, Kazakhstan and Uzbekistan showed a declining trend in MDR percentage over the past five years. Large year-to-year variation and missing data in several countries indicated that routine drug-resistance surveillance in these countries is challenging and that additional efforts are required to produce quality data (Figure 4.1.4).

Indicator 1.B.7 Percentage of RR/MDR TB among previously treated TB patients

In 2018, the percentage of confirmed MDR TB cases among previously-treated TB patients tested for first-line DST was 49.1%, which is higher than the 2015 rate (46.3%). Moreover, RR/MDR prevalence among all previously treated TB patients with a drug-sensitivity test to rifampicin was 56.8%, indicating that the Region is not on track to reduce the RR/MDR TB burden among previously treated patients.

Fig. 4.1.4 Trend in RR/MDR percentage among new pulmonary TB cases (E) for 18 high-priority countries and WHO European Region, 2014–2018



1.C.1. Percentage of hospitalisation of new TB patients (E)

In 2018, a total of 35 countries provided information on the percentage of hospitalisation for TB patients enrolled in first and second-line treatment. Hospitalisation rates for first-line TB treatment ranged from 25% (Georgia) to 100% (Andorra, Bosnia and Herzegovina) among the countries. This data suggests that the hospitalisation rate is still high in most of the countries in the Region and additional efforts are required to change the model of care (Figure 4.1.5).

Indicator 1.C.2. Percentage of detected RR/MDR TB enrolled in treatment (G)

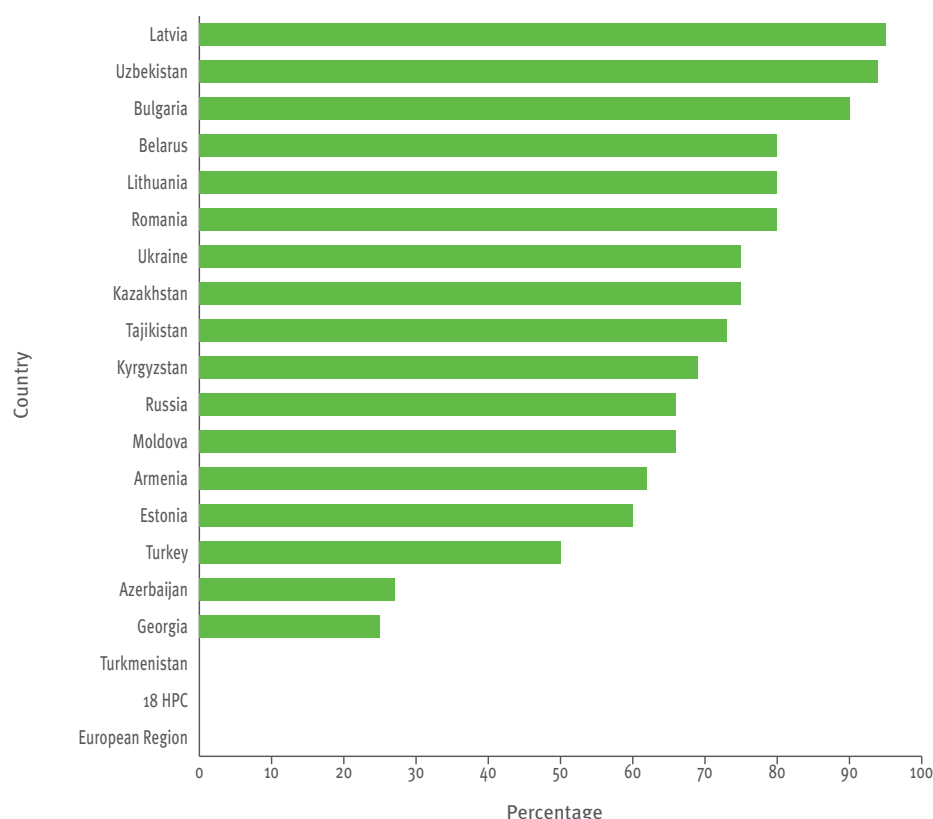
Achieving universal second-line treatment coverage for all detected RR/MDR TB patients is a fundamental requirement for reducing TB transmission in the community, as well as TB mortality.

The number of cases starting MDR TB treatment in 2018 was equivalent to 89.4% of the 49 001 RR/MDR TB patients notified for that year across the European Region. Access

to MDR treatment in the Region increased considerably from 2010 onwards. Over the last five years, many of the high-priority countries have consistently 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 yearly cohort and weakness of surveillance. If we take into account the proportion of patients enrolled into XDR TB treatment, only three HPCs reported a gap of over 5% between the number of patients enrolled and the number diagnosed: Kyrgyzstan (73.9%), Turkey (78.9%) and Tajikistan (80.4%). The other 15 HPCs demonstrated universal treatment coverage.

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

Effective TB treatment is essential to prevent death and cut transmission. Therefore, the treatment success rate serves as a key indicator for monitoring progress with the End TB Strategy. According to the action plan, the WHO European

Fig. 4.1.5 Proportion of TB patients hospitalised (%) (E) for 18 high-priority countries and WHO European Region, 2018

Region needs to increase the treatment success rate for new and relapsed TB cases to at least 85%.

In 2017, the treatment success rate for new and relapse patients enrolled in treatment at Regional level was 73.8%, compared to the baseline rate of 74.1%. Only four of the 17 HPCs reporting data achieved the targeted level of an 85% treatment success rate. Another three HPCs showed a trend towards improvement in treatment success, but for most countries the pace of change is too slow to achieve the target of an 85% treatment success rate (Figure 4.1.6).

Indicator 1.C.4. Treatment success rate (%) in the MDR TB treatment cohort (G) (E)

Treatment success rate is an indicator of high-quality TB care. Despite the treatment success rate having continuously increased from 48.7 to 57.4% over the past five years, it remains far below the 75% target set in the action plan. Of the 18 HPCs, only Kazakhstan achieved the benchmark of having a treatment success rate of at least 75% for RR/MDR TB patients (Figure 4.1.7). Overall, seven of the 18 HPCs are on track to increase their RR/MDR TB treatment success rate, however the progress to is not rapid enough to meet the 2020 target (75% treatment success rate for MDR TB cases) (Figure 4.1.7).

Indicator 1.C.5. TB mortality rate (ICD A15-19) (G10) (E)

The Tuberculosis action plan for the WHO European Region aims to reduce the number of TB deaths in 2020 by 35%

compared to 2015. As shown in Figure 4.1.8, all the HPCs have shown a rapid decline in TB mortality over the last five years, with the exception of Azerbaijan and Belarus. If the current declining trend continues, the Regional target will probably be exceeded. Although decline is comparatively slow in Georgia and Turkmenistan, in eight countries (Armenia, Bulgaria, Estonia, Kazakhstan, Latvia, Moldova, Russia and Turkey) the decline has been so rapid that the 2020 target of reducing the TB mortality rate by 35% has already been achieved (Figure 4.1.8).

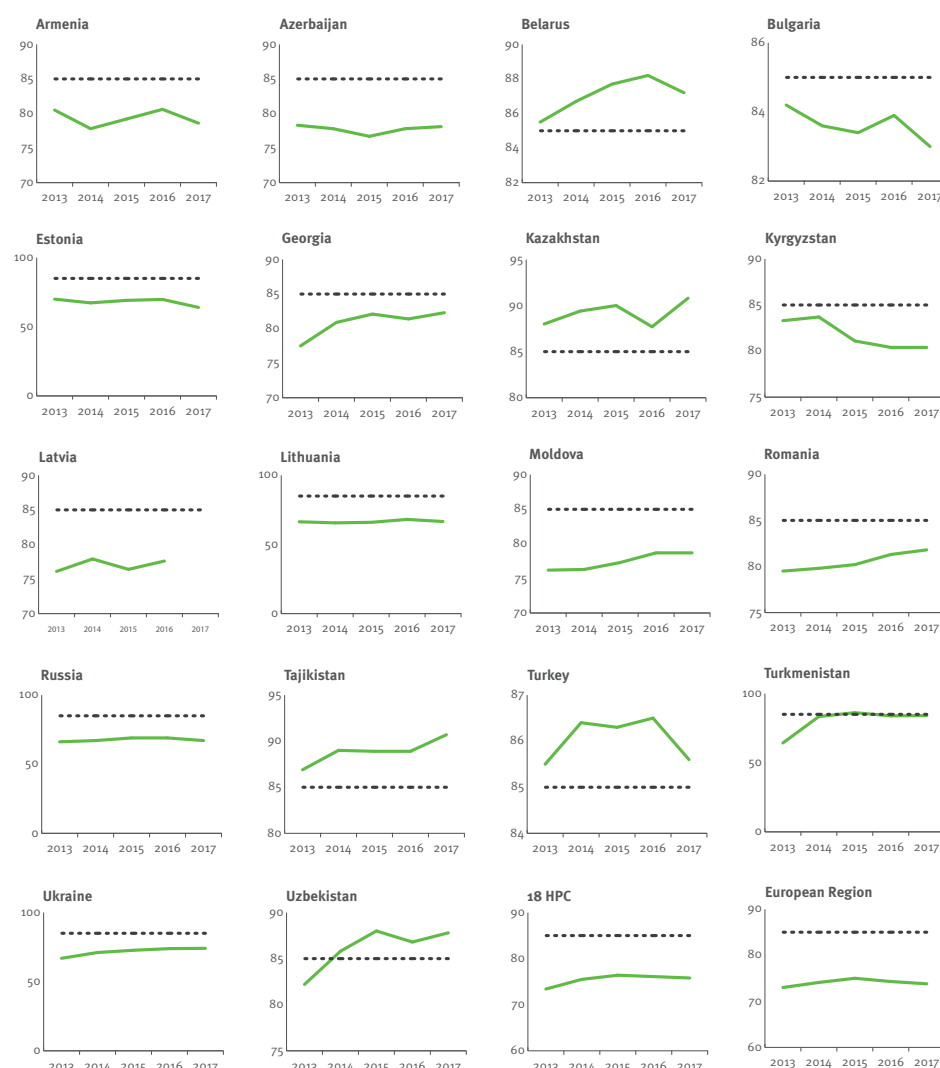
Indicator 1.D.1 Percentage of detected cases out of estimated incident TB/HIV co-infected cases

In 2018, the number of HIV/TB coinfections detected was 85.3% of the estimated number of HIV/TB incident cases in the Region, which is comparable with the baseline 84.8% level. Only three of the 18 HPCs (Azerbaijan, Kazakhstan and Russia) achieved a detection rate of over 90%. In three high-priority countries (Bulgaria, Georgia and Turkey) the rate was below 70%, indicating the need to invest more effort into improving detection.

Indicator 1.D.2 HIV testing coverage (G) (E)

The action plan aims for countries to achieve HIV testing coverage of close to 100%. In 2018, HIV testing coverage at Regional level was 92.2%, which is a notable improvement on the 67.6% testing coverage at baseline. Twelve HPCs reported HIV testing coverage of over 90% (Figure 4.1.9).

Fig. 4.1.6 Trend in treatment success rate for new and relapse TB cases enrolled into treatment 2014-2017 (G) in each of the high-priority countries and as a total for the 18 high-priority countries and WHO European Region, 2013-2017



Horizontal dashed line shows Regional target of 85% treatment success rate.

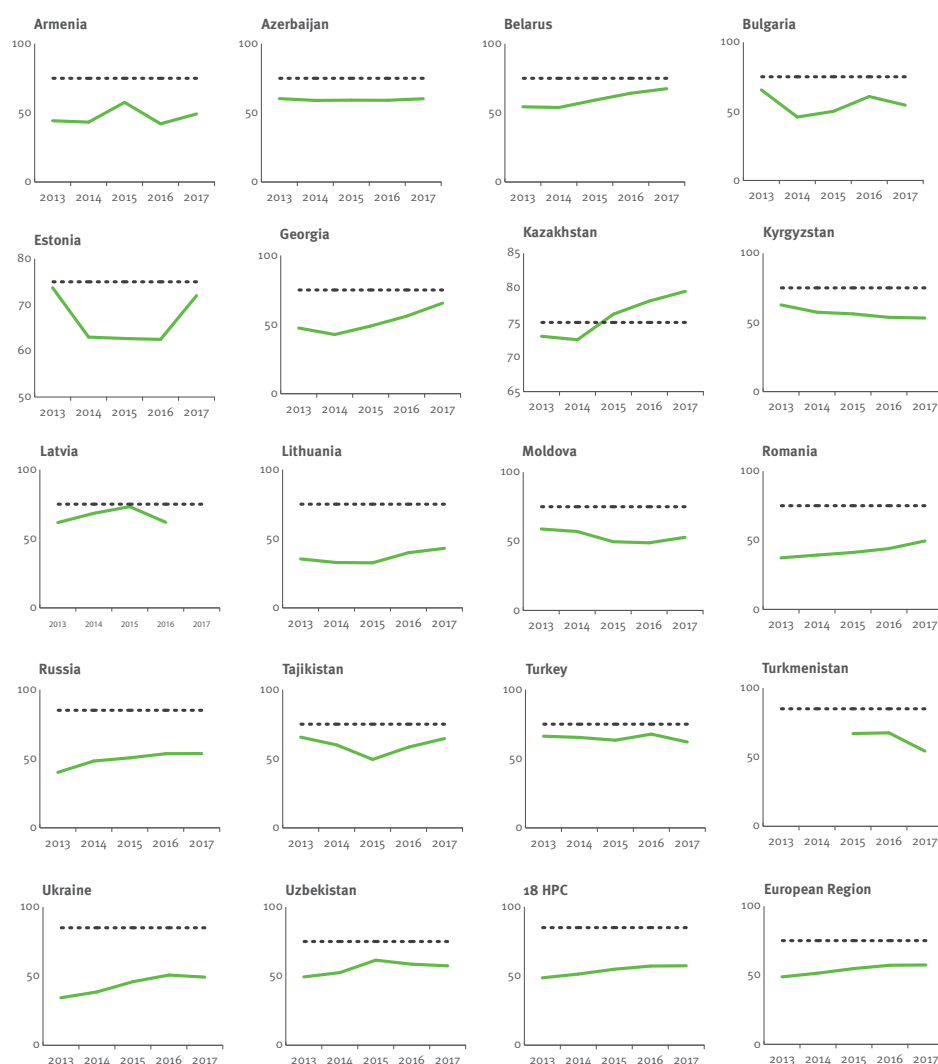
Indicator 1.D.3 Percentage of HIV coinfection among all TB (new and relapsed TB cases)

In 2018, 13.1% of new TB patients with known HIV status were HIV-positive compared to the 7.8% baseline in 2014. This rapid change is partially due to improvement of the surveillance system in the Russian Federation. An increase in TB/HIV coinfection has been recorded in eleven of the 18 HPCs. In 2018, Estonia, Georgia and Uzbekistan reported a lower percentage of HIV/TB cases than in 2015, however there is no clear trend towards reversion. The rapid increase in eleven of the HPCs is an indication that HIV transmission is continuing apace in most eastern European and Central Asian countries and that efforts towards the early identification of people living with HIV (PLHIV) and the administration of preventive TB treatment are inadequate.

Indicator 1.D.4 Percentage of HIV/TB co-infected patients enrolled in ART

The TB action plan aims to achieve full coverage with antiretroviral therapy (ART) for all patients detected with TB/HIV coinfection, as per WHO recommendations. In 2018, 27 countries in the Region provided information on ART enrolment among TB cases with positive HIV status. Among the reporting countries, ART coverage was 73.1%. This is a remarkable improvement compared to the baseline of 53.8%. Four of the high-priority countries attained coverage above 90% (Armenia, Belarus, Georgia and Kazakhstan). Most of the 18 HPCs showed an increase in ART coverage, however the trends are quite slow and not stable. Consequently, more efforts are needed to further strengthen TB/HIV collaborative activities in the Region.

Fig. 4.1.7 Trend in treatment success rate in the RR/MDR-TB cohort enrolled in treatment (G) (E) between 2012 and 2016 for each of the 18 high-priority countries, and as a total for the 18 high-priority countries and WHO European Region, 2012–2016



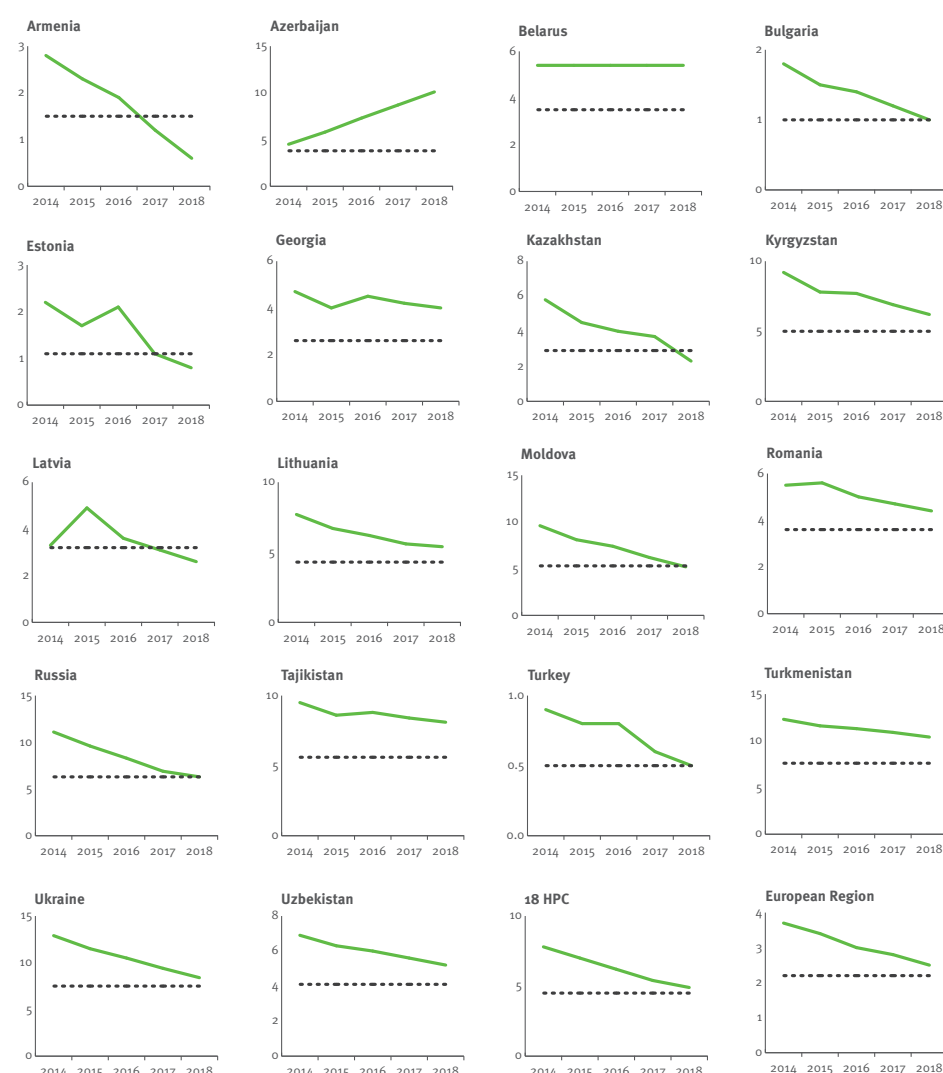
Indicator 1.D.5 Latent TB infection treatment coverage among people living with HIV/AIDS (PLHIV)(G)

In 2018, a total of 10 countries in the Region provided information on latent TB infection (LTBI) treatment to the UNAIDS reporting system. Overall, of 40 470 PLHIV newly enrolled in HIV care, 69% received LTBI treatment. In Russia, which accounted for 40% of data, 97% of PLHIV received LTBI treatment, which is a much higher figure than the 30% target. Belarus reported no child contacts under five years enrolled in LTBI treatment, while in Armenia and Tajikistan the coverage was far below the target of 30%. Such significant variation from country to country indicates a lack of standardised approach and shortcomings in adherence to WHO recommendations (Figure 4.1.10).

Indicator 1.E.1 Contact investigation coverage (G)(E)

Contact tracing is a key component of TB prevention, especially in children. Contact investigation may result in earlier identification of people who are ill or infected with TB, possibly decreasing disease severity and reducing transmission of *Mycobacterium 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 number eligible. Only 13 countries in the Region reported contact-tracing data to the WHO Global TB Database, and 95.1% of all contacts with TB cases were investigated for TB/LTBI in 2018. The target of 90% was achieved by all seven reporting HPCs (Figure 4.1.11).

Fig. 4.1.8 Trend in TB mortality rate (G) (E) for the 18 high-priority countries and WHO European Region, 2012–2018

Horizontal dashed line shows Regional milestone of 35% reduction in TB deaths by 2020 compared to 2015

Indicator 1.E.2 LTBI treatment coverage of childhood TB contacts aged under 5 years (G) (E)

WHO recommends that children <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 LTBI as per WHO guidelines. The Regional action plan aims to achieve at least 90% presumptive LTBI treatment coverage of childhood TB contacts aged under five years. This indicator is calculated as the number of children aged <5 years who are household contacts of cases started on LTBI treatment, divided by the number of all child contacts <5 years. In 2018, a total of 12 countries provided information in the Global TB database on childhood contact investigations. At Regional level, LTBI treatment coverage of childhood TB contacts aged under 5 years was 42.1%. Uzbekistan and

Ukraine were the only countries among the 18 HPCs that achieved the 90% target (Figure 4.1.12).

Indicator 2.E.1 Treatment success (%) of new and relapsed TB cases among prisoners

In 2018, 25 countries in the Region provided data on treatment outcome of prison TB cases. Overall the treatment success rate of new and relapse TB cases at Regional level was 59.9%, which is much lower than the 77.1% treatment success rate in the general population or the 63.2% baseline. The Regional indicator is largely influenced by the results for Russia, which accounts for around 79% of prison TB cases with available treatment outcomes. Seven of the 18 HPCs achieved the target treatment success rate of 85%.

Conclusions and monitoring recommendations

In 2018, 20 out of 26 indicators in the TB action plan for the WHO European Region were effectively monitored

Fig. 4.1.9 HIV testing coverage among new and relapse TB patients (G) (E) for the 18 high-priority countries and WHO European Region, 2018

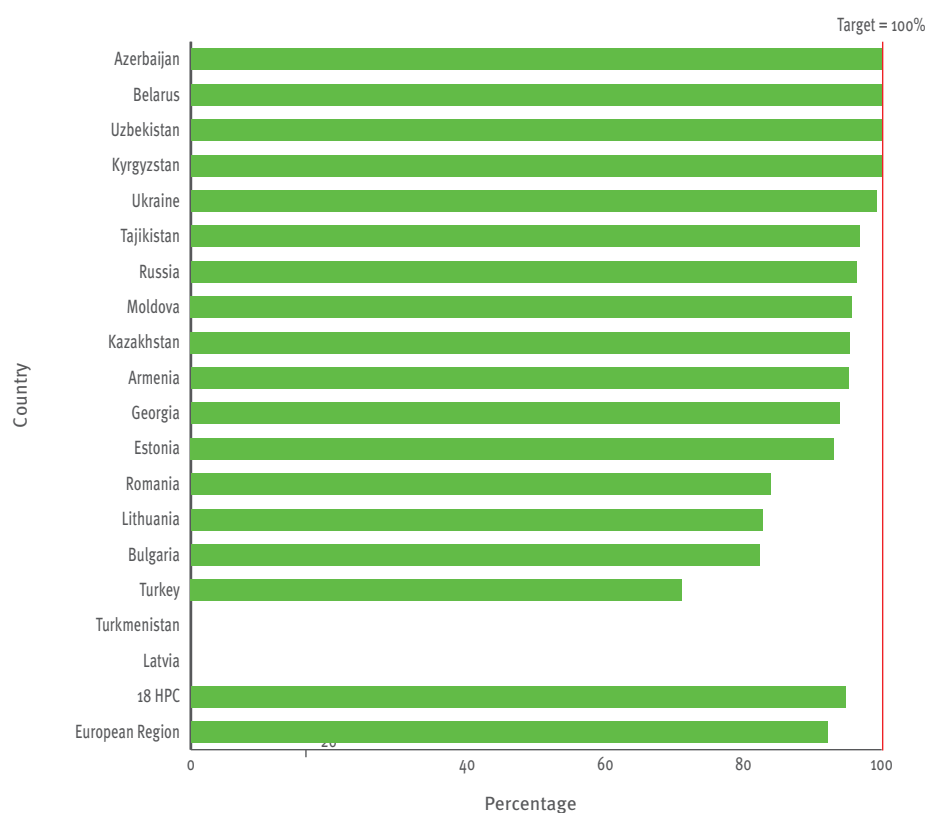
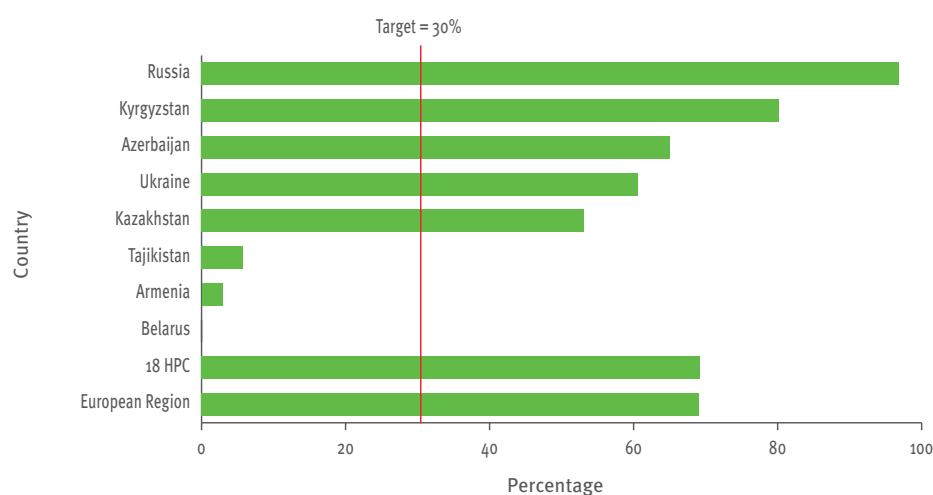


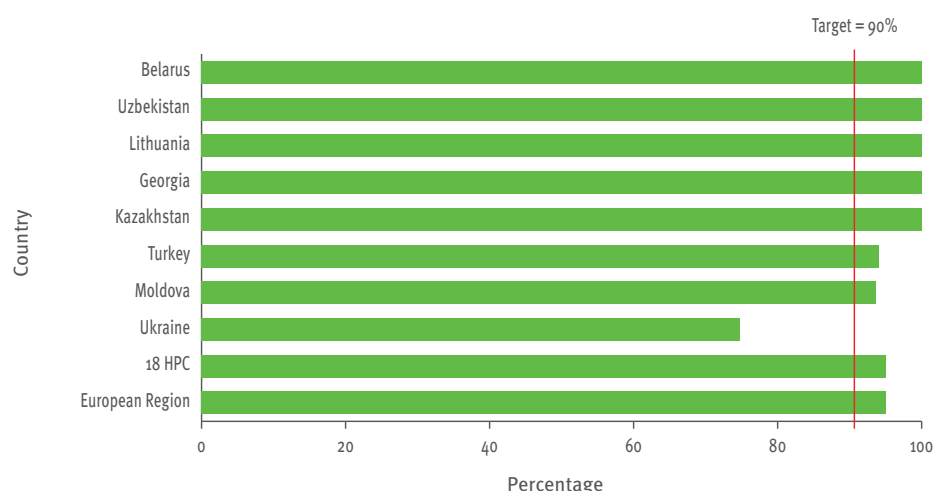
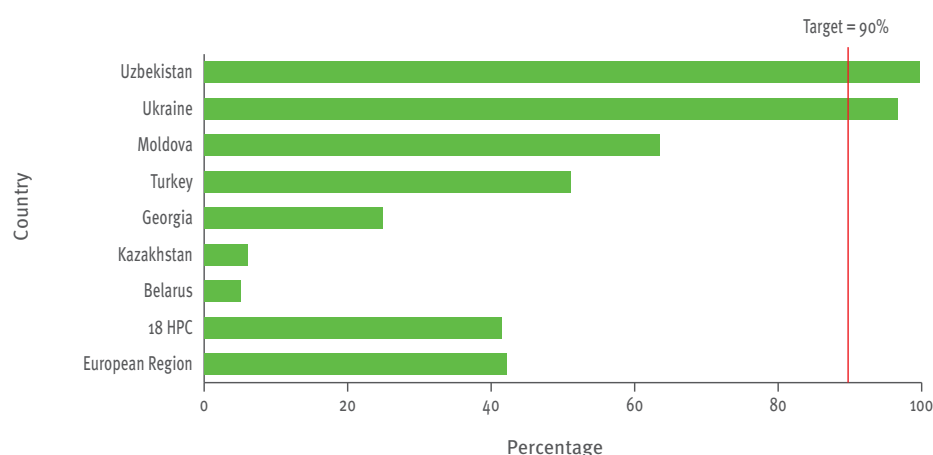
Fig. 4.1.10 LTBI treatment coverage among PLHIV (G) for the 18 high-priority countries and WHO European Region, 2018



and evaluated using routine surveillance data. Of the 20 targets monitored nine were achieved at Regional level. The progress achieved in reducing the burden of TB mortality and notifying new and relapse TB patients (as a proxy of TB incidence) was particularly impressive for the Region.

The cumulative reduction in incidence for the period 2015–2018 was 15.0%, with a 26% cumulative decrease in TB

deaths observed during the same period. This indicates that the Region is on track to achieve the 2020 Regional action plan target to reduce the TB incidence rate in 2020 by 25% and TB deaths by 35% against the 2015 baseline. Most high-priority countries in the Region have already achieved or are on track to reach the 2020 milestones of the global End TB strategy as well as the targets of the Regional action plan.

Fig. 4.1.11 Contact investigation coverage (G) (E) for the 18 high-priority countries and WHO European Region, 2018**Fig. 4.1.12** LTBI treatment coverage in childhood TB contacts aged under five years (G) (E) for the 18 high-priority countries and WHO European Region, 2018

In addition, a substantial increase in HIV testing and ART coverage has been observed, from 69.7% to 91.5% and 59.1% to 73.1% respectively. Moreover, in the past few years, an increase in testing coverage using WHO-recommended rapid diagnostics has been documented, with 63.4% of incident TB cases being tested using this platform in 2018, compared to 45.3% in 2015.

Although eleven targets set by the Regional action plan were not achieved, improvement has been noted against the baseline data. The treatment success rates for new and relapse TB cases and RR/MDR TB cases are still below the global and Regional targets, however, when data collected between 2016 and 2019 are compared, a slow but sustainable increase can be seen in both incident TB and RR/MDR TB cohorts, from 75.78% to 77.1% and 48.8% to 57.4% respectively.

The Region is not on track to achieve six targets, including the percentage of RR/MDR TB among new and previously TB cases, the prevalence of HIV among new and relapse TB cases, preventive treatment coverage among children

under five years and the treatment success rate among TB patients in prison. Despite the efforts made, the burden related to RR-TB and TB/HIV is still increasing, indicating the need to introduce new, more innovative and effective approaches to address those issues. Prevention efforts, including contact tracing, LTBI treatment coverage and ART coverage among PLHIV, need to be intensified.

4.2 European Union and European Economic Area countries

In 2016, WHO's Regional Office for Europe, working closely with representatives from the countries, experts and communities, developed the 'Roadmap to implement the tuberculosis action plan for the WHO European Region 2016–2020'. This roadmap is based on lessons learnt implementing the Regional Committee Resolution on The Consolidated Action Plan to Prevent and Combat Multidrug- and Extensively Drug-Resistant Tuberculosis in the WHO European Region 2011–2015. It is applicable to all Member

States in the WHO European Region, including high-priority countries and those with a low incidence of TB.

The Roadmap to implement the tuberculosis action plan for the WHO European Region 2016–2020 was published in 2016, establishing three areas of intervention with 26 indicators to assess the performance of the countries in tackling TB.

This is the second monitoring report containing these WHO indicators. A summary of findings by EU/EEA Member State and indicator is provided in Table 30, while indicator definitions and targets can be found in Annex 6.

1. Integrated patient-centred care and prevention

1.A. Systematic screening of contacts and high-risk groups

Indicator 1.A.1 Coverage of population at risk with systematic screening for active TB and LTBI

Screening for active TB and LTBI should be promoted to contribute to the detection of active and latent cases of TB, especially in at-risk populations. The less generalised the epidemic becomes, the more emphasis needs to be placed on this activity. 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 the WHO recommendations [1-2] and ECDC guidance [3-4]. Of the 30 countries reporting on this data, seven also reported on the coverage of systematic screening for active TB and LTBI for 2018 and six countries (Bulgaria, Lithuania, Norway, Portugal, Romania and Slovakia) reported a screening coverage of over 80% for the population at risk (Table 30).

1.B. Early diagnosis of all forms of TB and universal access to drug-susceptibility testing, including the use of rapid tests

Indicator 1.B.1 Percentage of TB patients diagnosed using WHO-recommended rapid tests (G)

Thirty EU/EEA Member States reported on the proportion of patients notified with new and relapse TB in 2018 who were diagnosed using WHO-recommended rapid tests (Table XV). Overall, 27.9% of cases reported in the EU/EEA are diagnosed using WHO-recommended rapid tests. The target for 2018 was 30%, which was met by 17 Member States (Figure 4.2.1).

Indicator 1.B.2 First-line DST coverage (%) among all bacteriologically-confirmed TB cases (G)

In 2018, 31 469 incident TB cases were bacteriologically confirmed in 30 EU/EEA Member States, and for 25 248 (80.2%) of them, DST results for rifampicin and isoniazid were also provided (Table 11). The target (close to 100%) was achieved by six countries (Cyprus, Iceland, Liechtenstein, Lithuania, Luxembourg and Slovenia) (Figure 4.2.2).

Indicator 1.B.3 RR/MDR TB case detection rate (%)

In 2016, WHO started replacing MDR TB estimates with RR TB estimates, since the latter is a good proxy of the former and the recommended management is identical for both. The RR/MDR TB case detection rate is calculated by dividing the number of notified cases with RR/MDR TB by the estimated number of such cases. In 2018, 17 EU/EEA countries achieved an RR/MDR TB detection rate of 85% or more (Table 30). Six countries (Cyprus, Iceland, Latvia (which did not report case-based data for 2018), Liechtenstein, Malta and Slovenia) did not report any RR/MDR TB cases for 2018 so their detection rate could not be calculated. Croatia had a RR TB estimate of 0 cases and their detection rate could also not be calculated.

Indicator 1.B.4 TB notification rate per 100 000 population (E)

One target of the Regional action plan is to reduce the TB incidence rate by 25% by 2020 against the 2015 baseline. To achieve this, countries should have at least a 5.5% annual reduction in the notification of new and relapse TB cases.

In 2018, country-specific notification rates in EU/EEA Member States differed considerably, ranging from 2.3 per 100 000 in Iceland to 59.3 in Romania (Table 4). Rates were below the Regional target (24.6 per 100 000) in 28 countries. Only Lithuania and Romania reported rates above the Regional target, but as they have had an average annual decrease of over -5.5% since 2015, they are on track to meet the 2020 target and are shown in green (Table 30) (Figure 4.2.3).

Indicator 1.B.5 TB case-detection rate (%)

In 2018, 50 455 new and relapse TB cases (Table 4) were notified in 30 countries compared to an estimated 58 000 TB cases (Table 1) representing a case-detection rate of 87.8%. In 2018, 28 EU/EEA Member States reported a case detection rate of over 75% and above (Table 30), with 18 countries achieving the target of an increase in case-detection rate against 2016.

Indicator 1.B.6 Percentage of RR/MDR TB among new TB patients (E)

In 2018, 29 EU/EEA countries reported on first-line anti-TB DST results. The prevalence of RR/MDR TB among 20 718 new pulmonary TB cases with first-line DST results was 2.7% (Table 30), the same as in 2016. Cyprus, Iceland, Liechtenstein, Malta and Slovenia did not report any new RR/MDR TB cases in 2016 or 2018. The target of a decreasing percentage was met by 10 EU/EEA countries (Figure 4.2.4).

Indicator 1.B.7 Percentage of RR/MDR TB among previously treated TB patients

In 2018, the prevalence of RR/MDR TB among 3 210 previously treated pulmonary TB cases tested for first-line DST was 14.4% (Table 30), which is slightly less than in 2016 (15.0%). Cyprus, Denmark, Norway and Slovenia did not report any previously treated RR/MDR TB cases in 2016 or 2018 and were not assessed.

1.C Equitable access to quality treatment and continuity of care for all people with TB, including drug-resistant TB, and patient support to facilitate treatment adherence

Indicator 1.C.1 Percentage of hospitalisation of new TB patients (E)

In the EU/EEA, 16 Member States reported on hospitalisation of new TB patients in 2018. There were no baseline data available for 2014. A decrease in hospitalisation of new TB patients was observed in five countries between 2016 and 2018 (Figure 4.2.5).

Indicator 1.C.2 Percentage of detected RR/MDR TB enrolled in treatment (G)

Twenty-four Member States reported on treatment enrolment of RR/MDR TB patients in 2018. The target of close to 100% treatment enrolment was met by 18 countries and two countries enrolled >95% of RR/MDR TB patients. Cyprus, Iceland, Italy, Latvia (which did not report case-based data for 2018), Liechtenstein, Malta and Slovenia did not diagnose any MDR TB cases in 2018. Altogether, 98.4% of RR/MDR TB cases reported in the EU/EEA started treatment with second-line anti-TB drugs in accordance with WHO guidelines (Figure 4.2.6).

Indicator 1.C.3 TB treatment success rate (%) among all new and relapsed TB patients (G)

Of the 36 918 new and relapse TB cases notified in 2017 with a treatment outcome reported in 2018, 27 867 (75.5%) were treated successfully (Table 21). France, Greece, Italy, (Latvia), Luxembourg, Malta and Poland did not report treatment outcome. Only seven countries (Iceland, Liechtenstein, the Netherlands, Norway, Romania, Slovakia and Sweden) met the treatment success target of 85% (Figure 4.2.7).

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

Of the 1 182 RR TB cases notified in 2016 with a treatment outcome reported in 2018, 590 (49.9%) were treated successfully (Table 26). Of 18 Member States reporting treatment success for cases diagnosed in 2016, only three countries (Belgium, Norway and Sweden) met the treatment success target of 75%. Treatment success ranged from 26.3% in Portugal to 92.0% in Sweden (Figure 4.2.8).

Indicator 1.C.5 TB mortality rate (ICD A15-19) (G) (E)

For 2018, WHO estimated 3 730 TB deaths among HIV-negative people in the European Region (Table 1). The estimated mortality for the EU/EEA was 0.7 deaths per 100 000 population, ranging from 0.0 in Liechtenstein to over four in Lithuania and Romania. The Regional target of below 2.7 cases per 100 000 was met by all EU/EEA Member States except Lithuania and Romania (Figure 4.2.9).

1.D Collaborative TB/HIV activities and management of comorbidities

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

In 2018, 21 EU/EEA Member States reported on TB patients with HIV infection (Table 17). The detection rate of TB/HIV co-infected cases is based on reporting data (numerator) and WHO estimates (denominator, not available for Cyprus and Liechtenstein). The target HIV case-detection rate of close to 100% was only reached by Iceland, Ireland and Slovakia.

Indicator 1.D.2 HIV testing coverage (%) (G) (E)

Twenty-one EU/EEA countries provided information on the HIV status of their TB cases and 74.9% of cases had a known HIV status (Table 17). The target testing coverage of close to 100% was achieved by Iceland (Figure 4.2.10).

Indicator 1.D.3 Percentage of HIV among all TB

In 2018, 21 EU/EEA Member States reported 991 new and relapse TB cases with HIV infection. Country-specific proportions ranged from 0.0% in Bulgaria, Croatia, Luxembourg and Slovenia to above 12% in Hungary and Iceland (Table IX). It was not possible to assess any change in this target for countries with less than 50% reporting completeness for HIV. Six countries (Estonia, Lithuania, Norway, Portugal, Romania and Slovenia) reached the target (decrease in the percentage of HIV among all TB cases reported against 2016).

Indicator 1.D.4 ART coverage (%) among TB/HIV co-infected

Six EU/EEA Member States reported ART enrolment to the WHO Global TB Database (Table 17). In these countries 84.2% of HIV-coinfected TB cases had started ART in 2018. The target for enrolment coverage of close to 100% was not achieved by any of the EU/EEA Member States.

Indicator 1.D.5 LTBI treatment coverage (%) among PLHIV (G)

The target for LTBI treatment coverage among PLHIV is 30%. No relevant data were available in the WHO Global TB database for any EU/EEA Member States in 2018, therefore this indicator could not be monitored.

1.E Management of LTBI and preventive treatment of persons at high risk, and vaccination against TB

Indicator 1.E.1 Contact investigation coverage (%) (G) (E)

Only three EU/EEA Member States reported contact investigation data whereby 98.6% of all eligible contacts of people with bacteriologically confirmed TB had been investigated for TB/LTBI in 2018 (Table 30). The target of 90% was achieved by all reporting Member States (Figure 4.2.11).

Indicator 1.E.2 LTBI treatment coverage (%) in childhood TB contacts aged under five years (G) (E)

Only two EU/EEA Member States reported LTBI treatment coverage data for childhood TB contacts aged under five years, with 65.9% of these contacts reported to have started LTBI treatment in 2018 (Table 30). However, the target of 90% was not achieved by either of the two reporting countries (Norway and Slovakia) (Figure 4.2.12).

2. Bold policies and supportive system

2.A Political commitment with adequate resources, including universal health coverage policy

Indicator 2.A.1 Number of Member States that have a regular TB control/elimination performance publication every five years (E)

Target: 53 countries. Data are not available for 2018.

2.B Health system strengthening in all functions, including well aligned functioning mechanisms for TB and human resources

Indicator 2.B.1 Percentage of TB patients and their households that experience catastrophic financial consequences due to TB (G) (E)

Target: Close to 0. Data are not available for 2018.

2.C Regulatory frameworks for case-based surveillance, strengthening vital registration, quality and rational use of medicines and pharmacovigilance

Indicator 2.C.1 Treatment coverage with new TB drugs (%)

Target: 20%. Data are not available for 2018.

2.D Community systems and civil society engagement

Indicator 2.D.1 Number of Member States with functioning multi-stakeholder coalitions advocating for TB care and resources

Target: 53 countries. Data are not available for 2018.

2.E Social protection, poverty alleviation and actions on other determinants of TB, such as migration and prisons

Indicator 2.E.1 Treatment success rate (%) of new and relapse TB cases among prisoners

Of the 326 TB cases notified in prisons across 11 EU/EEA Member States in 2017 for whom treatment outcome data are available, 246 (75.5%) were treated successfully (Table 25). Ireland, Luxembourg and Malta reported no TB cases among prisoners. Among the 11 Member States reporting, treatment success ranged from 45.0% in the Netherlands to 100% in Slovakia. Three countries (Bulgaria, Romania and Slovakia) met the treatment success target of 85% for TB cases diagnosed in prisons.

3. Intensified research and innovation

3.A Discovery, development and rapid uptake of new tools, interventions and strategies

Indicator 3.A.1 European TB research initiative established by mid-2016

Target: Established. The country-specific indicators are not defined for 2018.

Conclusions and monitoring recommendations

In 2018, 20 of 26 WHO targets were monitored based on the data available from EU/EEA Member States. A large number of the EU/EEA Member States met the four targets regarding estimated TB case detection (at least 84%), estimated RR/MDR TB case detection (at least 85%), TB notification (below 24.6 per 100 000), treatment enrolment of RR/MDR TB cases (100%) and estimated TB mortality (below 2.7 per 100 000). A majority of reporting EU/EEA Member States also met or were close to meeting the targets on use of WHO-recommended rapid tests for diagnosis (30% of new cases and relapses) and first-line DST coverage among bacteriologically confirmed cases (100%).

However, only a minority of Member States reported meeting the targets regarding the percentage of RR/MDR TB among new TB patients and previously treated patients (decrease against 2016), treatment success rate among all new and relapse TB patients (85%), and the percentage of HIV coinfection (decrease against 2016). Finally, a small minority of countries met the targets regarding RR/MDR TB treatment success (75%), HIV testing coverage (100%) and the estimated detection of TB/HIV coinfection (90%).

Although, TB seems well under control in most of the EU/EEA Member States, certain aspects could be improved, especially the treatment success of TB and MDR TB, and HIV testing coverage and detection. Special efforts are needed to improve the reporting of LTBI, HIV status and treatment outcome results.

References

1. World Health Organization. Systematic screening for active tuberculosis: principles and recommendations. Geneva: WHO; 2019. Available from: <https://www.who.int/tb/tbscreening/en/>
2. World Health Organization. Latent tuberculosis infection. Updated and consolidated guidelines for programmatic management. Geneva: WHO; 2019. Available from: <https://apps.who.int/iris/bitstream/handle/10665/260233/9789241550239-eng.pdf;jsessionid=6435D00F815E94DF17C2E350717FF599?sequence=1>
3. European Centre for Disease Prevention and Control (ECDC). Public health guidance on screening and vaccination for infectious diseases in newly arrived migrants within the EU/EEA. Stockholm: ECDC; 2019. Available from: <https://www.ecdc.europa.eu/en/publications-data/public-health-guidance-screening-and-vaccination-infectious-diseases-newly>
4. European Centre for Disease Prevention and Control (ECDC). Management of latent tuberculosis infection. Stockholm: ECDC; 2019. Available from: <https://www.ecdc.europa.eu/en/tuberculosis/prevention-and-control/management-latent-tuberculosis-infection>

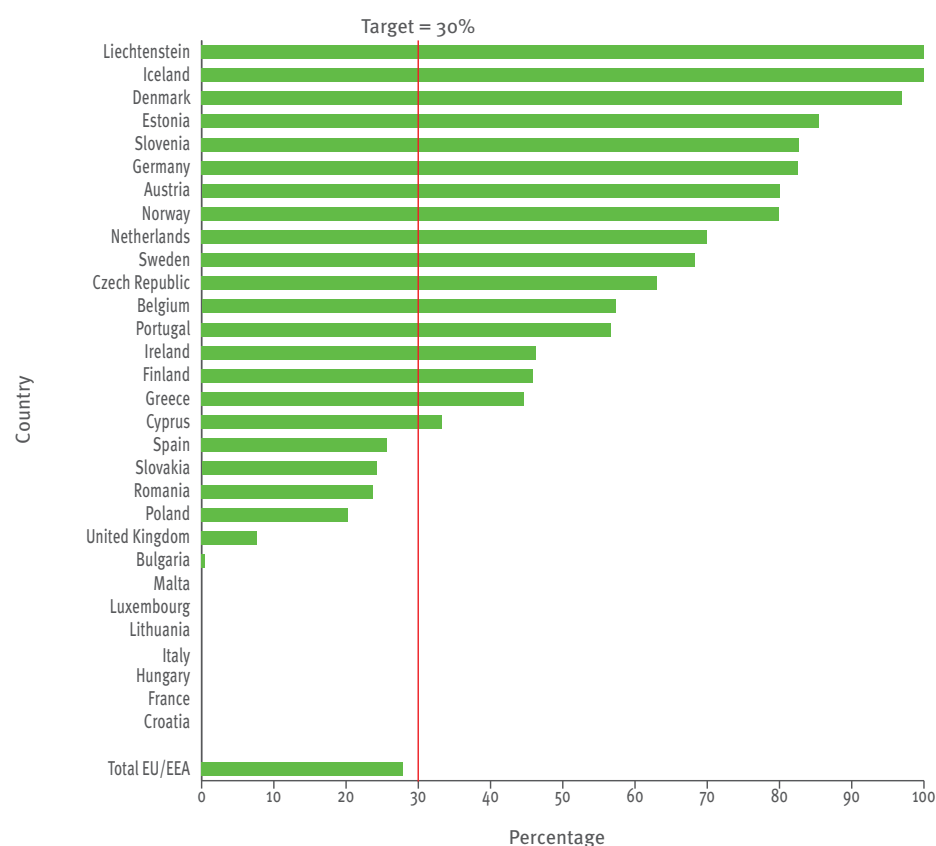
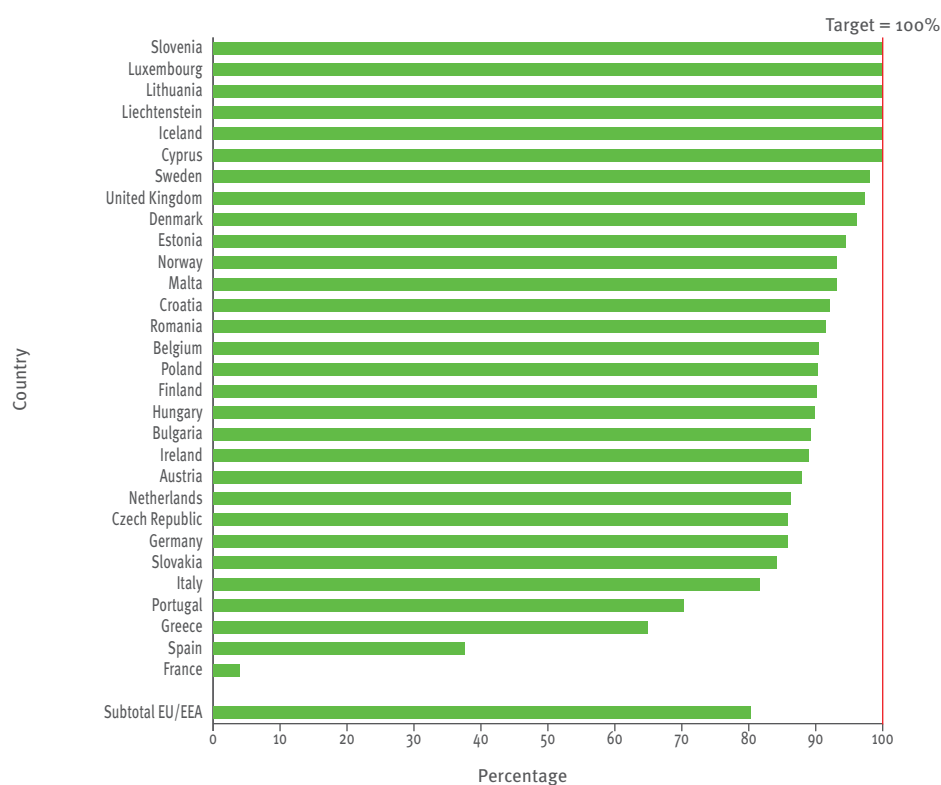
Fig. 4.2.1 Indicator 1.B.1. Percentage of TB patients diagnosed using WHO-recommended rapid tests (G), EU/EEA, 2018**Fig. 4.2.2 Indicator 1.B.2. First-line DST coverage (%) among all bacteriologically confirmed TB cases (G), EU/EEA, 2018**

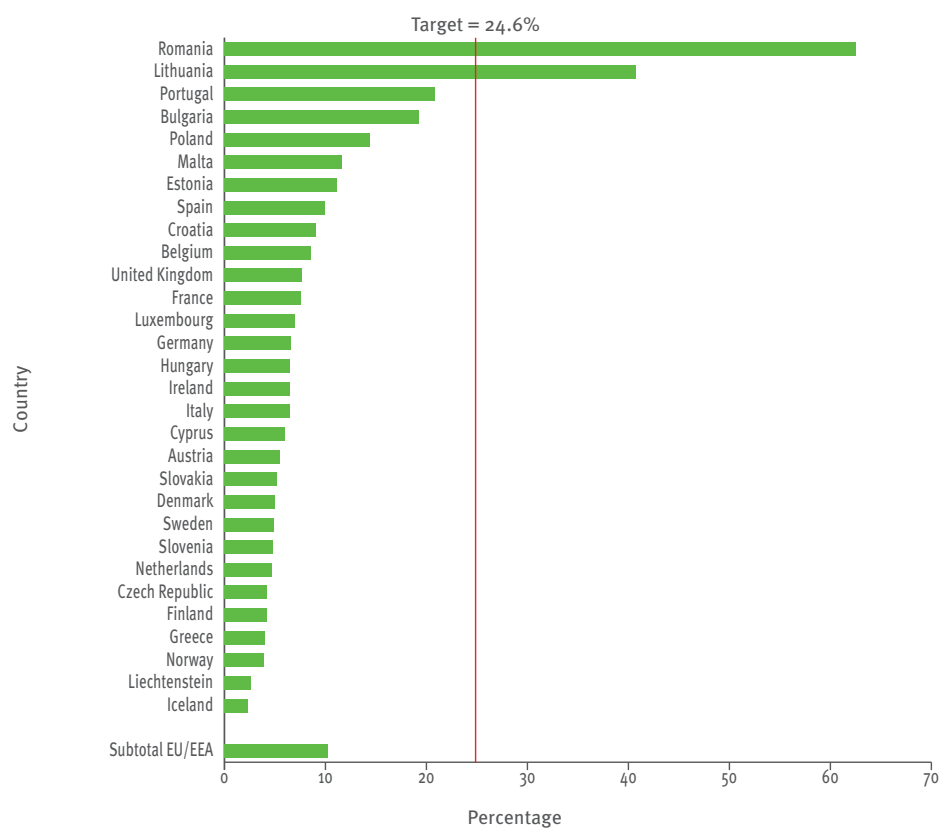
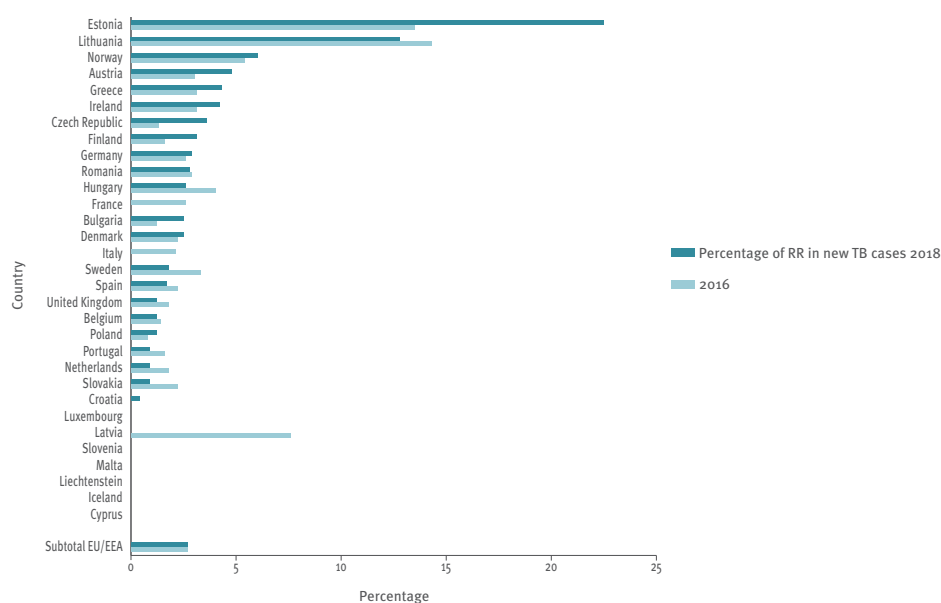
Fig. 4.2.3 Indicator 1.B.4. TB notification rate per 100 000 population (E), EU/EEA, 2018**Fig. 4.2.4 Indicator 1.B.6 Percentage of RR/MDR TB among new TB patients (E), 2016 and 2018, EU/EEA, 2018**

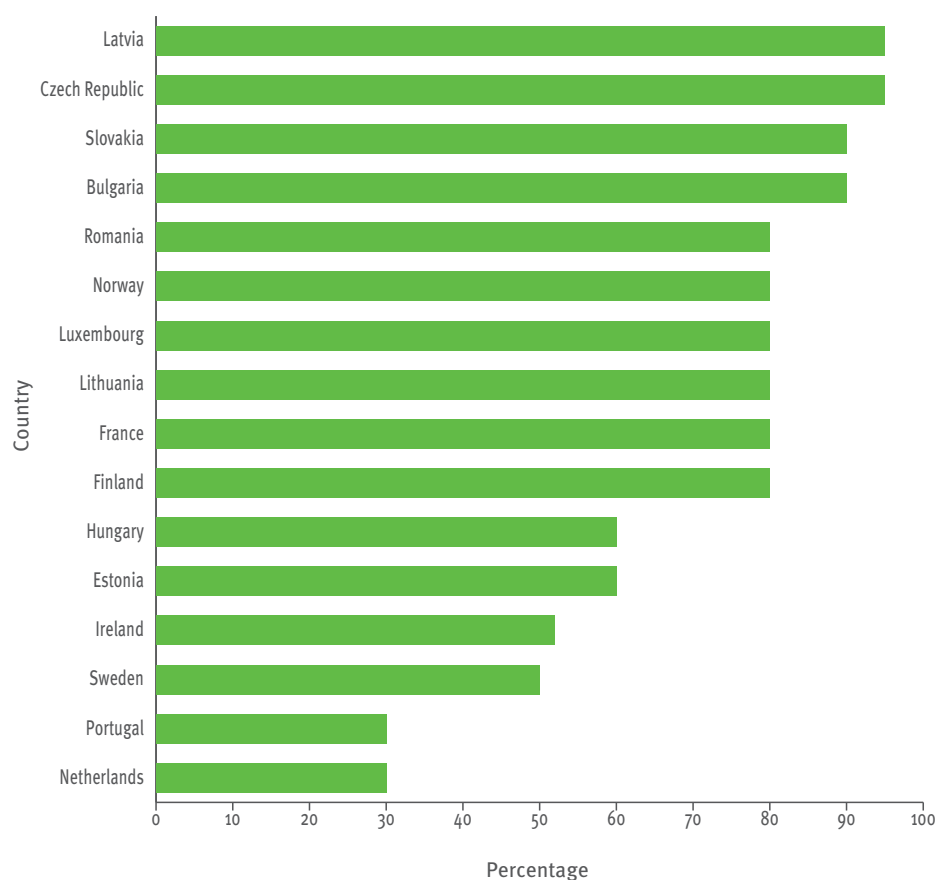
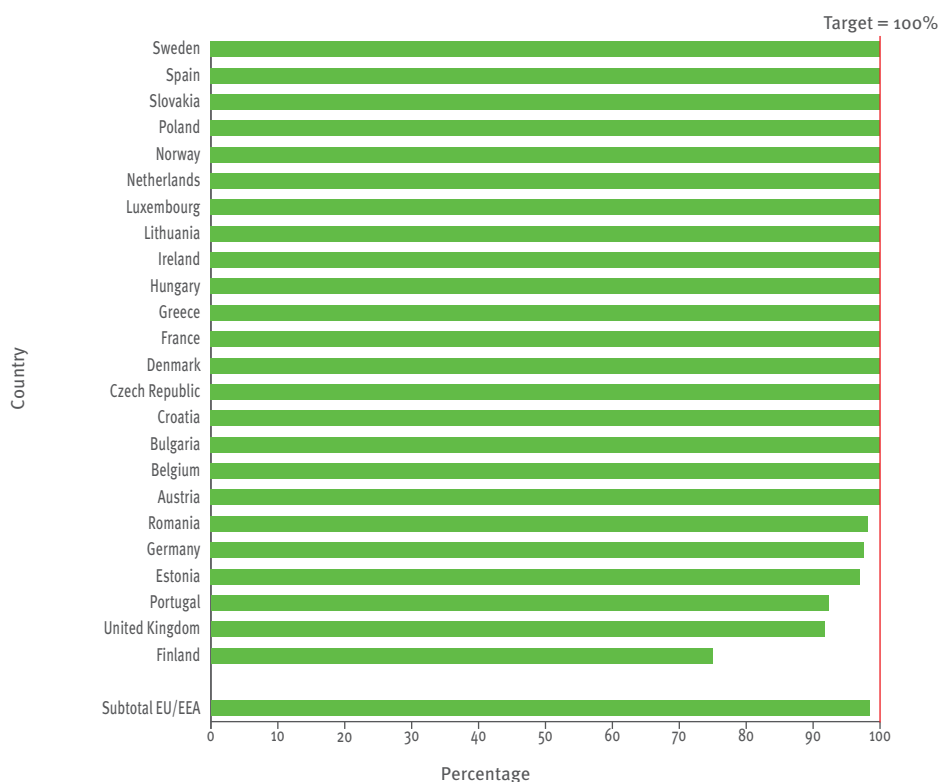
Fig. 4.2.5 Indicator 1.C.1 Percentage of hospitalisation for new TB patients (E), EU/EEA, 2018**Fig. 4.2.6 Indicator 1.C.2 Percentage of detected RR/MDR TB enrolled in treatment (G), EU/EEA, 2018**

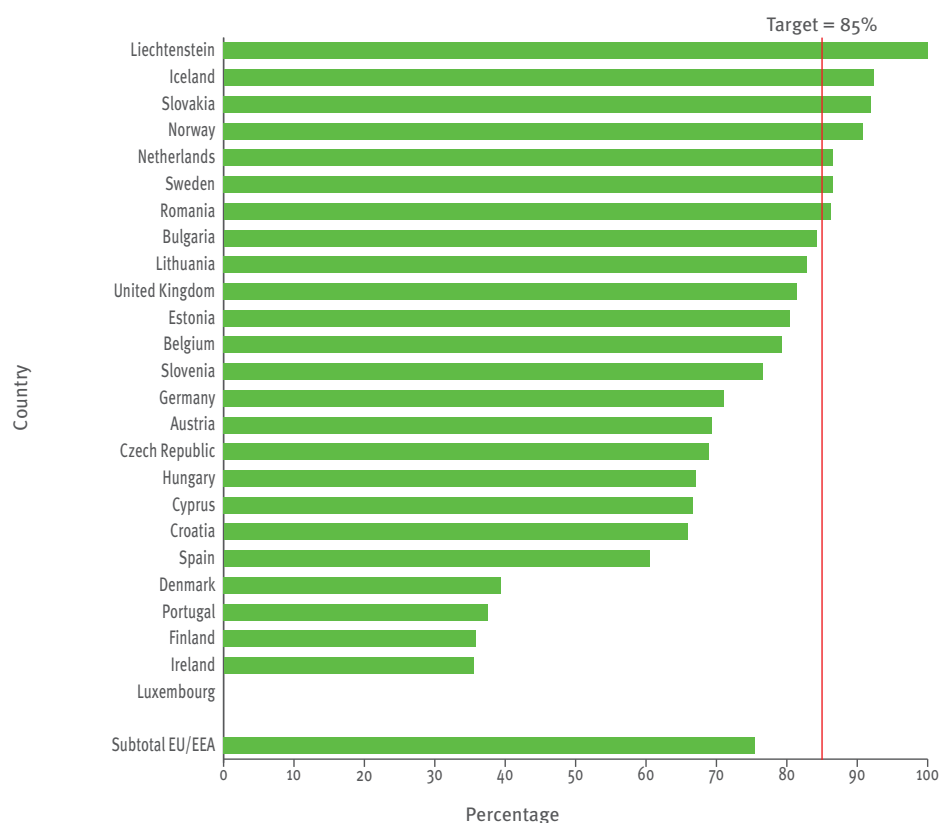
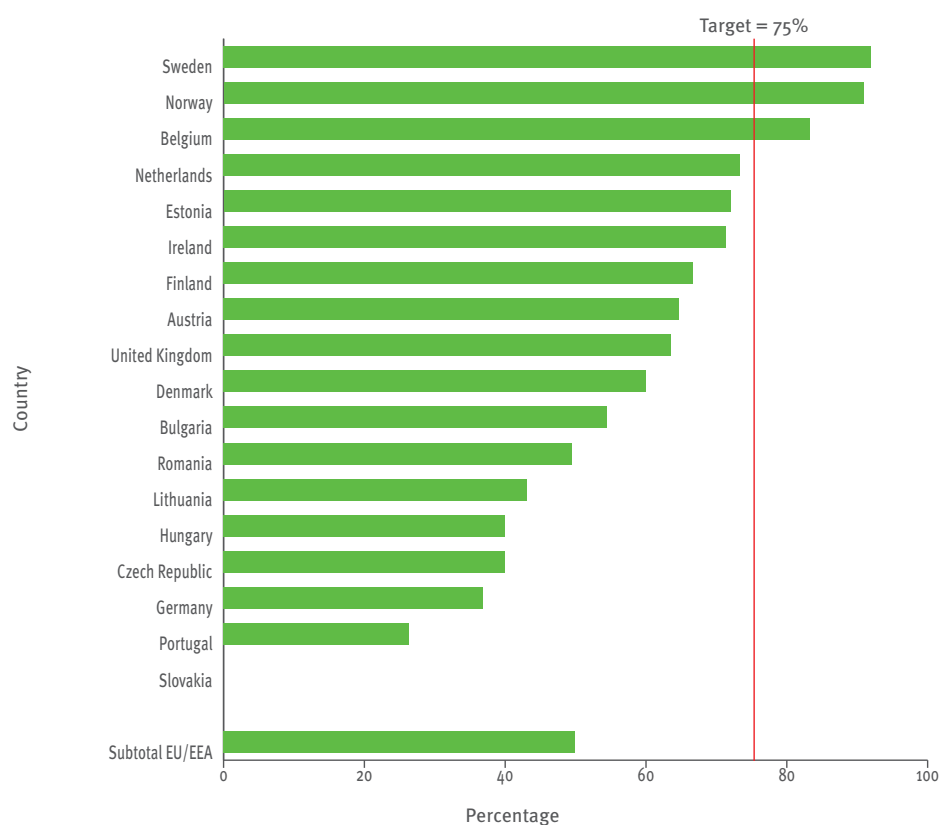
Fig. 4.2.7 Indicator 1.C.3 TB treatment success rate (%) among all new and relapsed TB cases (G), EU/EEA, 2018**Fig. 4.2.8 Indicator 1.C.4 TB treatment success rate (%) among the RR/MDR TB cohort (G) (E), EU/EEA, 2018**

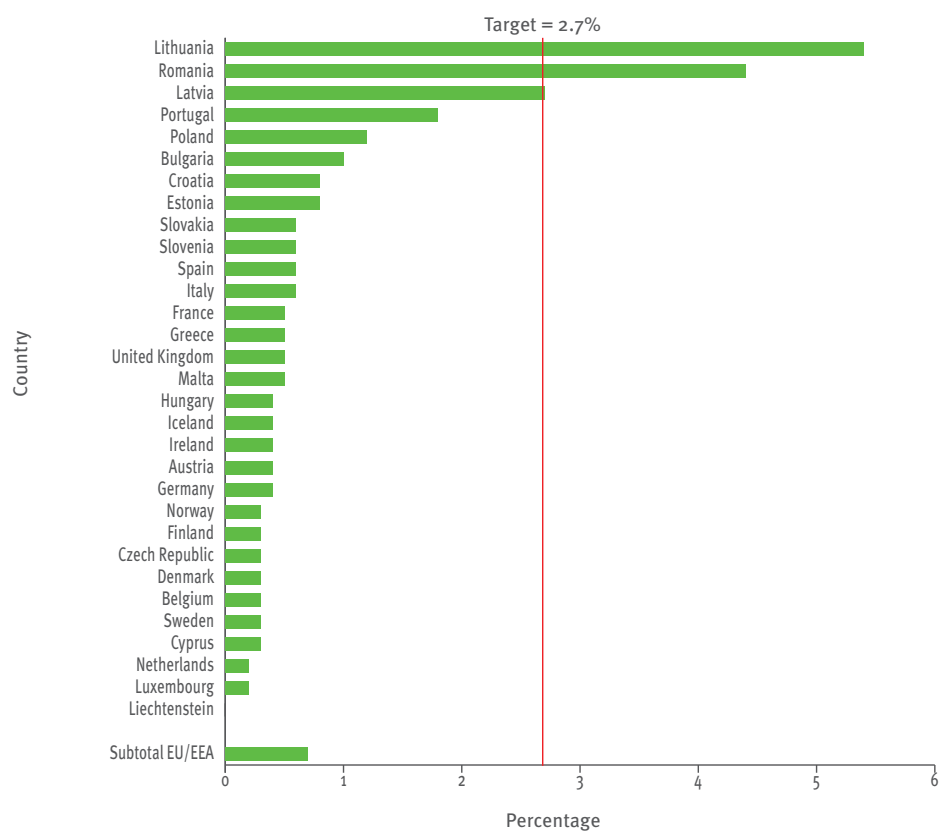
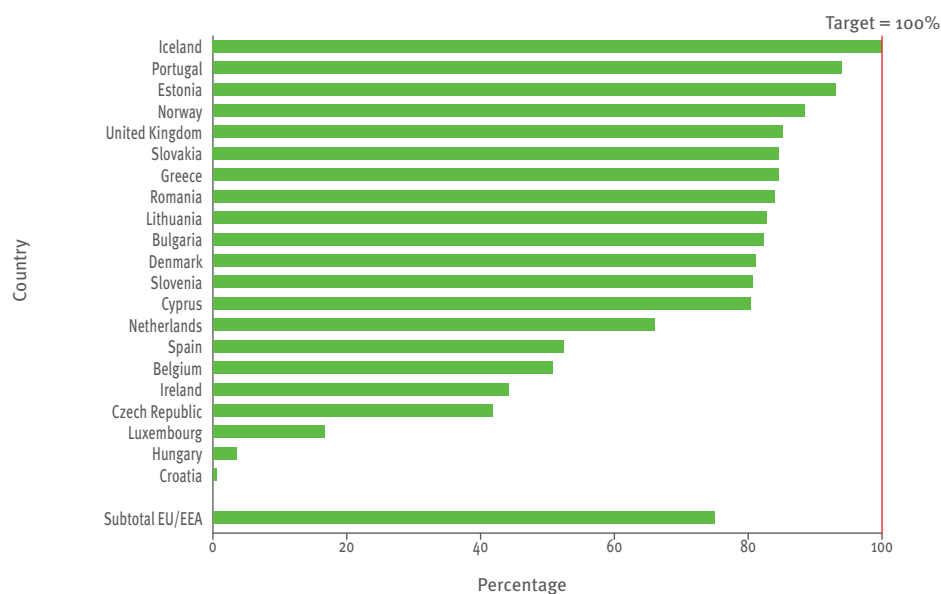
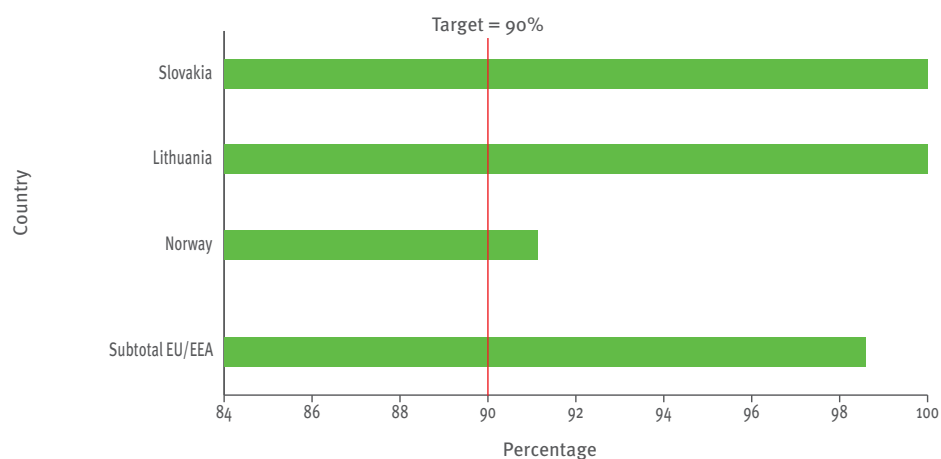
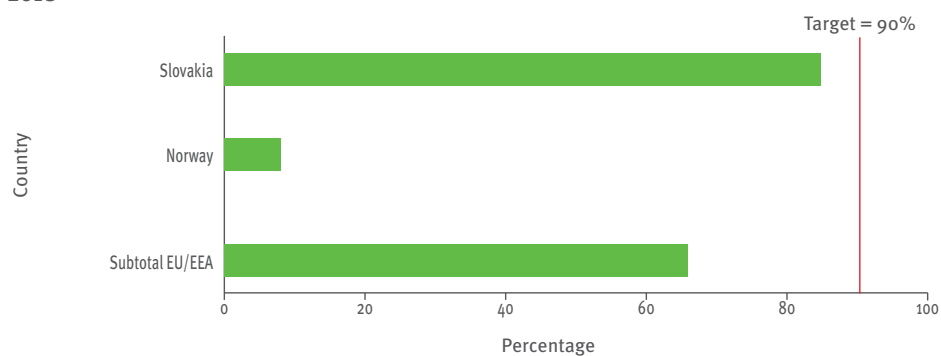
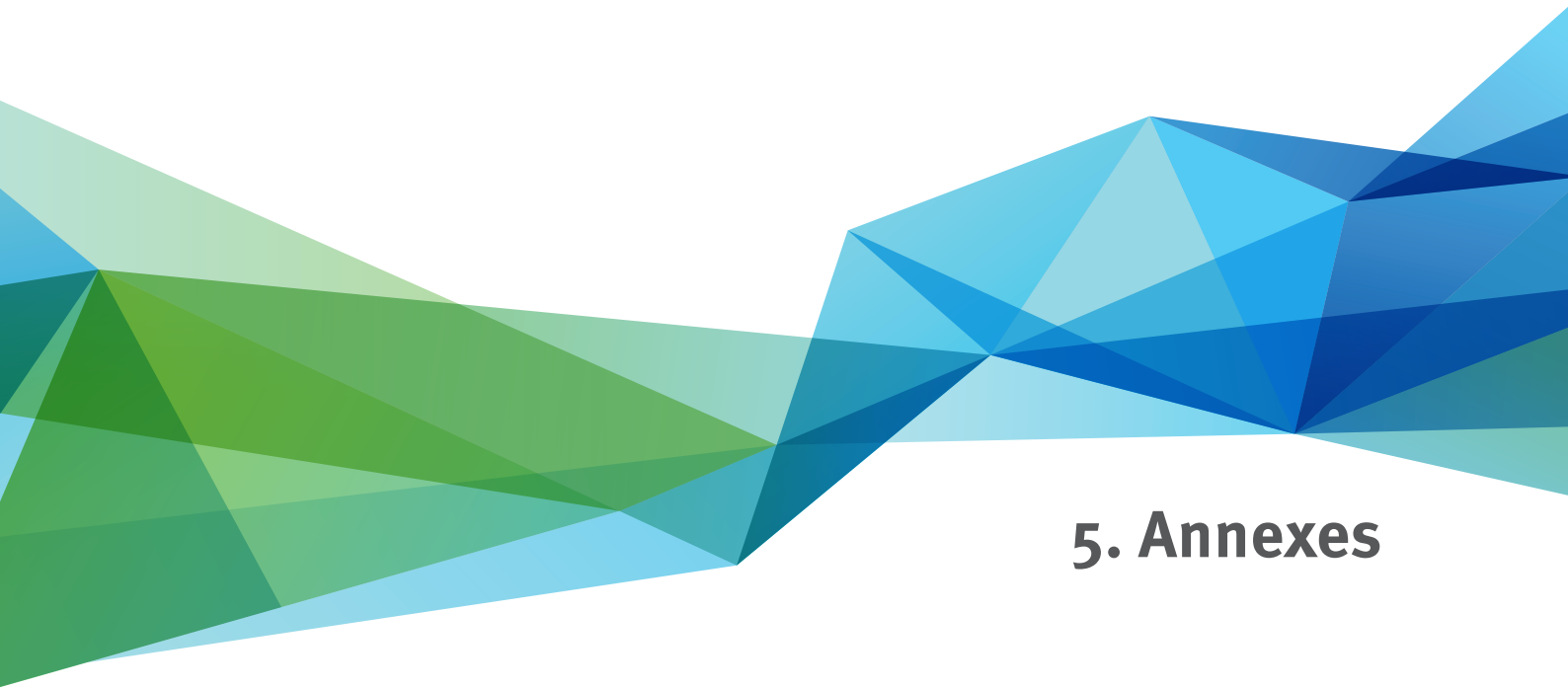
Fig. 4.2.9 Indicator 1.C.5 TB mortality rate (ICD A15-19) (G) (E), EU/EEA, 2018**Fig. 4.2.10** Indicator 1.D.2 HIV testing coverage (%) (G) (E), EU/EEA, 2018

Fig. 4.2.11 Indicator 1.E.1 Contact investigation coverage (%) (G) (E), EU/EEA, 2018**Fig. 4.2.12** Indicator 1.E.2 LTBI treatment coverage (%) of childhood TB contacts aged under five years (G) (E), EU/EEA, 2018



5. Annexes

Annex 1. Tuberculosis surveillance system overview, EU/EEA, 2018

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	Y	–	1995–2018
Belgium	BE-TUBERCULOSIS	Cp	Co	C	Y	–	1995–2018
Bulgaria	BG-MOH	Cp	Co	C	Y	1995–2006	2007–2018
Croatia ^b	HR-CNIPH	Cp	Co	C	Y	1995–2007	2012–2018
Cyprus	CY-NOTIFIED_DISEASES	Cp	Co	C	Y	1995–2001	2002–2018
Czech Republic	CZ-TUBERCULOSIS	Cp	Co	C	Y	–	1995–2018
Denmark	DK-MIS	Cp	Co	C	Y	–	1995–2018
Estonia	EE-TBC	Cp	Co	C	Y	–	1995–2018
Finland	FI-NIDR	Cp	Co	C	Y	–	1995–2018
France	FR-MANDATORY_INFECTIOUS_DISEASES	Cp	Co	C	Y	–	1995–2018
Germany	DE-SURVNET@RKI-7.1/6	Cp	Co	C	Y	1995–2000	2001–2018
Greece	EL-NOTIFIABLE_DISEASES	Cp	Co	C	Y	1995–2001	2002–2018
Hungary	HU-TUBERCULOSIS	Cp	Co	C	Y	1995–1998	1999–2018
Iceland	IS-TUBERCULOSIS	Cp	Co	C	Y	–	1995–2018
Ireland	IE-CIDR	Cp	Co	C	Y	1995–1997	1998–2018
Italy	IT-NRS	Cp	Co	C	Y	–	1995–2018
Latvia	LV-TB	Cp	Co	C	Y	1995–2000	2001–2018
Liechtenstein	CH-SFOPH-LI	Cp	Co	C	Y	–	1995–2018
Lithuania	LT-TB_REGISTER	Cp	Co	C	Y	1995–2002	2003–2018
Luxembourg	LU-SYSTEM ₁	Cp	Co	C	Y	–	1995–2018
Malta	MT-DISEASE_SURVEILLANCE	Cp	Co	C	Y	–	1995–2018
Netherlands	NL-NTR	Cp	Co	C	Y	–	1995–2018
Norway	NO-MSIS_A	Cp	Co	C	Y	–	1995–2018
Poland	PL_CR	Cp	Co	C	Y	1995–1999	2000–2018
Portugal	PT-TUBERCULOSIS	Cp	Co	C	Y	1995–1999	2000–2018
Romania	RO-NTBSy	Cp	Co	C	Y	–	1995–2018
Slovakia	SK-NRT	Cp	Co	C	Y	1995	1996–2018
Slovenia	SI-TUBERCULOSIS	Cp	Co	C	Y	–	1995–2018
Spain	ES-STATUTORY_DISEASES	Cp	Co	C	Y	1995–2006	2007–2018
Sweden	SE-SweTReg	Cp	Co	C	Y	–	1995–2018
United Kingdom	UK-TUBERCULOSIS	Cp	Co	C	Y	1995–1997	1998–2018

Cp - compulsory reporting.

Co - comprehensive.

C - case-based.

Y - yes.

^a For some years data from France, Spain and Italy related to drug susceptibility testing are collected in aggregated format from the WHO TB Monitoring and Evaluation data (TME).^b Data reported since 2012 to TESSy, historical data extracted from WHO TB Monitoring and Evaluation data (TME).

Annex 2. List of variables for 2018 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
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 <i>Mycobacterium tuberculosis</i> complex
32	ResultMicroscopy	The result of the microscopy test performed
33	ResultOtherTest	Additional lab test results
34	Pathogen	Species and gene (<i>M. tuberculosis</i> 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_CAP	Susceptibility to capreomycin
39	SIR_DLM	Susceptibility to delamanid
40	SIR_ETH	Susceptibility to ethambutol
41	SIR_GAT	Susceptibility to gatifloxacin
42	SIR_INH	Susceptibility to isoniazid
43	SIR_KAN	Susceptibility to kanamycin
44	SIR_LVX	Susceptibility to levofloxacin
45	SIR_MFX	Susceptibility to moxifloxacin
46	SIR_OFX	Susceptibility to ofloxacin
47	SIR_PZA	Susceptibility to pyrazinamide
48	SIR_RIF	Susceptibility to rifampicin
49	SIR_STR	Susceptibility to streptomycin
50	IsolateID	Unique identifier for each isolate within the data source/lab system related to the case
51	ECDCIsolateID	Identifier for each isolate record that is guaranteed to be unique across countries/labs/pathogens and not contain additional encoded information
52	SpoligoCode ^b	Spoligo pattern code
53	MiruCode ^b	MIRU pattern code
54	BeijingGenotype ^b	Beijing genotype identification

^a Notification of TB cases for 2018, treatment outcome data updated for cohort 2017 and MDR TB treatment outcome data updated for cohort 2016 and XDR TB treatment outcome data updated for cohort 2015.

^b Optional variable. No need to be reported if the "IsolateID" or "ECDCIsolateID" is provided.

Annex 3. Completeness of data reported for 2018, 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)	(78.4)	(100.0)	(93.4)	(77.4)	(84.9)	(95.6)	(100.0)	(0.0)	(0.0)	(88.8)	(88.9)	-
Belgium	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(84.1)	(100.0)	(96.0)	(36.7)	(68.1)	(95.2)	(100.0)	(51.3)	(98.2)	(97.2)	(100.0)	-
Bulgaria	(100.0)	(100.0)	(100.0)	(100.0)	(99.9)	(99.9)	(100.0)	(87.7)	(88.8)	(6.7)	(89.2)	(100.0)	(82.3)	(100.0)	(100.0)	(100.0)	-
Croatia	(100.0)	(100.0)	(48.7)	(100.0)	(95.4)	(85.2)	(92.5)	(96.0)	(74.7)	(0.0)	(90.8)	(100.0)	(0.5)	(89.0)	(93.7)	-	-
Cyprus	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(96.2)	(100.0)	(94.2)	(78.8)	(32.7)	(97.5)	-	(78.8)	(100.0)	(83.0)	-	-
Czech Republic	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(98.9)	(89.4)	(73.6)	(90.6)	(100.0)	(42.8)	(100.0)	(100.0)	(100.0)	(100.0)
Denmark	(100.0)	(100.0)	(100.0)	(99.7)	(99.0)	(100.0)	(100.0)	(97.3)	(97.9)	(97.3)	(98.6)	(100.0)	(80.4)	(0.0)	(45.5)	(100.0)	-
Estonia	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(97.3)	(97.3)	(88.4)	(97.6)	(100.0)	(93.2)	(100.0)	(100.0)	(100.0)	(100.0)
Finland	(100.0)	(100.0)	(96.5)	(96.1)	(100.0)	(98.3)	(100.0)	(84.3)	(59.1)	(53.5)	(93.8)	(100.0)	(0.0)	(82.6)	(38.6)	(100.0)	-
France	(100.0)	(99.5)	(94.0)	(93.3)	(99.6)	(57.1)	(0.0)	(46.4)	(84.9)	(0.0)	(3.7)	(100.0)	(0.0)	(98.5)	(31.0)	-	-
Germany	(100.0)	(99.9)	(97.0)	(97.6)	(98.9)	(72.7)	(98.6)	(86.4)	(90.3)	(82.6)	(90.4)	(100.0)	(0.0)	(98.5)	(86.8)	(100.0)	(100.0)
Greece	(99.3)	(100.0)	(99.8)	(95.6)	(97.5)	(92.1)	(99.3)	(52.8)	(67.1)	(43.5)	(68.4)	(100.0)	(83.8)	(99.3)	(0.0)	-	-
Hungary	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(88.8)	(86.4)	(0.0)	(89.9)	(100.0)	(3.6)	(100.0)	(98.5)	(100.0)	(0.0)
Iceland	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(87.5)	(100.0)	(37.5)	(62.5)	(100.0)	(100.0)	-	(100.0)	(100.0)	(100.0)	-	-
Ireland	(100.0)	(100.0)	(90.4)	(90.4)	(95.9)	(63.4)	(100.0)	(78.3)	(43.6)	(56.1)	(89.9)	(100.0)	(44.6)	(100.0)	(41.6)	(83.3)	-
Italy	(99.8)	(100.0)	(97.7)	(95.9)	(99.1)	(77.9)	(0.0)	(77.3)	(69.4)	(0.0)	(0.0)	-	(0.0)	(80.5)	(0.0)	-	-
Latvia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Liechtenstein	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(0.0)	(100.0)	(100.0)	(100.0)	(100.0)	-	(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)	(1.8)	(100.0)	(100.0)	(83.5)	(100.0)	(100.0)	(100.0)	(100.0)
Luxembourg	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(0.0)	(100.0)	(88.1)	(90.5)	(0.0)	(100.0)	(100.0)	(16.7)	(100.0)	(3.1)	-	-
Malta	(98.2)	(100.0)	(100.0)	(100.0)	(100.0)	(94.5)	(0.0)	(61.8)	(69.1)	(0.0)	(94.1)	-	(0.0)	(94.5)	(0.0)	-	-
Netherlands	(100.0)	(99.9)	(99.3)	(99.1)	(99.8)	(99.6)	(98.1)	(82.0)	(75.9)	(78.9)	(89.3)	(100.0)	(66.3)	(98.1)	(97.7)	(100.0)	-
Norway	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(92.8)	(82.8)	(93.8)	(98.2)	(100.0)	(88.0)	(100.0)	(99.6)	(100.0)	-
Poland	(100.0)	(100.0)	(100.0)	(99.8)	(100.0)	(100.0)	(100.0)	(88.1)	(87.1)	(20.0)	(92.4)	(100.0)	(0.0)	(0.1)	(0.0)	(0.0)	-
Portugal	(100.0)	(100.0)	(100.0)	(99.9)	(99.4)	(92.3)	(81.3)	(84.2)	(77.4)	(70.4)	(69.8)	(100.0)	(94.1)	(99.8)	(100.0)	(42.9)	(100.0)
Romania	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(95.8)	(96.4)	(28.8)	(92.2)	(100.0)	(83.9)	(100.0)	(100.0)	-	-
Slovakia	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(95.0)	(100.0)	(91.8)	(91.5)	(29.9)	(98.6)	(100.0)	(84.7)	(100.0)	(94.8)	(100.0)	-
Slovenia	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(98.0)	(100.0)	(97.0)	(89.9)	(96.0)	(100.0)	-	(80.8)	(100.0)	(99.1)	-	-
Spain	(99.3)	(100.0)	(92.5)	(85.1)	(100.0)	(66.0)	(0.0)	(87.3)	(88.8)	(32.7)	(38.7)	(100.0)	(52.7)	(0.0)	(73.5)	-	-
Sweden	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(99.4)	(100.0)	(99.6)	(75.4)	(70.9)	(99.8)	(100.0)	(0.0)	(100.0)	(95.6)	(100.0)	(100.0)
United Kingdom ^f	(100.0)	(100.0)	(97.9)	(97.4)	(99.9)	(95.9)	(100.0)	(61.8)	(64.2)	(14.9)	(98.5)	(100.0)	(85.2)	(94.8)	(98.2)	(100.0)	(100.0)
Total EU/EEA	(99.9)	(99.9)	(97.6)	(97.1)	(99.7)	(86.7)	(73.1)	(82.5)	(84.1)	(31.6)	(74.6)	(100.0)	(45.0)	(67.4)	(70.0)	(98.0)	(96.4)

WHO European Region TB high-priority countries presented in italics.

DST FLD - drug susceptibility testing for first line anti-tuberculosis drugs, calculated for confirmed tuberculosis cases.

DST SLD - drug susceptibility testing for second line anti-tuberculosis drugs, calculated only for multidrug-resistant tuberculosis cases.

HIV - Human immunodeficiency virus.

For determining the origin two variables merged: BornReportingCountry and NationalityReportingCountry, depending on countries preference.

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

Data for the 2017 cohort.

Data for the multidrug-resistant tuberculosis 2016 cohort cases that are previously reported as still on treatment.

Data for the extensively drug-resistant tuberculosis 2015 cohort cases that are previously reported as still on treatment.

DST results are only reported for culture-confirmed cases (negative results are not provided).

Annex 4. Reporting completeness into Global TB database, 2018

Country/area	Identification (%) (17 fields)	Notification (%) (56 fields)	Anti-tuberculosis drug resistance surveillance (%) (40 fields)	Treatment outcome of TB cases by risk categories (%) (80 fields)	Implementing End TB Strategy (%) (98 fields)	Budget and expenditure (%) (70 fields)
EU/EEA						
Austria	(0.0)	(57.1)	(85.0)	(45.0)	(0.0)	(0.0)
Belgium	(100.0)	(85.7)	(100.0)	(82.5)	(41.8)	(4.3)
Bulgaria	(100.0)	(89.3)	(100.0)	(100.0)	(75.5)	(94.3)
Croatia	(0.0)	(57.1)	(100.0)	(37.5)	(0.0)	(0.0)
Cyprus	(0.0)	(57.1)	(82.5)	(37.5)	(0.0)	(0.0)
Czech Republic	(70.6)	(89.3)	(100.0)	(100.0)	(55.1)	(10.0)
Denmark	(0.0)	(51.8)	(100.0)	(37.5)	(0.0)	(0.0)
Estonia	(100.0)	(91.1)	(100.0)	(67.5)	(77.6)	(91.4)
Finland	(64.7)	(78.6)	(85.0)	(46.3)	(43.9)	(10.0)
France	(94.1)	(80.4)	(80.0)	(30.0)	(45.9)	(5.7)
Germany	(100.0)	(60.7)	(85.0)	(46.3)	(37.8)	(1.4)
Greece	(52.9)	(69.6)	(100.0)	(0.0)	(14.3)	(1.4)
Hungary	(70.6)	(85.7)	(100.0)	(100.0)	(60.2)	(12.9)
Iceland	(0.0)	(57.1)	(82.5)	(37.5)	(0.0)	(0.0)
Ireland	(88.2)	(83.9)	(100.0)	(65.0)	(57.1)	(5.7)
Italy	(29.4)	(73.2)	(100.0)	(0.0)	(31.6)	(0.0)
Latvia	(100.0)	(14.3)	(0.0)	(22.5)	(56.1)	(37.1)
Liechtenstein	–	–	–	–	–	–
Lithuania	(47.1)	(85.7)	(100.0)	(100.0)	(41.8)	(10.0)
Luxembourg	(88.2)	(89.3)	(82.5)	(43.8)	(54.1)	(4.3)
Malta	(88.2)	(85.7)	(67.5)	(25.0)	(35.7)	(2.9)
Netherlands	(100.0)	(89.3)	(100.0)	(100.0)	(44.9)	(8.6)
Norway	(70.6)	(80.4)	(100.0)	(53.8)	(53.1)	(10.0)
Poland	(94.1)	(78.6)	(85.0)	(16.3)	(38.8)	(0.0)
Portugal	(70.6)	(85.7)	(100.0)	(77.5)	(60.2)	(10.0)
Romania	(100.0)	(92.9)	(100.0)	(100.0)	(83.7)	(100.0)
Slovakia	(64.7)	(91.1)	(100.0)	(100.0)	(69.4)	(12.9)
Slovenia	(0.0)	(57.1)	(82.5)	(37.5)	(0.0)	(0.0)
Spain	(0.0)	(57.1)	(7.5)	(52.5)	(0.0)	(0.0)
Sweden	(70.6)	(80.4)	(85.0)	(55.0)	(43.9)	(8.6)
United Kingdom	(100.0)	(82.1)	(100.0)	(92.5)	(16.3)	(1.4)
Subtotal EU/EEA	(60.2)	(72.2)	(84.2)	(52.1)	(36.7)	(14.3)
Non-EU/EEA						
Albania	(100.0)	(85.7)	(82.5)	(100.0)	(67.3)	(10.0)
Andorra	(58.8)	(87.5)	(47.5)	(100.0)	(53.1)	(10.0)
Armenia	(94.1)	(98.2)	(100.0)	(85.0)	(60.2)	(82.9)
Azerbaijan	(94.1)	(92.9)	(47.5)	(46.3)	(57.1)	(85.7)
Belarus	(100.0)	(100.0)	(95.0)	(85.0)	(66.3)	(94.3)
Bosnia and Herzegovina	(100.0)	(67.9)	(55.0)	(20.0)	(42.9)	(77.1)
Georgia	(100.0)	(92.9)	(85.0)	(78.8)	(81.6)	(100.0)
Israel	(100.0)	(87.5)	(100.0)	(53.8)	(35.7)	(1.4)
Kazakhstan	(100.0)	(98.2)	(50.0)	(70.0)	(76.5)	(100.0)
Kyrgyzstan	(100.0)	(96.4)	(100.0)	(86.3)	(61.2)	(100.0)
Moldova	(100.0)	(94.6)	(100.0)	(87.5)	(87.8)	(100.0)
Monaco	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Montenegro	(100.0)	(96.4)	(100.0)	(76.3)	(39.8)	(12.9)
North Macedonia	(100.0)	(96.4)	(100.0)	(100.0)	(71.4)	(10.0)
Russia	(64.7)	(91.1)	(50.0)	(85.0)	(56.1)	(100.0)
San Marino	(100.0)	(87.5)	(100.0)	(76.3)	(64.3)	(12.9)
Serbia	(94.1)	(92.9)	(100.0)	(100.0)	(79.6)	(98.6)
Serbia excluding Kosovo ^a	(94.1)	(92.9)	(100.0)	(100.0)	(79.6)	–
Kosovo ^a	(100.0)	(80.4)	(20.0)	(96.3)	(78.6)	–
Switzerland	(100.0)	(78.6)	(85.0)	(46.3)	(39.8)	(12.9)
Tajikistan	(100.0)	(100.0)	(100.0)	(100.0)	(66.3)	(100.0)
Turkey	(100.0)	(87.5)	(100.0)	(100.0)	(73.5)	(10.0)
Turkmenistan	(88.2)	(64.3)	(7.5)	(30.0)	(67.3)	(10.0)
Ukraine	(100.0)	(98.2)	(55.0)	(93.8)	(92.9)	(94.3)
Uzbekistan	(94.1)	(87.5)	(72.5)	(38.8)	(84.7)	(10.0)
Subtotal non-EU/EEA	(90.8)	(86.2)	(75.3)	(72.1)	(65.4)	(53.6)
Total European Region	(75.1)	(79.6)	(80.8)	(64.1)	(48.9)	(31.0)
Subtotal 18 HPCs	(93.5)	(87.5)	(75.7)	(76.5)	(70.4)	(73.3)

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein.
WHO European Region 18 TB High Priority Countries presented in *italics*.

^a In accordance with the UN Security Council Resolution No. 1244 (1999).

Annex 5. Laboratory network capacity, European Region, 2018^a

Country/area	Country laboratory network									
	Microscopy		Culture	DST for isoniazid and rifampicin		Line probe assay	Xpert MTB/Rif (N)	International proficiency testing of national reference laboratory		
	Number of laboratories performing	EQA passed ^b	Number of laboratories performing	Number of laboratories performing	EQA passed ^b			Year	Percentage agreement of results for:	Acceptable performance ^c
									isoniazid	rifampicin
EU/EEA										
Austria	–	–	–	–	–	–	–	–	–	–
Belgium	92	92	–	15	15	1	26	2018	100	100
Bulgaria	33	33	30	9	9	3	4	2018	100	100
Croatia	15	1	15	6	6	1	1	2018	100	100
Cyprus	–	–	–	–	–	–	–	–	–	–
Czech Republic	38	38	38	22	12	3	12	2018	100	100
Denmark	–	–	–	–	–	–	–	–	–	–
Estonia	6	6	2	2	2	0	5	2018	100	95
Finland	9	9	9	1	1	2	5	2018	100	100
France	120	120	120	51	–	37	67	2018	100	100
Germany	125	125	96	44	44	–	41	2018	100	100
Greece	–	–	–	–	2	–	–	–	–	–
Hungary	11	11	11	6	2	1	5	2018	100	100
Iceland	–	–	–	–	–	–	–	–	–	–
Ireland	11	11	10	4	4	0	7	2018	100	100
Italy	42	–	42	66	59	24	32	2018	100	100
Latvia	11	11	4	1	1	0	2	2018	100	100
Liechtenstein	–	–	–	–	–	–	–	–	–	–
Lithuania	–	–	–	–	–	–	–	–	–	–
Luxembourg	1	1	1	1	1	1	0	2018	100	100
Malta	1	1	1	2	–	0	1	–	–	–
Netherlands	–	–	30	8	–	–	0	2018	100	100
Norway	13	–	8	3	3	1	5	2018	100	100
Poland	49	49	49	39	39	0	22	2018	100	100
Portugal	48	39	47	27	–	15	21	2018	100	100
Romania	93	–	85	48	31	7	27	2018	100	100
Slovakia	5	5	4	2	2	1	1	2018	100	100
Slovenia	–	–	–	–	–	–	–	–	–	–
Spain	–	–	–	–	–	–	–	–	–	–
Sweden	5	5	5	6	6	2	3	2018	100	100
United Kingdom	–	–	–	–	0	–	–	–	–	–
Subtotal EU/EEA	728	557	607	363	239	99	287	2018		
Non-EU/EEA										
Albania	12	1	1	1	1	0	0	2017	100	100
Andorra	8	–	8	6	–	4	3	–	–	–
Armenia	24	24	1	1	1	0	13	2017	100	100
Azerbaijan	55	27	7	5	5	2	11	2017	80	100
Belarus	116	91	21	8	8	0	28	2018	100	100
Bosnia and Herzegovina	14	7	11	7	–	3	–	2018	–	–
Georgia	11	11	2	2	2	2	27	2018	88	91
Israel	17	–	17	3	3	1	–	2018	100	100
Kazakhstan	295	290	20	40	40	11	59	2018	100	100
Kyrgyzstan	126	126	5	3	2	2	24	2018	100	100
Moldova	57	57	4	8	8	4	57	2018	100	100
Monaco	–	–	–	–	–	–	–	–	–	–
Montenegro	1	1	1	1	1	0	1	2018	100	100
North Macedonia	7	7	3	1	0	0	1	2017	100	100
Russia	5913	924	373	295	88	4	207	–	–	–
San Marino	1	0	1	2	0	1	1	–	–	–
Serbia	41	11	32	6	5	1	4	2018	100	100
Serbia excluding Kosovo ^d	31	1	29	4	4	1	2	2018	100	100
Kosovo ^d	10	10	3	2	1	0	2	2018	100	100
Switzerland	32	32	21	11	11	5	53	2018	–	–
Tajikistan	84	80	6	2	2	6	46	2018	100	100
Turkey	270	111	127	66	–	–	23	2018	100	100
Turkmenistan	64	1	5	9	2	6	6	2018	100	100
Ukraine	840	836	90	70	70	4	67	2018	100	100
Uzbekistan	270	259	6	7	2	7	58	2018	100	100
Subtotal non-EU/EEA	8 258	2 896	762	554	251	63	689	2017-2018		
Total European Region	8 986	3 453	1 369	917	490	162	976	2017-2018		
Subtotal 18 HPCs	8 268	2 887	788	576	273	58	664	2017-2018		

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein.

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

DST - drug susceptibility testing.

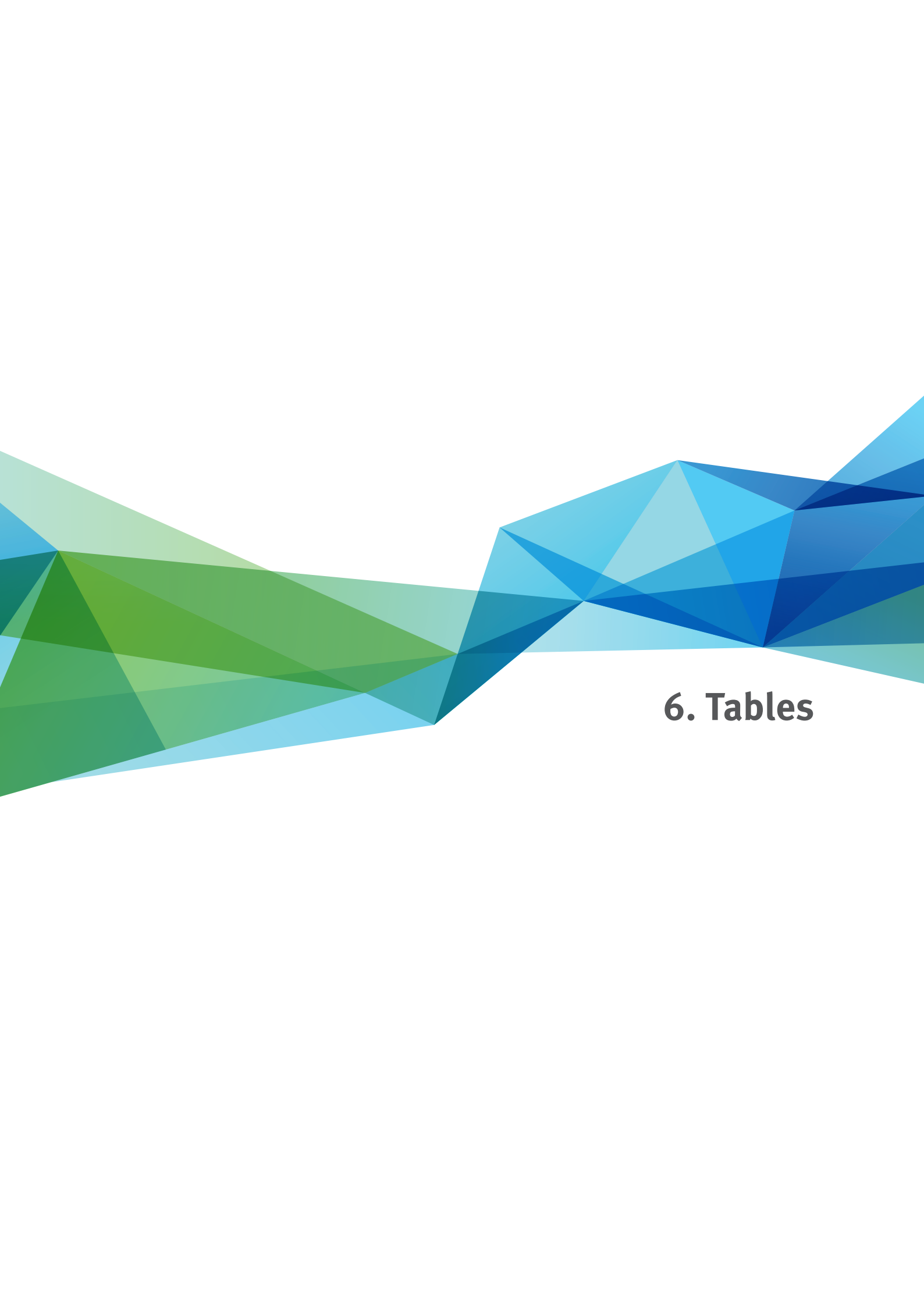
^b Data obtained from WHO Tuberculosis Monitoring and Evaluation database (TME).^c EQA - External quality assessment.^d Acceptable performance defined as reference laboratory achieving 95% performance (smear and DST).^e In accordance with the UN Security Council Resolution No. 1244 (1999).

Annex 6. Monitoring framework for follow up of the TB Action Plan for the WHO European Region, 2016-2020

Area of intervention	Indicator	Baseline for WHO European Region (2014)	Target	Frequency of assessment	Data source	Monitoring mechanism	Indicator definition	Indicator level
1. Integrated patient-centered care and prevention								
1.A Systematic screening of contacts and high-risk groups								
1.A.1	Coverage of population at risk with systematic screening for active TB and LTBI	N/A	Full coverage	01-2016 01-2021	NTP	Desk review	Total number of people screened for TB and/or LTBI in a defined period over the total number of people at risk according to the national guidelines, in the same period	97.0%
1.B Early diagnosis of all forms of TB and universal access to DST, including the use of rapid tests								
1.B.1	Percentage of TB patients diagnosed using WHO-recommended rapid tests (G)	N/A	30%	Annually	NTP	Desk review	Number of newly notified TB patients diagnosed with WHO-recommended rapid tests, divided by the total number of newly notified TB patient.	66.3%
1.B.2	First-line DST coverage (%) among all bacteriologically-confirmed TB cases (G)	91.90%	Close to 100%	Annually	WHO global TB database	Routine reporting	"Number of TB patients with DST results divided by the number of notified cases in the same year, expressed as a percentage. DST coverage includes results from molecular (e.g. Xpert MTB/RIF) as well as conventional phenotypic DST results."	89.4%
1.B.3	RR/MDR TB case detection rate (%) (G)	46.5%	85%	Annually	WHO global TB database	Routine reporting	Total number of notified RR/MDR TB cases over total number of estimated RR/MDR-TB cases among notified bacteriologically confirmed pulmonary TB patients	92.7%
1.B.4	TB notification rate per 100 000 population (E)	32.8	24.6	Annually	WHO global TB database	Routine reporting	Total number of new and relapse TB cases notified per 100,000 population	24.5
1.B.5	TB case-detection rate (%)	84.1%	Increase	Annually	WHO global TB database	Routine reporting	Total number of notified TB cases over total number of estimated TB cases expressed as percentage	87.7%
1.B.6	Percentage of RR/MDR TB among new TB patients (E)	16.9%	Decrease	Annually	WHO global TB database	Routine reporting	Total number of laboratory confirmed new RR/MDR TB cases over total number of new TB cases with DST results expressed as percentage	21.6%
1.B.7	Percentage of RR/MDR TB among previously treated TB patients	48.0%	Decrease	Annually	WHO global TB database	Routine reporting	Total number of laboratory confirmed previously treated RR/MDR TB cases over total number of previously treated TB cases with DST results expressed as percentage	56.8%
1.C Equitable access to quality treatment and continuity of care for all people with TB, including drug-resistant TB, and patient support to facilitate treatment adherence								
1.C.1	Percentage of hospitalisation of new TB patients (E)	N/A	Decrease	01-2016 01-2021	NTP	Desk review	Total number of new TB cases hospitalized in a specified period over total number of new TB cases registered in the same period expressed as percentage	N/A
1.C.2	Percentage of detected RR/MDR TB enrolled in treatment (G)	61.9%	Close to 100%	Annually	WHO global TB database	Routine reporting	Total number of laboratory confirmed RR/MDR TB cases enrolled into SLD treatment in-line with WHO recommendations over total number of laboratory confirmed RR/MDR TB cases notified expressed as percentage	89.4%
1.C.3	Treatment success rate (%) among all new and relapsed TB patients (G)	75.2%	85%	Annually	WHO global TB database	Routine reporting	New and relapse TB cases registered in a specified period that were successfully treated.	77.1%
1.C.4	Treatment success rate (%) among the RR/MDR TB treatment cohort (G) (E)	49%	75%	Annually	WHO global TB database	Routine reporting	Number of confirmed RR/MDR-TB cases during the specified period that were successfully treated over number of confirmed RR/MDR-TB cases that started on a prescribed MDR-TB treatment regimen during the specified period.	57.4%
1.C.5	TB mortality rate (ICD A15-19) per 100 000 population (G) (E)	4.1	2.7	Annually	WHO global TB database	Routine reporting	Estimated number of TB deaths (from VRS) per 100,000 population	2.5
1.D Collaborative TB/HIV activities and management of comorbidities								
1.D.1	TB/HIV case-detection rate (%)	84.8%	Close to 100%	Annually	WHO global TB database	Routine reporting	Total number of registered HIV co-infected TB patients in a specified period over total number of estimated TB/HIV co-infected patients	85.3%
1.D.2	HIV testing coverage (%) (G) (E)	67.6%	Close to 100%	Annually	WHO global TB database	Routine reporting	Number of new and relapse TB patients with documented HIV status divided by the number of new and relapse TB patients notified in the same year, expressed as percentage	91.5%
1.D.3	Percentage of HIV among all TB	7.8%	Decrease	Annually	WHO global TB database	Routine reporting	Total number of registered TB patients in a specified period who are HIV positive over total number of registered TB patients in the same period with documented HIV test results	13.1%
1.D.4	ART coverage (%) among TB/HIV cases	53.8%	Close to 100%	Annually	WHO global TB database	Routine reporting	Total number of registered HIV/TB patients in a specified period who are enrolled in antiretroviral therapy (ART) over total number of registered TB patients in the same period who are HIV positive	73.1%
1.D.5	LTBI treatment enrolment rate (%) among PLHIV (G)	4.8%	30%	Annually	WHO global TB database	Routine reporting	Total number of new HIV cases enrolled in LTBI treatment in a specified period over total number of new HIV cases eligible for LTBI treatment in the same period.	69.1%

Annex 6 cont. Monitoring framework for follow up of the TB Action Plan for the WHO European Region, 2016-2020

Area of intervention	Indicator	Baseline for WHO European Region (2014)	Target	Frequency of assessment	Data source	Monitoring mechanism	Indicator definition	Indicator level
1.E Management of LTBI and preventive treatment of people at high risk, and vaccination against TB								
1.E.1	Contact investigation coverage (%) (G) (E)	N/A	90%	01-2016 01-2021	NTP	Desk review	Number of contacts of people with bacteriologically-confirmed TB who were investigated for TB/LTBI in a defined period over the number of contacts eligible for contact investigation in the same period	95.1%
1.E.2	LTBI treatment coverage (%) in childhood TB contact persons aged under 5 years (G)	N/A	90%	01-2016	NTP	Desk review	Total number of child TB contacts age <5 years enrolled in LTBI treatment in a defined period over Number of child TB contact cases eligible for LTBI treatment in the same period	42.1%
2. Bold Policies and supportive systems								
2.A Political commitment with adequate resources, including universal health coverage policy								
2.A.1	Number of Member States that have a regular TB control/elimination performance publication every five years (E8)	N/A	53	Cumulative 2016-2020	NTP	Desk review		
2.B Health system strengthening in all functions, including well aligned functioning mechanisms for TB and human resources								
2.B.1	Percentage of TB patients and their households that experience catastrophic financial consequences due to TB (G) (E)	N/A	Close to 0	Annually	NTP	Desk review	Number of people treated for TB (and their households) who incur catastrophic costs (direct and indirect combined), divided by the total number of people treated for TB.	
2.C Regulatory frameworks for case-based surveillance, strengthening vital registration, quality and rational use of medicines and pharmacovigilance								
2.C.1	Treatment coverage (%) with new TB drugs	N/A	20%	Cumulative 2016-2020	NTP	Desk review	Number of TB patients treated with regimens that include new TB drugs, divided by the number of notified patients eligible for treatment with new TB drugs, expressed as a percentage	
2.D Community systems and civil society engagement								
2.D.1	Number of Member States with functioning multistakeholder coalitions advocating for TB care and resources	N/A	53	Cumulative 2016-2020	NTP	Desk review		
2.E Social protection, poverty alleviation and actions on other determinants of TB, such as migration and prisons								
2.E.1	Treatment success rate (%) of new and relapsed TB cases among prisoners	63.2%	85%	Annually	WHO global TB database	Routine reporting	New and relapse prison TB cases registered in a specified period that were successfully treated.	59.9%
3. Intensified research and innovation								
3.A Discovery, development and rapid uptake of new tools, interventions and strategies								
3.A.1	European TB research initiative established by mid-2016		Established	Cumulative 2016-2020	NTP	Desk review		



6. Tables

Summary table. Tuberculosis surveillance data by region, European Region, 2018

	Table showing data by country	Region							
		EU/EEA		Non-EU/EEA		Total		18 high-priority countries ^a	
		Number of reporting countries ^b		Number of reporting countries ^b		Number of reporting countries ^b		Number of reporting countries ^b	
Total population (millions)	-	30	518.1	23	409.6	53	926.9	18	407.4
Estimates of TB disease burden 2018^c									
Estimated TB mortality rate (excluding HIV-related deaths) per 100 000 population	1	30	0.7	21	4.6	51	2.5	18	4.9
Estimated TB incidence rate per 100 000 population	1	30	11.2	23	49.3	53	27.9	18	52.5
Estimated RR tuberculosis cases among notified bacteriologically-confirmed pulmonary tuberculosis patients	2	29	1300	22	47 800	51	49 000	17	48 500
Estimated percentage of HIV infection among incident TB cases (new and relapses)	2	29	3.6	19	13.9	48	12.0	18	13.3
Notifications of TB cases, 2018									
Total number of TB cases	3	30	52 862	22	216 997	52	269 859	17	228 271
All TB cases per 100 000 population	3	30	10.2	22	53.0	52	29.1	17	56.0
Mean annual percentage change of notification rate (2014–2018)	3	30	-4.0%	22	-6.1%	52	-5.5%	17	-6.1%
Number of new TB cases and relapses	4	30	50 455	22	176 785	52	227 240	17	187 365
New TB cases and relapses per 100 000 population	4	30	9.8	22	43.2	52	24.5	17	46.0
Mean annual percentage change of notification rate of new TB cases and relapses (2014–2018)	4	30	-3.9%	22	-5.7%	52	-5.1%	17	-5.9%
Percentage of new cases among all TB cases	5	30	76.9%	22	67.7%	52	69.5%	17	68.2%
Percentage of retreatment cases among all TB cases	5	30	9.9%	22	32.3%	52	27.9%	17	31.8%
Percentage of pulmonary TB among all TB cases	6	30	77.2%	-	-	-	-	-	-
Percentage of laboratory-confirmed TB cases among all TB cases	8	30	68.2%	-	-	-	-	-	-
Male-to-female ratio of new TB cases and relapses	9	30	2.0	22	1.9	52	1.9	17	2.0
Percentage of foreign TB cases among all TB cases	10	30	34.5%	20	2.0%	50	8.5%	15	1.7%
TB case laboratory confirmation, MDR and XDR, 2018									
Percentage of laboratory-confirmed cases among new pulmonary TB cases ^d	12	29	74.8%	21	61.9%	50	64.5%	16	62.9%
Percentage of DST results reported among new bacteriologically confirmed pulmonary TB cases	12	29	87.2%	21	81.6%	50	83.0%	16	83.5%
Percentage of MDR TB among new pulmonary TB cases	12	29	2.3%	21	23.8%	50	18.3%	16	21.9%
Percentage of MDR TB among previously treated pulmonary TB cases	12	29	13.1%	21	52.0%	50	49.1%	16	50.2%
Percentage of DST results reported among all confirmed TB cases	13	29	80.7%	-	-	-	-	-	-
Percentage of MDR TB among all TB cases	13	29	3.7%	-	-	-	-	-	-
Percentage of XDR TB among all MDR TB cases with DST for SLD	14	30	20.4%	21	19.2%	51	19.2%	15	19.3%
TB/HIV coinfection, 2018									
Percentage of new TB cases and relapses with known HIV status	17	21	74.9%	19	94.4%	40	91.5%	16	94.0%
Percentage of HIV-positive cases among new TB cases and relapses with known HIV status	17	21	4.1%	19	14.4%	40	13.1%	16	13.6%
Percentage of HIV-positive new and relapsed TB cases started on ART	17	8	84.2%	19	72.9%	27	73.1%	15	73.0%
Percentage of all TB cases with known HIV status	18	21	75.1%	-	-	-	-	-	-
Percentage of HIV-positive cases among all TB cases with known HIV status	18	21	4.2%	-	-	-	-	-	-
Treatment outcome									
Treatment success of all TB cases reported in 2017	20	26	67.6%	22	75.4%	48	73.8%	17	75.8%
Treatment success of new TB cases and relapses notified in 2017	21	25	75.5%	22	77.5%	47	77.1%	17	78.2%
Treatment success of childhood TB cases notified in 2017	22	26	85.7%	18	94.4%	44	92.0%	13	94.8%
Treatment success of TB/HIV cases notified in 2017	24	20	60.0%	17	50.9%	37	51.4%	14	51.2%
Treatment success of RR/MDR TB cases enrolled in SLD treatment in 2016	26	23	49.9%	22	57.6%	45	57.4%	17	57.4%
Treatment success of all MDR TB cases notified in 2016	27	23	48.1%	-	-	-	-	-	-
Treatment success of all XDR TB cases notified in 2016	28	27	23.2%	19	39.6%	46	39.1%	15	39.1%

^aEuropean Region' comprises the 53 countries of the WHO European Region and Liechtenstein.

ART - antiretroviral therapy.

DST - drug susceptibility.

HIV - human immunodeficiency virus.

MDR - multidrug resistance.

RR - rifampicin-resistant.

SLD - second-line anti-tuberculosis drugs.

TB - tuberculosis.

XDR - extensive drug resistance.

^bHigh-priority countries: the 18 high-priority countries under the 'STOP TB in the WHO European Region' scheme are: Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Romania, Russia, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

^cNumber of countries with available data included in the statistics.

^dWHO estimates, as published in Global tuberculosis report 2019 (Geneva: World Health Organization; 2019).

^eLaboratory-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, 2018

Country/area	Population ^a	Estimated number of deaths from tuberculosis (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	8 891 388	35	34	36	0.4	0.4	0.4	630	540	730	7.1	6.1	8.2
Belgium	11 482 178	33	32	35	0.3	0.3	0.3	1 000	880	1200	9	7.7	10
Bulgaria	7 051 608	71	69	72	1.0	1.0	1.0	1 600	1200	2000	22	17	28
Croatia	4 156 405	34	34	35	0.8	0.8	0.8	350	300	400	8.4	7.2	9.7
Cyprus	1 189 265	3	2	4	0.3	0.2	0.3	65	55	75	5.4	4.7	6.3
Czech Republic	10 665 677	37	36	37	0.3	0.3	0.4	580	500	670	5.4	4.6	6.3
Denmark	5 752 126	18	17	18	0.3	0.3	0.3	310	270	360	5.4	4.6	6.2
Estonia	1 322 920	10	10	11	0.8	0.7	0.8	170	140	190	13	11	15
Finland	5 522 576	19	19	19	0.3	0.3	0.3	260	220	300	4.7	4	5.5
France	64 990 511	310	290	330	0.5	0.4	0.5	5 800	5100	6500	8.9	7.8	10
Germany	83 124 418	300	290	310	0.4	0.4	0.4	6 100	5200	7000	7.3	6.2	8.4
Greece	10 522 246	48	46	51	0.5	0.4	0.5	470	400	550	4.5	3.8	5.2
Hungary	9 707 499	43	43	43	0.4	0.4	0.4	620	530	720	6.4	5.5	7.4
Iceland	336 713	1	1	1	0.4	0.4	0.4	9	8	11	2.7	2.3	3.2
Ireland	4 818 690	19	19	19	0.4	0.4	0.4	340	290	390	7	6	8.1
Italy	60 627 291	340	340	340	0.6	0.6	0.6	4 300	3700	4900	7	6	8.1
Latvia	1 928 459	51	51	52	2.7	2.6	2.7	560	480	650	29	25	33
Liechtenstein													
Lithuania	2 801 264	150	150	150	5.4	5.3	5.4	1 200	1000	1400	44	37	50
Luxembourg	604 245	1	1	1	0.2	0.2	0.2	48	41	56	8	6.8	9.2
Malta	439 248	2	2	2	0.5	0.5	0.5	60	51	69	14	12	16
Netherlands	17 059 560	30	30	31	0.2	0.2	0.2	910	780	1100	5.3	4.6	6.2
Norway	5 337 962	18	18	19	0.3	0.3	0.4	220	190	250	4.1	3.5	4.7
Poland	37 921 592	470	440	500	1.2	1.2	1.3	6 000	5100	6900	16	13	18
Portugal	10 256 193	190	180	190	1.8	1.8	1.9	2 400	2100	2800	24	20	27
Romania	19 506 114	860	860	870	4.4	4.4	4.4	13 000	11000	15000	68	58	79
Slovakia	5 453 014	35	35	35	0.6	0.6	0.7	310	270	360	5.8	4.9	6.7
Slovenia	2 077 837	12	12	12	0.6	0.6	0.6	110	95	130	5.3	4.6	6.2
Spain	46 692 858	260	260	270	0.6	0.6	0.6	4 400	3800	5100	9.4	8.1	11
Sweden	9 971 638	26	26	27	0.3	0.3	0.3	550	470	630	5.5	4.7	6.4
United Kingdom	67 141 684	300	300	310	0.5	0.5	0.5	5 400	4800	5900	8	7.2	8.8
Subtotal EU/EEA	517 353 179	3 730	3 690	3 770	0.7	0.7	0.7	58 000	55 000	61 000	11.2	10.6	11.8
Non-EU/EEA													
Albania	2 882 740	8	4	14	0.3	0.2	0.5	510	430	580	18	15	20
Andorra	77 006	0	0	0	0.3	0.2	0.4	2	2	3	3	2.6	3.5
Armenia	2 951 745	18	18	19	0.6	0.6	0.6	920	700	1200	31	24	39
Azerbaijan	9 949 537	1 000	960	1100	10.0	9.6	11.0	6 300	4800	8000	63	48	80
Belarus	9 452 617	510	480	550	5.4	5.0	5.8	2 900	2300	3700	31	24	39
Bosnia and Herzegovina	3 323 925	100	94	110	3.0	2.8	3.2	830	640	1100	25	19	32
Georgia	4 002 942	160	150	180	4.0	3.6	4.4	3 200	2700	3800	80	67	94
Israel	8 381 516	16	15	16	0.2	0.2	0.2	340	290	390	4	3.4	4.6
Kazakhstan	18 319 618	430	350	510	2.3	1.9	2.8	12 000	8100	18000	68	44	97
Kyrgyzstan	6 304 030	390	360	420	6.2	5.8	6.7	7 300	6200	8400	116	99	134
Moldova	4 051 944	210	180	230	5.1	4.5	5.8	3 500	3000	4000	86	73	99
Monaco	38 682	0	0	0	0.0	0.0	0.0	0	0	0	0	0	0
Montenegro	627 809	1	1	1	0.2	0.2	0.2	97	83	110	15	13	18
North Macedonia	2 082 957	20	20	21	1.0	0.9	1.0	270	210	340	13	10	16
Russia	145 734 038	9 200	8300	10000	6.3	5.7	7.0	79 000	51000	112000	54	35	77
San Marino	33 785	0	0	0	0.0	0.0	0.0	0	0	0	0	0	0
Serbia	8 802 754	55	50	61	0.6	0.6	0.7	1500	1300	1800	17	15	20
Switzerland	8 525 611	27	25	28	0.3	0.3	0.3	540	470	630	6.4	5.5	7.4
Tajikistan	9 100 835	740	670	820	8.2	7.3	9.1	7 600	5900	9600	84	64	105
Turkey	82 340 088	400	370	440	0.5	0.5	0.5	13 000	11000	15000	16	14	19
Turkmenistan	5 850 901	610	540	700	11.0	9.2	12.0	2 700	2100	3400	46	35	58
Ukraine	44 246 156	3 700	3200	4100	8.3	7.3	9.3	36 000	23000	51000	80	52	115
Uzbekistan	32 476 244	1 700	1600	1800	5.2	4.8	5.5	23 000	16000	31000	70	49	95
Subtotal non-EU/EEA	409 557 480	19 000	18 000	20 000	4.6	4.4	4.9	202 000	168 000	236 000	49	41	58
Total European Region	926 910 659	23 000	22 000	24 000	2.5	2.4	2.6	259 000	225 000	296 000	28	24	32
Subtotal 18 HPCs	407 391 060	20 000	19 000	21 000	4.9	4.7	5.2	214 000	177 000	251 000	53	43	62

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.

WHO European Region 18 TB HPCs are presented in italics.

HIV - human immunodeficiency virus.

HPC - high-priority countries.

^a Population estimate 2019 by United Nations statistical database for all countries.

	Estimated incidence of child tuberculosis cases						Estimated incidence of tuberculosis among females						Country/area
	Number			Per 100 000			Number			Per 100 000			
	Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High	
													EU/EEA
	24	20	27	1.9	1.6	2.1	230	180	270	5.1	4.0	6.0	Austria
	77	64	89	3.9	3.3	4.5	360	290	430	6.2	5.0	7.4	Belgium
	130	97	170	12.6	9.4	16.5	550	360	730	15.2	9.9	20.1	Bulgaria
	3	2	3	0.5	0.3	0.5	140	110	170	6.5	5.1	7.9	Croatia
	4	3	4	2.0	1.5	2.0	36	29	44	6.1	4.9	7.4	Cyprus
	7	6	8	0.4	0.4	0.5	160	130	190	3.0	2.4	3.5	Czech Republic
	12	10	13	1.3	1.1	1.4	120	96	150	4.1	3.3	5.2	Denmark
	2	2	3	0.9	0.9	1.4	48	39	58	6.9	5.6	8.3	Estonia
	2	2	3	0.2	0.2	0.3	87	70	100	3.1	2.5	3.6	Finland
	320	280	360	2.7	2.4	3.1	2 000	1 700	2 400	6.0	5.1	7.2	France
	250	210	290	2.2	1.9	2.6	2 000	1 600	2 400	4.7	3.8	5.7	Germany
	12	10	14	0.8	0.7	0.9	130	110	160	2.4	2.1	3.0	Greece
	6	5	7	0.4	0.4	0.5	220	180	270	4.3	3.5	5.3	Hungary
	0	0	0	0.0	0.0	0.0	2	2	3	1.2	1.2	1.8	Iceland
	8	7	9	0.8	0.7	0.9	140	110	170	5.8	4.5	7.0	Ireland
	190	160	220	2.4	2.0	2.7	1 400	1 100	1 700	4.5	3.5	5.5	Italy
	10	9	12	3.2	2.9	3.9	170	140	200	16.3	13.4	19.2	Latvia
													Liechtenstein
	22	19	25	5.3	4.6	6.0	330	270	400	21.9	17.9	26.5	Lithuania
	0	0	0	0.0	0.0	0.0	10	8	12	3.3	2.7	4.0	Luxembourg
	1	1	1	1.6	1.6	1.6	16	13	20	7.3	5.9	9.1	Malta
	23	19	27	0.8	0.7	1.0	340	270	420	4.0	3.2	4.9	Netherlands
	8	7	9	0.9	0.7	1.0	110	86	130	4.2	3.3	4.9	Norway
	60	51	69	1.1	0.9	1.2	1 800	1 400	2 100	9.2	7.2	10.7	Poland
	69	58	80	5.0	4.2	5.8	820	650	990	15.2	12.0	18.3	Portugal
	620	520	720	20.5	17.2	23.8	4 000	3 200	4 800	39.9	32.0	47.9	Romania
	46	38	54	5.5	4.5	6.4	130	110	160	4.6	3.9	5.7	Slovakia
	2	2	2	0.6	0.6	0.6	46	37	56	4.4	3.5	5.4	Slovenia
	280	230	320	4.1	3.4	4.7	1 600	1 300	1 900	6.7	5.5	8.0	Spain
	36	30	41	2.1	1.7	2.3	240	190	290	4.8	3.8	5.8	Sweden
	200	180	220	1.7	1.5	1.9	2 200	1 900	2 500	6.5	5.6	7.4	United Kingdom
	2 420	2 290	2 550	3.0	2.9	3.2	19 000	18 000	20 000	7.2	6.8	7.6	Subtotal EU/EEA
													Non-EU/EEA
	5	4	5	1.0	0.8	1.0	130	110	160	9.2	7.8	11.3	Albania
	0	0	0	0.0	0.0	0.0	0	0	0	0.0	0.0	0.0	Andorra
	46	34	58	7.6	5.6	9.5	210	140	280	13.4	9.0	17.9	Armenia
	480	350	610	20.6	15.1	26.2	2 200	1 500	3 000	44.1	30.1	60.2	Azerbaijan
	77	57	97	4.8	3.6	6.1	880	590	1 200	17.4	11.7	23.7	Belarus
	6	5	8	1.2	1.0	1.6	330	210	440	19.5	12.4	26.0	Bosnia and Herzegovina
	170	140	210	21.5	17.7	26.5	1 100	850	1 400	52.6	40.6	66.9	Georgia
	18	15	21	0.8	0.6	0.9	110	90	140	2.6	2.1	3.3	Israel
	350	210	490	6.7	4.0	9.4	4 900	2 200	7 500	51.9	23.3	79.5	Kazakhstan
	360	300	410	17.7	14.7	20.1	3 000	2 400	3 600	94.2	75.4	113.0	Kyrgyzstan
	110	92	130	17.1	14.3	20.2	920	740	1 100	43.6	35.1	52.2	Moldova
	0	0	0	0.0	0.0	0.0	0	0	0	0.0	0.0	0.0	Monaco
	2	2	3	1.7	1.7	2.6	33	27	40	10.4	8.5	12.6	Montenegro
	15	11	19	4.4	3.2	5.5	94	62	130	9.0	6.0	12.5	North Macedonia
	2 200	1 300	3 100	8.4	5.0	11.9	24 000	12 000	36 000	30.7	15.3	46.0	Russia
	0	0	0	0.0	0.0	0.0	0	0	0	0.0	0.0	0.0	San Marino
	33	28	38	2.4	2.0	2.8	710	560	860	15.8	12.5	19.2	Serbia
	30	25	35	2.4	2.0	2.8	210	170	260	4.9	4.0	6.0	Switzerland
	530	390	670	15.8	11.6	20.0	3 500	2 300	4 700	77.6	51.0	104.2	Tajikistan
	630	530	720	3.1	2.6	3.5	5 700	4 500	6 900	13.7	10.8	16.5	Turkey
	87	64	110	4.8	3.5	6.1	1 100	720	1 500	37.0	24.2	50.5	Turkmenistan
	1 300	770	1 800	18.6	11.0	25.7	11 000	5 400	17 000	46.3	22.7	71.6	Ukraine
	3 200	2 000	4 300	34.3	21.5	46.2	10 000	5 600	15 000	61.4	34.4	92.1	Uzbekistan
	10 000	8 000	12 000	11.4	9.1	13.7	70 000	56 000	84 000	32.8	26.2	39.4	Subtotal non-EU/EEA
	12 000	10 000	14 000	7.2	6.0	8.3	90 000	74 000	107 000	18.8	15.5	22.4	Total European Region
	10 000	8 000	12 000	10.7	8.5	12.8	74 000	60 000	88 000	30.5	24.7	36.2	Subtotal 18 HPCs

Table 2. Estimates for tuberculosis/HIV coinfection and MDR-tuberculosis, European Region, 2018

Country/area	Estimated HIV infection among incident tuberculosis cases (new and relapses)						Estimated percentage of RR-tuberculosis cases among new tuberculosis patients		
	Number			%			%		
	Best	Low	High	Best	Low	High	Best	Low	High
EU/EEA									
Austria	14	7	21	2.1	1.2	3.3	2.3	0.8	4.9
Belgium	40	13	81	3.8	1.3	7.7	1.6	0.7	3.3
Bulgaria	19	6	40	1.2	0.4	2.5	1.2	0.5	2.5
Croatia	3	2	5	0.9	0.5	1.4	0.0	0.0	1.4
Cyprus							0.0	0.0	10.0
Czech Republic	6	3	9	1.0	0.5	1.5	2.2	0.9	4.6
Denmark	8	3	16	2.6	0.8	5.2	2.5	0.7	6.4
Estonia	15	7	25	8.9	4.6	14.0	22.0	15.0	31.0
Finland	4	2	7	1.7	0.9	2.7	3.2	0.9	8.0
France	360	280	450	6.2	5.1	7.5	1.0	0.7	1.5
Germany	150	79	230	2.4	1.3	3.8	2.2	0.8	4.8
Greece	16	9	26	3.5	2.0	5.4	1.5	0.0	8.0
Hungary	5	3	9	0.9	0.5	1.4	2.9	1.6	4.8
Iceland	0	0	0	2.2	0.7	4.6	0.0	0.0	41.0
Ireland	12	6	18	3.4	1.9	5.3	1.1	0.0	5.8
Italy	200	110	320	4.8	2.7	7.4	2.8	1.8	4.3
Latvia	35	12	70	6.2	2.1	12.0	8.0	5.4	11.0
Liechtenstein									
Lithuania	39	26	55	3.2	2.2	4.4	13.0	10.0	15.0
Luxembourg	2	1	3	4.3	2.5	6.7	2.6	1.4	4.2
Malta	10	4	17	16.0	6.9	28.0	0.0	0.0	15.0
Netherlands	36	23	51	3.9	2.6	5.5	0.9	0.2	2.7
Norway	8	3	16	3.8	1.4	7.3	6.1	2.3	13.0
Poland	75	41	120	1.3	0.7	1.9	1.2	0.8	1.6
Portugal	210	74	430	8.8	3.0	17.0	1.0	0.5	1.7
Romania	320	260	380	2.4	2.1	2.7	2.7	2.3	3.2
Slovakia	2	0	6	0.5	0.0	1.9	0.9	0.0	4.7
Slovenia	1	0	3	1.2	0.3	2.6	0.0	0.0	3.9
Spain	310	110	630	7.1	2.4	14.0	4.2	2.9	5.8
Sweden	12	7	19	2.2	1.2	3.4	2.2	0.8	4.6
United Kingdom	150	120	180	2.8	2.4	3.3	1.2	0.8	1.8
Subtotal EU/EEA	2 100	1 740	2 460	3.6	3.2	4.0	2.6	1.8	3.8
Non-EU/EEA									
Albania	8	5	13	1.6	0.9	2.5	2.3	0.6	5.8
Andorra							0.0	0.0	98.0
Armenia	95	66	130	10.0	8.1	13.0	20.0	16.0	26.0
Azerbaijan	85	57	120	1.3	1.0	1.7	12.0	11.0	13.0
Belarus	230	170	300	7.7	6.7	8.8	37.0	34.0	39.0
Bosnia and Herzegovina	2	1	3	0.2	0.1	0.4	0.5	0.1	1.8
Georgia	66	46	90	2.1	1.5	2.7	12.0	10.0	14.0
Israel	14	7	24	4.1	2.0	6.9	9.7	5.6	16.0
Kazakhstan	730	470	1 000	5.9	5.5	6.3	27.0	26.0	28.0
Kyrgyzstan	220	170	260	3.0	2.5	3.4	29.0	27.0	31.0
Moldova	300	240	360	8.6	7.6	9.6	29.0	26.0	31.0
Monaco							2.6	1.4	4.2
Montenegro	1	0	3	1.5	0.5	3.2	0.0	0.0	6.0
North Macedonia							0.0	0.0	2.8
Russia	16 000	10 000	22 000	20.0	20.0	20.0	35.0	34.0	35.0
San Marino							2.6	1.4	4.2
Serbia	5	3	8	0.4	0.2	0.5	1.1	0.5	2.2
Switzerland	26	15	40	4.8	2.8	7.3	1.1	0.2	3.3
Tajikistan	310	230	400	4.1	3.6	4.6	21.0	19.0	24.0
Turkey	110	82	140	0.8	0.7	1.0	3.5	3.0	4.0
Turkmenistan	650	330	1 100	24.0	13.0	38.0	23.0	21.0	26.0
Ukraine	8 200	5 300	12 000	23.0	22.0	24.0	29.0	28.0	30.0
Uzbekistan	1 000	700	1 400	4.5	4.2	4.8	15.0	14.0	16.0
Subtotal non-EU/EEA	28 100	21 000	35 000	13.9	8.9	20.8	21	20	22
Total European Region	30 000	23 000	37 000	12.0	7.5	16.0	18	16	19
Subtotal 18 HPCs	28 400	22 000	35 000	13.3	8.8	19.8	21	20	22

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

HIV - human immunodeficiency virus.

HPCs - high-priority countries.

RR-TB - rifampicin-resistant tuberculosis.

	Estimated percentage of RR-tuberculosis cases among retreated tuberculosis patients			Estimated RR tuberculosis cases among notified bacteriologically confirmed pulmonary tuberculosis patients			Country/area
	%			Number			
	Best	Low	High	Best	Low	High	
							EU/EEA
	18.0	3.8	43.0	11	4	18	Austria
	8.8	1.9	24.0	13	5	21	Belgium
	19.0	11.0	29.0	24	15	33	Bulgaria
	0.0	0.0	16.0	0	0	3	Croatia
	11.0	7.4	16.0	0	0	2	Cyprus
	12.0	2.4	30.0	10	4	17	Czech Republic
	0.0	0.0	25.0	4	0	9	Denmark
	50.0	27.0	73.0	33	24	43	Estonia
	67.0	9.4	99.0	6	1	10	Finland
	10.0	7.1	15.0	43	31	54	France
	23.0	16.0	30.0	120	60	180	Germany
	9.1	0.2	41.0	6	0	14	Greece
	8.1	3.3	16.0	13	8	19	Hungary
	0.0	0.0	98.0	0	0	1	Iceland
	0.0	0.0	31.0	2	0	6	Ireland
	13.0	7.7	21.0	72	46	97	Italy
	31.0	19.0	44.0				Latvia
							Liechtenstein
	42.0	36.0	49.0	190	170	210	Lithuania
	11.0	7.4	16.0	1	0	1	Luxembourg
	11.0	7.4	16.0	0	0	4	Malta
	6.3	0.2	30.0	5	0	9	Netherlands
	0.0	0.0	29.0	6	1	11	Norway
	4.2	2.5	6.5	63	46	79	Poland
	6.9	2.8	14.0	18	10	27	Portugal
	15.0	13.0	16.0	480	440	520	Romania
	13.0	1.7	40.0	4	0	7	Slovakia
	0.0	0.0	71.0	0	0	3	Slovenia
	18.0	9.4	30.0	130	92	170	Spain
	18.0	2.3	52.0	8	3	14	Sweden
	5.3	2.3	10.0	35	23	48	United Kingdom
	12.1	8.7	20.2	1 300	1 210	1 400	Subtotal EU/EEA
							Non-EU/EEA
	6.7	0.2	32.0	5	1	10	Albania
	11.0	7.4	16.0	0	0	2	Andorra
	44.0	35.0	54.0	98	82	110	Armenia
	26.0	24.0	27.0	960	910	1 000	Azerbaijan
	69.0	66.0	73.0	980	940	1 000	Belarus
	0.0	0.0	8.2	2	0	5	Bosnia and Herzegovina
	31.0	27.0	35.0	320	290	360	Georgia
	0.0	0.0	46.0	15	8	22	Israel
	64.0	63.0	66.0	4 400	4 300	4 500	Kazakhstan
	68.0	66.0	71.0	1 600	1 600	1 700	Kyrgyzstan
	60.0	56.0	64.0	860	820	910	Moldova
	11.0	7.4	16.0				Monaco
	33.0	0.8	91.0	1	0	3	Montenegro
	0.0	0.0	29.0	0	0	2	North Macedonia
	71.0	70.0	71.0	29 000	29 000	29 000	Russia
	11.0	7.4	16.0	0	0	0	San Marino
	4.7	1.3	11.0	11	5	17	Serbia
	26.0	9.1	51.0	10	4	17	Switzerland
	38.0	34.0	42.0	740	680	800	Tajikistan
	12.0	9.0	15.0	250	220	280	Turkey
	54.0	48.0	60.0	270	250	300	Turkmenistan
	46.0	45.0	48.0	6 900	6 800	7 000	Ukraine
	34.0	32.0	36.0	1 400	1 400	1 500	Uzbekistan
	54	47	61	47 800	48 000	48 000	Subtotal non-EU/EEA
	54	47	61	49 000	49 000	49 000	Total European Region
	54	47	61	48 500	48 000	49 000	Subtotal 18 HPCs

Table 3. Tuberculosis cases, notification rates per 100 000 population and mean annual change in rates, European Region, 2014–2018

Country/area	2014		2015		2016		2017		2018		Mean annual % change in rate, 2014–2018
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	
EU/EEA											
Austria	586	6.9	583	6.8	634	7.3	569	6.5	482	5.5	-5.6%
Belgium	949	8.5	977	8.7	1 042	9.2	967	8.5	981	8.6	0.3%
Bulgaria	1 872	25.8	1 660	23.0	1 603	22.4	1 463	20.6	1 358	19.3	-7.1%
Croatia	499	11.7	488	11.5	464	11.1	378	9.1	372	9.1	-6.3%
Cyprus	41	4.8	63	7.4	60	7.1	53	6.2	52	6.0	5.9%
Czech Republic	511	4.9	517	4.9	516	4.9	501	4.7	444	4.2	-3.7%
Denmark	320	5.7	357	6.3	330	5.8	275	4.8	291	5.0	-3.0%
Estonia	248	18.8	217	16.5	192	14.6	175	13.3	147	11.1	-12.3%
Finland	263	4.8	272	5.0	233	4.2	246	4.5	230	4.2	-3.6%
France	4 888	7.4	4 744	7.1	5 735	8.6	5 005	7.5	5 092	7.6	0.7%
Germany	4 524	5.6	5 837	7.2	5 926	7.2	5 495	6.7	5 429	6.6	4.0%
Greece	519	4.7	482	4.4	440	4.1	467	4.3	432	4.0	-4.1%
Hungary	851	8.6	906	9.2	786	8.0	685	7.0	640	6.5	-6.6%
Iceland	9	2.8	7	2.1	6	1.8	14	4.1	8	2.3	-4.5%
Ireland	311	6.7	283	6.1	315	6.7	305	6.4	314	6.5	-0.8%
Italy	3 916	6.4	3 769	6.2	4 032	6.6	3 944	6.5	3 912	6.5	0.1%
Latvia	761	38.0	721	36.3	660	33.5	552	28.3	–	–	–
Liechtenstein	1	2.7	2	5.4	2	5.3	1	2.6	1	2.6	-0.7%
Lithuania	1 607	54.6	1 507	51.6	1 442	49.9	1 387	48.7	1 142	40.7	-7.1%
Luxembourg	24	4.4	30	5.3	29	5.0	32	5.4	42	7.0	12.4%
Malta	46	10.7	32	7.3	50	11.1	42	9.1	55	11.6	1.9%
Netherlands	814	4.8	862	5.1	887	5.2	783	4.6	806	4.7	-0.8%
Norway	323	6.3	313	6.1	295	5.7	261	5.0	209	3.9	-11.1%
Poland	6 698	17.6	6 430	16.9	6 444	17.0	5 787	15.2	5 487	14.4	-4.8%
Portugal	2 278	21.8	2 196	21.2	1 936	18.7	1 800	17.5	2 137	20.8	-1.3%
Romania	15 879	79.6	15 183	76.4	13 601	68.8	12 997	66.2	12 205	62.5	-5.9%
Slovakia	336	6.2	317	5.8	296	5.5	249	4.6	281	5.2	-4.5%
Slovenia	144	7.0	130	6.3	118	5.7	112	5.4	99	4.8	-9.0%
Spain	4 913	10.6	5 020	10.8	5 070	10.9	5 690	12.2	4 648	10.0	-1.5%
Sweden	659	6.8	815	8.4	714	7.2	519	5.2	491	4.9	-8.2%
United Kingdom	7 030	10.9	6 229	9.6	6 117	9.4	5 537	8.4	5 075	7.7	-8.5%
Subtotal EU/EEA	61 820	12.1	60 949	11.9	59 975	11.6	56 291	10.9	52 862	10.2	-4.0%
Non-EU/EEA											
Albania	408	14.1	415	14.4	415	14.4	503	17.4	440	15.3	2.0%
Andorra	6	7.6	4	5.1	4	5.2	1	1.3	2	2.6	-23.5%
Armenia	1 342	46.1	1 185	40.5	1 080	36.8	926	31.4	796	27.0	-12.5%
Azerbaijan	7 539	79.3	7 501	78.0	6 707	68.9	7 129	72.4	6 896	69.3	-3.3%
Belarus	4 274	45.3	4 177	44.3	3 598	38.1	3 052	32.3	2 542	26.9	-12.2%
Bosnia and Herzegovina	1 196	34.3	1 095	31.9	907	26.8	768	22.9	669	20.1	-12.5%
Georgia	3 850	95.4	3 611	89.7	3 330	82.9	2 927	73.0	2 590	64.7	-9.3%
Israel	361	4.6	280	3.5	250	3.1	234	2.8	292	3.5	-6.7%
Kazakhstan	15 718	90.8	14 631	83.3	12 658	71.0	12 942	71.6	13 361	72.9	-5.3%
Kyrgyzstan	7 423	127.0	7 833	131.4	7 995	131.6	7 695	124.3	7 585	120.3	-1.3%
Moldova	4 636	113.8	4 211	103.4	4 134	101.7	3 858	95.0	3 465	85.5	-6.9%
Monaco	0	0.0	0	0.0	–	–	–	–	–	–	–
Montenegro	113	18.0	80	12.8	87	13.9	77	12.3	84	13.4	-7.2%
North Macedonia	285	13.7	284	13.7	267	12.8	219	10.5	217	10.4	-6.6%
Russia	136 168	94.1	130 904	90.3	121 046	83.3	114 187	78.5	106 913	73.4	-6.0%
San Marino	–	–	–	–	0	0.0	0	0.0	0	0.0	0.0%
Serbia	1 832	20.6	1 658	18.7	1 488	16.8	1 466	16.6	1 358	15.4	-7.0%
Serbia excluding Kosovo ^a	998	14.0	888	12.5	767	10.8	745	10.6	656	9.4	-9.6%
Kosovo ^a	834	47.3	770	43.5	721	40.6	721	40.4	702	39.2	-4.6%
Switzerland	473	5.8	564	6.8	609	7.3	555	6.6	516	6.1	1.2%
Tajikistan	6 260	75.9	6 232	73.7	6 241	72.0	6 279	70.7	5 975	65.7	-3.5%
Turkey	13 378	17.3	12 772	16.3	12 417	15.6	12 046	14.9	11 786	14.3	-4.7%
Turkmenistan	2 854	52.2	2 472	44.4	2 340	41.3	2 232	38.8	2 636	45.1	-3.6%
Ukraine	40 302	89.3	35 304	78.6	34 088	76.2	31 584	71.0	30 378	68.7	-6.4%
Uzbekistan	22 804	74.9	19 055	61.6	18 441	58.7	19 329	60.5	18 496	57.0	-6.6%
Subtotal non-EU/EEA	271 222	68.1	254 268	63.4	238 102	58.9	228 009	56.0	216 997	53.0	-6.1%
Total European Region	333 042	36.6	315 217	34.4	298 077	32.4	284 300	30.8	269 859	29.1	-5.5%
Subtotal 18 HPCs	286 915	72.1	269 176	67	251 573	62	240 760	59	228 271	56.0	-6.1%

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs are presented in *italics*.

The data published in this report might differ from figures in national reports due to different times of reporting. The deadline for correcting and updating the data used in this report in the joint database was 3 October 2018.

HPCs - high-priority countries.

^a This designation is without prejudice to positions on status, and is in line with UN Security Council Resolution 1244 and the International Court of Justice Opinion on the Kosovo Declaration of Independence.

Table 4. New tuberculosis cases and relapses^a, notification rates per 100 000 population and mean annual change in rates, European Region, 2014–2018

Country/area	2014		2015		2016		2017		2018		Mean annual % change in rate, 2014–2018
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	
EU/EEA											
Austria	567	6.7	564	6.6	619	7.1	561	6.4	470	5.3	-5.4%
Belgium ^b	878	7.9	919	8.2	982	8.7	911	8.0	913	8.0	0.5%
<i>Bulgaria</i>	<i>1 825</i>	<i>25.2</i>	<i>1 619</i>	<i>22.5</i>	<i>1 525</i>	<i>21.3</i>	<i>1 408</i>	<i>19.8</i>	<i>1 290</i>	<i>18.3</i>	<i>-7.7%</i>
Croatia	498	11.7	485	11.5	452	10.8	372	9.0	364	8.9	-6.8%
Cyprus	39	4.5	63	7.4	57	6.7	52	6.1	51	5.9	6.7%
Czech Republic	472	4.5	507	4.8	511	4.8	495	4.7	435	4.1	-2.2%
Denmark ^b	293	5.2	320	5.7	292	5.1	253	4.4	270	4.7	-2.7%
<i>Estonia</i>	<i>237</i>	<i>18.0</i>	<i>206</i>	<i>15.7</i>	<i>188</i>	<i>14.3</i>	<i>171</i>	<i>13.0</i>	<i>145</i>	<i>11.0</i>	<i>-11.6%</i>
Finland	256	4.7	268	4.9	222	4.0	243	4.4	229	4.2	-3.0%
France	4 888	7.4	4 457	6.7	5 446	8.2	4 715	7.1	4 779	7.1	-0.8%
Germany	4 350	5.4	5 626	6.9	5 740	7.0	5 349	6.5	5 265	6.4	4.2%
Greece	484	4.4	438	4.0	417	3.9	434	4.0	406	3.8	-3.9%
Hungary	799	8.1	858	8.7	737	7.5	650	6.6	602	6.2	-6.6%
Iceland	9	2.8	7	2.1	6	1.8	13	3.8	8	2.3	-4.5%
Ireland ^b	290	6.3	266	5.7	290	6.1	288	6.0	294	6.1	-0.7%
Italy	3 663	6.0	3 476	5.7	3 778	6.2	3 828	6.3	3 777	6.2	0.9%
<i>Latvia</i>	<i>738</i>	<i>36.9</i>	<i>697</i>	<i>35.1</i>	<i>641</i>	<i>32.6</i>	<i>543</i>	<i>27.8</i>	<i>-</i>	<i>-</i>	<i>-</i>
Liechtenstein	0	0.0	1	2.7	2	5.3	1	2.6	1	2.6	-
<i>Lithuania</i>	<i>1 481</i>	<i>50.3</i>	<i>1 395</i>	<i>47.8</i>	<i>1 347</i>	<i>46.6</i>	<i>1 268</i>	<i>44.5</i>	<i>1 063</i>	<i>37.8</i>	<i>-6.9%</i>
Luxembourg	24	4.4	30	5.3	29	5.0	32	5.4	42	7.0	12.4%
Malta	45	10.5	32	7.3	50	11.1	42	9.1	55	11.6	2.5%
Netherlands	805	4.8	846	5.0	875	5.2	772	4.5	791	4.6	-1.0%
Norway ^b	299	5.9	282	5.5	273	5.2	237	4.5	189	3.6	-11.6%
Poland	6 539	17.2	6 237	16.4	6 143	16.2	5 535	14.6	5 196	13.7	-5.6%
Portugal	2 223	21.3	2 155	20.8	1 891	18.3	1 760	17.1	2 111	20.5	-1.0%
<i>Romania</i>	<i>14 834</i>	<i>74.4</i>	<i>14 215</i>	<i>71.5</i>	<i>12 774</i>	<i>64.6</i>	<i>12 303</i>	<i>62.6</i>	<i>11 586</i>	<i>59.3</i>	<i>-5.5%</i>
Slovakia	320	5.9	308	5.7	281	5.2	228	4.2	273	5.0	-4.0%
Slovenia	142	6.9	129	6.3	118	5.7	112	5.4	98	4.7	-8.9%
Spain	4 685	10.1	4 818	10.4	3 973	8.6	4 551	9.8	4 500	9.6	-1.1%
Sweden	625	6.5	776	8.0	691	7.0	487	4.9	477	4.7	-7.7%
United Kingdom ^b	6 570	10.2	5 845	9.0	5 727	8.8	5 225	7.9	4 775	7.2	-8.3%
Subtotal EU/EEA	58 878	11.5	57 845	11.3	56 077	10.9	52 839	10.2	50 455	9.8	-3.9%
Non-EU/EEA											
Albania	408	14.1	415	14.4	415	14.4	503	17.4	440	15.3	2.0%
Andorra	6	7.6	4	5.1	4	5.2	1	1.3	2	2.6	-23.5%
<i>Armenia</i>	<i>1 329</i>	<i>45.6</i>	<i>1 171</i>	<i>40.0</i>	<i>1 027</i>	<i>35.0</i>	<i>841</i>	<i>28.6</i>	<i>734</i>	<i>24.9</i>	<i>-14.1%</i>
<i>Azerbaijan</i>	<i>5 788</i>	<i>60.9</i>	<i>5 456</i>	<i>56.7</i>	<i>5 159</i>	<i>53.0</i>	<i>5 231</i>	<i>53.1</i>	<i>5 038</i>	<i>50.6</i>	<i>-4.5%</i>
Belarus	3 858	40.9	3 765	39.9	3 211	34.0	2 781	29.4	2 359	25.0	-11.6%
Bosnia and Herzegovina	1 196	34.3	1 092	31.8	907	26.8	766	22.9	666	20.0	-12.6%
Georgia	3 200	79.3	3 152	78.3	2 983	74.3	2 597	64.8	2 316	57.9	-7.6%
Israel	361	4.6	280	3.5	250	3.1	234	2.8	292	3.5	-6.7%
<i>Kazakhstan</i>	<i>15 244</i>	<i>88.1</i>	<i>14 006</i>	<i>79.7</i>	<i>12 322</i>	<i>69.1</i>	<i>12 449</i>	<i>68.9</i>	<i>12 832</i>	<i>70.0</i>	<i>-5.6%</i>
<i>Kyrgyzstan</i>	<i>6 390</i>	<i>109.3</i>	<i>7 027</i>	<i>117.9</i>	<i>7 026</i>	<i>115.7</i>	<i>6 687</i>	<i>108.0</i>	<i>6 338</i>	<i>100.5</i>	<i>-2.1%</i>
<i>Moldova</i>	<i>4 058</i>	<i>99.6</i>	<i>3 608</i>	<i>88.6</i>	<i>3 571</i>	<i>87.8</i>	<i>3 358</i>	<i>82.7</i>	<i>3 022</i>	<i>74.6</i>	<i>-7.0%</i>
Monaco	0	0.0	0	0.0	-	-	-	-	-	-	-
Montenegro	113	18.0	80	12.8	87	13.9	75	12.0	84	13.4	-7.2%
North Macedonia	284	13.7	282	13.6	263	12.6	216	10.4	217	10.4	-6.6%
<i>Russia</i>	<i>102 340</i>	<i>70.7</i>	<i>99 590</i>	<i>68.7</i>	<i>92 407</i>	<i>63.6</i>	<i>84 510</i>	<i>58.1</i>	<i>78 258</i>	<i>53.7</i>	<i>-6.7%</i>
San Marino					0	0.0	0	0.0	0	0.0	0.0%
Serbia	1 818	20.4	1 649	18.6	1 472	16.6	1 450	16.4	1 330	15.1	-7.3%
Serbia excluding Kosovo ^c	984	13.8	879	12.4	755	10.7	738	10.5	641	9.1	-9.8%
Kosovo ^c	834	47.3	770	43.5	717	40.4	712	39.9	689	38.5	-5.1%
Switzerland	423	5.2	531	6.4	573	6.8	529	6.3	473	5.5	1.9%
<i>Tajikistan</i>	<i>5 807</i>	<i>70.4</i>	<i>5 894</i>	<i>69.7</i>	<i>5 965</i>	<i>68.9</i>	<i>5 895</i>	<i>66.4</i>	<i>5 726</i>	<i>62.9</i>	<i>-2.8%</i>
<i>Turkey</i>	<i>13 108</i>	<i>17.0</i>	<i>12 550</i>	<i>16.0</i>	<i>12 186</i>	<i>15.3</i>	<i>11 821</i>	<i>14.6</i>	<i>11 576</i>	<i>14.1</i>	<i>-4.6%</i>
<i>Turkmenistan</i>	<i>2 537</i>	<i>46.4</i>	<i>2 191</i>	<i>39.4</i>	<i>2 068</i>	<i>36.5</i>	<i>1 968</i>	<i>34.2</i>	<i>2 157</i>	<i>36.9</i>	<i>-5.6%</i>
<i>Ukraine</i>	<i>31 701</i>	<i>70.3</i>	<i>30 151</i>	<i>67.1</i>	<i>29 052</i>	<i>65.0</i>	<i>27 229</i>	<i>61.2</i>	<i>26 512</i>	<i>59.9</i>	<i>-3.9%</i>
<i>Uzbekistan</i>	<i>18 345</i>	<i>60.3</i>	<i>16 315</i>	<i>52.7</i>	<i>16 050</i>	<i>51.0</i>	<i>16 842</i>	<i>52.7</i>	<i>16 413</i>	<i>50.5</i>	<i>-4.3%</i>
Subtotal non-EU/EEA	217 330	54.5	209 209	52.1	196 998	48.7	185 983	45.7	176 785	43.2	-5.7%
Total European Region	276 208	30.3	253 075	29.2	253 075	27.5	238 822	25.8	227 240	24.5	-5.1%
Subtotal 18 HPCs	232 820	58.5	209 502	55.7	209 502	52.0	197 902	48.8	187 365	46.0	-5.9%

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 tuberculosis high-priority countries presented in *italics*.

HPC - high-priority countries.

^b Cases with unknown previous tuberculosis history are included among new tuberculosis cases.

^c Previous tuberculosis history is defined by previous diagnosis.

^d This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence. The data published in this report might differ from figures in national reports due to different times of reporting. The deadline for correcting and updating the data used in this report in the joint database was 3 October 2019.

Table 5. Tuberculosis cases by history of previous tuberculosis treatment, European Region, 2018

Country/area	New ^a		Unknown previous tuberculosis history		Previously treated										All tuberculosis cases
					Previously treated total		Previous treatment completed		Previously treatment failed		Lost to follow-up from previous treatment ^b		Other retreatment (incl. unknown previous treatment details)		
	N	(%) ^c	N	(%) ^c	N	(%) ^c	N	(%) ^d	N	(%) ^d	N	(%) ^d	N	(%) ^d	
EU/EEA															
Austria	349	(72.4)	104	(21.6)	29	(6.0)	17	(58.6)	1	(3.4)	0	(0.0)	11	(37.9)	482
Belgium ^e	757	(77.2)	156	(15.9)	68	(6.9)	0	(0.0)	0	(0.0)	0	(0.0)	68	(100.0)	981
Bulgaria	1 163	(85.6)	0	(0.0)	195	(14.4)	127	(65.1)	27	(13.8)	9	(4.6)	32	(16.4)	1 358
Croatia	291	(78.2)	55	(14.8)	26	(7.0)	18	(69.2)	4	(15.4)	0	(0.0)	4	(15.4)	372
Cyprus	47	(90.4)	2	(3.8)	3	(5.8)	2	(66.7)	0	(0.0)	0	(0.0)	1	(33.3)	52
Czech Republic	413	(93.0)	0	(0.0)	31	(7.0)	22	(71.0)	0	(0.0)	1	(3.2)	8	(25.8)	444
Denmark ^e	270	(92.8)	0	(0.0)	21	(7.2)	0	(0.0)	0	(0.0)	0	(0.0)	21	(100.0)	291
Estonia	121	(82.3)	0	(0.0)	26	(17.7)	24	(92.3)	2	(7.7)	0	(0.0)	0	(0.0)	147
Finland	222	(96.5)	4	(1.7)	4	(1.7)	3	(75.0)	0	(0.0)	0	(0.0)	1	(25.0)	230
France	2 593	(50.9)	2 186	(42.9)	313	(6.1)	0	(0.0)	0	(0.0)	0	(0.0)	313	(100.0)	5 092
Germany	3 635	(67.0)	1 484	(27.3)	310	(5.7)	146	(47.1)	12	(3.9)	48	(15.5)	104	(33.5)	5 429
Greece	361	(83.6)	34	(7.9)	37	(8.6)	11	(29.7)	0	(0.0)	0	(0.0)	26	(70.3)	432
Hungary	573	(89.5)	0	(0.0)	67	(10.5)	29	(43.3)	0	(0.0)	27	(40.3)	11	(16.4)	640
Iceland	8	(100.0)	0	(0.0)	0	(0.0)	0	-	0	-	0	-	0	-	8
Ireland ^e	179	(57.0)	115	(36.6)	20	(6.4)	0	(0.0)	0	(0.0)	0	(0.0)	20	(100.0)	314
Italy	2 913	(74.5)	864	(22.1)	135	(3.5)	0	(0.0)	0	(0.0)	0	(0.0)	135	(100.0)	3 912
Latvia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Liechtenstein	1	(100.0)	0	(0.0)	0	(0.0)	0	-	0	-	0	-	0	-	1
Lithuania	922	(80.7)	0	(0.0)	220	(19.3)	141	(64.1)	40	(18.2)	39	(17.7)	0	(0.0)	1 142
Luxembourg	0	(0.0)	42	(100.0)	0	(0.0)	0	-	0	-	0	-	0	-	42
Malta	52	(94.5)	3	(5.5)	0	(0.0)	0	-	0	-	0	-	0	-	55
Netherlands	767	(95.2)	3	(0.4)	36	(4.5)	21	(58.3)	0	(0.0)	5	(13.9)	10	(27.8)	806
Norway ^e	189	(90.4)	0	(0.0)	20	(9.6)	0	(0.0)	0	(0.0)	0	(0.0)	20	(100.0)	209
Poland	4 852	(88.4)	0	(0.0)	635	(11.6)	344	(54.2)	0	(0.0)	0	(0.0)	291	(45.8)	5 487
Portugal	1 883	(88.1)	164	(7.7)	90	(4.2)	64	(71.1)	1	(1.1)	0	(0.0)	25	(27.8)	2 137
Romania	9 786	(80.2)	0	(0.0)	2 419	(19.8)	1 800	(74.4)	137	(5.7)	331	(13.7)	151	(6.2)	12 205
Slovakia	240	(85.4)	14	(5.0)	27	(9.6)	19	(70.4)	0	(0.0)	0	(0.0)	8	(29.6)	281
Slovenia	87	(87.9)	2	(2.0)	10	(10.1)	9	(90.0)	0	(0.0)	1	(10.0)	0	(0.0)	99
Spain	2 920	(62.8)	1 580	(34.0)	148	(3.2)	0	(0.0)	0	(0.0)	0	(0.0)	148	(100.0)	4 648
Sweden	465	(94.7)	3	(0.6)	23	(4.7)	9	(39.1)	0	(0.0)	0	(0.0)	14	(60.9)	491
United Kingdom ^e	4 566	(90.0)	209	(4.1)	300	(5.9)	0	(0.0)	0	(0.0)	0	(0.0)	300	(100.0)	5 075
Subtotal EU/EEA	40 625	(76.9)	7 024	(13.3)	5 213	(9.9)	2 806	(53.8)	224	(4.3)	461	(8.8)	1 722	(33.0)	52 862
Non-EU/EEA															
Albania	424	(96.4)	-	-	16	(3.6)	16	(100.0)	-	-	-	-	-	-	440
Andorra	2	(100.0)	-	-	0	(0.0)	0	(0.0)	-	-	-	-	-	-	2
Armenia	621	(78.0)	-	-	175	(22.0)	113	(64.6)	-	-	-	-	-	-	796
Azerbaijan	3 762	(54.6)	-	-	3 134	(45.4)	1 276	(40.7)	-	-	-	-	-	-	6 896
Belarus	1 886	(74.2)	-	-	656	(25.8)	473	(72.1)	-	-	-	-	-	-	2 542
Bosnia and Herzegovina	617	(92.2)	-	-	52	(7.8)	49	(94.2)	-	-	-	-	-	-	669
Georgia	1 944	(75.1)	-	-	646	(24.9)	372	(57.6)	-	-	-	-	-	-	2 590
Israel	284	(97.3)	-	-	8	(2.7)	8	(100.0)	-	-	-	-	-	-	292
Kazakhstan	8 937	(66.9)	-	-	4 424	(33.1)	3 895	(88.0)	-	-	-	-	-	-	13 361
Kyrgyzstan	5 249	(69.2)	-	-	2 336	(30.8)	1 089	(46.6)	-	-	-	-	-	-	7 585
Moldova	2 455	(70.9)	-	-	1 010	(29.1)	567	(56.1)	-	-	-	-	-	-	3 465
Monaco	-	-	-	-	0	(0.0)	0	(0.0)	-	-	-	-	-	-	0
Montenegro	81	(96.4)	-	-	3	(3.6)	3	(100.0)	-	-	-	-	-	-	84
North Macedonia	202	(93.1)	-	-	15	(6.9)	15	(100.0)	-	-	-	-	-	-	217
Russia	65 234	(61.0)	-	-	41 679	(39.0)	13 024	(31.2)	-	-	-	-	-	-	106 913
San Marino	0	-	-	-	0	-	0	-	-	-	-	-	-	-	0
Serbia	1 240	(91.3)	-	-	118	(8.7)	90	(76.3)	-	-	-	-	-	-	1 358
Serbia excluding Kosovo ^f	583	(88.9)	-	-	73	(11.1)	58	(79.5)	-	-	-	-	-	-	656
Kosovo ^f	657	(93.6)	-	-	45	(6.4)	32	(71.1)	-	-	-	-	-	-	702
Switzerland	473	(91.7)	-	-	43	(8.3)	0	(0.0)	-	-	-	-	-	-	516
Tajikistan	5 102	(85.4)	-	-	873	(14.6)	624	(71.5)	-	-	-	-	-	-	5 975
Turkey	10 948	(92.9)	-	-	838	(7.1)	628	(74.9)	-	-	-	-	-	-	11 786
Turkmenistan	1 981	(75.2)	-	-	655	(24.8)	176	(26.9)	-	-	-	-	-	-	2 636
Ukraine	21 323	(70.2)	-	-	9 055	(29.8)	5 189	(57.3)	-	-	-	-	-	-	30 378
Uzbekistan	14 162	(76.6)	-	-	4 334	(23.4)	2 251	(51.9)	-	-	-	-	-	-	18 496
Subtotal non-EU/EEA	146 927	(67.7)	-	-	70 070	(32.3)	29 858	(42.6)	-	-	-	-	-	-	216 997
Total European Region	187 552	(69.5)	7 024	(2.6)	75 283	(27.9)	32 664	(43.4)	-	-	-	-	-	-	269 859
Subtotal 18 HPCs	155 596	(68.2)	-	-	72 675	(31.8)	31 769	(43.7)	-	-	-	-	-	-	228 271

^aEuropean Region^{*} comprises the 53 countries of the WHO European Region and Liechtenstein.WHO European Region 18 tuberculosis high-priority countries presented in *italics*.

HPC - high-priority countries.

^bFor non-EU/EEA countries, cases with unknown previous tuberculosis history are included among new tuberculosis cases.^cIn previous reports defined as 'defaulted'.^dProportion of all tuberculosis cases.^eProportion of all previously treated tuberculosis cases.^fPrevious tuberculosis history is defined by previous diagnosis. Treatment completion is not analysed for these countries.^gThis designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 6. Tuberculosis cases by site of disease, EU/EEA, 2018

Country	Pulmonary						Extrapulmonary		No site reported		Total
	Pulmonary only		Pulmonary and extrapulmonary		Total pulmonary						
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	
EU/EEA											
Austria	317	(65.8)	47	(9.8)	364	(75.5)	118	(24.5)	0	(0.0)	482
Belgium	563	(57.4)	140	(14.3)	703	(71.7)	278	(28.3)	0	(0.0)	981
Bulgaria	1 006	(74.1)	57	(4.2)	1 063	(78.3)	294	(21.6)	1	(0.1)	1 358
Croatia	299	(80.4)	20	(5.4)	319	(85.8)	36	(9.7)	17	(4.6)	372
Cyprus	41	(78.8)	1	(1.9)	42	(80.8)	10	(19.2)	0	(0.0)	52
Czech Republic	372	(83.8)	25	(5.6)	397	(89.4)	47	(10.6)	0	(0.0)	444
Denmark	210	(72.2)	11	(3.8)	221	(75.9)	67	(23.0)	3	(1.0)	291
Estonia	123	(83.7)	15	(10.2)	138	(93.9)	9	(6.1)	0	(0.0)	147
Finland	155	(67.4)	0	(0.0)	155	(67.4)	75	(32.6)	0	(0.0)	230
France	2 757	(54.1)	826	(16.2)	3 583	(70.4)	1 487	(29.2)	22	(0.4)	5 092
Germany	3 254	(59.9)	662	(12.2)	3 916	(72.1)	1 454	(26.8)	59	(1.1)	5 429
Greece	331	(76.6)	30	(6.9)	361	(83.6)	60	(13.9)	11	(2.5)	432
Hungary	610	(95.3)	11	(1.7)	621	(97.0)	19	(3.0)	0	(0.0)	640
Iceland	5	(62.5)	0	(0.0)	5	(62.5)	2	(25.0)	1	(12.5)	8
Ireland	192	(61.1)	23	(7.3)	215	(68.5)	86	(27.4)	13	(4.1)	314
Italy	2 672	(68.3)	72	(1.8)	2 744	(70.1)	1 134	(29.0)	34	(0.9)	3 912
Latvia	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	1	(100.0)	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	1
Lithuania	1 060	(92.8)	5	(0.4)	1 065	(93.3)	77	(6.7)	0	(0.0)	1 142
Luxembourg	31	(73.8)	1	(2.4)	32	(76.2)	10	(23.8)	0	(0.0)	42
Malta	30	(54.5)	9	(16.4)	39	(70.9)	16	(29.1)	0	(0.0)	55
Netherlands	371	(46.0)	93	(11.5)	464	(57.6)	340	(42.2)	2	(0.2)	806
Norway	94	(45.0)	32	(15.3)	126	(60.3)	83	(39.7)	0	(0.0)	209
Poland	5 221	(95.2)	23	(0.4)	5 244	(95.6)	243	(4.4)	0	(0.0)	5 487
Portugal	1 325	(62.0)	287	(13.4)	1 612	(75.4)	512	(24.0)	13	(0.6)	2 137
Romania	9 661	(79.2)	755	(6.2)	10 416	(85.3)	1 789	(14.7)	0	(0.0)	12 205
Slovakia	188	(66.9)	56	(19.9)	244	(86.8)	37	(13.2)	0	(0.0)	281
Slovenia	74	(74.7)	10	(10.1)	84	(84.8)	15	(15.2)	0	(0.0)	99
Spain	3 042	(65.4)	327	(7.0)	3 369	(72.5)	1 279	(27.5)	0	(0.0)	4 648
Sweden	273	(55.6)	61	(12.4)	334	(68.0)	157	(32.0)	0	(0.0)	491
United Kingdom	2 128	(41.9)	820	(16.2)	2 948	(58.1)	2 123	(41.8)	4	(0.1)	5 075
Total EU/EEA	36 406	(68.9)	4 419	(8.4)	40 825	(77.2)	11 857	(22.4)	180	(0.3)	52 862

WHO European Region five tuberculosis high-priority countries presented in italics.

Table 7. Tuberculosis cases by history of previous tuberculosis treatment, site of disease and diagnostic method according to the WHO definitions^a, European Region, 2018

Country/area	New ^b and relapse tuberculosis cases										Previously treated cases		All tuberculosis cases
	N	(%) ^c	Pulmonary ^d						Extrapulmonary				
			N	(%) ^e	Laboratory-confirmed ^f		Clinically diagnosed						
					N	(%) ^g	N	(%) ^h	N	(%) ⁱ	N	(%) ^j	N
EU/EEA													
Austria	470	(97.5)	353	(75.1)	316	(89.5)	37	(10.5)	117	(24.9)	12	(2.5)	482
Belgium ^h	913	(93.1)	648	(71.0)	550	(84.9)	98	(15.1)	265	(29.0)	68	(6.9)	981
Bulgaria	1 290	(95.0)	1 009	(78.2)	612	(60.7)	397	(39.3)	281	(21.8)	68	(5.0)	1 358
Croatia	364	(97.8)	328	(90.1)	300	(91.5)	28	(8.5)	36	(9.9)	8	(2.2)	372
Cyprus	51	(98.1)	41	(80.4)	35	(85.4)	6	(14.6)	10	(19.6)	1	(1.9)	52
Czech Republic	435	(98.0)	388	(89.2)	341	(87.9)	47	(12.1)	47	(10.8)	9	(2.0)	444
Denmark ^h	270	(92.8)	209	(77.4)	166	(79.4)	43	(20.6)	61	(22.6)	21	(7.2)	291
Estonia	145	(98.6)	136	(93.8)	123	(90.4)	13	(9.6)	9	(6.2)	2	(1.4)	147
Finland	229	(99.6)	155	(67.7)	144	(92.9)	11	(7.1)	74	(32.3)	1	(0.4)	230
France	4 779	(93.9)	3 367	(70.5)	2 426	(72.1)	941	(27.9)	1 412	(29.5)	313	(6.1)	5 092
Germany	5 265	(97.0)	3 836	(72.9)	3 341	(87.1)	495	(12.9)	1 429	(27.1)	164	(3.0)	5 429
Greece	406	(94.0)	348	(85.7)	263	(75.6)	85	(24.4)	58	(14.3)	26	(6.0)	432
Hungary	602	(94.1)	583	(96.8)	346	(59.3)	237	(40.7)	19	(3.2)	38	(5.9)	640
Iceland	8	(100.0)	6	(75.0)	3	(50.0)	3	(50.0)	2	(25.0)	0	(0.0)	8
Ireland ^h	294	(93.6)	215	(73.1)	177	(82.3)	38	(17.7)	79	(26.9)	20	(6.4)	314
Italy	3 777	(96.5)	2 667	(70.6)	2 135	(80.1)	532	(19.9)	1 110	(29.4)	135	(3.5)	3 912
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	1	(100.0)	1	(100.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	1
Lithuania	1 063	(93.1)	986	(92.8)	890	(90.3)	96	(9.7)	77	(7.2)	79	(6.9)	1 142
Luxembourg	42	(100.0)	32	(76.2)	29	(90.6)	3	(9.4)	10	(23.8)	0	(0.0)	42
Malta	55	(100.0)	39	(70.9)	29	(74.4)	10	(25.6)	16	(29.1)	0	(0.0)	55
Netherlands	791	(98.1)	454	(57.4)	388	(85.5)	66	(14.5)	337	(42.6)	15	(1.9)	806
Norway ^h	189	(90.4)	114	(60.3)	104	(91.2)	10	(8.8)	75	(39.7)	20	(9.6)	209
Poland	5 196	(94.7)	4 955	(95.4)	3 821	(77.1)	1 134	(22.9)	241	(4.6)	291	(5.3)	5 487
Portugal	2 111	(98.8)	1 604	(76.0)	1 452	(90.5)	152	(9.5)	507	(24.0)	26	(1.2)	2 137
Romania	11 586	(94.9)	9 805	(84.6)	8 157	(83.2)	1 648	(16.8)	1 781	(15.4)	619	(5.1)	12 205
Slovakia	273	(97.2)	236	(86.4)	160	(67.8)	76	(32.2)	37	(13.6)	8	(2.8)	281
Slovenia	98	(99.0)	83	(84.7)	79	(95.2)	4	(4.8)	15	(15.3)	1	(1.0)	99
Spain	4 500	(96.8)	3 254	(72.3)	2 762	(84.9)	492	(15.1)	1 246	(27.7)	148	(3.2)	4 648
Sweden	477	(97.1)	324	(67.9)	289	(89.2)	35	(10.8)	153	(32.1)	14	(2.9)	491
United Kingdom ^h	4 775	(94.1)	2 750	(57.6)	2 150	(78.2)	600	(21.8)	2 025	(42.4)	300	(5.9)	5 075
Subtotal EU/EEA	50 455	(95.4)	38 926	(77.1)	31 589	(81.2)	7 337	(18.8)	11 529	(22.9)	2 407	(4.6)	52 862
Non-EU/EEA													
Albania	440	(100.0)	330	(75.0)	208	(63.0)	122	(37.0)	110	(25.0)	0	(0.0)	440
Andorra	2	(100.0)	2	(100.0)	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	2
Armenia	734	(92.2)	567	(77.2)	296	(52.2)	271	(47.8)	167	(22.8)	62	(7.8)	796
Azerbaijan	5 038	(73.1)	4 021	(79.8)	3 029	(75.3)	992	(24.7)	1 017	(20.2)	1 858	(26.9)	6 896
Belarus	2 359	(92.8)	2 143	(90.8)	1 981	(92.4)	162	(7.6)	216	(9.2)	183	(7.2)	2 542
Bosnia and Herzegovina	666	(99.6)	600	(90.1)	448	(74.7)	152	(25.3)	66	(9.9)	3	(0.4)	669
Georgia	2 316	(89.4)	1 863	(80.4)	1 628	(87.4)	235	(12.6)	453	(19.6)	274	(10.6)	2 590
Israel	292	(100.0)	225	(77.1)	160	(71.1)	65	(28.9)	67	(22.9)	0	(0.0)	292
Kazakhstan	12 832	(96.0)	11 695	(91.1)	10 307	(88.1)	1 388	(11.9)	1 137	(8.9)	529	(4.0)	13 361
Kyrgyzstan	6 338	(83.6)	4 978	(78.5)	3 050	(61.3)	1 928	(38.7)	1 360	(21.5)	1 247	(16.4)	7 585
Moldova	3 022	(87.2)	2 735	(90.5)	1 839	(67.2)	896	(32.8)	287	(9.5)	443	(12.8)	3 465
Monaco	0	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	84	(100.0)	74	(88.1)	64	(86.5)	10	(13.5)	10	(11.9)	0	(0.0)	84
North Macedonia	217	(100.0)	165	(76.0)	146	(88.5)	19	(11.5)	52	(24.0)	0	(0.0)	217
Russia	78 258	(73.2)	71 913	(91.9)	38 774	(53.9)	33 139	(46.1)	6 345	(8.1)	28 655	(26.8)	106 913
San Marino	0	–	0	–	0	–	0	–	0	–	0	–	0
Serbia	1 330	(97.9)	1 071	(80.5)	772	(72.1)	299	(27.9)	259	(19.5)	28	(2.1)	1 358
Serbia excluding Kosovo ⁱ	677	(97.8)	605	(89.4)	543	(89.8)	62	(10.2)	72	(10.6)	15	(2.2)	692
Kosovo ⁱ	653	(98.0)	466	(71.4)	229	(49.1)	237	(50.9)	187	(28.6)	13	(2.0)	666
Switzerland	473	(91.7)	337	(71.2)	317	(94.1)	20	(5.9)	136	(28.8)	43	(8.3)	516
Tajikistan	5 726	(95.8)	4 153	(72.5)	2 870	(69.1)	1 283	(30.9)	1 573	(27.5)	249	(4.2)	5 975
Turkey	11 576	(98.2)	7 559	(65.3)	5 861	(77.5)	1 698	(22.5)	4 017	(34.7)	210	(1.8)	11 786
Turkmenistan	2 157	(81.8)	1 611	(74.7)	782	(48.5)	829	(51.5)	546	(25.3)	479	(18.2)	2 636
Ukraine	26 512	(87.3)	24 213	(91.3)	16 596	(68.5)	7 617	(31.5)	2 299	(8.7)	3 866	(12.7)	30 378
Uzbekistan	16 413	(88.7)	10 811	(65.9)	5 929	(54.8)	4 882	(45.2)	5 602	(34.1)	2 083	(11.3)	18 496
Subtotal non-EU/EEA	176 785	(81.5)	151 066	(85.5)	95 059	(62.9)	56 007	(37.1)	25 719	(14.5)	40 212	(18.5)	216 997
Total European Region	227 240	(84.2)	189 992	(83.6)	126 648	(66.7)	63 344	(33.3)	37 248	(16.4)	42 619	(15.8)	269 859
Subtotal 18 HPCs	187 365	(82.1)	160 198	(85.5)	102 724	(64.1)	57 474	(35.9)	27 167	(14.5)	40 906	(17.9)	228 271

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein.WHO European Region 18 tuberculosis high-priority countries are presented in *italics*.

HPC - high-priority countries.

^b World Health Organization. Definitions and reporting framework for tuberculosis - 2013 revision. WHO/HTM/TB/ 2013.2. Geneva, Switzerland: WHO, 2013.^c Cases with unknown previous tuberculosis history are included among new tuberculosis cases.^d Proportion of all tuberculosis cases.^e For the EU/EEA countries, cases with no disease site reported are included among pulmonary tuberculosis cases.^f Proportion of all new and relapse tuberculosis cases.^g Confirmed by culture, smear and/or nucleic acid amplification test. Microscopy results from any specimen are included for EU/EEA countries.^h Proportion of all new and relapse pulmonary tuberculosis cases.ⁱ Previous tuberculosis history is defined by previous diagnosis.^j This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 8. Tuberculosis cases according to EU case definition, EU/EEA, 2018

Country	All laboratory-confirmed cases ^a						Confirmed cases ^b		Probable cases		Possible cases		All tuberculosis cases (N)
	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	
Austria	15	(4.1)	248	(67.9)	102	(27.9)	365	(75.7)	72	(14.9)	45	(9.3)	482
Belgium	14	(1.9)	456	(62.5)	260	(35.6)	730	(74.4)	121	(12.3)	130	(13.3)	981
Bulgaria	0	(0.0)	617	(99.8)	1	(0.2)	618	(45.5)	122	(9.0)	618	(45.5)	1 358
Croatia	0	(0.0)	325	(100.0)	0	(0.0)	325	(87.4)	5	(1.3)	42	(11.3)	372
Cyprus	0	(0.0)	32	(80.0)	8	(20.0)	40	(76.9)	0	(0.0)	12	(23.1)	52
Czech Republic	2	(0.6)	250	(69.3)	109	(30.2)	361	(81.3)	51	(11.5)	32	(7.2)	444
Denmark	2	(0.9)	107	(48.4)	112	(50.7)	221	(75.9)	9	(3.1)	61	(21.0)	291
Estonia	2	(1.6)	58	(46.4)	65	(52.0)	125	(85.0)	13	(8.8)	9	(6.1)	147
Finland	0	(0.0)	166	(85.6)	28	(14.4)	194	(84.3)	21	(9.1)	15	(6.5)	230
France	0	(0.0)	2 234	(100.0)	0	(0.0)	2 234	(43.9)	938	(18.4)	1 920	(37.7)	5 092
Germany	142	(3.4)	2 285	(55.4)	1 700	(41.2)	4 127	(76.0)	510	(9.4)	792	(14.6)	5 429
Greece	8	(3.6)	137	(60.9)	80	(35.6)	225	(52.1)	78	(18.1)	129	(29.9)	432
Hungary	0	(0.0)	367	(100.0)	0	(0.0)	367	(57.3)	12	(1.9)	261	(40.8)	640
Iceland	0	(0.0)	0	(0.0)	2	(100.0)	2	(25.0)	2	(25.0)	4	(50.0)	8
Ireland	0	(0.0)	185	(81.1)	43	(18.9)	228	(72.6)	37	(11.8)	49	(15.6)	314
Italy	0	(0.0)	2 728	(100.0)	0	(0.0)	2 728	(69.7)	301	(7.7)	883	(22.6)	3 912
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	0	(0.0)	1	(100.0)	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	1
Lithuania	0	(0.0)	992	(100.0)	0	(0.0)	992	(86.9)	9	(0.8)	141	(12.3)	1 142
Luxembourg	0	(0.0)	35	(100.0)	0	(0.0)	35	(83.3)	0	(0.0)	7	(16.7)	42
Malta	0	(0.0)	34	(100.0)	0	(0.0)	34	(61.8)	0	(0.0)	21	(38.2)	55
Netherlands	4	(0.7)	373	(66.6)	183	(32.7)	560	(69.5)	73	(9.1)	173	(21.5)	806
Norway	3	(1.8)	120	(70.6)	47	(27.6)	170	(81.3)	16	(7.7)	23	(11.0)	209
Poland	0	(0.0)	3 388	(83.1)	687	(16.9)	4 075	(74.3)	129	(2.4)	1 283	(23.4)	5 487
Portugal	101	(6.6)	1 018	(66.7)	408	(26.7)	1 527	(71.5)	326	(15.3)	284	(13.3)	2 137
Romania	40	(0.5)	6 775	(77.7)	1 905	(21.8)	8 720	(71.4)	916	(7.5)	2 569	(21.0)	12 205
Slovakia	2	(1.4)	128	(87.7)	16	(11.0)	146	(52.0)	50	(17.8)	85	(30.2)	281
Slovenia	0	(0.0)	52	(56.5)	40	(43.5)	92	(92.9)	4	(4.0)	3	(3.0)	99
Spain	48	(1.5)	2 611	(80.3)	591	(18.2)	3 250	(69.9)	556	(12.0)	842	(18.1)	4 648
Sweden	0	(0.0)	302	(74.0)	106	(26.0)	408	(83.1)	26	(5.3)	57	(11.6)	491
United Kingdom	9	(0.3)	3 012	(95.7)	126	(4.0)	3 147	(62.0)	405	(8.0)	1 523	(30.0)	5 075
Total EU/EEA	392	(1.1)	29 036	(80.6)	6 619	(18.4)	36 047	(68.2)	4 802	(9.1)	12 013	(22.7)	52 862

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

^a Laboratory-confirmed tuberculosis 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 tuberculosis cases.^d Proportion of all tuberculosis cases.

Table 9. New tuberculosis cases and relapses, by age group and male-to-female ratio, European Region, 2018^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	12	(2.6)	2.8	2.0	16	(3.4)	1.9	1.7	73	(15.5)	7.4	1.8	153	(32.6)	6.5	1.1
Belgium ^b	27	(3.0)	4.3	0.9	33	(3.6)	2.5	1.8	160	(17.5)	12.3	2.1	362	(39.6)	12.3	1.8
Bulgaria	20	(1.6)	6.1	1.0	47	(3.6)	6.9	1.0	92	(7.1)	14.4	1.2	356	(27.6)	18.0	1.9
Croatia	1	(0.3)	0.5	N/M	7	(1.9)	1.7	0.8	21	(5.8)	4.6	1.3	62	(17.0)	5.8	1.6
Cyprus	1	(2.0)	2.2	N/F	0	(0.0)	0.0	–	4	(7.8)	3.5	3.0	34	(66.7)	12.9	0.6
Czech Republic	5	(1.1)	0.9	0.7	0	(0.0)	0.0	–	24	(5.5)	2.4	2.0	143	(32.9)	4.5	2.5
Denmark ^b	5	(1.9)	1.7	1.5	5	(1.9)	0.8	0.7	23	(8.5)	3.1	3.6	109	(40.4)	7.6	1.2
Estonia	1	(0.7)	1.4	N/F	1	(0.7)	0.7	N/M	4	(2.8)	3.2	3.0	51	(35.2)	13.7	2.4
Finland	1	(0.4)	0.4	N/F	1	(0.4)	0.2	N/F	31	(13.5)	5.0	1.8	47	(20.5)	3.4	1.8
France	118	(2.5)	3.1	1.0	116	(2.4)	1.4	1.3	865	(18.1)	11.0	2.6	1 758	(36.8)	10.7	2.0
Germany	113	(2.1)	2.9	1.0	101	(1.9)	1.4	1.1	1 300	(24.7)	15.0	2.7	1 859	(35.3)	9.1	1.9
Greece	0	(0.0)	0.0	–	5	(1.2)	0.5	1.5	69	(17.0)	6.3	7.6	122	(30.0)	4.3	3.5
Hungary	2	(0.3)	0.4	1.0	1	(0.2)	0.1	N/F	26	(4.3)	2.4	1.4	142	(23.6)	5.1	1.5
Iceland	0	(0.0)	0.0	–	0	(0.0)	0.0	–	0	(0.0)	0.0	–	3	(37.5)	3.0	2.0
Ireland ^b	4	(1.4)	1.3	1.0	3	(1.0)	0.4	0.5	30	(10.2)	5.0	2.0	117	(39.8)	8.4	1.0
Italy	82	(2.2)	3.4	0.8	80	(2.1)	1.4	1.1	713	(18.9)	12.1	3.7	1 415	(37.5)	9.4	1.9
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	0	(0.0)	0.0	–	0	(0.0)	0.0	–	0	(0.0)	0.0	–	1	(100.0)	10.2	N/M
Lithuania	1	(0.1)	0.7	N/F	18	(1.7)	6.6	2.6	64	(6.0)	20.7	1.5	351	(33.0)	49.1	2.6
Luxembourg	0	(0.0)	0.0	–	0	(0.0)	0.0	–	5	(11.9)	7.0	N/F	23	(54.8)	12.5	3.6
Malta	0	(0.0)	0.0	–	1	(1.8)	2.3	N/F	22	(40.0)	40.9	3.4	26	(47.3)	17.5	4.2
Netherlands	7	(0.9)	0.8	0.4	13	(1.6)	0.7	1.6	164	(20.7)	7.7	2.2	323	(40.8)	7.6	1.4
Norway ^b	2	(1.1)	0.7	1.0	5	(2.6)	0.8	0.7	35	(18.5)	5.3	1.3	100	(52.9)	7.0	1.0
Poland	20	(0.4)	1.1	0.7	32	(0.6)	0.8	0.7	194	(3.7)	4.8	1.2	1 266	(24.4)	10.9	2.4
Portugal	33	(1.6)	7.8	1.1	27	(1.3)	2.7	1.3	161	(7.6)	14.7	1.1	649	(30.7)	24.4	1.6
Romania	187	(1.6)	18.9	1.0	353	(3.0)	17.1	0.9	1 075	(9.3)	51.7	1.3	3 777	(32.6)	68.6	2.1
Slovakia	23	(8.4)	8.0	1.6	17	(6.2)	3.0	1.4	12	(4.4)	2.0	1.4	57	(20.9)	3.3	1.3
Slovenia	1	(1.0)	1.0	N/F	0	(0.0)	0.0	–	5	(5.1)	2.6	4.0	23	(23.5)	4.1	2.3
Spain	148	(3.3)	7.0	1.2	149	(3.3)	3.1	1.1	439	(9.8)	9.7	1.8	1 466	(32.6)	11.4	1.5
Sweden	7	(1.5)	1.2	2.5	24	(5.0)	2.0	2.0	96	(20.1)	8.3	1.5	208	(43.6)	7.8	1.4
United Kingdom ^b	75	(1.6)	1.9	1.5	84	(1.8)	1.1	0.9	590	(12.4)	7.5	1.3	2 006	(42.0)	11.6	1.5
Subtotal EU/EEA	896	(1.8)	3.5	1.1	1 139	(2.3)	2.1	1.0	6 297	(12.5)	11.2	2.0	17 009	(33.7)	12.5	1.9
Non-EU/EEA																
Albania	1	(0.2)	0.6	N/F	3	(0.7)	0.9	N/F	81	(18.4)	17.7	2.9	120	(27.3)	15.6	3.3
Andorra	0	(0.0)	0.0	–	0	(0.0)	0.0	–	0	(0.0)	0.0	–	2	(100.0)	9.9	N/F
Armenia	15	(2.0)	7.1	0.7	22	(3.0)	5.5	1.4	89	(12.1)	24.3	7.9	232	(31.6)	25.4	2.6
Azerbaijan	44	(0.9)	5.0	0.3	156	(3.1)	10.7	1.3	938	(18.6)	65.0	2.3	1 365	(27.1)	42.2	1.8
Belarus	5	(0.2)	0.9	0.1	7	(0.3)	0.7	0.8	71	(3.0)	7.7	1.2	942	(39.9)	33.0	2.8
Bosnia and Herzegovina	1	(0.2)	0.7	0.0	4	(0.6)	1.1	3.0	76	(11.4)	18.9	1.6	125	(18.8)	13.9	1.8
Georgia	23	(1.0)	8.2	0.4	54	(2.3)	10.5	1.3	293	(12.7)	62.3	1.1	932	(40.2)	84.0	1.9
Israel	9	(3.1)	1.1	3.5	7	(2.4)	0.5	0.8	21	(7.2)	1.7	2.5	126	(43.2)	5.7	2.0
Kazakhstan	92	(0.7)	4.7	1.3	270	(2.1)	8.3	0.6	1 705	(13.3)	74.4	1.0	5 565	(43.4)	99.3	1.6
Kyrgyzstan	59	(0.9)	7.5	1.3	251	(4.0)	20.1	0.9	1 362	(21.5)	131.6	1.3	2 216	(35.0)	118.7	1.4
Moldova	35	(1.2)	16.7	1.3	60	(2.0)	13.9	0.8	199	(6.6)	41.1	2.1	1 330	(44.0)	94.9	2.9
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	2	(2.4)	5.5	1.0	0	(0.0)	0.0	–	11	(13.1)	13.4	1.8	28	(33.3)	16.0	1.2
North Macedonia	4	(1.8)	3.5	1.0	8	(3.7)	3.5	1.0	37	(17.1)	14.0	1.6	61	(28.1)	9.6	2.2
Russia	883	(1.1)	9.3	0.9	1 286	(1.6)	7.7	0.9	4 546	(5.8)	32.7	1.3	42 740	(54.6)	94.7	2.4
San Marino	0	(0.0)	0.0	0.0	0	(0.0)	0.0	–	0	(0.0)	0.0	–	0	(0.0)	0.0	–
Serbia	10	(0.8)	2.4	0.7	19	(1.4)	2.0	0.6	159	(12.0)	15.0	1.3	320	(24.1)	13.1	1.0
Serbia excluding Kosovo ^c	1	(0.2)	0.4	N/M	5	(0.8)	0.8	0.3	57	(8.9)	7.7	1.3	131	(20.4)	6.8	1.1
Kosovo ^c	9	(1.3)	6.1	0.8	14	(2.0)	4.8	0.8	102	(14.8)	31.4	1.4	189	(27.4)	36.6	1.0
Switzerland	13	(2.7)	2.9	0.9	13	(2.7)	1.6	1.6	85	(18.0)	9.2	2.1	179	(37.8)	7.7	1.6
Tajikistan	93	(1.6)	7.0	1.3	253	(4.4)	12.5	1.0	1 436	(25.1)	86.8	1.4	2 144	(37.4)	84.3	1.4
Turkey	213	(1.8)	3.2	1.2	386	(3.3)	2.8	1.2	1 791	(15.5)	13.3	1.0	3 410	(29.5)	13.7	1.3
Turkmenistan	0	(0.0)	0.0	–	0.0	(0.0)	0.0	–	339	(15.7)	35.2	1.1	920	(42.7)	50.6	1.5
Ukraine	219	(0.8)	9.7	0.9	361	(1.4)	7.6	1.0	1 473	(5.6)	34.2	1.2	13 313	(50.2)	97.6	2.4
Uzbekistan	367	(2.2)	10.8	1.2	1 662	(10.1)	28.1	1.4	1 824	(11.1)	32.9	1.2	5 443	(33.2)	52.3	1.2
Subtotal non-EU/EEA	2 088	(1.2)	6.7	1.1	4 822	(2.7)	8.5	1.1	16 536	(9.4)	32.3	1.3	81 513	(46.1)	65.3	2.1
Total European Region	2 984	(1.3)	5.2	1.1	5 961	(2.6)	5.4	1.1	22 833	(10.0)	21.3	1.5	98 522	(43.4)	37.8	2.0
Subtotal 18 HPCs	2 257	(1.2)	7.4	1.1	5 187	(2.8)	9.3	1.1	17 301	(9.2)	34.5	1.3	85 087	(45.4)	68.4	2.1

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.WHO European Region 18 tuberculosis high-priority countries presented in *italics*.

M - male.

F - female.

HPC - high-priority countries.

N/F - no female in the subgroup.

N/M - no male in the subgroup.

^bCases with unknown previous tuberculosis history are included among new tuberculosis cases.^cPrevious tuberculosis history is defined by previous diagnosis.^dThis designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

	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
	125	(26.6)	4.9	2.0	91	(19.4)	5.5	1.5	0	(0.0)	–			Austria
	205	(22.5)	6.7	2.5	126	(13.8)	5.9	1.9	0	(0.0)	–	470	1.5	Belgium ^b
	510	(39.5)	26.1	2.8	265	(20.5)	17.9	1.6	0	(0.0)	–	913	2.0	Bulgaria
	138	(37.9)	11.9	2.9	135	(37.1)	16.4	1.1	0	(0.0)	–	1 290	2.0	Croatia
	9	(17.6)	4.3	3.5	3	(5.9)	2.2	2.0	0	(0.0)	–	364	1.7	Cyprus
	164	(37.7)	5.9	4.0	99	(22.8)	4.9	1.1	0	(0.0)	–	51	1.0	Czech Republic
	95	(35.2)	6.2	2.1	33	(12.2)	3.0	1.4	0	(0.0)	–	435	2.3	Denmark ^b
	57	(39.3)	16.4	3.8	31	(21.4)	12.0	1.4	0	(0.0)	–	270	1.6	Estonia
	37	(16.2)	2.6	4.3	112	(48.9)	9.5	1.7	0	(0.0)	–	145	2.5	Finland
	1 029	(21.5)	5.9	2.2	891	(18.6)	6.8	1.6	2	(0.0)	1.0	229	2.0	France
	1 026	(19.5)	4.2	2.2	864	(16.4)	4.9	1.4	2	(0.0)	N/F	4 779	2.0	Germany
	95	(23.4)	3.2	3.0	112	(27.6)	4.8	1.9	3	(0.7)	N/F	5 265	2.0	Greece
	262	(43.5)	9.9	2.6	169	(28.1)	9.1	1.3	0	(0.0)	–	406	3.1	Hungary
	1	(12.5)	1.2	N/F	4	(50.0)	8.2	0.3	0	(0.0)	–	602	1.8	Iceland
	78	(26.5)	6.7	2.1	62	(21.1)	9.3	1.7	0	(0.0)	–	8	1.0	Ireland ^b
	824	(21.8)	4.6	2.1	654	(17.3)	4.8	1.4	9	(0.2)	1.3	294	1.5	Italy
	–	–	–	–	–	–	–	–	–	–	–	3 777	2.0	Latvia
	0	(0.0)	0	–	0	(0.0)	0.0	–	0	(0.0)	–	–	–	Liechtenstein
	462	(43.5)	57.0	3.9	167	(15.7)	30.3	1.6	0	(0.0)	–	1	N/M	Lithuania
	8	(19.0)	4.9	7.0	6	(14.3)	7.0	1.0	0	(0.0)	–	1 063	2.7	Luxembourg
	4	(7.3)	3.4	1.0	1	(1.8)	1.1	N/M	1	(1.8)	N/F	42	3.7	Malta
	170	(21.5)	3.5	2.1	114	(14.4)	3.5	1.4	0	(0.0)	–	55	3.2	Netherlands
	27	(14.3)	2.0	0.6	20	(10.6)	2.2	1.5	0	(0.0)	–	791	1.6	Norway ^b
	2 328	(44.8)	23.3	3.8	1 356	(26.1)	20.9	1.4	0	(0.0)	–	189	1.0	Poland
	721	(34.2)	24.8	3.0	520	(24.6)	23.5	1.9	0	(0.0)	–	5 196	2.4	Portugal
	4 370	(37.7)	81.8	4.3	1 824	(15.7)	51.4	1.5	0	(0.0)	–	2 111	2.0	Romania
	85	(31.1)	5.9	2.7	79	(28.9)	9.4	0.7	0	(0.0)	–	11 586	2.3	Slovakia
	29	(29.6)	4.9	6.3	40	(40.8)	10.0	0.9	0	(0.0)	–	273	1.4	Slovenia
	1 271	(28.2)	9.6	1.9	995	(22.1)	11.1	1.8	32	(0.7)	1.5	98	2.0	Spain
	84	(17.6)	3.4	1.1	58	(12.2)	2.9	0.9	0	(0.0)	–	4 500	1.7	Sweden
	1 265	(26.5)	7.4	1.5	755	(15.8)	6.2	1.3	0	(0.0)	–	477	1.3	United Kingdom ^b
	15 479	(30.7)	10.9	2.8	9 586	(19.0)	9.4	1.5	49	(0.1)	1.7	50 455	2.0	Subtotal EU/EEA
														Non-EU/EEA
	120	(27.3)	16.0	2.5	115	(26.1)	29.0	2.5	0	(0.0)	–	440	2.8	Albania
	0	(0.0)	0.0	–	0	(0.0)	0.0	–	0	(0.0)	–	2	N/F	Andorra
	291	(39.6)	39.9	4.3	85	(11.6)	25.6	2.4	0	(0.0)	–	734	3.4	Armenia
	1 002	(19.9)	43.0	2.3	257	(5.1)	41.7	1.5	1 276	(25.3)	–	5 038	2.0	Azerbaijan
	987	(41.8)	36.9	4.6	347	(14.7)	24.7	1.1	0	(0.0)	–	2 359	2.8	Belarus
	211	(31.7)	21.4	2.5	249	(37.4)	45.5	1.0	0	(0.0)	–	666	1.6	Bosnia and Herzegovina
	754	(32.6)	72.8	4.3	260	(11.2)	43.7	1.7	0	(0.0)	–	2 316	2.2	Georgia
	49	(16.8)	3.1	2.8	80	(27.4)	8.0	1.6	0	(0.0)	–	292	2.0	Israel
	3 826	(29.8)	99.2	2.4	1 374	(10.7)	101.5	0.9	0	(0.0)	–	12 832	1.6	Kazakhstan
	1 699	(26.8)	157.4	1.8	751	(11.8)	265.0	1.2	0	(0.0)	–	6 338	1.4	Kyrgyzstan
	1 173	(38.8)	110.8	3.6	225	(7.4)	48.4	1.6	0	(0.0)	–	3 022	2.8	Moldova
	–	–	–	–	–	–	–	–	–	–	–	–	–	Monaco
	28	(33.3)	17.2	2.5	15	(17.9)	16.0	4.0	0	(0.0)	–	84	1.9	Montenegro
	69	(31.8)	12.4	2.8	38	(17.5)	13.3	1.1	0	(0.0)	–	217	1.9	North Macedonia
	22 819	(29.2)	58.2	3.1	5 666	(7.2)	26.5	1.3	318	(0.4)	62.6	78 258	2.3	Russia
	0	(0.0)	0.0	–	0	(0.0)	0.0	–	0	(0.0)	–	0	–	San Marino
	420	(31.6)	18.2	1.3	402	(30.2)	24.9	1.1	0	(0.0)	–	1 330	1.2	Serbia
	229	(35.7)	11.7	2.0	218	(34.0)	14.9	1.2	0	(0.0)	–	641	1.4	Serbia excluding Kosovo ^c
	191	(27.7)	53.5	0.8	184	(26.7)	122.8	1.1	0	(0.0)	–	689	1.0	Kosovo ^c
	103	(21.8)	4.3	1.2	80	(16.9)	5.0	1.8	0	(0.0)	–	473	1.6	Switzerland
	1 273	(22.2)	99.5	1.0	527	(9.2)	191.6	0.8	0	(0.0)	–	5 726	1.2	Tajikistan
	3 577	(30.9)	21.3	1.7	2 199	(19.0)	31.5	1.3	0	(0.0)	–	11 576	1.3	Turkey
	693	(32.1)	68.8	2.0	168	(7.8)	64.9	0.9	37	(1.7)	–	2 157	1.5	Turkmenistan
	8 956	(33.8)	74.4	3.4	2 190	(8.3)	30.1	1.2	0	(0.0)	–	26 512	2.4	Ukraine
	4 848	(29.5)	84.0	1.4	2 269	(13.8)	158.1	0.9	0	(0.0)	–	16 413	1.2	Uzbekistan
	52 898	(29.9)	54.2	2.6	17 297	(9.8)	35.9	1.2	1 631	(0.9)	–	176 785	1.9	Subtotal non-EU/EEA
	68 377	(30.1)	28.5	2.6	26 883	(11.8)	17.9	1.3	1 680	(0.7)	–	227 240	1.9	Total European Region
	57 297	(30.6)	58.5	2.7	18 605	(9.9)	38.1	1.2	1 631	(0.9)	–	187 365	2.0	Subtotal 18 HPCs

Table 10. Tuberculosis cases by origin, European Region, 2018

Country/area	Origin criterion	Native		Foreign		Unknown origin		All tuberculosis cases
		N	(%)	N	(%)	N	(%)	N
EU/EEA								
Austria	Citizenship	183	(38.0)	299	(62.0)	0	(0.0)	482
Belgium	Citizenship	470	(47.9)	511	(52.1)	0	(0.0)	981
Bulgaria	Birthplace	1 350	(99.4)	8	(0.6)	0	(0.0)	1 358
Croatia	Birthplace	177	(47.6)	4	(1.1)	191	(51.3)	372
Cyprus	Birthplace	3	(5.8)	49	(94.2)	0	(0.0)	52
Czech Republic	Birthplace	297	(66.9)	147	(33.1)	0	(0.0)	444
Denmark	Birthplace	93	(32.0)	198	(68.0)	0	(0.0)	291
Estonia	Birthplace	115	(78.2)	32	(21.8)	0	(0.0)	147
Finland	Birthplace	130	(56.5)	92	(40.0)	8	(3.5)	230
France	Birthplace	1 645	(32.3)	3 142	(61.7)	305	(6.0)	5 092
Germany	Birthplace	1 374	(25.3)	3 890	(71.7)	165	(3.0)	5 429
Greece	Citizenship	215	(49.8)	216	(50.0)	1	(0.2)	432
Hungary	Citizenship	617	(96.4)	23	(3.6)	0	(0.0)	640
Iceland	Birthplace	0	(0.0)	8	(100.0)	0	(0.0)	8
Ireland	Birthplace	144	(45.9)	140	(44.6)	30	(9.6)	314
Italy	Birthplace	1 509	(38.6)	2 313	(59.1)	90	(2.3)	3 912
Latvia	–	–	–	–	–	–	–	–
Liechtenstein	Birthplace	0	(0.0)	1	(100.0)	0	(0.0)	1
Lithuania	Birthplace	1 130	(98.9)	12	(1.1)	0	(0.0)	1 142
Luxembourg	Birthplace	8	(19.0)	34	(81.0)	0	(0.0)	42
Malta	Birthplace	2	(3.6)	53	(96.4)	0	(0.0)	55
Netherlands	Birthplace	181	(22.5)	619	(76.8)	6	(0.7)	806
Norway	Birthplace	29	(13.9)	180	(86.1)	0	(0.0)	209
Poland	Citizenship	5 390	(98.2)	97	(1.8)	0	(0.0)	5 487
Portugal	Birthplace	1 640	(76.7)	497	(23.3)	0	(0.0)	2 137
Romania	Birthplace	12 172	(99.7)	33	(0.3)	0	(0.0)	12 205
Slovakia	Birthplace	271	(96.4)	10	(3.6)	0	(0.0)	281
Slovenia	Birthplace	55	(55.6)	44	(44.4)	0	(0.0)	99
Spain	Birthplace	2 629	(56.6)	1 670	(35.9)	349	(7.5)	4 648
Sweden	Birthplace	68	(13.8)	423	(86.2)	0	(0.0)	491
United Kingdom	Birthplace	1 468	(28.9)	3 501	(69.0)	106	(2.1)	5 075
Subtotal EU/EEA	–	33 365	(63.1)	18 246	(34.5)	1 251	(2.4)	52 862
Non-EU/EEA								
Albania	Citizenship	440	(100.0)	0	(0.0)	–	–	440
Andorra	Citizenship	2	(100.0)	0	(0.0)	–	–	2
Armenia	Citizenship	786	(98.7)	10	(1.3)	–	–	796
Azerbaijan	Citizenship	6 896	(100.0)	0	(0.0)	–	–	6 896
Belarus	Citizenship	2 542	(100.0)	0	(0.0)	–	–	2 542
Bosnia and Herzegovina	Birthplace	669	(100.0)	0	(0.0)	–	–	669
Georgia	Citizenship	–	–	–	–	–	–	–
Israel	Birthplace	47	(16.1)	245	(83.9)	–	–	292
Kazakhstan	Citizenship	13 161	(98.5)	200	(1.5)	–	–	13 361
Kyrgyzstan	Birthplace	7 585	(100.0)	0	(0.0)	–	–	7 585
Moldova	Citizenship	3 448	(99.5)	17	(0.5)	–	–	3 465
Monaco	–	–	–	–	–	–	–	–
Montenegro	Citizenship	80	(95.2)	4	(4.8)	–	–	84
North Macedonia	Birthplace	216	(99.5)	1	(0.5)	–	–	217
Russia	Citizenship	104 847	(98.1)	2 066	(1.9)	–	–	106 913
San Marino	–	0	(0.0)	0	(0.0)	–	–	0
Serbia	–	1 353	(99.6)	5	(0.4)	–	–	1 358
Serbia excluding Kosovo ^a	Citizenship	651	(99.2)	5	(0.8)	–	–	656
Kosovo ^a	Birthplace	702	(100.0)	0	(0.0)	–	–	702
Switzerland	Birthplace	164	(31.8)	352	(68.2)	–	–	516
Tajikistan	Birthplace	5 975	(100.0)	0	(0.0)	–	–	5 975
Turkey	Birthplace	10 508	(89.2)	1 278	(10.8)	–	–	11 786
Turkmenistan	Citizenship	–	–	–	–	–	–	–
Ukraine	Citizenship	30 331	(99.8)	47	(0.2)	–	–	30 378
Uzbekistan	Birthplace	18 496	(100.0)	0	(0.0)	–	–	18 496
Subtotal non-EU/EEA	–	207 546	(98.0)	4 225	(2.0)	–	–	211 771
Total European Region	–	240 911	(91.0)	22 471	(8.5)	1 251	(0.5)	264 633
Subtotal 18 HPCs	–	219 342	(98.3)	3 703	(1.7)	0	–	223 045

¹European Region¹ comprises the 53 countries of the WHO European Region and Liechtenstein.
WHO European Region 18 tuberculosis high-priority countries presented in italics.

HPC - high-priority countries.

^aThis designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 11. Drug resistance surveillance of bacteriologically confirmed^a pulmonary tuberculosis cases, European Region, 2018

Country/area	Source of data	Coverage	Bacteriologically-confirmed cases ^a		Cases with DST results at least for RIF and INH		Cases resistant to any anti-tuberculosis drug ^b		Multidrug-resistant tuberculosis cases		All pulmonary tuberculosis cases	Reporting completeness ^c
			N	(%)	N	(%)	N	(%)	N	(%)		
EU/EEA												
Austria	TESSy	National	323	(88.7)	284	(87.9)	37	(13.0)	15	(5.3)	364	Y
Belgium	TESSy	National	584	(83.1)	528	(90.4)	30	(5.7)	7	(1.3)	703	Y
Bulgaria	TESSy	National	600	(56.4)	536	(89.3)	62	(11.6)	24	(4.5)	1 063	Y
Croatia	TESSy	National	287	(90.0)	264	(92.0)	4	(1.5)	2	(0.8)	319	Y
Cyprus	TESSy	National	35	(83.3)	35	(100.0)	4	(11.4)	0	(0.0)	42	Y
Czech Republic	TESSy	National	346	(87.2)	297	(85.8)	28	(9.4)	10	(3.4)	397	Y
Denmark	TESSy	National	180	(81.4)	173	(96.1)	7	(4.0)	4	(2.3)	221	Y
Estonia	TESSy	National	125	(90.6)	118	(94.4)	46	(39.0)	30	(25.4)	138	Y
Finland	TESSy	National	143	(92.3)	129	(90.2)	9	(7.0)	4	(3.1)	155	Y
France	TESSy	National	1 659	(46.3)	66	(4.0)	66	(100.0)	66	(100.0)	3 583	–
Germany	TESSy	National	3 375	(86.2)	2 897	(85.8)	379	(13.1)	98	(3.4)	3 916	Y
Greece	TESSy	National	208	(57.6)	135	(64.9)	17	(12.6)	5	(3.7)	361	Y
Hungary	TESSy	National	362	(58.3)	325	(89.8)	40	(12.3)	12	(3.7)	621	Y
Iceland	TESSy	National	2	(40.0)	2	(100.0)	1	(50.0)	0	(0.0)	5	Y
Ireland	TESSy	National	171	(79.5)	152	(88.9)	19	(12.5)	4	(2.6)	215	Y
Italy ^d	NRL-TME ^d	Partial	2 220	(80.9)	1 811	(81.6)	–	–	42	(2.3)	2 744	N
Latvia	–	–	–	–	–	–	–	–	–	–	–	Y
Liechtenstein	TESSy	National	1	(100.0)	1	(100.0)	0	(0.0)	0	(0.0)	1	Y
Lithuania	TESSy	National	969	(91.0)	969	(100.0)	314	(32.4)	170	(17.5)	1 065	Y
Luxembourg	TESSy	National	29	(90.6)	29	(100.0)	2	(6.9)	1	(3.4)	32	Y
Malta	TESSy	National	29	(74.4)	27	(93.1)	1	(3.7)	0	(0.0)	39	Y
Netherlands	TESSy	National	394	(84.9)	340	(86.3)	29	(8.5)	3	(0.9)	464	Y
Norway	TESSy	National	116	(92.1)	108	(93.1)	13	(12.0)	4	(3.7)	126	Y
Poland	TESSy	National	4 028	(76.8)	3 639	(90.3)	250	(6.9)	46	(1.3)	5 244	Y
Portugal	TESSy	National	1 348	(83.6)	947	(70.3)	122	(12.9)	7	(0.7)	1 612	Y
Romania	TESSy	National	8 479	(81.4)	7 754	(91.4)	723	(9.3)	347	(4.5)	10 416	Y
Slovakia	TESSy	National	158	(64.8)	133	(84.2)	3	(2.3)	2	(1.5)	244	Y
Slovenia	TESSy	National	80	(95.2)	80	(100.0)	3	(3.8)	0	(0.0)	84	Y
Spain	TESSy	National	2 698	(80.1)	1 015	(37.6)	137	(13.5)	28	(2.8)	3 369	Y
Sweden	TESSy	National	298	(89.2)	292	(98.0)	49	(16.8)	7	(2.4)	334	Y
United Kingdom	TESSy	National	2 222	(75.4)	2 162	(97.3)	261	(12.1)	25	(1.2)	2 948	Y
Subtotal EU/EEA			31 469	(77.1)	25 248	(80.2)	2 656	(11.3)	963	(3.8)	40 825	
Non-EU/EEA												
Albania	NRL-TME	National	208	–	63	(30.3)	–	–	2	(3.2)	–	N
Andorra	NRL-TME	National	2	–	1	(50.0)	–	–	0	(0.0)	–	N
Armenia	NRL-TME	National	358	–	332	(92.7)	–	–	76	(22.9)	–	Y
Azerbaijan	NRL-TME	National	4 824	–	4 426	(91.7)	–	–	638	(14.4)	–	Y
Belarus	NRL-TME	National	2 141	–	2 141	(100.0)	–	–	984	(46.0)	–	Y
Bosnia and Herzegovina	NRL-TME	National	448	–	2	(0.4)	–	–	0	(0.0)	–	N
Georgia	NRL-TME	National	1 862	–	1 032	(55.4)	–	–	167	(16.2)	–	N
Israel	NRL-TME	National	160	–	160	(100.0)	–	–	13	(8.1)	–	Y
Kazakhstan	NRL-TME	National	10 774	–	5 406	(50.2)	–	–	1 462	(27.0)	–	N
Kyrgyzstan	NRL-TME	National	3 875	–	2 747	(70.9)	–	–	1 241	(45.2)	–	N
Moldova	NRL-TME	National	2 197	–	1 783	(81.2)	–	–	625	(35.1)	–	Y
Monaco	–	–	–	–	–	–	–	–	0	–	–	Y
Montenegro	NRL-TME	National	64	–	60	(93.8)	–	–	1	(1.7)	–	Y
North Macedonia	NRL-TME	National	146	–	137	(93.8)	–	–	2	(1.5)	–	Y
Russia	NRL-TME	National	57 187	–	52 048	(91.0)	–	–	24 035	(46.2)	–	Y
San Marino	–	National	0	–	0	–	–	–	0	(0.0)	–	Y
Serbia	NRL-TME	National	790	–	302	(38.2)	–	–	3	(1.4)	–	N
Serbia excluding Kosovo ^e	NRL-TME	National	557	–	302	(54.2)	–	–	3	(1.4)	–	Y
Kosovo ^e	NRL-TME	National	233	–	0	(0.0)	–	–	–	–	–	N
Switzerland	NRL-TME	Subnational	342	–	276	(80.7)	–	–	4	(1.4)	–	Y
Tajikistan	NRL-TME	National	3 037	–	551	(18.1)	–	–	416	(75.5)	–	N
Turkey	NRL-TME	National	5 995	–	5 152	(85.9)	–	–	167	(3.2)	–	Y
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	N
Ukraine	NRL-TME	National	19 705	–	18 568	(94.2)	–	–	5 054	(27.2)	–	Y
Uzbekistan	NRL-TME	National	6 841	–	6 841	(100.0)	–	–	816	(11.9)	–	Y
Subtotal non-EU/EEA			120 956	–	102 028	(84.4)	–	–	35 706	(35.0)		
Total European Region			152 425	–	127 276	(83.5)	2 656	(11.3)	36 669	(28.8)		
Subtotal 18 HPCs			128 969	–	110 404	(85.6)	1 145	(1.0)	36 252	(32.8)		

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein.
WHO European Region 18 tuberculosis high-priority countries 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.
HPC - high-priority countries.
INH - Isoniazid.
NRL - national reference laboratory.
RIF - rifampicin.
TESSy - the European surveillance system.
TME - The WHO global tuberculosis data collection system.
^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. For EU/EEA countries: cases with positive identification for Mycobacterium tuberculosis complex confirmed by culture and/or line probe assay.

^b For non-EU/EEA countries, any resistance to isoniazid, rifampicin, ethambutol or streptomycin expressed as a percentage of cases with DST results available for at least isoniazid and rifampicin. No routine testing for ethambutol and streptomycin in all countries. For EU/EEA countries, cases with DST results for at least RIF and INH that have any resistance to isoniazid, rifampicin, ethambutol, streptomycin, ciprofloxacin, gatifloxacin, levofloxacin, moxifloxacin, ofloxacin, amikacin, capreomycin, kanamycin or pyrazinamide expressed as a percentage of cases with DST results available for at least isoniazid and rifampicin.
^c 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 EQA results have been accurate in 95% of samples of reported year.
^d Laboratory-related data from Italy are reported by NRL and may differ from data shown elsewhere in this report.
^e This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 12. Drug resistance surveillance of bacteriologically confirmed^a pulmonary tuberculosis cases by previous tuberculosis treatment history, European Region, 2018

Country/area	New ...								Previously treated ...							
	Cases with DST results		MDR-tuberculosis cases		bacteriologically confirmed pulmonary TB cases		... pulmonary tuberculosis cases		Cases with DST results		MDR-tuberculosis cases		bacteriologically confirmed pulmonary tuberculosis cases		... pulmonary tuberculosis cases	
	N	(%) ^c	N	(%) ^d	N	(%) ^e	N	(%) ^f	N	(%) ^c	N	(%) ^d	N	(%) ^e	N	(%) ^f
EU/EEA																
Austria	208	(95.9)	10	(4.8)	217	(83.8)	259	(91.8)	14	(87.5)	3	(21.4)	16	(69.6)	23	(8.2)
Belgium ^h	427	(96.4)	5	(1.2)	443	(78.7)	563	(91.1)	34	(94.4)	1	(2.9)	36	(65.5)	55	(8.9)
Bulgaria	464	(89.7)	10	(2.2)	517	(57.5)	899	(84.6)	72	(90.0)	14	(19.4)	80	(48.8)	164	(15.4)
Croatia	224	(92.9)	1	(0.4)	241	(92.7)	260	(90.9)	16	(88.9)	1	(6.3)	18	(69.2)	26	(9.1)
Cyprus	33	(100.0)	0	(0.0)	33	(89.2)	37	(92.5)	1	(100.0)	0	(0.0)	1	(33.3)	3	(7.5)
Czech Republic	278	(92.1)	10	(3.6)	302	(82.3)	367	(92.4)	19	(82.6)	0	(0.0)	23	(76.7)	30	(7.6)
Denmark ^k	160	(99.4)	4	(2.5)	161	(78.2)	206	(93.2)	13	(100.0)	0	(0.0)	13	(86.7)	15	(6.8)
Estonia	100	(98.0)	22	(22.0)	102	(89.5)	114	(82.6)	18	(94.7)	8	(44.4)	19	(79.2)	24	(17.4)
Finland	127	(96.2)	4	(3.1)	132	(88.0)	150	(98.7)	0	(0.0)	0	-	1	(50.0)	2	(1.3)
France	21	(2.6)	21	(100.0)	794	(44.8)	1771	(88.3)	16	(13.2)	16	(100.0)	121	(51.5)	235	(11.7)
Germany	2 044	(92.8)	55	(2.7)	2 203	(83.0)	2 655	(91.4)	129	(81.6)	23	(17.8)	158	(63.2)	250	(8.6)
Greece	115	(68.9)	4	(3.5)	167	(56.4)	296	(89.4)	7	(58.3)	0	(0.0)	12	(34.3)	35	(10.6)
Hungary	291	(90.9)	8	(2.7)	320	(57.8)	554	(89.2)	34	(81.0)	4	(11.8)	42	(62.7)	67	(10.8)
Iceland	2	(100.0)	0	(0.0)	2	(40.0)	5	(100.0)	0	-	0	-	0	-	0	(0.0)
Ireland ^k	95	(88.8)	3	(3.2)	107	(82.9)	129	(90.8)	7	(100.0)	0	(0.0)	7	(53.8)	13	(9.2)
Italy	1 744	(103.7)	32	(1.8)	1 682	(63.1)	2 667	(96.9)	67	(78.8)	10	(14.9)	85	(100.0)	85	(3.1)
Latvia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Liechtenstein	1	(100.0)	0	(0.0)	1	(100.0)	1	(100.0)	0	-	0	-	0	-	0	(0.0)
Lithuania	751	(100.0)	88	(11.7)	751	(88.7)	847	(79.5)	218	(100.0)	82	(37.6)	218	(100.0)	218	(20.5)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	27	(100.0)	0	(0.0)	27	(75.0)	36	(100.0)	0	-	0	-	0	-	0	(0.0)
Netherlands	326	(89.8)	3	(0.9)	363	(83.1)	437	(94.6)	14	(87.5)	0	(0.0)	16	(64.0)	25	(5.4)
Norway ^k	100	(100.0)	4	(4.0)	100	(87.7)	114	(90.5)	8	(72.7)	0	(0.0)	11	(91.7)	12	(9.5)
Poland	3 196	(92.6)	31	(1.0)	3 451	(74.8)	4 616	(88.0)	443	(91.5)	15	(3.4)	484	(77.1)	628	(12.0)
Portugal	853	(72.7)	6	(0.7)	1 174	(82.9)	1 416	(95.0)	38	(63.3)	1	(2.6)	60	(80.0)	75	(5.0)
Romania	5 940	(92.5)	117	(2.0)	6 419	(79.2)	8 102	(77.8)	1 811	(92.9)	230	(12.7)	1 949	(84.2)	2 314	(22.2)
Slovakia	116	(98.3)	0	(0.0)	118	(57.3)	206	(89.2)	15	(100.0)	2	(13.3)	15	(60.0)	25	(10.8)
Slovenia	70	(100.0)	0	(0.0)	70	(97.2)	72	(87.8)	8	(100.0)	0	(0.0)	8	(80.0)	10	(12.2)
Spain	808	(49.5)	11	(1.4)	1 632	(79.2)	2 061	(94.7)	47	(58.8)	3	(6.4)	80	(69.6)	115	(5.3)
Sweden	278	(100.0)	5	(1.8)	278	(87.7)	317	(95.8)	11	(100.0)	2	(18.2)	11	(78.6)	14	(4.2)
United Kingdom ^k	1 919	(98.6)	17	(0.9)	1 947	(74.3)	2 620	(92.9)	150	(98.0)	7	(4.7)	153	(76.1)	201	(7.1)
Subtotal EU/EEA	20 718	(87.2)	471	(2.3)	23 754	(74.8)	31 777	(87.2)	3 210	(88.3)	422	(13.1)	3 637	(78.0)	4 664	(12.8)
Non-EU/EEA																
Albania	59	(29.8)	1	(1.7)	198	(62.7)	316	-	4	(40.0)	1	(25.0)	10	-	-	-
Andorra	1	(50.0)	0	(0.0)	2	(100.0)	2	-	0	(0.0)	0	-	0	-	-	-
Armenia	250	(98.4)	43	(17.2)	254	(54.2)	469	-	82	(78.8)	33	(40.2)	104	-	-	-
Azerbaijan	1 904	(95.8)	160	(8.4)	1 988	(69.5)	2 859	-	2 522	(88.9)	478	(19.0)	2 836	-	-	-
Belarus	1 529	(100.0)	559	(36.6)	1 529	(90.8)	1 683	-	612	(100.0)	425	(69.4)	612	-	-	-
Bosnia and Herzegovina	2	(0.5)	0	(0.0)	410	(74.3)	552	-	0	(0.0)	0	(0.0)	38	-	-	-
Georgia	810	(60.0)	93	(11.5)	1 349	(88.3)	1 527	-	222	(43.3)	74	(33.3)	513	-	-	-
Israel	154	(100.0)	13	(8.4)	154	(71.0)	217	-	6	(100.0)	0	(0.0)	6	-	-	-
Kazakhstan	2 717	(40.4)	435	(16.0)	6 719	(85.6)	7 848	-	2 689	(66.3)	1 027	(38.2)	4 055	-	-	-
Kyrgyzstan	1 722	(67.5)	523	(30.4)	2 550	(64.0)	3 985	-	1 025	(77.4)	718	(70.0)	1 325	-	-	-
Moldova	1 264	(87.4)	309	(24.4)	1 446	(66.1)	2 189	-	519	(69.1)	316	(60.9)	751	-	-	-
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	57	(93.4)	0	(0.0)	61	(85.9)	71	-	3	(100.0)	1	(33.3)	3	-	-	-
North Macedonia	128	(94.8)	2	(1.6)	135	(90.0)	150	-	9	(81.8)	0	(0.0)	11	-	-	-
Russia	27 960	(88.1)	8 880	(31.8)	31 732	(53.3)	59 504	-	24 088	(94.6)	15 155	(62.9)	25 455	-	-	-
San Marino	0	-	0	-	0	-	0	-	0	-	0	(0.0)	0	-	-	-
Serbia	275	(39.1)	2	(0.7)	703	(71.2)	987	-	27	(31.4)	1	(3.7)	86	-	-	-
Serbia excluding Kosovo ⁱ	275	(56.2)	2	(0.0)	489	(95.1)	514	-	27	(39.7)	1	(3.7)	68	-	-	-
Kosovo ⁱ	0	(0.0)	0	(0.0)	214	(45.2)	473	-	0	(0.0)	0	(0.0)	18	-	-	-
Switzerland	261	(92.6)	3	(1.1)	282	(83.7)	337	-	15	(60.0)	1	(6.7)	25	-	-	-
Tajikistan	407	(16.4)	296	(72.7)	2 487	(68.1)	3 651	-	144	(26.2)	120	(83.3)	550	-	-	-
Turkey	4 711	(86.2)	123	(2.6)	5 465	(77.3)	7 069	-	441	(83.2)	44	(10.0)	530	-	-	-
Turkmenistan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	12 349	(95.5)	2 755	(22.3)	12 931	(66.9)	19 318	-	6 219	(91.8)	2 299	(37.0)	6 774	-	-	-
Uzbekistan	4 828	(100.0)	392	(8.1)	4 828	(54.7)	8 831	-	2 013	(100.0)	424	(21.1)	2 013	-	-	-
Subtotal non-EU/EEA	61 388	(81.6)	14 589	(23.8)	75 223	(61.9)	121 565	-	40 640	(88.9)	21 117	(52.0)	45 697	-	-	-
Total European Region	82 106	(83.0)	15 060	(18.3)	98 977	(64.5)	153 342	-	43 850	(88.9)	21 539	(49.1)	49 334	-	-	-
Subtotal 18 HPCs	67 706	(83.5)	14 805	(21.9)	81 067	(62.9)	128 895	-	42 695	(89.3)	21 447	(50.2)	47 784	-	2 720	-

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.WHO European Region 18 tuberculosis high-priority countries 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.

HPC - high-priority countries.

MDR TB - multidrug-resistant tuberculosis.

^bBacteriologically confirmed cases – cases with positive identification for *Mycobacterium tuberculosis* complex confirmed by culture and/or line probe assay for non-EU/EEA countries.^cFor EU/EEA countries: culture-positive OR microscopy-positive and nucleic acid amplification test-positive cases.^dPulmonary tuberculosis cases with unknown previous treatment are excluded.

	Total ... ^b								Country/area
	Cases with DST results		MDR-tuberculosis cases		All bacteriologically confirmed pulmonary tuberculosis cases		All pulmonary tuberculosis cases		
	N	(%) ^a	N	(%) ^b	N	(%) ^c	N	(%)	
									EU/EEA
	222	(95.3)	13	(5.9)	233	(82.6)	282	(58.5)	Austria
	461	(96.2)	6	(1.3)	479	(77.5)	618	(63.0)	Belgium ^k
	536	(89.8)	24	(4.5)	597	(56.2)	1 063	(78.3)	Bulgaria
	240	(92.7)	2	(0.8)	259	(90.6)	286	(76.9)	Croatia
	34	(100.0)	0	(0.0)	34	(85.0)	40	(76.9)	Cyprus
	297	(91.4)	10	(3.4)	325	(81.9)	397	(89.4)	Czech Republic
	173	(99.4)	4	(2.3)	174	(78.7)	221	(75.9)	Denmark ^k
	118	(97.5)	30	(25.4)	121	(87.7)	138	(93.9)	Estonia
	127	(95.5)	4	(3.1)	133	(87.5)	152	(66.1)	Finland
	37	(4.0)	37	(100.0)	915	(45.6)	2 006	(39.4)	France
	2 173	(92.0)	78	(3.6)	2 361	(81.3)	2 905	(53.5)	Germany
	122	(68.2)	4	(3.3)	179	(54.1)	331	(76.6)	Greece
	325	(89.8)	12	(3.7)	362	(58.3)	621	(97.0)	Hungary
	2	(100.0)	0	(0.0)	2	(40.0)	5	(62.5)	Iceland
	102	(89.5)	3	(2.9)	114	(80.3)	142	(45.2)	Ireland ^k
	1 811	(102.5)	42	(2.3)	1 767	(64.2)	2 752	(70.3)	Italy
	–	–	–	–	–	–	–	–	Latvia
	1	(100.0)	0	(0.0)	1	(100.0)	1	(100.0)	Liechtenstein
	969	(100.0)	170	(17.5)	969	(91.0)	1,065	(93.3)	Lithuania
	–	–	–	–	–	–	–	–	Luxembourg
	27	(100.0)	0	(0.0)	27	(75.0)	36	(65.5)	Malta
	340	(89.7)	3	(0.9)	379	(82.0)	462	(57.3)	Netherlands
	108	(97.3)	4	(3.7)	111	(88.1)	126	(60.3)	Norway ^k
	3 639	(92.5)	46	(1.3)	3 935	(75.0)	5 244	(95.6)	Poland
	891	(72.2)	7	(0.8)	1 234	(82.8)	1 491	(69.8)	Portugal
	7 751	(92.6)	347	(4.5)	8 368	(80.3)	10 416	(85.3)	Romania
	131	(98.5)	2	(1.5)	133	(57.6)	231	(82.2)	Slovakia
	78	(100.0)	0	(0.0)	78	(95.1)	82	(82.8)	Slovenia
	855	(49.9)	14	(1.6)	1 712	(78.7)	2 176	(46.8)	Spain
	289	(100.0)	7	(2.4)	289	(87.3)	331	(67.4)	Sweden
	2 069	(98.5)	24	(1.2)	2 100	(74.4)	2 821	(55.6)	United Kingdom ^k
	23 928	(87.4)	893	(3.7)	27 391	(75.2)	36 441	(69.0)	Subtotal EU/EEA
									Non-EU/EEA
	63	(30.3)	2	(3.2)	208	–	–	–	Albania
	1	(50.0)	0	(0.0)	2	–	–	–	Andorra
	332	(92.7)	76	(22.9)	358	–	–	–	Armenia
	4 426	(91.7)	638	(14.4)	4 824	–	–	–	Azerbaijan
	2 141	(100.0)	984	(46.0)	2 141	–	–	–	Belarus
	2	(0.4)	0	(0.0)	448	–	–	–	Bosnia and Herzegovina
	1 032	(55.4)	167	(16.2)	1 862	–	–	–	Georgia
	160	(100.0)	13	(8.1)	160	–	–	–	Israel
	5 406	(50.2)	1 462	(27.0)	10 774	–	–	–	Kazakhstan
	2 747	(70.9)	1 241	(45.2)	3 875	–	–	–	Kyrgyzstan
	1 783	(81.2)	625	(35.1)	2 197	–	–	–	Moldova
	–	–	–	–	–	–	–	–	Monaco
	60	(93.8)	1	(1.7)	64	–	–	–	Montenegro
	137	(93.8)	2	(1.5)	146	–	–	–	North Macedonia
	52 048	(91.0)	24 035	(46.2)	57 187	–	–	–	Russia
	–	–	0	(0.0)	0	–	–	–	San Marino
	302	(38.3)	3	(1.0)	789	–	–	–	Serbia
	302	(54.2)	3	(0.0)	557	–	–	–	Serbia excluding Kosovo ^l
	0	(0.0)	0	–	232	–	–	–	Kosovo ^l
	276	(89.9)	4	(1.4)	307	–	–	–	Switzerland
	551	(18.1)	416	(75.5)	3 037	–	–	–	Tajikistan
	5 152	(85.9)	167	(3.2)	5 995	–	–	–	Turkey
	–	–	–	–	–	–	–	–	Turkmenistan
	18 568	(94.2)	5 054	(27.2)	19 705	–	–	–	Ukraine
	6 841	(100.0)	816	(11.9)	6 841	–	–	–	Uzbekistan
	102 028	(84.4)	35 706	(35.0)	120 920	–	–	–	Subtotal non-EU/EEA
	125 956	(84.9)	36 599	(29.1)	148 311	–	–	–	Total European Region
	110 401	(85.7)	36 252	(32.8)	128 851	–	–	–	Subtotal 18 HPCs

^c Proportion of bacteriologically confirmed pulmonary tuberculosis cases with DST results with the respective previous tuberculosis treatment history.^d Proportion of bacteriologically confirmed pulmonary tuberculosis cases with DST results and the respective previous tuberculosis treatment history.^e Proportion of all pulmonary tuberculosis cases with the respective previous tuberculosis treatment history.^f Proportion of all bacteriologically confirmed pulmonary tuberculosis cases with DST results. For EU/EEA, excluding the cases with unknown previous tuberculosis treatment history.^g Proportion of all bacteriologically confirmed pulmonary tuberculosis cases with DST results. For EU/EEA, excluding the cases with unknown previous tuberculosis treatment history.^h Proportion of all pulmonary tuberculosis cases with DST results. For EU/EEA, excluding the cases with unknown previous tuberculosis treatment history.ⁱ Proportion of all pulmonary tuberculosis cases. For EU/EEA, excluding the cases with unknown previous tuberculosis treatment history.^j Proportion of all tuberculosis cases.^k Previous tuberculosis history is defined by previous diagnosis.^l This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 13. Drug resistance in all laboratory-confirmed^a tuberculosis cases, EU/EEA, 2018

Country	Source of data	Coverage	Laboratory-confirmed tuberculosis cases ^a		Cases with DST results (at least INH and RIF)		Cases resistant to any anti-tuberculosis drug ^b		Multidrug-resistant tuberculosis cases		Reporting completeness ^c
			N	(%)	N	(%)	N	(%)	N	(%)	
EU/EEA											
Austria	TESSy	National	365	(75.7)	349	(95.6)	48	(13.8)	18	(5.2)	Y
Belgium	TESSy	National	730	(74.4)	695	(95.2)	47	(6.8)	7	(1.0)	Y
Bulgaria	TESSy	National	618	(45.5)	551	(89.2)	63	(11.4)	24	(4.4)	Y
Croatia	TESSy	National	325	(87.4)	295	(90.8)	4	(1.4)	2	(0.7)	Y
Cyprus	TESSy	National	40	(76.9)	39	(97.5)	4	(10.3)	-	(0.0)	Y
Czech Republic	TESSy	National	361	(81.3)	327	(90.6)	33	(10.1)	12	(3.7)	Y
Denmark	TESSy	National	221	(75.9)	218	(98.6)	10	(4.6)	4	(1.8)	Y
Estonia	TESSy	National	125	(85.0)	122	(97.6)	46	(37.7)	30	(24.6)	Y
Finland	TESSy	National	194	(84.3)	182	(93.8)	12	(6.6)	4	(2.2)	Y
France	TESSy	National	2 234	(43.9)	82	(3.7)	82	(100.0)	82	(100.0)	-
Germany	TESSy	National	4 127	(76.0)	3 731	(90.4)	488	(13.1)	116	(3.1)	Y
Greece	TESSy	National	225	(52.1)	154	(68.4)	19	(12.3)	5	(3.2)	Y
Hungary	TESSy	National	367	(57.3)	330	(89.9)	40	(12.1)	12	(3.6)	Y
Iceland	TESSy	National	2	(25.0)	2	(100.0)	1	(50.0)	0	(0.0)	Y
Ireland	TESSy	National	228	(72.6)	205	(89.9)	26	(12.7)	5	(2.4)	Y
Italy	-	-	-	-	-	-	-	-	-	-	N
Latvia	-	-	-	-	-	-	-	-	-	-	N
Liechtenstein	TESSy	National	1	(100.0)	1	(100.0)	0	(0.0)	0	(0.0)	Y
Lithuania	TESSy	National	992	(86.9)	992	(100.0)	316	(31.9)	170	(17.1)	Y
Luxembourg	TESSy	National	35	(83.3)	35	(100.0)	2	(5.7)	1	(2.9)	Y
Malta	TESSy	National	34	(61.8)	32	(94.1)	1	(3.1)	0	(0.0)	Y
Netherlands	TESSy	National	560	(69.5)	500	(89.3)	49	(9.8)	6	(1.2)	Y
Norway	TESSy	National	170	(81.3)	167	(98.2)	20	(12.0)	4	(2.4)	Y
Poland	TESSy	National	4 075	(74.3)	3 764	(92.4)	258	(6.9)	48	(1.3)	Y
Portugal	TESSy	National	1 527	(71.5)	1 066	(69.8)	140	(13.1)	10	(0.9)	Y
Romania	TESSy	National	8 720	(71.4)	8 042	(92.2)	742	(9.2)	354	(4.4)	Y
Slovakia	TESSy	National	146	(52.0)	144	(98.6)	3	(2.1)	2	(1.4)	Y
Slovenia	TESSy	National	92	(92.9)	92	(100.0)	3	(3.3)	-	(0.0)	Y
Spain	TESSy	National	3 250	(69.9)	1 258	(38.7)	179	(14.2)	33	(2.6)	Y
Sweden	TESSy	National	408	(83.1)	407	(99.8)	71	(17.4)	13	(3.2)	Y
United Kingdom	TESSy	National	3 147	(62.0)	3 099	(98.5)	383	(12.4)	37	(1.2)	Y
Total EU/EEA			33 319	(63.0)	26 881	(80.7)		(11.5)	999	(3.7)	

WHO European Region 18 tuberculosis high-priority countries 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.

INH - isoniazid.

NRL - national reference laboratory.

RIF - rifampicin.

TESSy - The European Surveillance System.

TME - The WHO global tuberculosis data collection system.

^a Laboratory-confirmed cases – culture-positive OR microscopy-positive and nucleic acid amplification test-positive cases.

^b Cases with DST results for at least RIF and INH that have any resistance to isoniazid, rifampicin, ethambutol, streptomycin, ciprofloxacin, gatifloxacin, levofloxacin, moxifloxacin, ofloxacin, amikacin, capreomycin, kanamycin or pyrazinamide expressed as a percentage of cases with DST results available for at least isoniazid and rifampicin.

^c 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 (EQA) results confirmed by a supranational reference laboratory.

Table 14. Extensively drug-resistance tuberculosis cases among bacteriologically-confirmed pulmonary multi-drug resistant tuberculosis cases, European Region, 2018

Country/area	Source of data	Coverage	Bacteriologically-confirmed pulmonary MDR tuberculosis cases ^a		Cases with DST results for any fluoroquinolone and any second-line injectable agent		XDR tuberculosis cases		Reporting completeness ^b
			N	(%)	N	(%)	N	(%)	
EU/EEA									
Austria	TESSy	National	15	(5.3)	15	(100.0)	0	(0.0)	Y
Belgium	TESSy	National	7	(1.3)	7	(100.0)	3	(42.9)	Y
Bulgaria	TESSy	National	24	(4.5)	24	(100.0)	0	(0.0)	Y
Croatia	TESSy	National	2	(0.8)	1	(50.0)	0	(0.0)	Y
Cyprus	TESSy	National	0	(0.0)	0	–	0	–	Y
Czech Republic	TESSy	National	10	(3.4)	10	(100.0)	0	(0.0)	Y
Denmark	TESSy	National	4	(2.3)	4	(100.0)	0	(0.0)	Y
Estonia	TESSy	National	30	(25.4)	30	(100.0)	8	(26.7)	Y
Finland	TESSy	National	4	(3.1)	4	(100.0)	1	(25.0)	Y
France	TESSy	National	66	(100.0)	61	(92.4)	8	(13.1)	Y
Germany	TESSy	National	98	(3.4)	75	(76.5)	8	(10.7)	Y
Greece	TESSy	National	5	(3.7)	5	(100.0)	1	(20.0)	Y
Hungary	TESSy	National	12	(3.7)	11	(91.7)	3	(27.3)	Y
Iceland	TESSy	National	0	(0.0)	0	–	0	–	Y
Ireland	TESSy	National	4	(2.6)	4	(100.0)	0	(0.0)	Y
Italy	NRL-TME	Partial	42	(2.3)	37	(88.1)	4	(10.8)	N
Latvia	–	–	–	–	–	–	–	–	N
Liechtenstein	TESSy	National	0	(0.0)	0	–	0	–	Y
Lithuania	TESSy	National	170	(17.5)	170	(100.0)	58	(34.1)	Y
Luxembourg	TESSy	National	1	(3.4)	0	(0.0)	0	–	Y
Malta	TESSy	National	0	(0.0)	0	–	0	–	Y
Netherlands	TESSy	National	3	(0.9)	3	(100.0)	1	(33.3)	Y
Norway	TESSy	National	4	(3.7)	4	(100.0)	0	(0.0)	Y
Poland	TESSy	National	46	(1.3)	41	(89.1)	12	(29.3)	Y
Portugal	TESSy	National	7	(0.7)	1	(14.3)	0	(0.0)	Y
Romania	TESSy	National	347	(4.5)	223	(64.3)	46	(20.6)	Y
Slovakia	TESSy	National	2	(1.5)	2	(100.0)	0	(0.0)	Y
Slovenia	TESSy	National	0	(0.0)	0	–	0	–	Y
Spain	TESSy	National	28	(2.8)	22	(78.6)	3	(13.6)	Y
Sweden	TESSy	National	7	(2.4)	7	(100.0)	0	(0.0)	Y
United Kingdom	TESSy	National	25	(1.2)	20	(80.0)	3	(15.0)	Y
Subtotal EU/EEA			963	(63.0)	(3.8)	781	159	(20.4)	
Non EU									
Albania	NRL-TME	NATIONAL	2	(3.2)	0	(0.0)	–	–	N
Andorra	NRL-TME	NATIONAL	0	(0.0)	–	–	–	–	N
Armenia	NRL-TME	NATIONAL	76	(22.9)	76	(100.0)	14	(18.4)	Y
Azerbaijan	NRL-TME	NATIONAL	638	(14.4)	864	(135.4)	77	(8.9)	Y
Belarus	NRL-TME	NATIONAL	984	(46.0)	984	(100.0)	185	(18.8)	Y
Bosnia and Herzegovina	NRL-TME	NATIONAL	0	(0.0)	–	–	–	–	N
Georgia	NRL-TME	NATIONAL	167	(16.2)	159	(95.2)	34	(21.4)	N
Israel	NRL-TME	NATIONAL	13	(8.1)	13	(100.0)	7	(53.8)	Y
Kazakhstan	NRL-TME	NATIONAL	1 462	(27.0)	–	–	–	–	N
Kyrgyzstan	NRL-TME	NATIONAL	1 241	(45.2)	926	(74.6)	119	(12.9)	N
Moldova	NRL-TME	NATIONAL	625	(35.1)	616	(98.6)	74	(12.0)	Y
Monaco	–	–	0	–	–	–	–	–	Y
Montenegro	NRL-TME	NATIONAL	1	(1.7)	1	(100.0)	0	(0.0)	Y
North Macedonia	NRL-TME	NATIONAL	2	(1.5)	0	–	0	–	Y
Russia	NRL-TME	NATIONAL	24 035	(46.2)	23 997	(99.8)	4 970	(20.7)	Y
San Marino	–	NATIONAL	0	–	–	–	–	–	Y
Serbia	NRL-TME	NATIONAL	3	(1.0)	0	(0.0)	–	–	N
Serbia excluding Kosovo ^c	NRL-TME	NATIONAL	3	(0.0)	0	(0.0)	–	–	Y
Kosovo ^c	NRL-TME	NATIONAL	0	–	–	–	–	–	N
Switzerland	NRL-TME	NATIONAL	4	(1.4)	4	(100.0)	1	(25.0)	Y
Tajikistan	NRL-TME	NATIONAL	416	(75.5)	312	(75.0)	52	(16.7)	N
Turkey	NRL-TME	NATIONAL	167	(3.2)	120	(71.9)	8	(6.7)	Y
Turkmenistan	–	–	–	–	–	–	–	–	N
Ukraine	NRL-TME	NATIONAL	5 054	(27.2)	5 054	(100.0)	972	(19.2)	Y
Uzbekistan	NRL-TME	NATIONAL	816	(11.9)	816	(100.0)	0	(0.0)	Y
Subtotal non-EU/EEA			35 706	(35.0)	33 942	(95.1)	6 513	(19.2)	
Subtotal non-EU/EEA			36 669	(29.1)	34 723	(94.7)	6 672	(19.2)	
Subtotal 18 HPC			36 252	(32.8)	34 371	(94.8)	6 617	(19.3)	

WHO European Region 18 tuberculosis high-priority countries 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.

HPC - high-priority countries.

MDR - multi-drug resistant.

NRL - national reference laboratory.

TESSy - the European surveillance system.

TME - The WHO global tuberculosis data collection system.

XDR - extensively drug-resistant.

^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 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 (EQA) results confirmed by a supranational reference laboratory.^c This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 15. XDR tuberculosis cases among all laboratory-confirmed^a MDR tuberculosis cases, 2018

Country/area	Tuberculosis cases with first-line DST ^a	MDR tuberculosis among all tuberculosis cases with first-line DST ^a		MDR tuberculosis with second-line DST ^a		XDR tuberculosis	
	N	N	(%)	N	(%)	N	(%)
EU/EEA							
Austria	349	18	(5.2)	18	(100.0)	0	(0.0)
Belgium	695	7	(1.0)	7	(100.0)	3	(42.9)
Bulgaria	551	24	(4.4)	24	(100.0)	0	(0.0)
Croatia	295	2	(0.7)	1	(50.0)	0	(0.0)
Cyprus	39	0	(0.0)	0	-	0	-
Czech Republic	327	12	(3.7)	12	(100.0)	1	(8.3)
Denmark	218	4	(1.8)	4	(100.0)	0	(0.0)
Estonia	122	30	(24.6)	30	(100.0)	8	(26.7)
Finland	182	4	(2.2)	4	(100.0)	1	(25.0)
France	82	82	(100.0)	76	(92.7)	8	(10.5)
Germany	3 731	116	(3.1)	90	(77.6)	8	(8.9)
Greece	154	5	(3.2)	5	(100.0)	1	(20.0)
Hungary	330	12	(3.6)	11	(91.7)	3	(27.3)
Iceland	2	0	(0.0)	0	-	0	-
Ireland	205	5	(2.4)	5	(100.0)	0	(0.0)
Italy	-	-	-	-	-	-	-
Latvia	-	-	-	-	-	-	-
Liechtenstein	1	0	(0.0)	0	-	0	-
Lithuania	992	170	(17.1)	170	(100.0)	58	(34.1)
Luxembourg	35	1	(2.9)	0	(0.0)	0	-
Malta	32	0	(0.0)	0	-	0	-
Netherlands	500	6	(1.2)	6	(100.0)	1	(16.7)
Norway	167	4	(2.4)	4	(100.0)	0	(0.0)
Poland	3 764	48	(1.3)	43	(89.6)	13	(30.2)
Portugal	1 066	10	(0.9)	2	(20.0)	0	(0.0)
Romania	8 042	354	(4.4)	228	(64.4)	47	(20.6)
Slovakia	144	2	(1.4)	2	(100.0)	0	(0.0)
Slovenia	92	0	(0.0)	0	-	0	-
Spain	1 258	33	(2.6)	24	(72.7)	3	(12.5)
Sweden	407	13	(3.2)	13	(100.0)	0	(0.0)
United Kingdom	3 099	37	(1.2)	29	(78.4)	3	(10.3)
Subtotal EU/EEA	26 881	999	(3.7)	808	(80.9)	158	(19.6)
Non-EU/EEA							
Albania	63	4	(6.3)	0	(0.0)	0	-
Andorra	2	0	(0.0)	0	-	0	-
Armenia	370	85	(23.0)	84	(98.8)	14	(16.7)
Azerbaijan	5 243	938	(17.9)	864	(92.1)	77	(8.9)
Belarus	2 201	1 024	(46.5)	992	(96.9)	422	(42.5)
Bosnia and Herzegovina	446	2	(0.4)	0	(0.0)	0	-
Georgia	1 862	311	(16.7)	201	(64.6)	55	(27.4)
Israel	194	16	(8.2)	16	(100.0)	2	(12.5)
Kazakhstan	11 454	4 869	(42.5)	4 384	(90.0)	336	(7.7)
Kyrgyzstan	3 941	1 685	(42.8)	924	(54.8)	137	(14.8)
Moldova	2 251	927	(41.2)	765	(82.5)	111	(14.5)
Monaco	0	0	-	0	-	0	-
Montenegro	64	1	(1.6)	1	(100.0)	0	(0.0)
North Macedonia	158	2	(1.3)	0	(0.0)	0	-
Russia	53 620	27 438	(51.2)	24 601	(89.7)	5 112	(20.8)
San Marino	0	0	-	0	-	0	-
Serbia	731	3	(0.4)	0	(0.0)	0	-
Serbia excluding Kosovo ^{c,d}	302	3	(1.0)	0	(0.0)	-	-
Kosovo ^{c,d}	429	0	(0.0)	0	-	-	-
Switzerland	415	8	(1.9)	8	(100.0)	1	(12.5)
Tajikistan	4 415	904	(20.5)	490	(54.2)	56	(11.4)
Turkey	5 505	228	(4.1)	149	(65.4)	8	(5.4)
Turkmenistan	1 611	549	(34.1)	-	-	-	-
Ukraine	19 964	6 547	(32.8)	6 547	(100.0)	1 028	(15.7)
Uzbekistan	16 364	2 238	(13.7)	1 745	(78.0)	400	(22.9)
Subtotal non-EU/EEA	130 874	47 779	(36.5)	41 771	(87.4)	7 759	(18.6)
Total European Region	157 755	48 778	(30.9)	42 579	(87.3)	7 917	(18.6)
Subtotal 18 HPCs	138 508	48 321	(34.9)	42 198	(87.3)	7 869	(18.6)

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein.

WHO European Region 18 tuberculosis high-priority countries 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.

HPC - high-priority countries.

MDR TB - multidrug-resistant tuberculosis.

XDR TB - extensively drug-resistant tuberculosis.

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

^c First-line DST - drug susceptibility testing for at least 2 main first-line anti-tuberculosis drugs: isoniazid and rifampicin.

^d Second-line DST - drug susceptibility testing for second-line anti-tuberculosis drugs (at least one fluoroquinolone (ciprofloxacin, gatifloxacin, levofloxacin, moxifloxacin, and ofloxacin) and one injectable drug (amikacin, capreomycin, and kanamycin)).

^e This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 16. RR/MDR and XDR tuberculosis cases enrolled to treatment, European Region, 2018

Country/area	Total number of RR/MDR tuberculosis cases detected	RR/MDR tuberculosis cases enrolled to treatment ^{a,b}		Total number of XDR tuberculosis cases detected	XDR tuberculosis cases enrolled to treatment ^{a,b}	
	N	N	(%)	N	N	%
EU/EEA						
Austria	18	18	(100.0)	0	0	–
Belgium	9	9	(100.0)	3	3	(100.0)
Bulgaria	28	28	(100.0)	0	0	–
Croatia	2	2	(100.0)	0	0	–
Cyprus	0	0	–	0	0	–
Czech Republic	12	12	(100.0)	1	1	(100.0)
Denmark	4	4	(100.0)	0	0	–
Estonia	33	32	(97.0)	8	8	(100.0)
Finland	4	3	(75.0)	1	1	(100.0)
France	82	82	(100.0)	8	8	(100.0)
Germany	127	124	(97.6)	8	7	(87.5)
Greece	6	6	(100.0)	1	1	(100.0)
Hungary	13	13	(100.0)	3	3	(100.0)
Iceland	0	0	–	0	0	–
Ireland	7	7	(100.0)	0	0	–
Italy	62	–	–	–	–	–
Latvia	–	–	–	–	–	–
Liechtenstein	0	0	–	0	0	–
Lithuania	189	189	(100.0)	58	58	(100.0)
Luxembourg	1	1	(100.0)	0	0	–
Malta	0	0	–	0	0	–
Netherlands	6	6	(100.0)	1	1	(100.0)
Norway	6	6	(100.0)	0	0	–
Poland	58	58	(100.0)	13	13	(100.0)
Portugal	13	12	(92.3)	0	0	–
Romania	441	433	(98.2)	47	46	(97.9)
Slovakia	3	3	(100.0)	0	0	–
Slovenia	0	0	–	0	0	–
Spain	37	37	(100.0)	3	3	(100.0)
Sweden	13	13	(100.0)	0	0	–
United Kingdom	48	44	(91.7)	3	3	(100.0)
Subtotal EU/EEA	1 222	1 142	(98.4)	158	156	(98.7)
Non-EU/EEA						
Albania	4	4	(100.0)	0	0	–
Andorra	0	0	–	0	0	–
Armenia	85	85	(100.0)	14	14	(100.0)
Azerbaijan	938	821	(87.5)	77	189	(245.5)
Belarus	1 024	1 284	(125.4)	422	362	(85.8)
Bosnia and Herzegovina	2	2	(100.0)	0	0	–
Georgia	311	285	(91.6)	55	55	(100.0)
Israel	16	16	(100.0)	2	2	(100.0)
Kazakhstan	4 869	4 336	(89.1)	336	386	(114.9)
Kyrgyzstan	1 685	1 246	(73.9)	137	105	(76.6)
Moldova	927	793	(85.5)	111	62	(55.9)
Monaco	–	–	–	–	–	–
Montenegro	1	1	(100.0)	0	0	–
North Macedonia	2	2	(100.0)	0	0	–
Russia ^c	27 438	22 666	(82.6)	5 112	4 140	(81.0)
San Marino	0	–	–	–	–	–
Serbia	3	1	(33.3)	0	–	–
Serbia excluding Kosovo ^c	3	1	(33.3)	–	–	–
Kosovo ^c	0	0	–	–	–	–
Switzerland	8	8	(100.0)	1	1	(100.0)
Tajikistan	904	727	(80.4)	56	63	(112.5)
Turkey	228	180	(78.9)	8	8	(100.0)
Turkmenistan	549	549	(100.0)	28	28	(100.0)
Ukraine	6 547	7 427	(113.4)	1 028	1 444	(140.5)
Uzbekistan	2 238	2 238	(100.0)	400	400	(100.0)
Subtotal non-EU/EEA	47 779	42 671	(89.3)	7 787	7 259	(93.2)
Total European Region	49 001	43 813	(89.4)	7 945	7 415	(93.3)
Subtotal 18 HPCs	48 434	43 319	(89.4)	7 897	7 368	(93.3)

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein.

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

HPC - high-priority countries.

The resistance pattern at the initiation of treatment is reported to TESSy irrespective of the method used for drug susceptibility testing or resistance prediction.

RR/MDR – rifampicin-resistant and multidrug-resistant.

XDR TB – extensively drug-resistant tuberculosis.

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

^d This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 17. New and relapse^a tuberculosis cases with HIV infection, European Region, 2018

Country/area	New and relapse tuberculosis cases ^b	Tuberculosis cases with HIV status		HIV-positive tuberculosis cases		HIV-positive cases started ART ^c	
	N	N	(%)	N	(%)	N	(%)
EU/EEA							
Austria	–	–	–	–	–	–	–
Belgium	913	463	(50.7)	33	(7.1)	–	–
Bulgaria	1 290	1 062	(82.3)	0	(0.0)	0	–
Croatia	364	2	(0.5)	0	(0.0)	–	–
Cyprus	51	41	(80.4)	1	(2.4)	–	–
Czech Republic	435	182	(41.8)	4	(2.2)	–	–
Denmark ^d	270	219	(81.1)	3	(1.4)	–	–
Estonia	145	135	(93.1)	12	(8.9)	10	(83.3)
Finland	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–
Germany	–	–	–	–	–	–	–
Greece	406	343	(84.5)	10	(2.9)	–	–
Hungary	602	21	(3.5)	2	(9.5)	–	–
Iceland	8	8	(100.0)	1	(12.5)	–	–
Ireland ^d	294	130	(44.2)	12	(9.2)	8	(66.7)
Italy	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–
Liechtenstein	–	–	–	–	–	–	–
Lithuania	1 063	879	(82.7)	28	(3.2)	–	–
Luxembourg	42	7	(16.7)	0	(0.0)	0	–
Malta	–	–	–	–	–	–	–
Netherlands	791	522	(66.0)	21	(4.0)	12	(57.1)
Norway ^d	189	167	(88.4)	7	(4.2)	–	–
Poland	–	–	–	–	–	–	–
Portugal	2 111	1 985	(94.0)	187	(9.4)	–	–
Romania	11 586	9 726	(83.9)	233	(2.4)	200	(85.8)
Slovakia	273	231	(84.6)	2	(0.9)	1	(50.0)
Slovenia	98	79	(80.6)	0	(0.0)	–	–
Spain	4 500	2 359	(52.4)	249	(10.6)	–	–
Sweden	–	–	–	–	–	–	–
United Kingdom ^d	4 775	4 064	(85.1)	113	(2.8)	100	(88.5)
Subtotal EU/EEA	30 206	22 625	(74.9)	918	(4.1)	331	(84.2)
Non-EU/EEA							
Albania	440	215	(48.9)	6	(2.8)	6	(100.0)
Andorra	2	0	(0.0)	–	–	–	–
Armenia	734	699	(95.2)	72	(10.3)	71	(98.6)
Azerbaijan	5 038	5 038	(100.0)	87	(1.7)	74	(85.1)
Belarus	2 359	2 359	(100.0)	182	(7.7)	171	(94.0)
Bosnia and Herzegovina	–	–	–	–	–	–	–
Georgia	2 316	2 174	(93.9)	45	(2.1)	45	(100.0)
Israel	292	292	(100.0)	12	(4.1)	12	(100.0)
Kazakhstan	12 832	12 236	(95.4)	717	(5.9)	689	(96.1)
Kyrgyzstan	6 338	6 338	(100.0)	187	(3.0)	132	(70.6)
Moldova	3 022	2 893	(95.7)	248	(8.6)	168	(67.7)
Monaco	–	–	–	–	–	–	–
Montenegro	84	43	(51.2)	0	(0.0)	–	–
North Macedonia	217	126	(58.1)	3	(2.4)	3	(100.0)
Russia	78 258	74 075	(94.7)	14 797	(20.0)	10 077	(68.1)
San Marino	0	–	–	–	–	–	–
Serbia	641	56	(8.7)	8	(14.3)	8	(100.0)
Serbia excluding Kosovo ^e	641	56	(8.7)	8	(14.3)	8	(100.0)
Kosovo ^e	–	–	–	–	–	–	–
Switzerland	–	–	–	–	–	–	–
Tajikistan	5 726	5 545	(96.8)	227	(4.1)	178	(78.4)
Turkey	11 576	8 234	(71.1)	67	(0.8)	52	(77.6)
Turkmenistan	–	–	–	–	–	–	–
Ukraine	26 512	26 312	(99.2)	6 053	(23.0)	4 806	(79.4)
Uzbekistan	16 413	16 413	(100.0)	736	(4.5)	612	(83.2)
Subtotal non-EU/EEA	172 800	163 048	(94.4)	23 447	(14.4)	17 104	(72.9)
Total European Region	203 006	185 673	(91.5)	24 365	(13.1)	17 435	(73.1)
Subtotal 18 HPCs	185 208	174 118	(94.0)	23 691	(13.6)	17 285	(73.0)

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.

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

ART - antiretroviral therapy.

HIV - human immunodeficiency virus.

HPC - high-priority countries.

^bCases with unknown previous TB history are included among new TB cases.

^cCountries are only included in this analysis if total number of cases tested for HIV and test results are provided. For EU/EEA countries,

countries are only included in this analysis if the total number of cases tested for HIV is more than zero.

^dData from the WHO Global tuberculosis database.

^ePrevious tuberculosis history is defined by previous diagnosis.

^fThis designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 18. All tuberculosis cases with HIV infection, EU/EEA, 2018

Country	All tuberculosis cases ^a	Tuberculosis cases with known HIV status		HIV-positive tuberculosis cases	
		N	(%)	N	(%)
EU/EEA					
Austria	–	–	–	–	–
Belgium	981	503	(51.3)	36	(7.2)
<i>Bulgaria</i>	<i>1 358</i>	<i>1 118</i>	<i>(82.3)</i>	<i>0</i>	<i>(0.0)</i>
Croatia	372	2	(0.5)	0	(0.0)
Cyprus	52	41	(78.8)	1	(2.4)
Czech Republic	444	190	(42.8)	4	(2.1)
Denmark	291	234	(80.4)	3	(1.3)
<i>Estonia</i>	<i>147</i>	<i>137</i>	<i>(93.2)</i>	<i>13</i>	<i>(9.5)</i>
Finland	–	–	–	–	–
France	–	–	–	–	–
Germany	–	–	–	–	–
Greece	432	362	(83.8)	11	(3.0)
Hungary	640	23	(3.6)	3	(13.0)
Iceland	8	8	(100.0)	1	(12.5)
Ireland	314	140	(44.6)	12	(8.6)
Italy	–	–	–	–	–
<i>Latvia</i>	<i>–</i>	<i>–</i>	<i>–</i>	<i>–</i>	<i>–</i>
Liechtenstein	–	–	–	–	–
<i>Lithuania</i>	<i>1 142</i>	<i>954</i>	<i>(83.5)</i>	<i>32</i>	<i>(3.4)</i>
Luxembourg	42	7	(16.7)	0	(0.0)
Malta	–	–	–	–	–
Netherlands	806	534	(66.3)	21	(3.9)
Norway	209	184	(88.0)	7	(3.8)
Poland	–	–	–	–	–
Portugal	2 137	2 011	(94.1)	193	(9.6)
<i>Romania</i>	<i>12 205</i>	<i>10 246</i>	<i>(83.9)</i>	<i>254</i>	<i>(2.5)</i>
Slovakia	281	238	(84.7)	2	(0.8)
Slovenia	99	80	(80.8)	0	(0.0)
Spain	4 648	2 448	(52.7)	275	(11.2)
Sweden	–	–	–	–	–
United Kingdom	5 075	4 323	(85.2)	123	(2.8)
Total EU/EEA	31 683	23 783	(75.1)	991	(4.2)

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

HIV - human immunodeficiency virus.

^a Countries are only included in this analysis if the total number of cases tested for HIV is more than zero.

Table 19. Tuberculosis in prisons, European Region, 2018^a

Country/area	Prison population	New and relapse tuberculosis cases (all forms) notified in prisons		Proportion of new and relapsed tuberculosis cases in prisons out of the country total	Tuberculosis relative risk in prisons (RR) ^b
	N	N	Rate per 100 000 prisoners	%	
EU/EEA					
Austria	–	–	–	–	–
Belgium	10 619	17	160	(1.9)	20.0
Bulgaria	6 977	16	229	(1.2)	12.5
Croatia	–	–	–	–	–
Cyprus	–	–	–	–	–
Czech Republic	21 577	22	102	(5.1)	24.9
Denmark	–	–	–	–	–
Estonia	2 500	5	200	(3.4)	18.2
Finland	–	–	–	–	–
France	69 304	67	97	(1.4)	13.5
Germany	–	–	–	–	–
Greece	–	17	-	(4.2)	–
Hungary	–	15	-	(2.5)	–
Iceland	–	–	–	–	–
Ireland	6 490	0	0	(0.0)	0.0
Italy	–	–	–	–	–
Latvia	–	–	–	–	–
Liechtenstein	–	–	–	–	–
Lithuania	6 400	46	719	(4.3)	19.0
Luxembourg	750	0	0	(0.0)	0.0
Malta	–	0	–	(0.0)	–
Netherlands	29 149	7	24	(0.9)	5.2
Norway	–	–	–	–	–
Poland	74 077	171	231	(3.3)	16.9
Portugal	12 611	44	349	(2.1)	17.0
Romania	20 602	114	553	(1.0)	9.3
Slovakia	7 845	16	204	(5.9)	40.7
Slovenia	–	–	–	–	–
Spain	–	–	–	–	–
Sweden	–	–	–	–	–
United Kingdom	-	26	–	(0.5)	-
Subtotal EU/EEA	268 901	583	217	(2.0)	14.7
Non-EU/EEA					
Albania	6 000	3	50.0	(0.7)	3.3
Andorra	–	0	0.0	(0.0)	–
Armenia	–	14	–	(1.9)	–
Azerbaijan	19 322	216	1117.9	(4.3)	22.1
Belarus	–	106	–	(4.5)	–
Bosnia and Herzegovina	–	0	0.0	(0.0)	–
Georgia	9 083	43	473.4	(1.9)	8.2
Israel	–	–	–	–	–
Kazakhstan	35 219	353	1002.3	(2.8)	14.3
Kyrgyzstan	8 624	140	1623.4	(2.2)	16.1
Moldova	7 635	89	1165.7	(2.9)	15.6
Monaco	–	–	–	–	–
Montenegro	–	–	–	–	–
North Macedonia	3 000	3	100.0	(1.4)	9.6
Russia	578 810	7 291	1259.7	(9.3)	23.5
San Marino	–	0	–	–	0.0
Serbia	33 842	6	17.7	(0.5)	1.2
Serbia excluding Kosovo ^c	30 000	4	13.3	(0.6)	1.5
Kosovo ^c	3 842	2	52.1	(0.3)	1.4
Switzerland	–	–	–	–	–
Tajikistan	15 000	121	806.7	(2.1)	12.8
Turkey	280 395	155	55.3	(1.3)	3.9
Turkmenistan	–	–	–	–	–
Ukraine	53 853	767	1424.2	(2.9)	23.8
Uzbekistan	–	–	–	–	–
Subtotal non-EU/EEA	1 050 783	9 307	886	(5.9)	19.2
Total European Region	1 319 684	9 890	749	(5.1)	22.1
Subtotal 18 HPCs	1 044 420	9 476	907	(11.6)	22.5

^aEuropean Region^c comprises the 53 countries of the WHO European Region and Liechtenstein.

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

HPC - high-priority countries.

^b Data from the WHO Global tuberculosis database.

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

^d This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 20. Treatment outcome of all tuberculosis cases notified in 2017, European Region, 2018

Country/area	Tuberculosis cases notified in 2017	Success		Died		Failed		Lost to follow-up ^a		Still on treatment		Not evaluated ^a	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	569	382	(67.1)	49	(8.6)	0	(0.0)	9	(1.6)	65	(11.4)	64	(11.2)
Belgium	967	764	(79.0)	55	(5.7)	0	(0.0)	108	(11.2)	13	(1.3)	27	(2.8)
Bulgaria	1 463	1 215	(83.0)	120	(8.2)	15	(1.0)	100	(6.8)	10	(0.7)	3	(0.2)
Croatia	378	246	(65.1)	68	(18.0)	0	(0.0)	12	(3.2)	25	(6.6)	27	(7.1)
Cyprus	53	35	(66.0)	2	(3.8)	0	(0.0)	0	(0.0)	5	(9.4)	11	(20.8)
Czech Republic	501	341	(68.1)	66	(13.2)	2	(0.4)	58	(11.6)	21	(4.2)	13	(2.6)
Denmark	275	110	(40.0)	4	(1.5)	4	(1.5)	0	(0.0)	3	(1.1)	154	(56.0)
Estonia	175	112	(64.0)	30	(17.1)	1	(0.6)	2	(1.1)	30	(17.1)	0	(0.0)
Finland	246	88	(35.8)	0	(0.0)	1	(0.4)	2	(0.8)	4	(1.6)	151	(61.4)
France	5 005	1 193	(23.8)	119	(2.4)	0	(0.0)	138	(2.8)	39	(0.8)	3,516	(70.2)
Germany	5 495	3 829	(69.7)	399	(7.3)	1	(0.0)	139	(2.5)	182	(3.3)	945	(17.2)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	685	450	(65.7)	90	(13.1)	26	(3.8)	65	(9.5)	40	(5.8)	14	(2.0)
Iceland	14	13	(92.9)	1	(7.1)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Ireland	305	103	(33.8)	16	(5.2)	0	(0.0)	3	(1.0)	2	(0.7)	181	(59.3)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Lithuania	1 387	924	(66.6)	152	(11.0)	35	(2.5)	67	(4.8)	207	(14.9)	2	(0.1)
Luxembourg	32	0	(0.0)	1	(3.1)	0	(0.0)	0	(0.0)	0	(0.0)	31	(96.9)
Malta	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	783	670	(85.6)	27	(3.4)	0	(0.0)	32	(4.1)	17	(2.2)	37	(4.7)
Norway	261	226	(86.6)	3	(1.1)	2	(0.8)	3	(1.1)	15	(5.7)	12	(4.6)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	1 800	671	(37.3)	96	(5.3)	0	(0.0)	56	(3.1)	915	(50.8)	62	(3.4)
Romania	12 997	10 626	(81.8)	1 118	(8.6)	351	(2.7)	660	(5.1)	240	(1.8)	2	(0.0)
Slovakia	249	219	(88.0)	9	(3.6)	1	(0.4)	1	(0.4)	6	(2.4)	13	(5.2)
Slovenia	112	85	(75.9)	20	(17.9)	0	(0.0)	0	(0.0)	5	(4.5)	2	(1.8)
Spain	5 690	3,573	(62.8)	352	(6.2)	1	(0.0)	19	(0.3)	149	(2.6)	1 596	(28.0)
Sweden	519	439	(84.6)	23	(4.4)	0	(0.0)	8	(1.5)	11	(2.1)	38	(7.3)
United Kingdom	5 537	4,449	(80.4)	305	(5.5)	0	(0.0)	289	(5.2)	396	(7.2)	98	(1.8)
Subtotal EU/EEA	45 499	30 764	(67.6)	3 125	(6.9)	440	(1.0)	1 771	(3.9)	2 400	(5.3)	6 999	(15.4)
Non-EU/EEA													
Albania	499	435	(87.2)	19	(3.8)	2	(0.4)	23	(4.6)	–	–	20	(4.0)
Andorra	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Armenia	752	591	(78.6)	54	(7.2)	12	(1.6)	95	(12.6)	–	–	0	(0.0)
Azerbaijan	4 273	3 337	(78.1)	118	(2.8)	325	(7.6)	407	(9.5)	–	–	86	(2.0)
Belarus	1 924	1 677	(87.2)	114	(5.9)	55	(2.9)	78	(4.1)	–	–	0	(0.0)
Bosnia and Herzegovina	768	343	(44.7)	47	(6.1)	17	(2.2)	4	(0.5)	–	–	357	(46.5)
Georgia	2 576	2 121	(82.3)	96	(3.7)	73	(2.8)	185	(7.2)	–	–	101	(3.9)
Israel	225	196	(87.1)	9	(4.0)	1	(0.4)	5	(2.2)	–	–	14	(6.2)
Kazakhstan	8 839	8 030	(90.8)	443	(5.0)	246	(2.8)	95	(1.1)	–	–	25	(0.3)
Kyrgyzstan	6 342	5 096	(80.4)	388	(6.1)	127	(2.0)	705	(11.1)	–	–	26	(0.4)
Moldova	2 891	2 275	(78.7)	306	(10.6)	107	(3.7)	160	(5.5)	–	–	43	(1.5)
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	77	65	(84.4)	6	(7.8)	1	(1.3)	1	(1.3)	–	–	4	(5.2)
North Macedonia	222	196	(88.3)	13	(5.9)	0	(0.0)	9	(4.1)	–	–	4	(1.8)
Russia	76 932	51 653	(67.1)	8 052	(10.5)	6 105	(7.9)	4 296	(5.6)	–	–	6 826	(8.9)
San Marino	0	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	1 458	1 249	(85.7)	40	(2.7)	5	(0.3)	62	(4.3)	–	–	102	(7.0)
Serbia excluding Kosovo ^c	745	620	(83.2)	15	(2.0)	3	(0.4)	21	(2.8)	–	–	86	(11.5)
Kosovo ^c	713	629	(88.2)	25	(3.5)	2	(0.3)	41	(5.8)	–	–	16	(2.2)
Switzerland	542	420	(77.5)	24	(4.4)	0	(0.0)	16	(3.0)	–	–	82	(15.1)
Tajikistan	5 485	4 976	(90.7)	227	(4.1)	85	(1.5)	153	(2.8)	–	–	44	(0.8)
Turkey	11 818	10 118	(85.6)	817	(6.9)	33	(0.3)	363	(3.1)	–	–	487	(4.1)
Turkmenistan	2 232	1 878	(84.1)	78	(3.5)	138	(6.2)	95	(4.3)	–	–	43	(1.9)
Ukraine	24 474	18 147	(74.1)	2 486	(10.2)	2 026	(8.3)	1 740	(7.1)	–	–	75	(0.3)
Uzbekistan	16 891	14 836	(87.8)	825	(4.9)	172	(1.0)	402	(2.4)	–	–	656	(3.9)
Subtotal non-EU/EEA	169 221	127 640	(75.4)	14 162	(8.4)	9 530	(5.6)	8 894	(5.3)	0	(0.0)	8 995	(5.3)
Total European Region	214 720	158 404	(73.8)	17 287	(8.1)	9 970	(4.6)	10 665	(5.0)	2 400	(1.1)	15 994	(7.4)
Subtotal 18 HPCs	181 451	137 612	(75.8)	15 424	(8.5)	9 906	(5.5)	65	9 603	487	(0.2)	8 419	(3.9)

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein.

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

EU/EEA: Country data are shown as missing (–) when data on treatment outcome are not reported.

HPC - high-priority countries.

^b In previous reports defined as 'defaulted'.

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

^d This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 21. Treatment outcome of new tuberculosis cases and relapses^a notified in 2017, European Region, 2018

Country/area	New and relapse tuberculosis cases notified in 2017 ^b	Success		Died		Failed		Lost to follow-up ^c		Still on treatment		Not evaluated ^d	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	543	377	(69.4)	47	(8.7)	0	(0.0)	9	(1.7)	53	(9.8)	57	(10.5)
Belgium ^e	905	718	(79.3)	53	(5.9)	0	(0.0)	99	(10.9)	9	(1.0)	26	(2.9)
Bulgaria	1 386	1 167	(84.2)	114	(8.2)	11	(0.8)	91	(6.6)	0	(0.0)	3	(0.2)
Croatia	372	245	(65.9)	67	(18.0)	0	(0.0)	10	(2.7)	24	(6.5)	26	(7.0)
Cyprus	51	34	(66.7)	2	(3.9)	0	(0.0)	0	(0.0)	4	(7.8)	11	(21.6)
Czech Republic	489	337	(68.9)	66	(13.5)	2	(0.4)	57	(11.7)	14	(2.9)	13	(2.7)
Denmark ^e	251	99	(39.4)	3	(1.2)	2	(0.8)	0	(0.0)	3	(1.2)	144	(57.4)
Estonia	138	111	(80.4)	25	(18.1)	1	(0.7)	1	(0.7)	0	(0.0)	0	(0.0)
Finland	237	85	(35.9)	0	(0.0)	1	(0.4)	2	(0.8)	4	(1.7)	145	(61.2)
France	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	5 233	3 721	(71.1)	389	(7.4)	1	(0.0)	126	(2.4)	140	(2.7)	856	(16.4)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	639	429	(67.1)	81	(12.7)	26	(4.1)	56	(8.8)	34	(5.3)	13	(2.0)
Iceland	13	12	(92.3)	1	(7.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Ireland ^e	282	100	(35.5)	16	(5.7)	0	(0.0)	3	(1.1)	1	(0.4)	162	(57.4)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Lithuania	1 086	900	(82.9)	103	(9.5)	15	(1.4)	33	(3.0)	34	(3.1)	1	(0.1)
Luxembourg	31	0	(0.0)	1	(3.2)	0	(0.0)	0	(0.0)	0	(0.0)	30	(96.8)
Malta	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	762	660	(86.6)	27	(3.5)	0	(0.0)	31	(4.1)	12	(1.6)	32	(4.2)
Norway ^e	228	207	(90.8)	2	(0.9)	2	(0.9)	0	(0.0)	7	(3.1)	10	(4.4)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	1 751	659	(37.6)	93	(5.3)	0	(0.0)	49	(2.8)	894	(51.1)	56	(3.2)
Romania	12 007	10 348	(86.2)	973	(8.1)	181	(1.5)	475	(4.0)	28	(0.2)	2	(0.0)
Slovakia	222	204	(91.9)	8	(3.6)	0	(0.0)	0	(0.0)	0	(0.0)	10	(4.5)
Slovenia	111	85	(76.6)	20	(18.0)	0	(0.0)	0	(0.0)	5	(4.5)	1	(0.9)
Spain	4 527	2 739	(60.5)	286	(6.3)	1	(0.0)	15	(0.3)	118	(2.6)	1 368	(30.2)
Sweden	477	413	(86.6)	22	(4.6)	0	(0.0)	8	(1.7)	2	(0.4)	32	(6.7)
United Kingdom ^e	5 176	4 216	(81.5)	268	(5.2)	0	(0.0)	274	(5.3)	329	(6.4)	89	(1.7)
Subtotal EU/EEA	36 918	27 867	(75.5)	2 667	(7.2)	243	(0.7)	1 339	(3.6)	1 715	(4.6)	3 087	(8.4)
Non-EU/EEA													
Albania	499	435	(87.2)	19	(3.8)	2	(0.4)	23	(4.6)	–	–	20	(4.0)
Andorra	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Armenia	710	563	(79.3)	43	(6.1)	12	(1.7)	92	(13.0)	–	–	0	(0.0)
Azerbaijan	1 777	1 492	(84.0)	30	(1.7)	109	(6.1)	121	(6.8)	–	–	25	(1.4)
Belarus	1 792	1 587	(88.6)	98	(5.5)	47	(2.6)	60	(3.3)	–	–	0	(0.0)
Bosnia and Herzegovina	766	343	(44.8)	47	(6.1)	17	(2.2)	4	(0.5)	–	–	355	(46.3)
Georgia	2 351	1 977	(84.1)	85	(3.6)	61	(2.6)	143	(6.1)	–	–	85	(3.6)
Israel	225	196	(87.1)	9	(4.0)	1	(0.4)	5	(2.2)	–	–	14	(6.2)
Kazakhstan	8 589	7 826	(91.1)	425	(4.9)	232	(2.7)	82	(1.0)	–	–	24	(0.3)
Kyrgyzstan	5 752	4 728	(82.2)	302	(5.3)	109	(1.9)	590	(10.3)	–	–	23	(0.4)
Moldova	2 715	2 187	(80.6)	286	(10.5)	79	(2.9)	123	(4.5)	–	–	40	(1.5)
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	75	65	(86.7)	6	(8.0)	1	(1.3)	1	(1.3)	–	–	2	(2.7)
North Macedonia	219	193	(88.1)	13	(5.9)	0	(0.0)	9	(4.1)	–	–	4	(1.8)
Russia	67 593	46 938	(69.4)	7 162	(10.6)	4 632	(6.9)	3 404	(5.0)	–	–	5 457	(8.1)
San Marino	0	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	1 440	1 239	(86.0)	38	(2.6)	3	(0.2)	58	(4.0)	–	–	102	(7.1)
Serbia excluding Kosovo ^f	738	616	(83.5)	14	(1.9)	2	(0.3)	20	(2.7)	–	–	86	(11.7)
Kosovo ^f	702	623	(88.7)	24	(3.4)	1	(0.1)	38	(5.4)	–	–	16	(2.3)
Switzerland	518	406	(78.4)	23	(4.4)	0	(0.0)	13	(2.5)	–	–	76	(14.7)
Tajikistan	5 259	4 789	(91.1)	205	(3.9)	78	(1.5)	144	(2.7)	–	–	43	(0.8)
Turkey	11 638	10 014	(86.0)	803	(6.9)	32	(0.3)	320	(2.7)	–	–	469	(4.0)
Turkmenistan	1 968	1 676	(85.2)	64	(3.3)	116	(5.9)	78	(4.0)	–	–	34	(1.7)
Ukraine	21 165	16 189	(76.5)	2 050	(9.7)	1 574	(7.4)	1 290	(6.1)	–	–	62	(0.3)
Uzbekistan	15 167	13 554	(89.4)	698	(4.6)	154	(1.0)	331	(2.2)	–	–	430	(2.8)
Subtotal non-EU/EEA	150 219	116 398	(77.5)	12 406	(8.3)	7 259	(4.8)	6 891	(4.6)	–	–	7 265	(4.8)
Total European Region	187 137	144 265	(77.1)	15 073	(8.1)	7 502	(4.0)	8 230	(4.4)	1 715	(0.9)	10 352	(5.5)
Subtotal 18 HPCs	161 093	126 046	(78.2)	13 466	(8.4)	7 443	(4.6)	7 378	(4.6)	62	(0.0)	6 698	(4.2)

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein.^b WHO European Region 18 tuberculosis high-priority countries presented in *italics*.^c EU/EEA: Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort drug susceptibility data are also required.^d HPC - high-priority countries.^e Cases with unknown previous TB history are included among new TB cases.^f For non-EU/EEA countries: Patients started on second-line treatment are excluded. For EU/EEA countries: Rifampicin-resistant TB cases are excluded.^g In previous reports defined as 'defaulted'.^h In previous reports defined as 'transferred out and unknown'.ⁱ Previous TB history is defined by previous diagnosis.^j This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 22. Treatment outcome of new and relapse^a tuberculosis cases in children (0-14 years) notified in 2017, European Region, 2018

Country/area	New and relapse tuberculosis cases reported in 2017 ^b	Success		Died		Failed		Lost to follow-up ^c		Still on treatment		Not evaluated ^d	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	21	18	(85.7)	0	(0.0)	0	(0.0)	0	(0.0)	3	(14.3)	0	(0.0)
Belgium ^e	67	59	(88.1)	0	(0.0)	0	(0.0)	4	(6.0)	0	(0.0)	4	(6.0)
Bulgaria	105	101	(96.2)	0	(0.0)	0	(0.0)	4	(3.8)	0	(0.0)	0	(0.0)
Croatia	3	2	(66.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(33.3)
Cyprus	3	1	(33.3)	1	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)	1	(33.3)
Czech Republic	6	5	(83.3)	0	(0.0)	0	(0.0)	1	(16.7)	0	(0.0)	0	(0.0)
Denmark ^e	11	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	11	(100.0)
Estonia	0	0	–	0	–	0	–	0	–	0	–	0	–
Finland	6	5	(83.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(16.7)
France	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	235	191	(81.3)	1	(0.4)	1	(0.4)	3	(1.3)	7	(3.0)	32	(13.6)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	6	5	(83.3)	0	(0.0)	1	(16.7)	0	(0.0)	0	(0.0)	0	(0.0)
Iceland	0	0	–	0	–	0	–	0	–	0	–	0	–
Ireland	7	1	(14.3)	1	(14.3)	0	(0.0)	0	(0.0)	0	(0.0)	5	(71.4)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	0	0	–	0	–	0	–	0	–	0	–	0	–
Lithuania	44	42	(95.5)	0	(0.0)	0	(0.0)	1	(2.3)	1	(2.3)	0	(0.0)
Luxembourg	1	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(100.0)
Malta	0	0	–	0	–	0	–	0	–	0	–	0	–
Netherlands	33	30	(90.9)	0	(0.0)	0	(0.0)	1	(3.0)	1	(3.0)	1	(3.0)
Norway	17	17	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	43	12	(27.9)	0	(0.0)	0	(0.0)	1	(2.3)	27	(62.8)	3	(7.0)
Romania	530	512	(96.6)	9	(1.7)	0	(0.0)	7	(1.3)	2	(0.4)	0	(0.0)
Slovakia	45	44	(97.8)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(2.2)
Slovenia	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Spain	280	204	(72.9)	1	(0.4)	0	(0.0)	1	(0.4)	6	(2.1)	68	(24.3)
Sweden	26	24	(92.3)	0	(0.0)	0	(0.0)	1	(3.8)	0	(0.0)	1	(3.8)
United Kingdom ^e	191	166	(86.9)	1	(0.5)	0	(0.0)	6	(3.1)	15	(7.9)	3	(1.6)
Subtotal EU/EEA	1 682	1 441	(85.7)	14	(0.8)	2	(0.1)	30	(1.8)	62	(3.7)	133	(7.9)
Non-EU/EEA													
Albania	14	14	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Andorra	0	–	–	–	–	–	–	–	–	–	–	–	–
Armenia	19	12	(63.2)	0	(0.0)	1	(5.3)	6	(31.6)	–	–	0	(0.0)
Azerbaijan	–	–	–	–	–	–	–	–	–	–	–	–	–
Belarus	11	11	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Bosnia and Herzegovina	11	5	(45.5)	0	(0.0)	2	(18.2)	1	(9.1)	–	–	3	(27.3)
Georgia	93	84	(90.3)	0	(0.0)	0	(0.0)	2	(2.2)	–	–	7	(7.5)
Israel	16	14	(87.5)	1	(6.3)	0	(0.0)	0	(0.0)	–	–	1	(6.3)
Kazakhstan	333	326	(97.9)	4	(1.2)	3	(0.9)	0	(0.0)	–	–	0	(0.0)
Kyrgyzstan	–	–	–	–	–	–	–	–	–	–	–	–	–
Moldova	107	105	(98.1)	0	(0.0)	2	(1.9)	0	(0.0)	–	–	0	(0.0)
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	0	–	–	–	–	–	–	–	–	–	–	–	–
North Macedonia	10	10	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Russia	2 304	2 209	(95.9)	10	(0.4)	22	(1.0)	4	(0.2)	–	–	59	(2.6)
San Marino	0	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	36	36	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Serbia excluding Kosovo ^f	8	8	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Kosovo ^f	28	28	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Switzerland	23	21	(91.3)	0	(0.0)	0	(0.0)	1	(4.3)	–	–	1	(4.3)
Tajikistan	327	312	(95.4)	4	(1.2)	3	(0.9)	5	(1.5)	–	–	3	(0.9)
Turkey	544	482	(88.6)	11	(2.0)	1	(0.2)	12	(2.2)	–	–	38	(7.0)
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Ukraine	484	448	(92.6)	8	(1.7)	21	(4.3)	7	(1.4)	–	–	0	(0.0)
Uzbekistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal non-EU/EEA	4 332	4 089	(94.4)	38	(0.9)	55	(1.3)	38	(0.9)	0	(0.0)	112	(2.6)
Total European Region	6 014	5 530	(92.0)	52	(0.9)	57	(0.9)	68	(1.1)	62	(1.0)	245	(4.1)
Subtotal 18 HPCs	4 901	4 644	(94.8)	46	(0.9)	53	(1.1)	48	(1.0)	3	(0.1)	107	(2.2)

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.

WHO European Region 18 tuberculosis high-priority countries presented in *italics*

EU/EEA: Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort drug susceptibility data are also required.

HPC - high-priority countries.

^bCases with unknown previous tuberculosis history are included among new tuberculosis cases.

^cFor non-EU/EEA countries: Patients started on second-line treatment are excluded. For EU/EEA countries: Rifampicin-resistant tuberculosis cases are excluded.

^dIn previous reports defined as 'defaulted'.

^eIn previous reports defined as 'transferred out and unknown'.

^fPrevious tuberculosis history is defined by previous diagnosis.

^gThis designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 23. Treatment outcome of new relapsed^a tuberculosis cases of foreign origin notified in 2017, European Region, 2018

Country/area	New and relapsed tuberculosis cases of foreign origin notified in 2017 ^b	Success		Died		Failed		Lost to follow-up ^c		Still on treatment		Not evaluated ^d	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria ^e	347	230	(66.3)	17	(4.9)	0	(0.0)	7	(2.0)	37	(10.7)	56	(16.1)
Belgium ^{e,f}	466	374	(80.3)	12	(2.6)	0	(0.0)	66	(14.2)	1	(0.2)	13	(2.8)
Bulgaria	6	4	(66.7)	0	(0.0)	1	(16.7)	1	(16.7)	0	(0.0)	0	(0.0)
Croatia	4	3	(75.0)	1	(25.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Cyprus	36	22	(61.1)	1	(2.8)	0	(0.0)	0	(0.0)	4	(11.1)	9	(25.0)
Czech Republic	148	85	(57.4)	8	(5.4)	0	(0.0)	36	(24.3)	6	(4.1)	13	(8.8)
Denmark ^f	168	58	(34.5)	2	(1.2)	2	(1.2)	0	(0.0)	2	(1.2)	104	(61.9)
Estonia	20	16	(80.0)	4	(20.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Finland	90	39	(43.3)	0	(0.0)	0	(0.0)	1	(1.1)	0	(0.0)	50	(55.6)
France	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	3 665	2 674	(73.0)	128	(3.5)	1	(0.0)	92	(2.5)	108	(2.9)	662	(18.1)
Greece ^e	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary ^e	22	14	(63.6)	0	(0.0)	1	(4.5)	2	(9.1)	2	(9.1)	3	(13.6)
Iceland	7	7	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Ireland ^f	126	54	(42.9)	1	(0.8)	0	(0.0)	1	(0.8)	0	(0.0)	70	(55.6)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	0	0	–	0	–	0	–	0	–	0	–	0	–
Lithuania	11	9	(81.8)	1	(9.1)	0	(0.0)	1	(9.1)	0	(0.0)	0	(0.0)
Luxembourg	24	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	24	(100.0)
Malta	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	569	492	(86.5)	16	(2.8)	0	(0.0)	24	(4.2)	7	(1.2)	30	(5.3)
Norway ^f	201	184	(91.5)	2	(1.0)	1	(0.5)	0	(0.0)	4	(2.0)	10	(5.0)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	341	117	(34.3)	7	(2.1)	0	(0.0)	19	(5.6)	179	(52.5)	19	(5.6)
Romania	25	24	(96.0)	0	(0.0)	1	(4.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovakia	5	5	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	44	38	(86.4)	4	(9.1)	0	(0.0)	0	(0.0)	1	(2.3)	1	(2.3)
Spain	1 495	921	(61.6)	31	(2.1)	0	(0.0)	8	(0.5)	48	(3.2)	487	(32.6)
Sweden	426	374	(87.8)	15	(3.5)	0	(0.0)	8	(1.9)	2	(0.5)	27	(6.3)
United Kingdom ^f	3 577	2 969	(83.0)	129	(3.6)	0	(0.0)	216	(6.0)	212	(5.9)	51	(1.4)
Subtotal EU/EEA	11 823	8 713	(73.7)	379	(3.2)	7	(0.1)	482	(4.1)	613	(5.2)	1 629	(13.8)
Non EU/EEA													
Albania	0	–	–	–	–	–	–	–	–	–	–	–	–
Andorra	0	–	–	–	–	–	–	–	–	–	–	–	–
Armenia	0	–	–	–	–	–	–	–	–	–	–	–	–
Azerbaijan	–	–	–	–	–	–	–	–	–	–	–	–	–
Belarus	–	–	–	–	–	–	–	–	–	–	–	–	–
Bosnia and Herzegovina	–	–	–	–	–	–	–	–	–	–	–	–	–
Georgia	–	–	–	–	–	–	–	–	–	–	–	–	–
Israel	183	158	(86.3)	8	(4.4)	1	(0.5)	4	(2.2)	–	–	12	(6.6)
Kazakhstan	94	69	(73.4)	13	(13.8)	1	(1.1)	4	(4.3)	–	–	7	(7.4)
Kyrgyzstan	0	–	–	–	–	–	–	–	–	–	–	–	–
Moldova	20	13	(65.0)	0	(0.0)	1	(5.0)	6	(30.0)	–	–	0	(0.0)
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	3	0	(0.0)	0	(0.0)	0	(0.0)	1	(33.3)	–	–	2	(66.7)
North Macedonia	11	11	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Russia	1 345	261	(19.4)	10	(0.7)	22	(1.6)	15	(1.1)	–	–	1 037	(77.1)
San Marino	0	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	2	1	(50.0)	0	(0.0)	0	(0.0)	1	(50.0)	–	–	0	(0.0)
Serbia excluding Kosovo ^g	0	–	–	–	–	–	–	–	–	–	–	–	–
Kosovo ^g	2	1	(50.0)	0	(0.0)	0	(0.0)	1	(50.0)	–	–	0	(0.0)
Switzerland	358	291	(81.3)	8	(2.2)	0	(0.0)	13	(3.6)	–	–	46	(12.8)
Tajikistan	0	–	–	–	–	–	–	–	–	–	–	–	–
Turkey	1 034	835	(80.8)	44	(4.3)	3	(0.3)	80	(7.7)	–	–	72	(7.0)
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Ukraine	17	9	(52.9)	0	(0.0)	0	(0.0)	2	(11.8)	–	–	6	(35.3)
Uzbekistan	0	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal non-EU/EEA	3 067	1 648	(53.7)	83	(2.7)	28	(0.9)	126	(4.1)	0	(0.0)	1 182	(38.5)
Total European Region	14 890	10 361	(69.6)	462	(3.1)	35	(0.2)	608	(4.1)	613	(4.1)	2 811	(18.9)
Subtotal 18 HPCs	2 572	1 240	(48.2)	72	(2.8)	29	(1.1)	109	(4.2)	0	(0.0)	1 122	(43.6)

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.

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

EU/EEA: Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort drug susceptibility data are also required HPC - high-priority countries.

^bCases with unknown previous tuberculosis history are included among new tuberculosis cases.

^cFor non-EU/EEA countries: Patients started on second-line treatment are excluded. For EU/EEA countries: Rifampicin-resistant tuberculosis cases are excluded.

^dIn previous reports defined as 'defaulted'.

^eIn previous reports defined as 'transferred out and unknown'.

^fOrigin is based on nationality.

^gPrevious tuberculosis history is defined by previous diagnosis.

^hThis designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 24. Treatment outcome of HIV positive new and relapsed^a tuberculosis cases notified in 2017, European Region, 2018

Country/area	HIV positive tuberculosis cases notified in 2017 ^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	38	31	(81.6)	3	(7.9)	0	(0.0)	4	(10.5)	0	(0.0)	0	(0.0)
Bulgaria ^e	3	2	(66.7)	0	(0.0)	0	(0.0)	1	(33.3)	0	(0.0)	0	(0.0)
Croatia	0	0	–	0	–	0	–	0	–	0	–	0	–
Cyprus	0	0	–	0	–	0	–	0	–	0	–	0	–
Czech Republic	8	5	(62.5)	0	(0.0)	0	(0.0)	2	(25.0)	0	(0.0)	1	(12.5)
Denmark ^e	3	1	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(66.7)
Estonia	10	8	(80.0)	2	(20.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Finland	–	–	–	–	–	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	–	–	–	–	–	–	–	–	–	–	–	–	–
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Iceland ^e	0	0	–	0	–	0	–	0	–	0	–	0	–
Ireland	11	6	(54.5)	1	(9.1)	0	(0.0)	0	(0.0)	0	(0.0)	4	(36.4)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	26	22	(84.6)	1	(3.8)	1	(3.8)	1	(3.8)	1	(3.8)	0	(0.0)
Luxembourg	1	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(100.0)
Malta	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	23	19	(82.6)	0	(0.0)	0	(0.0)	2	(8.7)	0	(0.0)	2	(8.7)
Norway ^e	6	5	(83.3)	0	(0.0)	0	(0.0)	0	(0.0)	1	(16.7)	0	(0.0)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	125	32	(25.6)	4	(3.2)	0	(0.0)	7	(5.6)	75	(60.0)	7	(5.6)
Romania	205	144	(70.2)	39	(19.0)	7	(3.4)	15	(7.3)	0	(0.0)	0	(0.0)
Slovakia	0	0	–	0	–	0	–	0	–	0	–	0	–
Slovenia	0	0	–	0	–	0	–	0	–	0	–	0	–
Spain	217	113	(52.1)	19	(8.8)	0	(0.0)	4	(1.8)	10	(4.6)	71	(32.7)
Sweden	–	–	–	–	–	–	–	–	–	–	–	–	–
United Kingdom ^e	136	99	(72.8)	10	(7.4)	0	(0.0)	10	(7.4)	17	(12.5)	0	(0.0)
Subtotal EU/EEA	813	488	(60.0)	79	(9.7)	8	(1.0)	46	(5.7)	104	(12.8)	88	(10.8)
Non-EU/EEA													
Albania	4	3	(75.0)	1	(25.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Andorra	0	–	–	–	–	–	–	–	–	–	–	–	–
Armenia	50	27	(54.0)	17	(34.0)	2	(4.0)	4	(8.0)	–	–	0	(0.0)
Azerbaijan	–	–	–	–	–	–	–	–	–	–	–	–	–
Belarus	101	80	(79.2)	10	(9.9)	5	(5.0)	6	(5.9)	–	–	0	(0.0)
Bosnia and Herzegovina	–	–	–	–	–	–	–	–	–	–	–	–	–
Georgia	33	23	(69.7)	2	(6.1)	1	(3.0)	3	(9.1)	–	–	4	(12.1)
Israel	12	10	(83.3)	0	(0.0)	0	(0.0)	1	(8.3)	–	–	1	(8.3)
Kazakhstan	–	–	–	–	–	–	–	–	–	–	–	–	–
Kyrgyzstan	181	107	(59.1)	43	(23.8)	6	(3.3)	25	(13.8)	–	–	0	(0.0)
Moldova	204	118	(57.8)	58	(28.4)	10	(4.9)	9	(4.4)	–	–	9	(4.4)
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	0	–	–	–	–	–	–	–	–	–	–	–	–
North Macedonia	0	–	–	–	–	–	–	–	–	–	–	–	–
Russia	9 655	4 111	(42.6)	2 119	(21.9)	936	(9.7)	754	(7.8)	–	–	1 735	(18.0)
San Marino	0	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	8	6	(75.0)	1	(12.5)	1	(12.5)	0	(0.0)	–	–	0	(0.0)
Serbia excluding Kosovo ^f	8	6	(75.0)	1	(12.5)	1	(12.5)	0	(0.0)	–	–	0	(0.0)
Kosovo ^f	0	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	–	–	–	–	–	–	–	–	–	–	–	–	–
Tajikistan	157	115	(73.2)	30	(19.1)	7	(4.5)	4	(2.5)	–	–	1	(0.6)
Turkey	64	39	(60.9)	9	(14.1)	1	(1.6)	4	(6.3)	–	–	11	(17.2)
Turkmenistan	0	–	–	–	–	–	–	–	–	–	–	–	–
Ukraine	4 454	2 962	(66.5)	843	(18.9)	261	(5.9)	374	(8.4)	–	–	14	(0.3)
Uzbekistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal non-EU/EEA	14 923	7 601	(50.9)	3 133	(21.0)	1 230	(8.2)	1 184	(7.9)	0	(0.0)	1 775	(11.9)
Total European Region	15 736	8 089	(51.4)	3 212	(20.4)	1 238	(7.9)	1 230	(7.8)	104	(0.7)	1 863	(11.8)
Subtotal 18 HPCs	15 143	7 758	(51.2)	3 173	(21.0)	1 237	(8.2)	1 200	(7.9)	1	(0.0)	1 774	(11.7)

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.

European Region 18 tuberculosis high-priority countries presented in *italics*.

EU/EEA: Country data are shown as missing (–) when data on treatment outcome or HIV status are not reported. For inclusion in the cohort drug susceptibility data are also required.

HIV - human immunodeficiency virus.

HPC - high-priority countries.

^bCases with unknown previous tuberculosis history are included among new tuberculosis cases.

^cRifampicin-resistant tuberculosis cases are excluded.

^dIn previous reports defined as 'defaulted'.

^eIn previous reports defined as 'transferred out and unknown'.

^fPrevious tuberculosis history is defined by previous diagnosis.

^gThis designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 25. Treatment outcome among new and relapsed^a tuberculosis cases in prisons notified in 2017, European Region, 2018

Country/area	New and relapsed tuberculosis cases in prisons notified in 2017 ^b	Success		Died		Failed		Lost to follow-up ^c		Not evaluated ^d	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA											
Austria	–	–	–	–	–	–	–	–	–	–	–
Belgium	20	11	(55.0)	2	(10.0)	0	(0.0)	2	(10.0)	5	(25.0)
Bulgaria	16	15	(93.8)	0	(0.0)	0	(0.0)	1	(6.3)	0	(0.0)
Croatia	–	–	–	–	–	–	–	–	–	–	–
Cyprus	–	–	–	–	–	–	–	–	–	–	–
Czech Republic	23	18	(78.3)	1	(4.3)	0	(0.0)	1	(4.3)	3	(13.0)
Denmark	–	–	–	–	–	–	–	–	–	–	–
Estonia	3	2	(66.7)	–	–	–	–	–	–	1	(33.3)
Finland	–	–	–	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–
Germany	–	–	–	–	–	–	–	–	–	–	–
Greece	–	–	–	–	–	–	–	–	–	–	–
Hungary	9	6	(66.7)	0	(0.0)	0	(0.0)	1	(11.1)	2	(22.2)
Iceland	–	–	–	–	–	–	–	–	–	–	–
Ireland	0	–	–	–	–	–	–	–	–	–	–
Italy	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–
Lithuania	54	42	(77.8)	2	(3.7)	1	(1.9)	2	(3.7)	7	(13.0)
Luxembourg	0	–	–	–	–	–	–	–	–	–	–
Malta	0	0	–	0	–	0	–	0	–	0	–
Netherlands	20	9	(45.0)	0	(0.0)	0	(0.0)	3	(15.0)	8	(40.0)
Norway	–	–	–	–	–	–	–	–	–	–	–
Poland	–	–	–	–	–	–	–	–	–	–	–
Portugal	34	16	(47.1)	1	(2.9)	–	–	2	(5.9)	15	(44.1)
Romania	105	92	(87.6)	5	(4.8)	1	(1.0)	7	(6.7)	0	(0.0)
Slovakia	19	19	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	–	–	–	–	–	–	–	–	–	–	–
Spain	–	–	–	–	–	–	–	–	–	–	–
Sweden	–	–	–	–	–	–	–	–	–	–	–
United Kingdom	23	16	(69.6)	0	(0.0)	0	(0.0)	4	(17.4)	3	(13.0)
Subtotal EU/EEA	326	246	(75.5)	11	(3.4)	2	(0.6)	23	(7.1)	44	(13.5)
Non-EU/EEA											
Albania	8	6	(75.0)	1	(12.5)	0	(0.0)	1	(12.5)	0	(0.0)
Andorra	0	–	–	–	–	–	–	–	–	–	–
Armenia	11	9	(81.8)	0	(0.0)	2	(18.2)	0	(0.0)	0	(0.0)
Azerbaijan	188	174	(92.6)	3	(1.6)	2	(1.1)	9	(4.8)	0	(0.0)
Belarus	40	30	(75.0)	0	(0.0)	2	(5.0)	0	(0.0)	8	(20.0)
Bosnia and Herzegovina	–	–	–	–	–	–	–	–	–	–	–
Georgia	57	46	(80.7)	0	(0.0)	2	(3.5)	0	(0.0)	9	(15.8)
Israel	–	–	–	–	–	–	–	–	–	–	–
Kazakhstan	239	159	(66.5)	5	(2.1)	20	(8.4)	1	(0.4)	54	(22.6)
Kyrgyzstan	154	125	(81.2)	7	(4.5)	6	(3.9)	16	(10.4)	0	(0.0)
Moldova	66	59	(89.4)	1	(1.5)	2	(3.0)	3	(4.5)	1	(1.5)
Monaco	–	–	–	–	–	–	–	–	–	–	–
Montenegro	–	–	–	–	–	–	–	–	–	–	–
North Macedonia	10	8	(80.0)	1	(10.0)	0	(0.0)	1	(10.0)	0	(0.0)
Russia	7 205	3 963	(55.0)	255	(3.5)	708	(9.8)	369	(5.1)	1 910	(26.5)
San Marino	0	–	–	–	–	–	–	–	–	–	–
Serbia	8	7	(87.5)	0	(0.0)	0	(0.0)	1	(12.5)	0	(0.0)
Serbia excluding Kosovo ^e	8	7	(87.5)	0	(0.0)	0	(0.0)	1	(12.5)	0	(0.0)
Kosovo ^e	0	–	–	–	–	–	–	–	–	–	–
Switzerland	–	–	–	–	–	–	–	–	–	–	–
Tajikistan	76	69	(90.8)	7	(9.2)	0	(0.0)	0	(0.0)	0	(0.0)
Turkey	124	107	(86.3)	5	(4.0)	1	(0.8)	9	(7.3)	2	(1.6)
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–
Ukraine	567	433	(76.4)	30	(5.3)	48	(8.5)	46	(8.1)	10	(1.8)
Uzbekistan	–	–	–	–	–	–	–	–	–	–	–
Subtotal non-EU/EEA	8 753	5 195	(59.4)	315	(3.6)	793	(9.1)	456	(5.2)	1 994	(22.8)
Total European Region	9 079	5 441	(59.9)	326	(3.6)	795	(8.8)	479	(5.3)	2 038	(22.4)
Subtotal 18 HPC	8 905	5 325	(59.8)	320	(3.6)	795	(8.9)	463	(5.2)	2 002	(22.5)

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.

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

EU/EEA: Country data are shown as missing (–) when data are not reported.

HPC - high-priority countries.

^b Cases with unknown previous tuberculosis history are included among new tuberculosis cases.

^c Excludes cases moved to second-line treatment.

^d In previous reports defined as 'defaulted'.

^e In previous reports defined as 'transferred out and unknown'. 'Not evaluated' includes 'transferred out', 'still on treatment' and any other registered case where the treatment outcome has not been evaluated.

^f This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 26. Treatment outcome after 24 months of RR/MDR tuberculosis cases started on second-line treatment in 2016, European Region, 2018

Country/area	RR/MDR tuberculosis cases started on second-line treatment in 2016 ^a	Success		Died		Failed		Lost to follow-up ^b		Still on treatment		Not evaluated ^c	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	17	11	(64.7)	0	(0.0)	0	(0.0)	1	(5.9)	1	(5.9)	4	(23.5)
Belgium	12	10	(83.3)	0	(0.0)	0	(0.0)	2	(16.7)	0	(0.0)	0	(0.0)
Bulgaria	22	12	(54.5)	6	(27.3)	3	(13.6)	1	(4.5)	0	(0.0)	0	(0.0)
Croatia	0	0	–	0	–	0	–	0	–	0	–	0	–
Cyprus	–	–	–	–	–	–	–	–	–	–	–	–	–
Czech Republic	5	2	(40.0)	1	(20.0)	0	(0.0)	0	(0.0)	1	(20.0)	1	(20.0)
Denmark	5	3	(60.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(40.0)
Estonia	25	18	(72.0)	4	(16.0)	1	(4.0)	0	(0.0)	1	(4.0)	1	(4.0)
Finland	6	4	(66.7)	0	(0.0)	0	(0.0)	1	(16.7)	0	(0.0)	1	(16.7)
France	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	122	45	(36.9)	8	(6.6)	1	(0.8)	9	(7.4)	12	(9.8)	47	(38.5)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	20	8	(40.0)	2	(10.0)	0	(0.0)	2	(10.0)	4	(20.0)	4	(20.0)
Iceland	0	0	–	0	–	0	–	0	–	0	–	0	–
Ireland	7	5	(71.4)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(28.6)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	0	0	–	0	–	0	–	0	–	0	–	0	–
Lithuania	255	110	(43.1)	53	(20.8)	14	(5.5)	55	(21.6)	18	(7.1)	5	(2.0)
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	0	0	–	0	–	0	–	0	–	0	–	0	–
Netherlands	15	11	(73.3)	1	(6.7)	0	(0.0)	2	(13.3)	0	(0.0)	1	(6.7)
Norway	11	10	(90.9)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(9.1)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	19	5	(26.3)	0	(0.0)	0	(0.0)	1	(5.3)	0	(0.0)	13	(68.4)
Romania	547	271	(49.5)	103	(18.8)	113	(20.7)	57	(10.4)	3	(0.5)	0	(0.0)
Slovakia	3	0	(0.0)	2	(66.7)	0	(0.0)	0	(0.0)	1	(33.3)	0	(0.0)
Slovenia	0	0	–	0	–	0	–	0	–	0	–	0	–
Spain	–	–	–	–	–	–	–	–	–	–	–	–	–
Sweden	25	23	(92.0)	1	(4.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(4.0)
United Kingdom	66	42	(63.6)	4	(6.1)	0	(0.0)	8	(12.1)	11	(16.7)	1	(1.5)
Subtotal EU/EEA	1 182	590	(49.9)	185	(15.7)	132	(11.2)	139	(11.8)	52	(4.4)	84	(7.1)
Non-EU/EEA													
Albania	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Andorra	0	–	–	–	–	–	–	–	–	–	–	–	–
Armenia	118	58	(49.2)	13	(11.0)	14	(11.9)	33	(28.0)	–	–	0	(0.0)
Azerbaijan	798	480	(60.2)	112	(14.0)	134	(16.8)	72	(9.0)	–	–	0	(0.0)
Belarus	1 180	796	(67.5)	96	(8.1)	157	(13.3)	115	(9.7)	–	–	16	(1.4)
Bosnia and Herzegovina	0	–	–	–	–	–	–	–	–	–	–	–	–
Georgia	339	222	(65.5)	20	(5.9)	18	(5.3)	65	(19.2)	–	–	14	(4.1)
Israel	9	6	(66.7)	1	(11.1)	0	(0.0)	2	(22.2)	–	–	0	(0.0)
Kazakhstan	6 260	4 979	(79.5)	558	(8.9)	319	(5.1)	257	(4.1)	–	–	147	(2.3)
Kyrgyzstan	1 232	655	(53.2)	141	(11.4)	147	(11.9)	288	(23.4)	–	–	1	(0.1)
Moldova	979	518	(52.9)	125	(12.8)	132	(13.5)	198	(20.2)	–	–	6	(0.6)
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	0	–	–	–	–	–	–	–	–	–	–	–	–
North Macedonia	2	1	(50.0)	0	(0.0)	0	(0.0)	1	(50.0)	–	–	0	(0.0)
Russia	22 593	12 141	(53.7)	3 396	(15.0)	2 718	(12.0)	2 046	(9.1)	–	–	2 292	(10.1)
San Marino	0	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	12	9	(75.0)	2	(16.7)	0	(0.0)	1	(8.3)	–	–	0	(0.0)
Serbia excluding Kosovo ^d	10	7	(70.0)	2	(20.0)	0	(0.0)	1	(10.0)	–	–	0	(0.0)
Kosovo ^d	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Switzerland	17	8	(47.1)	0	(0.0)	0	(0.0)	1	(5.9)	–	–	8	(47.1)
Tajikistan	681	440	(64.6)	115	(16.9)	62	(9.1)	58	(8.5)	–	–	6	(0.9)
Turkey	211	131	(62.1)	19	(9.0)	16	(7.6)	27	(12.8)	–	–	18	(8.5)
Turkmenistan	557	303	(54.4)	93	(16.7)	99	(17.8)	52	(9.3)	–	–	10	(1.8)
Ukraine	7 277	3 590	(49.3)	1 160	(15.9)	1 308	(18.0)	1 149	(15.8)	–	–	70	(1.0)
Uzbekistan	1 986	1 140	(57.4)	311	(15.7)	109	(5.5)	244	(12.3)	–	–	182	(9.2)
Subtotal non-EU/EEA	44 252	25 478	(57.6)	6 162	(13.9)	5 233	(11.8)	4 609	(10.4)	0	(0.0)	2 770	(6.3)
Total European Region	45 434	26 068	(57.4)	6 347	(14.0)	5 365	(11.8)	4 748	(10.5)	52	(0.1)	2 854	(6.3)
Subtotal 18 HPC	45 060	25 864	(57.4)	6 325	(14.0)	5 364	(11.9)	4 717	(10.5)	22	(0.0)	2 768	(6.1)

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.WHO European Region 18 tuberculosis high-priority countries presented in *italics*.

EU/EEA: Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort drug susceptibility data are also required HPC – high-priority countries.

RR/MDR – rifampicin-resistant and multidrug-resistant.

^bFor EU/EEA countries, cases diagnosed post mortem are excluded, and cases with no treatment enrollment data reported are assumed to be enrolled to treatment.^cIn previous reports defined as 'defaulted'.^dIn previous reports defined as 'transferred out and unknown'.^eThis designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 27. Treatment outcome after 24 months of laboratory-confirmed^a MDR tuberculosis cases notified in 2016, EU/EEA, 2018

Country	All MDR tuberculosis cases notified in 2016	Success		Died		Failed		Lost to follow-up ^b		Still on treatment		Not evaluated ^c	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	17	11	(64.7)	0	(0.0)	0	(0.0)	1	(5.9)	1	(5.9)	4	(23.5)
Belgium	10	9	(90.0)	0	(0.0)	0	(0.0)	1	(10.0)	0	(0.0)	0	(0.0)
Bulgaria	19	10	(52.6)	6	(31.6)	3	(15.8)	0	(0.0)	0	(0.0)	0	(0.0)
Croatia	0	0	–	0	–	0	–	0	–	0	–	0	–
Cyprus	–	–	–	–	–	–	–	–	–	–	–	–	–
Czech Republic	6	1	(16.7)	2	(33.3)	0	(0.0)	1	(16.7)	1	(16.7)	1	(16.7)
Denmark	4	3	(75.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(25.0)
Estonia	24	17	(70.8)	5	(20.8)	1	(4.2)	0	(0.0)	1	(4.2)	0	(0.0)
Finland	6	4	(66.7)	0	(0.0)	0	(0.0)	1	(16.7)	0	(0.0)	1	(16.7)
France	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	105	35	(33.3)	8	(7.6)	1	(1.0)	8	(7.6)	11	(10.5)	42	(40.0)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	18	8	(44.4)	2	(11.1)	0	(0.0)	0	(0.0)	4	(22.2)	4	(22.2)
Iceland	0	0	–	0	–	0	–	0	–	0	–	0	–
Ireland	6	5	(83.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(16.7)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	0	0	–	0	–	0	–	0	–	0	–	0	–
Lithuania	244	103	(42.2)	52	(21.3)	14	(5.7)	52	(21.3)	18	(7.4)	5	(2.0)
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	0	0	–	0	–	0	–	0	–	0	–	0	–
Netherlands	14	10	(71.4)	1	(7.1)	0	(0.0)	2	(14.3)	0	(0.0)	1	(7.1)
Norway	11	10	(90.9)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(9.1)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	15	3	(20.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	12	(80.0)
Romania	470	223	(47.4)	95	(20.2)	104	(22.1)	46	(9.8)	2	(0.4)	0	(0.0)
Slovakia	3	0	(0.0)	2	(66.7)	0	(0.0)	0	(0.0)	1	(33.3)	0	(0.0)
Slovenia	0	0	–	0	–	0	–	0	–	0	–	0	–
Spain	–	–	–	–	–	–	–	–	–	–	–	–	–
Sweden	22	20	(90.9)	1	(4.5)	0	(0.0)	0	(0.0)	0	(0.0)	1	(4.5)
United Kingdom	58	34	(58.6)	6	(10.3)	0	(0.0)	7	(12.1)	10	(17.2)	1	(1.7)
Total EU/EEA	1 052	506	(48.1)	180	(17.1)	123	(11.7)	119	(11.3)	49	(4.7)	75	(7.1)

WHO European Region 18 tuberculosis high-priority countries 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.

MDR – multidrug-resistant.

^a Laboratory-confirmed cases – culture-positive OR microscopy-positive and nucleic acid amplification test-positive cases.^b In previous reports defined as 'defaulted'.^c In previous reports defined as 'transferred out and unknown'.

Table 28. Treatment outcome after 24 months of XDR tuberculosis cases started on second-line treatment in 2016, European Region, 2018

Country/area	XDR tuberculosis cases started on second-line treatment in 2016 ^a	Success		Died		Failed		Lost to follow-up ^b		Still on treatment		Not evaluated ^c	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	2	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)	0	(0.0)
Belgium	0	0	–	0	–	0	–	0	–	0	–	0	–
Bulgaria	0	0	–	0	–	0	–	0	–	0	–	0	–
Croatia	0	0	–	0	–	0	–	0	–	0	–	0	–
Cyprus	0	0	–	0	–	0	–	0	–	0	–	0	–
Czech Republic	0	0	–	0	–	0	–	0	–	0	–	0	–
Denmark	0	0	–	0	–	0	–	0	–	0	–	0	–
Estonia	6	3	(50.0)	2	(33.3)	0	(0.0)	0	(0.0)	1	(16.7)	0	(0.0)
Finland	1	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(100.0)
France	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	7	3	(42.9)	1	(14.3)	0	(0.0)	0	(0.0)	0	(0.0)	3	(42.9)
Greece	0	0	–	0	–	0	–	0	–	0	–	0	–
Hungary	7	3	(42.9)	1	(14.3)	0	(0.0)	0	(0.0)	1	(14.3)	2	(28.6)
Iceland	0	0	–	0	–	0	–	0	–	0	–	0	–
Ireland	0	0	–	0	–	0	–	0	–	0	–	0	–
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	–	–	–	–	–	–	–	–	–	–	–	–	–
Liechtenstein	0	0	–	0	–	0	–	0	–	0	–	0	–
Lithuania	58	0	(0.0)	17	(29.3)	7	(12.1)	14	(24.1)	18	(31.0)	2	(3.4)
Luxembourg	0	0	–	0	–	0	–	0	–	0	–	0	–
Malta	0	0	–	0	–	0	–	0	–	0	–	0	–
Netherlands	0	0	–	0	–	0	–	0	–	0	–	0	–
Norway	0	0	–	0	–	0	–	0	–	0	–	0	–
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	4	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	4	(100.0)
Romania	68	23	(33.8)	20	(29.4)	21	(30.9)	3	(4.4)	1	(1.5)	0	(0.0)
Slovakia	0	0	–	0	–	0	–	0	–	0	–	0	–
Slovenia	0	0	–	0	–	0	–	0	–	0	–	0	–
Spain	0	0	–	0	–	0	–	0	–	0	–	0	–
Sweden	4	2	(50.0)	1	(25.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(25.0)
United Kingdom	7	3	(42.9)	0	(0.0)	0	(0.0)	1	(14.3)	3	(42.9)	0	(0.0)
Subtotal EU/EEA	164	38	(23.2)	42	(25.6)	28	(17.1)	18	(11.0)	25	(15.2)	13	(7.9)
Non-EU/EEA													
Albania	0	–	–	–	–	–	–	–	–	–	–	–	–
Andorra	0	–	–	–	–	–	–	–	–	–	–	–	–
Armenia	10	3	(30.0)	4	(40.0)	0	(0.0)	3	(30.0)	–	–	0	(0.0)
Azerbaijan	–	–	–	–	–	–	–	–	–	–	–	–	–
Belarus	393	207	(52.7)	43	(10.9)	102	(26.0)	32	(8.1)	–	–	9	(2.3)
Bosnia and Herzegovina	–	–	–	–	–	–	–	–	–	–	–	–	–
Georgia	55	31	(56.4)	4	(7.3)	8	(14.5)	9	(16.4)	–	–	3	(5.5)
Israel	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Kazakhstan	435	207	(47.6)	25	(5.7)	107	(24.6)	76	(17.5)	–	–	20	(4.6)
Kyrgyzstan	68	10	(14.7)	16	(23.5)	30	(44.1)	12	(17.6)	–	–	0	(0.0)
Moldova	65	17	(26.2)	11	(16.9)	18	(27.7)	18	(27.7)	–	–	1	(1.5)
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
North Macedonia	0	–	–	–	–	–	–	–	–	–	–	–	–
Russia	2 909	1 094	(37.6)	652	(22.4)	633	(21.8)	213	(7.3)	–	–	317	(10.9)
San Marino	0	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	1	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	1	(100.0)
Serbia excluding Kosovo ^d	1	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	1	(100.0)
Kosovo ^d	0	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	0	–	–	–	–	–	–	–	–	–	–	–	–
Tajikistan	43	20	(46.5)	9	(20.9)	8	(18.6)	3	(7.0)	–	–	3	(7.0)
Turkey	9	5	(55.6)	0	(0.0)	0	(0.0)	1	(11.1)	–	–	3	(33.3)
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Ukraine	1 353	501	(37.0)	245	(18.1)	447	(33.0)	156	(11.5)	–	–	4	(0.3)
Uzbekistan	184	91	(49.5)	48	(26.1)	15	(8.2)	11	(6.0)	–	–	19	(10.3)
Subtotal non-EU/EEA	5 528	2 189	(39.6)	1 057	(19.1)	1 368	(24.7)	534	(9.7)	0	(0.0)	380	(6.9)
Total European Region	5 692	2 227	(39.1)	1 099	(19.3)	1 396	(24.5)	552	(9.7)	25	(0.4)	393	(6.9)
Subtotal 18 HPC	5 656	2 212	(39.1)	1 096	(19.4)	1 396	(24.7)	551	(9.7)	20	(0.4)	381	(6.7)

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.

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

EU/EEA: Country data are shown as missing (–) when data on treatment outcome are not reported. For inclusion in the cohort, drug susceptibility data are also required.

HPC - high-priority countries.

XDR - extensively drug-resistant.

^b For EU/EEA countries cases diagnosed post mortem are excluded, and cases with no treatment enrollment data reported are assumed to be enrolled to treatment.

^c In previous reports defined as 'defaulted'.

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

^e This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table 29. Treatment outcome after 36 months of XDR tuberculosis notified in 2015, EU/EEA, 2018

Country	XDR tuberculosis cases reported in 2015	Success		Died		
		N	(%)	N	(%)	
EU/EEA						
Austria	1	1	(100.0)	0	(0.0)	
Belgium	2	2	(100.0)	0	(0.0)	
<i>Bulgaria</i>	4	2	(50.0)	0	(0.0)	
Croatia	0	0	–	0	–	
Cyprus	0	0	–	0	–	
Czech Republic	1	0	(0.0)	0	(0.0)	
Denmark	1	0	(0.0)	0	(0.0)	
<i>Estonia</i>	9	3	(33.3)	2	(22.2)	
Finland	–	–	–	–	–	
France	–	–	–	–	–	
Germany	9	4	(44.4)	0	(0.0)	
Greece	0	0	–	0	–	
Hungary	1	0	(0.0)	0	(0.0)	
Iceland	0	0	–	0	–	
Ireland	0	0	–	0	–	
Italy	–	–	–	–	–	
<i>Latvia</i>	–	–	–	–	–	
Liechtenstein	0	0	–	0	–	
<i>Lithuania</i>	59	15	(25.4)	22	(37.3)	
Luxembourg	0	0	–	0	–	
Malta	0	0	–	0	–	
Netherlands	0	0	–	0	–	
Norway	0	0	–	0	–	
Poland	–	–	–	–	–	
Portugal	6	2	(33.3)	2	(33.3)	
<i>Romania</i>	71	28	(39.4)	10	(14.1)	
Slovakia	0	0	–	0	–	
Slovenia	0	0	–	0	–	
Spain	0	0	–	0	–	
Sweden	1	1	(100.0)	0	(0.0)	
United Kingdom	9	7	(77.8)	2	(22.2)	
Total EU/EEA	174	65	(37.4)	38	(21.8)	

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

EU/EEA: Country data are shown as missing (-) when data on treatment outcome are not reported. For inclusion in the cohort, drug susceptibility data are also required.

XDR – extensively drug-resistant.

^a In previous reports defined as 'defaulted'.

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

	Failed		Lost to follow-up ^a		Not evaluated ^b	
	N	(%)	N	(%)	N	(%)
	0	(0.0)	0	(0.0)	0	(0.0)
	0	(0.0)	0	(0.0)	0	(0.0)
	0	(0.0)	2	(50.0)	0	(0.0)
	0	–	0	–	0	–
	0	–	0	–	0	–
	0	(0.0)	1	(100.0)	0	(0.0)
	0	(0.0)	0	(0.0)	1	(100.0)
	4	(44.4)	0	(0.0)	0	(0.0)
	–	–	–	–	–	–
	–	–	–	–	–	–
	0	(0.0)	0	(0.0)	5	(55.6)
	0	–	0	–	0	–
	0	(0.0)	0	(0.0)	1	(100.0)
	0	–	0	–	0	–
	0	–	0	–	0	–
	–	–	–	–	–	–
	–	–	–	–	–	–
	0	–	0	–	0	–
	9	(15.3)	13	(22.0)	0	(0.0)
	0	–	0	–	0	–
	0	–	0	–	0	–
	0	–	0	–	0	–
	0	–	0	–	0	–
	–	–	–	–	–	–
	0	(0.0)	1	(16.7)	1	(16.7)
	28	(39.4)	5	(7.0)	0	(0.0)
	0	–	0	–	0	–
	0	–	0	–	0	–
	0	–	0	–	0	–
	0	(0.0)	0	(0.0)	0	(0.0)
	0	(0.0)	0	(0.0)	0	(0.0)
	41	(23.6)	22	(12.6)	8	(4.6)

Table 30. Monitoring the WHO Europe Roadmap to Implement the Tuberculosis action plan for the WHO European Region, 2016–2020, 2018

1. INTEGRATED, PATIENT-CENTERED CARE AND PREVENTION													
	Systematic screening of contacts and high-risk groups	Early diagnosis of all forms of TB and universal access to drug-susceptibility testing, including the use of rapid tests							Equitable access to quality treatment and continuity of care for all people with TB, including drug-resistant TB, and patient support to facilitate treatment adherence				
Country/area	1.A.1 Coverage of population at risk with systematic screening for active TB and LTBI. Target = 80%	1.B.1 Percentage of TB patients diagnosed using WHO recommended rapid tests (G). Target: 30%	1.B.2 First-line DST coverage (%) among all bacteriologically confirmed TB cases (G). Target = 100%	1.B.3 RR/MDR TB case detection rate (%). Target = 85%	1.B.4 TB notification rate per 100 000 population (E). Target = 24.6 per 100 000 population	1.B.5 TB case-detection rate (%). Target: Increase	1.B.6 Percentage of RR/MDR TB among new TB patients (C) ^a . Target: Decrease	1.B.7 Percentage of RR/MDR TB among previously treated TB patients ^a . Target: Decrease	1.C.1 Percentage of hospitalisation of new TB patients (E). Target: Decrease	1.C.2 Percentage of detected RR/MDR TB enrolled in treatment (G). Target = 100%	1.C.3 Treatment success rate (%) among all new and relapsed TB patients (G). Target = 85%	1.C.4 Treatment success rate (%) among the RR/MDR TB treatment cohort (G). Target = 75%	1.C.5 TB mortality rate (ICD A15-19) (G) (E). Target = 2.7 per 100 000 population
Austria	-	(80.0)	(87.9)	(136.4)	(5.3)	(74.6)	(4.8)	(21.4)	-	(100.0)	(69.4)	(64.7)	(0.4)
Belgium	-	(57.3)	(90.4)	(53.8)	(8.0)	(91.3)	(1.2)	(2.9)	-	(100.0)	(79.3)	(83.3)	(0.3)
Bulgaria	(96.4)	(0.5)	(89.3)	(116.7)	(18.3)	(80.6)	(2.5)	(21.3)	(90.0)	(100.0)	(84.2)	(54.5)	(1.0)
Croatia	-	(0.0)	(92.0)	-	(8.9)	(104.0)	(0.4)	(6.3)	-	(100.0)	(65.9)	-	(0.8)
Cyprus	-	(33.3)	(100.0)	-	(5.9)	(78.5)	(0.0)	(0.0)	-	-	(66.7)	-	(0.3)
Czech Republic	-	(63.0)	(85.8)	(100.0)	(4.1)	(75.0)	(3.6)	(0.0)	(95.0)	(100.0)	(68.9)	(40.0)	(0.3)
Denmark	-	(97.0)	(96.1)	(100.0)	(4.7)	(87.1)	(2.5)	(0.0)	-	(100.0)	(39.4)	(60.0)	(0.3)
Estonia	-	(85.5)	(94.4)	(100.0)	(11.0)	(85.3)	(22.5)	(52.6)	(60.0)	(97.0)	(80.4)	(72.0)	(0.8)
Finland	-	(45.9)	(90.2)	(66.7)	(4.2)	(88.1)	(3.1)	-	(80.0)	(75.0)	(35.9)	(66.7)	(0.3)
France	(77.3)	(0.0)	(4.0)	(153.5)	(7.1)	(82.4)	(2.6)	(13.2)	(80.0)	(100.0)	-	-	(0.5)
Germany	-	(82.6)	(85.8)	(91.7)	(6.4)	(86.3)	(2.9)	(17.9)	-	(97.6)	(71.1)	(36.9)	(0.4)
Greece	-	(44.6)	(64.9)	(100.0)	(3.8)	(86.4)	(4.3)	(0.0)	-	(100.0)	-	-	(0.5)
Hungary	-	(0.0)	(89.8)	(100.0)	(6.2)	(97.1)	(2.6)	(13.9)	(60.0)	(100.0)	(67.1)	(40.0)	(0.4)
Iceland	-	(100.0)	(100.0)	-	(2.3)	(88.9)	(0.0)	-	-	-	(92.3)	-	(0.4)
Ireland	-	(46.3)	(88.9)	(300.0)	(6.1)	(86.5)	(4.2)	(0.0)	(52.0)	(100.0)	(35.5)	(71.4)	(0.4)
Italy	-	(0.0)	(81.6)	(0.0)	(6.2)	(87.8)	(2.1)	(17.9)	-	-	-	-	(0.6)
Latvia	-	-	-	-	-	-	-	-	(95.0)	-	-	-	(2.7)
Liechtenstein	-	(100.0)	(100.0)	-	(2.6)	-	(0.0)	-	-	-	(100.0)	-	(0.0)
Lithuania	(100.0)	(0.0)	(100.0)	(98.9)	(37.8)	(88.6)	(12.8)	(42.2)	(80.0)	(100.0)	(82.9)	(43.1)	(5.4)
Luxembourg	-	(0.0)	(100.0)	(100.0)	(7.0)	(87.5)	-	-	(80.0)	(100.0)	(0.0)	-	(0.2)
Malta	-	(0.0)	(93.1)	-	(11.6)	(91.7)	(0.0)	-	-	-	-	-	(0.5)
Netherlands	-	(70.0)	(86.3)	(60.0)	(4.6)	(86.9)	(0.9)	(0.0)	(30.0)	(100.0)	(86.6)	(73.3)	(0.2)
Norway	(87.5)	(79.9)	(93.1)	(100.0)	(3.6)	(85.9)	(6.0)	(0.0)	(80.0)	(100.0)	(90.8)	(90.9)	(0.3)
Poland	-	(20.3)	(90.3)	(87.3)	(13.7)	(86.6)	(1.2)	(4.1)	-	(100.0)	-	-	(1.2)
Portugal	(87.1)	(56.7)	(70.3)	(55.6)	(20.5)	(88.0)	(0.9)	(5.3)	(30.0)	(92.3)	(37.6)	(26.3)	(1.8)
Romania	(98.8)	(23.7)	(91.4)	(91.3)	(59.3)	(89.1)	(2.8)	(14.6)	(80.0)	(98.2)	(86.2)	(49.5)	(4.4)
Slovakia	(89.3)	(24.2)	(84.2)	(75.0)	(5.0)	(88.1)	(0.9)	(13.3)	(90.0)	(100.0)	(91.9)	(0.0)	(0.6)
Slovenia	-	(82.7)	(100.0)	-	(4.7)	(89.1)	(0.0)	(0.0)	-	-	(76.6)	-	(0.6)
Spain	-	(25.7)	(37.6)	(24.6)	(9.6)	(102.3)	(1.7)	(8.5)	-	(100.0)	(60.5)	-	(0.6)
Sweden	-	(68.3)	(98.0)	(100.0)	(4.7)	(86.7)	(1.8)	(18.2)	(50.0)	(100.0)	(86.6)	(92.0)	(0.3)
United Kingdom	-	(7.7)	(97.3)	(94.3)	(7.2)	(88.4)	(1.2)	(5.3)	-	(91.7)	(81.5)	(63.6)	(0.5)
Subtotal EU/EEA	(86.6)	(27.9)	(80.2)	(83.2)	(9.8)	(87.8)	(2.7)	(14.4)	-	(98.4)	(75.5)	(49.9)	(0.7)

^a '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 it cannot be assessed. For indicator 1.B.4 and 1.C.5 numbers in green indicate also that the country/(sub)region is on track to meet the 2020 target

DST - drug susceptibility testing.

E - WHO European Region indicator.

G - end TB Strategy global indicator.

HIV - human immunodeficiency virus.

HPC - high-priority countries

LTBI - latent tuberculosis infection.

PLHIV - people living with HIV.

RR/MDR - rifampicin-resistant and multidrug-resistant.

^a Only pulmonary cases included.

^b Target not assessed for countries with less than 50% reporting completeness for HIV.

								2. BOLD POLICIES AND SUPPORTIVE SYSTEMS					3. INTENSIFIED RESEARCH AND INNOVATION	
Collaborative TB/HIV activities and management of relevant comorbidities						Management of LTBI and preventive treatment of persons at high risk, and vaccination against TB		Political commitment with adequate resources, including universal health coverage policy	Health systems strengthening in all functions, including well-aligned financing mechanisms for TB and human resources	Regulatory frameworks for case-based surveillance, strengthening vital registration, quality and rational use of medicines, and pharmacovigilance	Community systems and civil society engagement	Social protection, poverty alleviation and actions on other determinants of TB, such as migration and prisons	Discovery, development and rapid uptake of new tools, interventions and strategies	
	1.D.1 TB/HIV case detection rate (%). Target: 90%	1.D.2 HIV testing coverage (%) (G). Target = 100%	1.D.3 Percentage of HIV among all TB. Target: decrease ^a	1.D.4 ART coverage (%) among TB/HIV co-infected. Target = 100%	1.D.5 LTBI treatment coverage (%) among PLHIV (G). Target = 30%	1.E.1 Contact investigation coverage (%) (G)(E). Target = 90%	1.E.2 LTBI treatment coverage (%) in childhood TB contacts aged under 5 years (G) (E). Target = 90%	2.A.1 Number of Member States that have a regular TB control/elimination performance publication every five years (E). Target = 53	2.B.1 Percentage of TB patients and their households that experience catastrophic financial consequences due to TB (G) (E). Target: close to 0	2.C.1 Treatment coverage (%) with new TB drugs (G) (E). Target = 20%	2.D.1 Number of Member States with functioning multi-stakeholder coalitions advocating for TB care and resources. Target = 53	2.E.1 Treatment success rate (%) of new and relapse TB cases among prisoners. Target = 85.0%	3.A.1 European TB research initiative established by mid-2016. Target: established	
	-	-	-	-	-	-	-	-	-	-	-	-	-	Austria
	(82.5)	(50.7)	(7.2)	-	-	-	-	-	-	-	-	(55.0)	-	Belgium
	(0.0)	(82.3)	(0.0)	-	-	-	-	-	-	-	-	(93.8)	-	Bulgaria
	(0.0)	(0.5)	(0.0)	-	-	-	-	-	-	-	-	-	-	Croatia
	-	(80.4)	(2.4)	-	-	-	-	-	-	-	-	-	-	Cyprus
	(66.7)	(41.8)	(2.1)	-	-	-	-	-	-	-	-	(78.3)	-	Czech Republic
	(37.5)	(81.1)	(1.3)	-	-	-	-	-	-	-	-	-	-	Denmark
	(80.0)	(93.1)	(9.5)	(83.3)	-	-	-	-	-	-	-	(66.7)	-	Estonia
	-	-	-	-	-	-	-	-	-	-	-	-	-	Finland
	-	-	-	-	-	-	-	-	-	-	-	-	-	France
	-	-	-	-	-	-	-	-	-	-	-	-	-	Germany
	(62.5)	(84.5)	(3.0)	-	-	-	-	-	-	-	-	-	-	Greece
	(40.0)	(3.5)	(13.0)	-	-	-	-	-	-	-	-	(66.7)	-	Hungary
	(100.0)	(100.0)	(12.5)	-	-	-	-	-	-	-	-	-	-	Iceland
	(100.0)	(44.2)	(8.6)	(66.7)	-	-	-	-	-	-	-	-	-	Ireland
	-	-	-	-	-	-	-	-	-	-	-	-	-	Italy
	-	-	-	-	-	-	-	-	-	-	-	-	-	Latvia
	-	-	-	-	-	-	-	-	-	-	-	-	-	Liechtenstein
	(71.8)	(82.7)	(3.4)	-	-	(100.0)	-	-	-	-	-	(77.8)	-	Lithuania
	(0.0)	(16.7)	(0.0)	-	-	-	-	-	-	-	-	-	-	Luxembourg
	-	-	-	-	-	-	-	-	-	-	-	-	-	Malta
	(58.3)	(66.0)	(3.9)	(57.1)	-	-	-	-	-	-	-	(45.0)	-	Netherlands
	(87.5)	(88.4)	(3.8)	-	-	(91.1)	(8.0)	-	-	-	-	-	-	Norway
	-	-	-	-	-	-	-	-	-	-	-	-	-	Poland
	(89.0)	(94.0)	(9.6)	-	-	-	-	-	-	-	-	-	-	Portugal
	(72.8)	(83.9)	(2.5)	(85.8)	-	-	-	-	-	-	-	(47.1)	-	Romania
	(100.0)	(84.6)	(0.8)	(50.0)	-	(100.0)	(84.8)	-	-	-	-	(87.6)	-	Slovakia
	(0.0)	(80.6)	(0.0)	-	-	-	-	-	-	-	-	(100.0)	-	Slovenia
	(80.3)	(52.4)	(11.2)	-	-	-	-	-	-	-	-	-	-	Spain
	-	-	-	-	-	-	-	-	-	-	-	-	-	Sweden
	(75.3)	(85.1)	(2.8)	(88.5)	-	-	-	-	-	-	-	(69.6)	-	United Kingdom
	(76.4)	(74.9)	(4.2)	(84.2)	-	(98.6)	(65.9)	-	-	-	-	(75.5)	-	Subtotal EU/EEA

Table 30 cont.: Monitoring the WHO Europe Roadmap to Implement the Tuberculosis action plan for the WHO European Region, 2016–2020, 2018

1. INTEGRATED, PATIENT-CENTERED CARE AND PREVENTION													
	Systematic screening of contacts and high-risk groups	Early diagnosis of all forms of TB and universal access to drug-susceptibility testing, including the use of rapid tests							Equitable access to quality treatment and continuity of care for all people with TB, including drug-resistant TB, and patient support to facilitate treatment adherence				
Country/area	1.A.1 Coverage of population at risk with systematic screening for active TB and LTBI. Target = 86%	1.B.1 Percentage of TB patients diagnosed using WHO recommended rapid tests (G). Target: 30%	1.B.2 First-line DST coverage (%) among all bacteriologically confirmed TB cases (G). Target = 100%	1.B.3 RR/MDR TB case detection rate (%). Target = 85%	1.B.4 TB notification rate per 100 000 population (E). Target = 24.6 per 100 000 population	1.B.5 TB case-detection rate (%). Target: Increase	1.B.6 Percentage of RR/MDR TB among new TB patients (E). Target: Decrease	1.B.7 Percentage of RR/MDR TB among previously treated TB patients. Target: Decrease	1.C.1 Percentage of hospitalisation of new TB patients (E). Target: Decrease	1.C.2 Percentage of detected RR/MDR TB enrolled in treatment (G). Target = 100%	1.C.3 Treatment success rate (%) among all new and relapsed TB patients (G). Target = 85%	1.C.4 Treatment success rate (%) among the RR/MDR TB treatment cohort (G). Target = 75%	1.C.5 TB mortality rate (ICD A15-19) (G) (E). Target = 2.7 per 100 000 population
Non-EU/EEA													
Albania	(70.7)	(0.0)	(30.3)	(80.0)	(15.3)	(86.3)	(5.1)	(25.0)	(78.0)	(100.0)	(87.2)	(100.0)	(0.3)
Andorra	(100.0)	(100.0)	(50.0)		(2.6)	(100.0)	(0.0)	(0.0)	(100.0)	-	(100.0)	-	(0.3)
Armenia	(92.7)	(84.3)	(92.7)	(86.7)	(24.9)	(79.8)	(20.4)	(41.5)	(62.0)	(100.0)	(79.3)	(49.2)	(0.6)
Azerbaijan	-	(68.9)	(98.0)	(97.7)	(50.6)	(80.0)	(12.0)	(25.6)	(27.0)	(87.5)	(84.0)	(60.2)	(10.0)
Belarus	(100.0)	(93.3)	(100.0)	(100.4)	(25.0)	(81.3)	(36.6)	(69.4)	(80.0)	(125.4)	(88.6)	(67.5)	(5.4)
Bosnia and Herzegovina	-	-	(95.1)	(100.0)	(20.0)	(80.2)	(0.5)	(0.0)	(100.0)	(100.0)	(44.8)	-	(3.0)
Georgia	(100.0)	(83.8)	(94.3)	(92.8)	(57.9)	(72.4)	(12.2)	(30.9)	(25.0)	(91.6)	(84.1)	(65.5)	(4.0)
Israel	-	-	(100.0)	(100.0)	(3.5)	(85.9)	(9.7)	(0.0)	-	(100.0)	(87.1)	(66.7)	(0.2)
Kazakhstan	(100.0)	(89.3)	(92.2)	(91.9)	(70.0)	(106.9)	(27.1)	(64.3)	(75.0)	(89.1)	(91.1)	(79.5)	(2.3)
Kyrgyzstan	-	(61.7)	(91.2)	(94.6)	(100.5)	(86.8)	(28.9)	(68.3)	(69.0)	(73.9)	(82.2)	(53.2)	(6.2)
Moldova	(93.6)	(94.5)	(91.0)	(88.5)	(74.6)	(86.3)	(28.8)	(59.6)	(66.0)	(85.5)	(80.6)	(52.9)	(5.1)
Monaco	-	-	-	-	-	-	-	(0.0)	-	-	-	-	(0.0)
Montenegro	-	(76.2)	(98.4)	(100.0)	(13.4)	(86.6)	(0.0)	(33.3)	(90.0)	(100.0)	(86.7)	-	(0.2)
North Macedonia	(95.6)	(67.7)	(95.2)		(10.4)	(80.4)	(0.0)	(0.0)	(70.0)	(100.0)	(88.1)	(50.0)	(1.0)
Russia	(100.0)	(73.3)	(91.0)	(91.9)	(53.7)	(99.1)	(34.5)	(70.6)	(66.0)	(82.6)	(69.4)	(53.7)	(6.3)
San Marino	-	-	NO TB		(0.0)	-	-	-	-	-	-	-	(0.0)
Serbia	(90.6)	-	(67.6)	(27.3)	(15.1)	(88.7)	(0.4)	(2.2)	(70.0)	(33.3)	(86.0)	(75.0)	(0.6)
Serbia excluding Kosovo ^a	(84.5)	-	(54.2)	-	(9.1)	-	(0.7)	(3.7)	-	(33.3)	(83.5)	(70.0)	-
Kosovo ^a	(95.2)	(64.6)	(99.6)	-	(38.5)	-	(0.0)	(0.0)	-	-	(88.7)	(100.0)	-
Switzerland	-	-	(80.7)	(40.0)	(5.5)	(87.6)	(1.1)	(6.7)	(80.0)	(100.0)	(78.4)	(47.1)	(0.3)
Tajikistan	-	(74.0)	(100.0)	(122.2)	(62.9)	(75.3)	(28.0)	(37.8)	(73.0)	(80.4)	(91.1)	(64.6)	(8.2)
Turkey	(90.1)	-	(86.1)	(86.4)	(14.1)	(89.0)	(3.5)	(11.9)	(50.0)	(78.9)	(86.0)	(62.1)	(0.5)
Turkmenistan	(100.0)	(74.7)	(0.0)	(203.3)	(36.9)	(79.9)	-	-	-	(100.0)	(85.2)	(54.4)	(11.0)
Ukraine	(90.9)	(87.1)	(94.2)	(93.8)	(59.9)	(73.6)	(29.0)	(46.4)	(75.0)	(113.4)	(76.5)	(49.3)	(8.3)
Uzbekistan	(100.0)	(87.7)	(100.0)	(101.6)	(50.5)	(71.4)	(15.2)	34.1	(94.0)	(100.0)	(89.4)	(57.4)	(5.2)
Subtotal non-EU/EEA	(98.8)	(78.2)	(91.7)	(92.7)	(43.2)	(87.5)	(27.1)	(60.1)		(89.3)	(77.5)	(57.6)	(4.6)
Total European Region	(97.0)	(66.3)	(89.4)	(92.7)	(24.5)	(87.7)	(21.6)	(56.8)		(89.4)	(77.1)	(57.4)	(2.5)
Subtotal 18 HPCs	(98.8)	(74.0)	(92.0)	(92.8)	(46.0)	(87.6)	(25.3)	(58.2)		(89.4)	(78.2)	(57.4)	(4.9)

^a '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 it cannot be assessed. For indicator 1.B.4 and 1.C.5 numbers in green indicate also that the country/(sub)region is on track to meet the 2020 target

DST - drug susceptibility testing.

E - WHO European Region indicator.

G - end TB Strategy global indicator.

HIV - human immunodeficiency virus.

HPC - high-priority countries.

LTBI - latent tuberculosis infection.

PLHIV - people living with HIV.

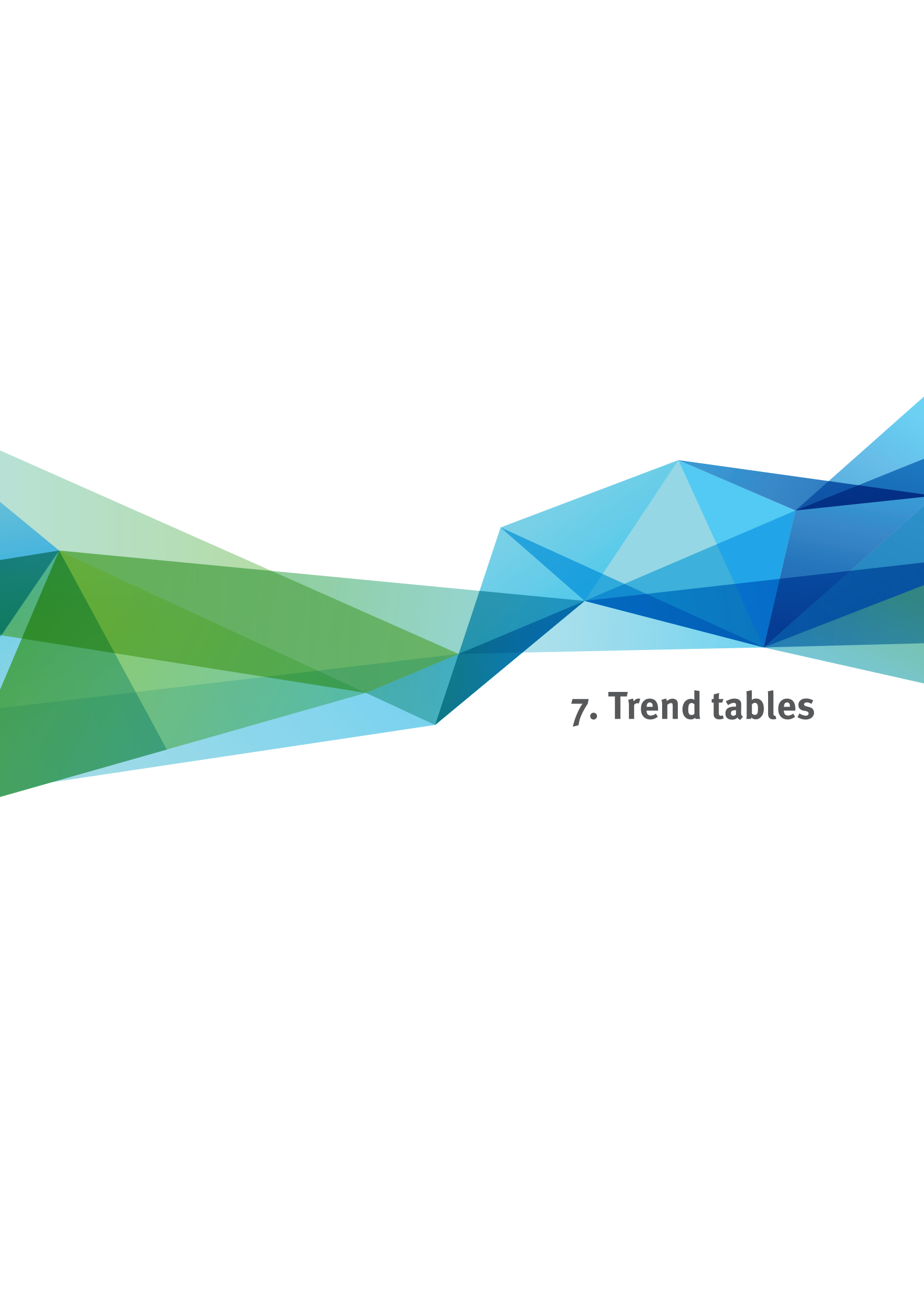
RR/MDR - rifampicin-resistant and multidrug-resistant.

^a Only pulmonary cases included.

^b Target not assessed for countries with less than 50% reporting completeness for HIV.

^c This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

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7. Trend tables

Table I. Estimated tuberculosis mortality per 100 000 population, European Region, 2009–2018^a

Country/area	2009		2010		2011		2012		2013		2014	
	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	48	(0.6)	39	(0.5)	55	(0.7)	42	(0.5)	68	(0.8)	71	(0.8)
Belgium	60	(0.6)	60	(0.5)	53	(0.5)	59	(0.5)	56	(0.5)	41	(0.4)
Bulgaria	200	(2.7)	200	(2.7)	170	(2.3)	170	(2.3)	160	(2.2)	130	(1.8)
Croatia	120	(2.8)	83	(1.9)	66	(1.5)	60	(1.4)	54	(1.3)	40	(0.9)
Cyprus	2	(0.2)	2	(0.2)	5	(0.4)	6	(0.5)	2	(0.2)	6	(0.5)
Czech Republic	52	(0.5)	40	(0.4)	56	(0.5)	30	(0.3)	67	(0.6)	39	(0.4)
Denmark	28	(0.5)	36	(0.6)	16	(0.3)	23	(0.4)	16	(0.3)	13	(0.2)
Estonia	50	(3.7)	42	(3.2)	46	(3.5)	36	(2.7)	26	(2.0)	29	(2.2)
Finland	54	(1.0)	48	(0.9)	61	(1.1)	49	(0.9)	31	(0.6)	41	(0.8)
France	680	(1.1)	650	(1.0)	640	(1.0)	550	(0.9)	560	(0.9)	480	(0.7)
Germany	350	(0.4)	360	(0.4)	350	(0.4)	370	(0.5)	380	(0.5)	320	(0.4)
Greece	94	(0.9)	78	(0.7)	75	(0.7)	110	(1.0)	78	(0.7)	55	(0.5)
Hungary	170	(1.7)	150	(1.5)	130	(1.3)	130	(1.3)	98	(1.0)	87	(0.9)
Iceland	8	(2.5)	3	(0.9)	3	(0.9)	3	(0.9)	2	(0.6)	2	(0.6)
Ireland	36	(0.8)	35	(0.8)	29	(0.6)	27	(0.6)	23	(0.5)	24	(0.5)
Italy	410	(0.7)	380	(0.6)	390	(0.7)	340	(0.6)	270	(0.4)	290	(0.5)
Latvia	110	(5.1)	91	(4.3)	80	(3.8)	62	(3.0)	100	(4.9)	67	(3.3)
Liechtenstein												
Lithuania	270	(8.5)	220	(7.0)	220	(7.1)	260	(8.5)	220	(7.3)	230	(7.7)
Luxembourg	1	(0.2)	1	(0.2)	2	(0.4)	1	(0.2)	1	(0.2)	1	(0.2)
Malta	1	(0.2)	3	(0.7)	3	(0.7)	1	(0.2)	3	(0.7)	1	(0.2)
Netherlands	65	(0.4)	56	(0.3)	37	(0.2)	35	(0.2)	39	(0.2)	35	(0.2)
Norway	28	(0.6)	29	(0.6)	30	(0.6)	22	(0.4)	21	(0.4)	13	(0.3)
Poland	810	(2.1)	630	(1.6)	690	(1.8)	680	(1.8)	580	(1.5)	580	(1.5)
Portugal	280	(2.6)	230	(2.2)	230	(2.2)	230	(2.2)	230	(2.2)	220	(2.1)
Romania	1 500	(7.3)	1 500	(7.3)	1 300	(6.4)	1 300	(6.4)	1 100	(5.5)	1 100	(5.5)
Slovakia	43	(0.8)	35	(0.6)	26	(0.5)	17	(0.3)	20	(0.4)	35	(0.6)
Slovenia	25	(1.2)	20	(1.0)	14	(0.7)	11	(0.5)	9	(0.4)	21	(1.0)
Spain	410	(0.9)	400	(0.9)	300	(0.6)	330	(0.7)	300	(0.6)	290	(0.6)
Sweden	61	(0.7)	36	(0.4)	47	(0.5)	39	(0.4)	44	(0.5)	30	(0.3)
United Kingdom	410	(0.7)	370	(0.6)	330	(0.5)	330	(0.5)	350	(0.5)	360	(0.6)
Subtotal EU/EEA	6 400	(1.3)	5 800	(1.1)	5 500	(1.1)	5 300	(1.0)	4 900	(1.0)	4 700	(0.9)
Non-EU/EEA												
Albania	5	(0.2)	9	(0.3)	9	(0.3)	9	(0.3)	8	(0.3)	8	(0.3)
Andorra	1	(1.2)	1	(1.2)	0	(0.0)	1	(1.2)	0	(0.0)	1	(1.3)
Armenia	150	(5.2)	160	(5.6)	120	(4.2)	140	(4.9)	110	(3.8)	81	(2.8)
Azerbaijan	690	(7.7)	800	(8.9)	660	(7.2)	420	(4.5)	440	(4.7)	430	(4.5)
Belarus	900	(9.5)	910	(9.7)	880	(9.3)	760	(8.1)	650	(6.9)	510	(5.4)
Bosnia and Herzegovina	190	(5.1)	190	(5.1)	180	(4.9)	170	(4.7)	150	(4.2)	130	(3.7)
Georgia	220	(5.3)	230	(5.6)	230	(5.6)	230	(5.7)	210	(5.2)	190	(4.7)
Israel	24	(0.3)	28	(0.4)	22	(0.3)	22	(0.3)	15	(0.2)	15	(0.2)
Kazakhstan	2 500	(15.6)	2 200	(13.5)	1 900	(11.5)	1 800	(10.7)	1 200	(7.0)	1 000	(5.8)
Kyrgyzstan	620	(11.6)	650	(12.0)	680	(12.3)	650	(11.6)	650	(11.3)	540	(9.2)
Moldova	690	(16.8)	630	(15.4)	550	(13.5)	530	(13.0)	390	(9.6)	390	(9.6)
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	19	(0.9)	34	(1.6)	27	(1.3)	23	(1.1)	20	(1.0)	20	(1.0)
Russia	25 000	(17.4)	23 000	(16.0)	21 000	(14.6)	19 000	(13.2)	18 000	(12.5)	16 000	(11.1)
San Marino	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Serbia	180	(2.0)	170	(1.9)	150	(1.7)	150	(1.7)	140	(1.6)	110	(1.2)
Serbia excluding Kosovo ^b	–	–	–	–	–	–	–	–	–	–	–	–
Kosovo ^b	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	27	(0.4)	28	(0.4)	25	(0.3)	23	(0.3)	20	(0.2)	13	(0.2)
Tajikistan	820	(11.1)	810	(10.8)	800	(10.4)	790	(10.0)	780	(9.7)	780	(9.5)
Turkey	1 300	(1.8)	1 000	(1.4)	1 000	(1.4)	880	(1.2)	720	(0.9)	670	(0.9)
Turkmenistan	680	(13.6)	660	(13.0)	680	(13.1)	660	(12.5)	660	(12.3)	670	(12.3)
Ukraine	46 000	(11.9)	42 000	(10.8)	39 000	(10.0)	36 000	(9.2)	33 000	(8.3)	29 000	(7.3)
Uzbekistan	52 000	(5.8)	48 000	(5.4)	45 000	(5.0)	42 000	(4.6)	38 000	(4.2)	34 000	(3.7)
Subtotal 18 HPCs	48 000	(12.4)	44 000	(11.3)	40 000	(10.2)	37 000	(9.4)	34 000	(8.6)	31 000	(7.8)

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.WHO European Region 18 tuberculosis high-priority countries presented in *italics*.

HPC - high-priority countries.

^bExcludes HIV coinfect cases.^cThis designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

	2015		2016		2017		2018		Mean annual % change in rate, 2014–2018	Mean annual % change in rate, 2009–2018	Country/area
	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000			
											EU/EEA
	64	(0.7)	38	(0.4)	35	(0.4)	35	(0.4)	-16.9%	-4.1%	Austria
	61	(0.5)	33	(0.3)	33	(0.3)	33	(0.3)	-5.8%	-7.0%	Belgium
	110	(1.5)	99	(1.4)	85	(1.2)	71	(1.0)	-13.4%	-10.3%	Bulgaria
	46	(1.1)	58	(1.4)	41	(1.0)	34	(0.8)	-3.4%	-12.7%	Croatia
	3	(0.3)	3	(0.3)	3	(0.3)	3	(0.3)	-16.6%	3.7%	Cyprus
	57	(0.5)	43	(0.4)	36	(0.3)	37	(0.3)	-1.5%	-3.9%	Czech Republic
	17	(0.3)	17	(0.3)	18	(0.3)	18	(0.3)	8.1%	-5.2%	Denmark
	22	(1.7)	28	(2.1)	15	(1.1)	10	(0.8)	-23.5%	-16.3%	Estonia
	33	(0.6)	26	(0.5)	23	(0.4)	19	(0.3)	-17.7%	-11.3%	Finland
	450	(0.7)	400	(0.6)	360	(0.6)	310	(0.5)	-10.6%	-8.7%	France
	320	(0.4)	300	(0.4)	300	(0.4)	300	(0.4)	-2.1%	-2.0%	Germany
	45	(0.4)	49	(0.5)	49	(0.5)	48	(0.5)	-2.9%	-6.8%	Greece
	110	(1.1)	66	(0.7)	62	(0.6)	43	(0.4)	-15.9%	-13.9%	Hungary
	2	(0.6)	2	(0.6)	2	(0.6)	1	(0.3)	-	-21.2%	Iceland
	18	(0.4)	18	(0.4)	18	(0.4)	19	(0.4)	-6.6%	-7.6%	Ireland
	340	(0.6)	340	(0.6)	340	(0.6)	340	(0.6)	4.0%	-2.3%	Italy
	96	(4.9)	72	(3.6)	61	(3.1)	51	(2.6)	-5.5%	-7.1%	Latvia
									-	-	Liechtenstein
	190	(6.7)	180	(6.2)	160	(5.6)	150	(5.4)	-8.8%	-5.0%	Lithuania
	1	(0.2)	1	(0.2)	1	(0.2)	1	(0.2)	-	-	Luxembourg
	2	(0.5)	2	(0.5)	2	(0.5)	2	(0.5)	18.3%	7.2%	Malta
	39	(0.2)	30	(0.2)	30	(0.2)	30	(0.2)	-4.0%	-8.5%	Netherlands
	12	(0.2)	18	(0.3)	18	(0.3)	18	(0.3)	7.5%	-5.8%	Norway
	580	(1.5)	600	(1.6)	510	(1.3)	470	(1.2)	-5.0%	-5.8%	Poland
	220	(2.1)	200	(1.9)	200	(1.9)	190	(1.9)	-3.2%	-3.9%	Portugal
	1 100	(5.6)	980	(5.0)	930	(4.7)	860	(4.4)	-5.3%	-5.4%	Romania
	35	(0.6)	35	(0.6)	35	(0.6)	35	(0.6)	-0.1%	-2.4%	Slovakia
	11	(0.5)	13	(0.6)	12	(0.6)	12	(0.6)	-13.2%	-8.1%	Slovenia
	250	(0.5)	260	(0.6)	260	(0.6)	260	(0.6)	-2.6%	-5.6%	Spain
	25	(0.3)	26	(0.3)	26	(0.3)	26	(0.3)	-4.2%	-9.7%	Sweden
	350	(0.5)	300	(0.5)	300	(0.4)	300	(0.4)	-5.1%	-4.1%	United Kingdom
	4 600	(0.9)	4 200	(0.8)	4 000	(0.8)	3 700	(0.7)	-5.2%	-6.1%	Subtotal EU/EEA
											Non-EU/EEA
	8	(0.3)	8	(0.3)	8	(0.3)	8	(0.3)	0.1%	5.7%	Albania
	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	Andorra
	68	(2.3)	56	(1.9)	36	(1.2)	18	(0.6)	-31.6%	-21.2%	Armenia
	570	(5.8)	710	(7.3)	860	(8.7)	1 000	(10.1)	22.1%	3.0%	Azerbaijan
	510	(5.4)	510	(5.4)	510	(5.4)	510	(5.4)	-0.1%	-6.1%	Belarus
	120	(3.6)	120	(3.5)	110	(3.3)	100	(3.0)	-5.3%	-5.7%	Bosnia and Herzegovina
	160	(4.0)	180	(4.5)	170	(4.2)	160	(4.0)	-4.0%	-3.2%	Georgia
	15	(0.2)	15	(0.2)	15	(0.2)	16	(0.2)	0.0%	-6.0%	Israel
	820	(4.5)	710	(4.0)	660	(3.7)	430	(2.3)	-20.2%	-19.0%	Kazakhstan
	480	(7.8)	470	(7.7)	430	(6.9)	390	(6.2)	-9.5%	-6.8%	Kyrgyzstan
	330	(8.1)	300	(7.4)	250	(6.2)	210	(5.2)	-14.2%	-12.3%	Moldova
	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)	0.0%	-0.1%	Montenegro
	20	(1.0)	20	(1.0)	20	(1.0)	20	(1.0)	-0.1%	0.5%	North Macedonia
	14 000	(9.6)	12 000	(8.3)	10 000	(6.9)	9 200	(6.3)	-13.1%	-10.7%	Russia
	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	San Marino
	83	(0.9)	95	(1.1)	70	(0.8)	55	(0.6)	-15.7%	-12.1%	Serbia
	-	-	-	-	-	-	-	-	-	-	Serbia excluding Kosovo ^b
	-	-	-	-	-	-	-	-	-	-	Kosovo ^b
	17	(0.2)	26	(0.3)	26	(0.3)	27	(0.3)	18.9%	-1.1%	Switzerland
	760	(8.6)	760	(8.8)	750	(8.4)	740	(8.1)	-3.7%	-3.4%	Tajikistan
	610	(0.8)	610	(0.8)	500	(0.6)	400	(0.5)	-13.5%	-13.7%	Turkey
	670	(11.6)	640	(11.3)	630	(10.9)	610	(10.4)	-4.0%	-2.9%	Turkmenistan
	26 000	(6.5)	24 000	(5.9)	21 000	(5.2)	19 000	(4.6)	-10.6%	-10.0%	Ukraine
	31 000	(3.4)	28 000	(3.0)	26 000	(2.8)	23 000	(2.5)	-9.7%	-9.1%	Uzbekistan
	(7.0)	25 000	(6.2)	22 000	(5.4)	20 000	(4.9)	-10.9%	-9.8%	-9.8%	Subtotal 18 HPCs

Table II. Estimated tuberculosis incidence per 100 000 population, European Region, 2009–2018

Country/area	2009		2010		2011		2012		2013		2014	
	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	760	(9.1)	760	(9.1)	770	(9.2)	710	(8.4)	720	(8.4)	650	(7.5)
Belgium	1 100	(9.7)	1 200	(11.0)	1 100	(10.0)	1 000	(9.4)	1 000	(9.3)	1 000	(9.1)
Bulgaria	3 300	(44.0)	3 000	(41.0)	2 700	(37.0)	2 600	(35.0)	2 400	(33.0)	2 300	(31.0)
Croatia	960	(22.0)	790	(18.0)	710	(17.0)	620	(14.0)	590	(14.0)	570	(13.0)
Cyprus	59	(5.3)	70	(6.3)	59	(5.2)	72	(6.4)	47	(4.1)	45	(3.9)
Czech Republic	730	(6.9)	710	(6.8)	650	(6.2)	650	(6.1)	540	(5.1)	550	(5.1)
Denmark	340	(6.1)	380	(6.9)	410	(7.4)	390	(7.0)	380	(6.7)	340	(5.9)
Estonia	410	(31.0)	330	(25.0)	340	(25.0)	300	(23.0)	300	(23.0)	270	(21.0)
Finland	460	(8.7)	350	(6.6)	360	(6.7)	300	(5.5)	310	(5.6)	290	(5.3)
France	6 000	(9.5)	5 800	(9.2)	5 700	(9.0)	5 700	(9.0)	5 700	(8.9)	5 500	(8.5)
Germany	4 800	(5.9)	4 700	(5.8)	4 700	(5.8)	4 600	(5.7)	4 800	(5.9)	5 000	(6.1)
Greece	620	(5.7)	510	(4.7)	520	(4.8)	600	(5.5)	570	(5.3)	560	(5.2)
Hungary	1 500	(15.0)	1 800	(18.0)	1 500	(15.0)	1 300	(14.0)	1 200	(12.0)	920	(9.4)
Iceland	10	(3.3)	25	(7.9)	9	(2.8)	12	(3.5)	13	(3.9)	9	(2.8)
Ireland	490	(11.0)	450	(9.8)	450	(9.7)	390	(8.5)	410	(8.9)	340	(7.4)
Italy	4 700	(8.0)	5 200	(8.8)	3 900	(6.6)	3 600	(5.9)	3 500	(5.8)	4 000	(6.6)
Latvia	1 100	(51.0)	1 000	(50.0)	990	(47.0)	1 100	(53.0)	1 000	(49.0)	850	(42.0)
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	2 200	(69.0)	2 000	(64.0)	2 000	(65.0)	1 900	(62.0)	1 800	(60.0)	1 700	(57.0)
Luxembourg	31	(6.3)	33	(6.6)	29	(5.5)	52	(9.7)	44	(8.1)	28	(5.0)
Malta	48	(12.0)	33	(8.1)	34	(8.3)	48	(11.0)	58	(13.0)	52	(12.0)
Netherlands	1 300	(7.8)	1 200	(7.1)	1 100	(6.7)	1 100	(6.3)	960	(5.7)	940	(5.5)
Norway	380	(7.8)	340	(6.9)	370	(7.4)	390	(7.9)	420	(8.2)	350	(6.8)
Poland	8 800	(23.0)	8 100	(21.0)	9 100	(24.0)	8 100	(21.0)	8 100	(21.0)	7 500	(20.0)
Portugal	3 100	(29.0)	3 000	(28.0)	2 900	(27.0)	2 900	(27.0)	2 700	(26.0)	2 500	(24.0)
Romania	24 000	(115.0)	21 000	(104.0)	20 000	(96.0)	19 000	(92.0)	18 000	(89.0)	17 000	(85.0)
Slovakia	520	(9.6)	470	(8.7)	430	(8.0)	370	(6.8)	460	(8.4)	370	(6.8)
Slovenia	210	(11.0)	190	(9.5)	210	(10.0)	150	(7.5)	160	(7.7)	160	(7.9)
Spain	8 300	(18.0)	7 900	(17.0)	7 400	(16.0)	6 500	(14.0)	6 000	(13.0)	5 500	(12.0)
Sweden	660	(7.1)	710	(7.5)	620	(6.5)	680	(7.1)	700	(7.3)	730	(7.5)
United Kingdom	9 100	(15.0)	8 800	(14.0)	9 500	(15.0)	9 300	(14.0)	8 300	(13.0)	7 400	(11.0)
Subtotal EU/EEA	86 000	(17.0)	81 000	(15.9)	79 000	(15.5)	74 000	(14.5)	71 000	(13.9)	67 000	(13.1)
Non-EU/EEA												
Albania	510	(17.0)	500	(17.0)	490	(17.0)	470	(16.0)	550	(19.0)	470	(16.0)
Andorra	9	(11.0)	8	(9.5)	3	(4.1)	10	(13.0)	6	(7.1)	7	(8.7)
Armenia	2 000	(68.0)	1 800	(61.0)	1 600	(55.0)	1 500	(53.0)	1 700	(60.0)	1 700	(57.0)
Azerbaijan	12 000	(133.0)	9 400	(104.0)	11 000	(125.0)	8 000	(86.0)	7 300	(78.0)	7 200	(76.0)
Belarus	6 600	(70.0)	6 400	(68.0)	5 900	(62.0)	6 000	(63.0)	5 600	(59.0)	4 800	(51.0)
Bosnia and Herzegovina	2 200	(58.0)	1 700	(45.0)	1 700	(46.0)	1 800	(49.0)	1 600	(44.0)	1 500	(43.0)
Georgia	5 500	(133.0)	5 200	(127.0)	5 000	(122.0)	4 800	(119.0)	4 700	(116.0)	4 300	(106.0)
Israel	400	(5.6)	390	(5.3)	470	(6.3)	580	(7.6)	350	(4.6)	420	(5.3)
Kazakhstan	24 000	(152.0)	24 000	(145.0)	23 000	(136.0)	21 000	(122.0)	18 000	(106.0)	16 000	(91.0)
Kyrgyzstan	6 800	(128.0)	6 500	(120.0)	6 900	(125.0)	7 100	(127.0)	8 100	(142.0)	7 300	(126.0)
Moldova	5 100	(125.0)	4 800	(116.0)	4 900	(119.0)	5 100	(124.0)	5 200	(127.0)	4 700	(115.0)
Monaco	1	(3.5)	1	(3.2)	1	(2.5)	1	(1.5)	0	(0.6)	0	(0.0)
Montenegro	130	(21.0)	130	(20.0)	130	(20.0)	110	(18.0)	140	(22.0)	130	(21.0)
North Macedonia	560	(27.0)	480	(23.0)	420	(20.0)	430	(21.0)	400	(19.0)	350	(17.0)
Russia	128 000	(89.0)	123 000	(85.0)	116 000	(81.0)	109 000	(76.0)	105 000	(73.0)	101 000	(70.0)
San Marino	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Serbia	2 900	(32.0)	2 700	(30.0)	2 500	(28.0)	2 200	(24.0)	2 400	(27.0)	2 100	(23.0)
Serbia excluding Kosovo ^a	–	–	–	–	–	–	–	–	–	–	–	–
Kosovo ^a	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	580	(7.5)	580	(7.5)	600	(7.6)	480	(6.0)	540	(6.6)	490	(5.9)
Tajikistan	10 000	(141.0)	9 600	(128.0)	9 000	(117.0)	8 500	(108.0)	8 000	(100.0)	7 500	(91.0)
Turkey	19 000	(27.0)	18 000	(25.0)	17 000	(24.0)	16 000	(22.0)	15 000	(20.0)	15 000	(20.0)
Turkmenistan	3 900	(79.0)	4 000	(79.0)	3 400	(66.0)	3 700	(70.0)	3 800	(71.0)	3 200	(58.0)
Ukraine	53 000	(115.0)	50 000	(110.0)	48 000	(105.0)	46 000	(101.0)	44 000	(96.0)	43 000	(94.0)
Uzbekistan	28 000	(101.0)	28 000	(97.0)	27 000	(93.0)	26 000	(89.0)	26 000	(86.0)	25 000	(82.0)
Subtotal non-EU/EEA	311 000	(80.7)	297 000	(76.6)	285 000	(73.1)	269 000	(68.5)	258 000	(65.2)	246 000	(61.7)
Total European Region	398 000	(44.6)	378 000	(42.2)	363 000	(40.4)	343 000	(38.0)	329 000	(36.3)	314 000	(34.5)
Subtotal 18 HPC	335 000	(86.6)	318 000	(81.9)	305 000	(78.1)	288 000	(73.3)	276 000	(69.8)	263 000	(66.1)

^aEuropean Region* comprises the 53 countries of the WHO European Region and Liechtenstein.

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

HPC - high-priority countries.

^a This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

	2015		2016		2017		2018		Mean annual % change in rate, 2014–2018	Mean annual % change in rate, 2009–2018	Country/area
	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000			
											EU/EEA
	650	(7.5)	710	(8.1)	650	(7.3)	630	(7.1)	-1.4%	-2.7%	Austria
	1 100	(9.5)	1 100	(10.0)	1 100	(9.2)	1 000	(9.0)	-0.3%	-0.8%	Belgium
	2 000	(28.0)	1 900	(27.0)	1 800	(25.0)	1 600	(22.0)	-8.2%	-7.4%	Bulgaria
	560	(13.0)	520	(12.0)	420	(10.0)	350	(8.4)	-10.3%	-10.1%	Croatia
	72	(6.2)	66	(5.6)	60	(5.1)	65	(5.4)	8.5%	0.2%	Cyprus
	580	(5.5)	590	(5.5)	570	(5.4)	580	(5.4)	1.4%	-2.7%	Czech Republic
	370	(6.5)	340	(5.9)	290	(5.1)	310	(5.4)	-2.2%	-1.3%	Denmark
	240	(18.0)	220	(16.0)	200	(15.0)	170	(13.0)	-11.3%	-9.2%	Estonia
	310	(5.6)	260	(4.7)	270	(4.9)	260	(4.7)	-3.0%	-6.6%	Finland
	5 400	(8.4)	5 700	(8.7)	5 900	(9.0)	5 800	(8.9)	1.2%	-0.7%	France
	6 500	(8.0)	6 600	(8.0)	6 200	(7.4)	6 100	(7.3)	4.6%	2.4%	Germany
	500	(4.7)	470	(4.4)	500	(4.7)	470	(4.5)	-3.5%	-2.6%	Greece
	990	(10.0)	850	(8.7)	750	(7.7)	620	(6.4)	-9.2%	-9.0%	Hungary
	8	(2.4)	7	(2.1)	15	(4.5)	9	(2.7)	-0.9%	-2.2%	Iceland
	340	(7.3)	340	(7.2)	350	(7.3)	340	(7.0)	-1.4%	-4.9%	Ireland
	4 000	(6.6)	4 300	(7.2)	4 400	(7.3)	4 300	(7.0)	1.5%	-1.5%	Italy
	800	(40.0)	740	(37.0)	620	(32.0)	560	(29.0)	-8.8%	-6.1%	Latvia
	–	–	–	–	–	–	–	–	–	–	Liechtenstein
	1 600	(55.0)	1 500	(54.0)	1 500	(51.0)	1 200	(44.0)	-6.3%	-4.9%	Lithuania
	34	(6.1)	33	(5.8)	37	(6.2)	48	(8.0)	12.5%	2.7%	Luxembourg
	37	(8.5)	58	(13.0)	48	(11.0)	60	(14.0)	3.9%	1.7%	Malta
	980	(5.8)	1 000	(5.9)	890	(5.2)	910	(5.3)	-0.9%	-4.2%	Netherlands
	330	(6.3)	320	(6.1)	270	(5.1)	220	(4.1)	-11.9%	-6.9%	Norway
	7 200	(19.0)	7 100	(19.0)	6 400	(17.0)	6 000	(16.0)	-5.4%	-4.0%	Poland
	2 400	(23.0)	2 100	(20.0)	2 000	(20.0)	2 400	(24.0)	0.0%	-2.1%	Portugal
	16 000	(82.0)	15 000	(74.0)	14 000	(72.0)	13 000	(68.0)	-5.4%	-5.7%	Romania
	350	(6.5)	320	(5.9)	260	(4.8)	310	(5.8)	-3.9%	-5.4%	Slovakia
	150	(7.2)	140	(6.5)	130	(6.2)	110	(5.3)	-9.5%	-7.8%	Slovenia
	4 600	(9.9)	5 400	(12.0)	5 000	(11.0)	4 400	(9.4)	-5.9%	-7.0%	Spain
	900	(9.2)	810	(8.2)	560	(5.7)	550	(5.5)	-7.5%	-2.8%	Sweden
	6 600	(10.0)	6 500	(9.8)	5 900	(8.8)	5 400	(8.0)	-7.7%	-6.7%	United Kingdom
	66 000	(12.8)	65 000	(12.6)	61 000	(11.8)	58 000	(11.2)	-3.7%	-4.5%	Subtotal EU/EEA
											Non-EU/EEA
	480	(17.0)	480	(17.0)	580	(20.0)	510	(18.0)	3.0%	0.6%	Albania
	5	(5.9)	5	(6.0)	1	(1.5)	2	(3.0)	-23.4%	-13.4%	Andorra
	1 500	(50.0)	1 300	(44.0)	1 100	(36.0)	920	(31.0)	-14.1%	-8.4%	Armenia
	6 800	(71.0)	6 400	(66.0)	6 500	(66.0)	6 300	(63.0)	-4.6%	-8.0%	Azerbaijan
	4 700	(50.0)	4 000	(42.0)	3 500	(37.0)	2 900	(31.0)	-11.7%	-8.7%	Belarus
	1 400	(40.0)	1 100	(33.0)	960	(29.0)	830	(25.0)	-12.7%	-8.9%	Bosnia and Herzegovina
	4 000	(99.0)	3 700	(92.0)	3 400	(86.0)	3 200	(80.0)	-6.8%	-5.5%	Georgia
	320	(4.0)	290	(3.5)	270	(3.3)	340	(4.0)	-6.8%	-3.7%	Israel
	14 000	(81.0)	13 000	(73.0)	12 000	(69.0)	12 000	(68.0)	-7.0%	-8.5%	Kazakhstan
	8 100	(136.0)	8 100	(133.0)	7 700	(124.0)	7 300	(116.0)	-2.0%	-1.1%	Kyrgyzstan
	4 100	(102.0)	4 100	(101.0)	3 900	(95.0)	3 500	(86.0)	-7.0%	-4.1%	Moldova
	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	-100.0%	Monaco
	92	(15.0)	100	(16.0)	86	(14.0)	97	(15.0)	-8.1%	-3.7%	Montenegro
	350	(17.0)	330	(16.0)	270	(13.0)	270	(13.0)	-6.5%	-7.8%	North Macedonia
	97 000	(67.0)	91 000	(63.0)	85 000	(59.0)	79 000	(54.0)	-6.3%	–	Russia
	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	San Marino
	1 900	(21.0)	1 700	(19.0)	1 700	(19.0)	1 500	(17.0)	-7.3%	-6.8%	Serbia
	–	–	–	–	–	–	–	–	–	–	Serbia excluding Kosovo ^a
	–	–	–	–	–	–	–	–	–	–	Kosovo ^a
	610	(7.4)	660	(7.9)	610	(7.2)	540	(6.4)	2.1%	-1.7%	Switzerland
	7 300	(86.0)	7 400	(85.0)	7 500	(85.0)	7 600	(84.0)	-2.0%	-5.6%	Tajikistan
	14 000	(18.0)	14 000	(18.0)	14 000	(17.0)	13 000	(16.0)	-5.4%	-5.6%	Turkey
	2 700	(49.0)	2 600	(46.0)	2 500	(43.0)	2 700	(46.0)	-5.6%	-5.8%	Turkmenistan
	41 000	(91.0)	39 000	(87.0)	37 000	(84.0)	36 000	(80.0)	-4.0%	-4.0%	Ukraine
	25 000	(79.0)	24 000	(76.0)	23 000	(73.0)	23 000	(70.0)	-3.9%	-4.0%	Uzbekistan
	235 000	(58.6)	223 000	(55.2)	212 000	(52.1)	202 000	(49.3)	-5.5%	-5.3%	Subtotal non-EU/EEA
	301 000	(32.9)	288 000	(31.3)	274 000	(29.7)	259 000	(27.9)	-5.1%	-5.1%	Total European Region
	251 000	(62.7)	238 000	(59.1)	225 000	(55.5)	214 000	(52.5)	-5.6%	-5.4%	Subtotal 18 HPCs

Table III. Tuberculosis cases in children under 15 years, European Region, 2014–2018^a

Country/area	2014			2015			2016			2017			2018		
	N	Percentage among all tuber- culosis cases	Rate per 100 000	N	Percentage among all tuber- culosis cases	Rate per 100 000	N	Percentage among all tuber- culosis cases	Rate per 100 000	N	Percentage among all tuber- culosis cases	Rate per 100 000	N	Percentage among all tuber- culosis cases	Rate per 100 000
EU/EEA															
Austria	14	(2.4)	1.1	20	(3.4)	1.6	30	(4.7)	2.4	21	(3.7)	1.7	28	(5.8)	2.2
Belgium	60	(6.3)	3.2	69	(7.1)	3.6	59	(5.7)	3.1	68	(7.0)	3.5	60	(6.1)	3.1
Bulgaria	145	(7.7)	14.6	118	(7.1)	11.8	126	(7.9)	12.6	108	(7.4)	10.8	72	(5.3)	7.2
Croatia	2	(0.4)	0.3	8	(1.6)	1.3	5	(1.1)	0.8	3	(0.8)	0.5	8	(2.2)	1.3
Cyprus	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	3	(5.7)	2.2	1	(1.9)	0.7
Czech Republic	6	(1.2)	0.4	5	(1.0)	0.3	10	(1.9)	0.6	6	(1.2)	0.4	5	(1.1)	0.3
Denmark	9	(2.8)	0.9	15	(4.2)	1.6	18	(5.5)	1.9	12	(4.4)	1.2	11	(3.8)	1.1
Estonia	1	(0.4)	0.5	2	(0.9)	1.0	4	(2.1)	1.9	0	(0.0)	0.0	2	(1.4)	0.9
Finland	10	(3.8)	1.1	11	(4.0)	1.2	6	(2.6)	0.7	6	(2.4)	0.7	2	(0.9)	0.2
France	257	(5.3)	2.1	0	(0.0)	0.0	1 153	(20.1)	9.4	324	(6.5)	2.7	244	(4.8)	2.0
Germany	142	(3.1)	1.3	192	(3.3)	1.8	226	(3.8)	2.1	240	(4.4)	2.2	215	(4.0)	1.9
Greece	10	(1.9)	0.6	11	(2.3)	0.7	21	(4.8)	1.3	11	(2.4)	0.7	6	(1.4)	0.4
Hungary	4	(0.5)	0.3	9	(1.0)	0.6	6	(0.8)	0.4	6	(0.9)	0.4	3	(0.5)	0.2
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	7	(2.3)	0.7	14	(4.9)	1.4	17	(5.4)	1.7	7	(2.3)	0.7	7	(2.2)	0.7
Italy	201	(5.1)	2.4	177	(4.7)	2.1	158	(3.9)	1.9	168	(4.3)	2.1	164	(4.2)	2.0
Latvia	41	(5.4)	13.9	25	(3.5)	8.4	23	(3.5)	7.7	10	(1.8)	3.3	-	-	-
Liechtenstein	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
Lithuania	22	(1.4)	5.1	36	(2.4)	8.5	47	(3.3)	11.1	44	(3.2)	10.4	19	(1.7)	4.5
Luxembourg	0	(0.0)	0.0	2	(6.7)	2.1	1	(3.4)	1.1	1	(3.1)	1.0	0	(0.0)	0.0
Malta	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(1.8)	1.5
Netherlands	48	(5.9)	1.7	42	(4.9)	1.5	49	(5.5)	1.8	34	(4.3)	1.2	20	(2.5)	0.7
Norway	14	(4.3)	1.5	20	(6.4)	2.1	13	(4.4)	1.4	17	(6.5)	1.8	7	(3.3)	0.7
Poland	70	(1.0)	1.2	81	(1.3)	1.4	103	(1.6)	1.8	68	(1.2)	1.2	52	(0.9)	0.9
Portugal	42	(1.8)	2.8	43	(2.0)	2.9	36	(1.9)	2.5	43	(2.4)	3.0	60	(2.8)	4.2
Romania	639	(4.0)	20.6	655	(4.3)	21.3	596	(4.4)	19.4	533	(4.1)	17.4	542	(4.4)	17.8
Slovakia	46	(13.7)	5.5	67	(21.1)	8.1	61	(20.6)	7.3	46	(18.5)	5.5	40	(14.2)	4.7
Slovenia	3	(2.1)	1.0	1	(0.8)	0.3	3	(2.5)	1.0	2	(1.8)	0.6	1	(1.0)	0.3
Spain	295	(6.0)	4.2	365	(7.3)	5.2	321	(6.3)	4.6	347	(6.1)	5.0	298	(6.4)	4.3
Sweden	54	(8.2)	3.3	47	(5.8)	2.8	58	(8.1)	3.4	26	(5.0)	1.5	32	(6.5)	1.8
United Kingdom	280	(4.0)	2.5	227	(3.6)	2.0	226	(3.7)	1.9	193	(3.5)	1.6	160	(3.2)	1.3
Subtotal EU/EEA	2 422	(3.9)	3.0	2 262	(3.7)	2.8	3 376	(5.6)	4.2	2 347	(4.2)	2.9	2 060	(3.9)	2.6
Non-EU/EEA															
Albania	21	(5.1)	3.8	11	(2.7)	2.0	13	(3.1)	2.4	14	(2.8)	2.7	4	(0.9)	0.8
Andorra	0	(0.0)	0.0	1	(25.0)	8.8	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0
Armenia	32	(2.4)	5.5	24	(2.0)	4.1	21	(2.0)	3.5	20	(2.4)	3.3	37	(5.0)	6.1
Azerbaijan	179	(3.1)	8.3	179	(3.3)	8.1	175	(3.4)	7.8	166	(3.2)	7.2	200	(4.0)	8.6
Belarus	24	(0.6)	1.6	18	(0.5)	1.2	13	(0.4)	0.8	13	(0.5)	0.8	12	(0.5)	0.8
Bosnia and Herzegovina	15	(1.3)	2.8	14	(1.3)	2.7	10	(1.1)	2.0	11	(1.4)	2.2	5	(0.8)	1.0
Georgia	129	(4.0)	17.1	139	(4.4)	18.2	123	(4.1)	15.9	94	(3.6)	12.0	77	(3.3)	9.7
Israel	31	(8.6)	1.4	6	(2.1)	0.3	13	(5.2)	0.6	16	(6.8)	0.7	16	(5.5)	0.7
Kazakhstan	452	(3.0)	10.0	392	(2.8)	8.4	326	(2.6)	6.7	404	(3.2)	8.0	362	(2.8)	6.9
Kyrgyzstan	438	(6.9)	24.1	537	(7.6)	28.6	407	(5.8)	21.0	436	(6.5)	21.9	310	(4.9)	15.2
Moldova	114	(2.8)	17.7	114	(3.2)	17.7	103	(2.9)	16.0	123	(3.7)	19.2	95	(3.1)	14.8
Monaco	0	(0.0)	0.0	0	(0.0)	0.0	-	-	-	-	-	-	-	-	-
Montenegro	0	(0.0)	0.0	1	(1.3)	0.9	0	(0.0)	0.0	0	(0.0)	0.0	2	(2.4)	1.7
North Macedonia	19	(6.7)	5.4	14	(5.0)	4.0	25	(9.5)	7.2	10	(4.6)	2.9	12	(5.5)	3.5
Russia	3 195	(3.1)	13.4	3 061	(3.1)	12.5	2 876	(3.1)	11.4	2 494	(3.0)	9.7	2 169	(2.8)	8.3
San Marino	-	-	-	-	-	-	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0
Serbia	41	(2.3)	2.8	29	(1.8)	2.0	17	(1.2)	1.2	22	(1.5)	1.6	29	(2.2)	2.1
Serbia excluding Kosovo ^b	21	(2.1)	2.1	8	(0.9)	0.8	0	(0.0)	0.0	7	(0.9)	0.7	6	(0.9)	0.6
Kosovo ^b	20	(2.4)	4.3	21	(2.7)	4.6	17	(2.4)	3.7	15	(2.1)	3.3	23	(3.3)	5.2
Switzerland	11	(2.6)	0.9	32	(6.0)	2.6	30	(5.2)	2.4	23	(4.3)	1.8	26	(5.5)	2.0
Tajikistan	334	(5.8)	11.4	328	(5.6)	10.8	389	(6.5)	12.4	353	(6.0)	10.9	346	(6.0)	10.3
Turkey	550	(4.2)	2.8	633	(5.0)	3.1	628	(5.2)	3.1	551	(4.7)	2.7	599	(5.2)	3.0
Turkmenistan	0	(0.0)	0.0	0	(0.0)	0.0	5	(0.2)	0.3	39	(2.0)	2.2	37	(1.7)	2.1
Ukraine	532	(1.7)	7.9	568	(1.9)	8.3	571	(2.0)	8.3	611	(2.2)	8.8	580	(2.2)	8.3
Uzbekistan	1 913	(10.4)	22.2	1 795	(11.0)	20.5	2 010	(12.5)	22.5	1 989	(11.8)	21.8	2 029	(12.4)	21.8
Subtotal non-EU/EEA	8 030	(3.7)	9.8	7 896	(3.8)	9.4	7 755	(3.9)	9.1	7 389	(4.0)	8.6	6 947	(3.9)	7.9
Total European Region	10 452	(3.7)	6.4	10 158	(3.8)	6.2	11 131	(4.3)	6.7	9 736	(4.0)	5.8	9 007	(3.9)	5.4
Subtotal 18 HPCs	8 740	(3.7)	10.8	8 624	(3.8)	10.5	8 443	(3.8)	10.1	7 988	(4.0)	9.4	7 488	(4.0)	8.7

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein.WHO European Region 18 tuberculosis high-priority countries presented in *italics*.

HPC - High-priority country.

TB - tuberculosis.

^b 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.^c This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table IV. Tuberculosis cases by origin, European Region, 2014–2018

Country/area	2014							2015							2016						
	Foreign		Native		Unknown origin		All TB cases (N)	Foreign		Native		Unknown origin		All tuberculosis cases (N)	Foreign		Native		Unknown origin		All tuberculosis cases (N)
	N	Percentage among all tuberculosis	N	Percentage among all tuberculosis	N	Percentage among all tuberculosis		N	Percentage among all tuberculosis	N	Percentage among all tuberculosis	N	Percentage among all tuberculosis		N	Percentage among all tuberculosis	N	Percentage among all tuberculosis	N	Percentage among all tuberculosis	
EU/EEA																					
Austria ^a	336	(57.3)	250	(42.7)	0	(0.0)	586	364	(62.4)	219	(37.6)	0	(0.0)	583	424	(66.9)	210	(33.1)	0	(0.0)	634
Belgium ^a	499	(52.6)	450	(47.4)	0	(0.0)	949	512	(52.4)	465	(47.6)	0	(0.0)	977	545	(52.3)	497	(47.7)	0	(0.0)	1 042
Bulgaria	12	(0.6)	1 860	(99.4)	0	(0.0)	1 872	10	(0.6)	1 650	(99.4)	0	(0.0)	1 660	4	(0.2)	1 599	(99.8)	0	(0.0)	1 603
Croatia	63	(12.6)	272	(54.5)	164	(32.9)	499	79	(16.2)	244	(50.0)	165	(33.8)	488	1	(0.2)	463	(99.8)	0	(0.0)	464
Cyprus	34	(82.9)	7	(17.1)	0	(0.0)	41	52	(82.5)	11	(17.5)	0	(0.0)	63	56	(93.3)	4	(6.7)	0	(0.0)	60
Czech Republic	96	(18.8)	415	(81.2)	0	(0.0)	511	110	(21.3)	407	(78.7)	0	(0.0)	517	151	(29.3)	365	(70.7)	0	(0.0)	516
Denmark	223	(69.7)	97	(30.3)	0	(0.0)	320	242	(67.8)	115	(32.2)	0	(0.0)	357	221	(67.0)	109	(33.0)	0	(0.0)	330
Estonia	41	(16.5)	207	(83.5)	0	(0.0)	248	38	(17.5)	179	(82.5)	0	(0.0)	217	42	(21.9)	150	(78.1)	0	(0.0)	192
Finland	88	(33.5)	171	(65.0)	4	(1.5)	263	114	(41.9)	151	(55.5)	7	(2.6)	272	111	(47.6)	117	(50.2)	5	(2.1)	233
France	2 736	(56.0)	1 845	(37.7)	307	(6.3)	4 888	2 655	(56.0)	1 826	(38.5)	263	(5.5)	4 744	3 002	(52.3)	2 368	(41.3)	365	(6.4)	5 735
Germany	2 694	(59.5)	1 611	(35.6)	219	(4.8)	4 524	4 085	(70.0)	1 585	(27.2)	167	(2.9)	5 837	4 330	(73.1)	1 508	(25.4)	88	(1.5)	5 926
Greece ^a	197	(38.0)	320	(61.7)	2	(0.4)	519	189	(39.2)	289	(60.0)	4	(0.8)	482	188	(42.7)	252	(57.3)	0	(0.0)	440
Hungary ^a	32	(3.8)	819	(96.2)	0	(0.0)	851	27	(3.0)	879	(97.0)	0	(0.0)	906	30	(3.8)	756	(96.2)	0	(0.0)	786
Iceland	9	(100.0)	0	(0.0)	0	(0.0)	9	6	(85.7)	1	(14.3)	0	(0.0)	7	4	(66.7)	2	(33.3)	0	(0.0)	6
Ireland	135	(43.4)	175	(56.3)	1	(0.3)	311	129	(45.6)	144	(50.9)	10	(3.5)	283	161	(51.1)	142	(45.1)	12	(3.8)	315
Italy	1 806	(46.1)	1 352	(34.5)	758	(19.4)	3 916	1 764	(46.8)	1 227	(32.6)	778	(20.6)	3 769	2 509	(62.2)	1 180	(29.3)	343	(8.5)	4 032
Latvia	37	(4.9)	724	(95.1)	0	(0.0)	761	45	(6.2)	676	(93.8)	0	(0.0)	721	43	(6.5)	617	(93.5)	0	(0.0)	660
Liechtenstein	0	(0.0)	1	(100.0)	0	(0.0)	1	0	(0.0)	0	(0.0)	2	(100.0)	2	2	(100.0)	0	(0.0)	0	(0.0)	2
Lithuania	42	(2.6)	1 565	(97.4)	0	(0.0)	1 607	15	(1.0)	1 492	(99.0)	0	(0.0)	1 507	13	(0.9)	1 429	(99.1)	0	(0.0)	1 442
Luxembourg	20	(83.3)	4	(16.7)	0	(0.0)	24	20	(66.7)	10	(33.3)	0	(0.0)	30	22	(75.9)	7	(24.1)	0	(0.0)	29
Malta	42	(91.3)	4	(8.7)	0	(0.0)	46	24	(75.0)	8	(25.0)	0	(0.0)	32	48	(96.0)	2	(4.0)	0	(0.0)	50
Netherlands	601	(73.8)	213	(26.2)	0	(0.0)	814	625	(72.5)	236	(27.4)	1	(0.1)	862	670	(75.5)	215	(24.2)	2	(0.2)	887
Norway	302	(93.5)	21	(6.5)	0	(0.0)	323	277	(88.5)	36	(11.5)	0	(0.0)	313	262	(88.8)	33	(11.2)	0	(0.0)	295
Poland ^a	49	(0.7)	6 649	(99.3)	0	(0.0)	6 698	52	(0.8)	6 378	(99.2)	0	(0.0)	6 430	92	(1.4)	6 352	(98.6)	0	(0.0)	6 444
Portugal	359	(15.8)	1 916	(84.1)	3	(0.1)	2 278	368	(16.8)	1 825	(83.1)	3	(0.1)	2 196	363	(18.8)	1 572	(81.2)	1	(0.1)	1 936
Romania	44	(0.3)	15 835	(99.7)	0	(0.0)	15 879	36	(0.2)	15 145	(99.7)	2	(0.0)	15 183	24	(0.2)	13 577	(99.8)	0	(0.0)	13 601
Slovakia	8	(2.4)	328	(97.6)	0	(0.0)	336	11	(3.5)	306	(96.5)	0	(0.0)	317	11	(3.7)	285	(96.3)	0	(0.0)	296
Slovenia	36	(25.0)	108	(75.0)	0	(0.0)	144	50	(38.5)	80	(61.5)	0	(0.0)	130	43	(36.4)	75	(63.6)	0	(0.0)	118
Spain	1 425	(29.0)	2 851	(58.0)	637	(13.0)	4 913	1 562	(31.1)	3 291	(65.6)	167	(3.3)	5 020	1 454	(28.7)	2 922	(57.6)	694	(13.7)	5 070
Sweden	604	(91.7)	55	(8.3)	0	(0.0)	659	729	(89.4)	86	(10.6)	0	(0.0)	815	642	(89.9)	72	(10.1)	0	(0.0)	714
United Kingdom	4 893	(69.6)	2 019	(28.7)	118	(1.7)	7 030	4 359	(70.0)	1 750	(28.1)	120	(1.9)	6 229	4 375	(71.5)	1 661	(27.2)	81	(1.3)	6 117
Subtotal EU/EEA	17 463	(28.2)	42 144	(68.2)	2 213	(3.6)	61 820	18 549	(30.4)	40 711	(66.8)	1 689	(2.8)	60 949	19 843	(33.1)	38 541	(64.3)	1 591	(2.7)	59 975
Non-EU/EEA																					
Albania	0	(0.0)	408	(100.0)	–	–	408	4	(1.0)	411	(99.0)	–	–	415	0	(0.0)	415	(100.0)	–	–	415
Andorra	6	(100.0)	0	(0.0)	–	–	6	0	(0.0)	4	(100.0)	–	–	4	0	(0.0)	4	(100.0)	–	–	4
Armenia	0	(0.0)	1 342	(100.0)	–	–	1 342	1	(0.1)	1 184	(99.9)	–	–	1 185	0	(0.0)	1 080	(100.0)	–	–	1 080
Azerbaijan	11	(0.1)	7 528	(99.9)	–	–	7 539	15	(0.2)	7 486	(99.8)	–	–	7 501	12	(0.2)	6 695	(99.8)	–	–	6 707
Belarus	0	(0.0)	4 274	(100.0)	–	–	4 274	0	(0.0)	4 177	(100.0)	–	–	4 177	0	(0.0)	3 598	(100.0)	–	–	3 598
Bosnia and Herzegovina	0	(0.0)	1 196	(100.0)	–	–	1 196	0	(0.0)	1 095	(100.0)	–	–	1 095	0	(0.0)	907	(100.0)	–	–	907
Georgia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Israel	298	(82.5)	63	(17.5)	–	–	361	233	(83.2)	47	(16.8)	–	–	280	202	(80.8)	48	(19.2)	–	–	250
Kazakhstan	43	(0.3)	15 675	(99.7)	–	–	15 718	78	(0.5)	14 553	(99.5)	–	–	14 631	153	(1.2)	12 505	(98.8)	–	–	12 658
Kyrgyzstan	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Moldova	0	(0.0)	4 636	(100.0)	–	–	4 636	37	(0.9)	4 174	(99.1)	–	–	4 211	39	(0.9)	4 095	(99.1)	–	–	4 134
Monaco	0	–	–	–	–	–	–	–	–	–	–	–	–	0	–	–	–	–	–	–	0
Montenegro	3	(2.7)	110	(97.3)	–	–	113	3	(3.8)	77	(96.3)	–	–	80	2	(2.3)	85	(97.7)	–	–	87
North Macedonia	17	(6.0)	268	(94.0)	–	–	285	10	(3.5)	274	(96.5)	–	–	284	8	(3.0)	259	(97.0)	–	–	267
Russia	2 690	(2.0)	133 478	(98.0)	–	–	136 168	0	(0.0)	130 904	(100.0)	–	–	130 904	2 797	(2.3)	118 249	(97.7)	–	–	121 046
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	–	0	0	–	0	–	–	–	0
Serbia	4	(0.2)	1 828	(99.8)	–	–	1 832	7	(0.4)	1 651	(99.6)	–	–	1 658	5	(0.3)	1 483	(99.7)	–	–	1 488
Serbia excluding Kosovo ^b	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Kosovo ^b	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	359	(75.9)	114	(24.1)	–	–	473	428	(75.9)	136	(24.1)	–	–	564	486	(79.8)	123	(20.2)	–	–	609
Tajikistan	0	(0.0)	6 260	(100.0)	–	–	6 260	0	(0.0)	6 232	(100.0)	–	–	6 232	0	(0.0)	6 241	(100.0)	–	–	6 241
Turkey	809	(6.0)	12 569	(94.0)	–	–	13 378	872	(6.8)	11 900	(93.2)	–	–	12 772	904	(7.3)	11 513	(92.7)	–	–	12 417
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2 340
Ukraine	22	(0.1)	40 280	(99.9)	–	–	40 302	10	(0.0)	35 294	(100.0)	–	–	35 304	20	(0.1)	34 068	(99.9)	–	–	34 088
Uzbekistan	86	(0.4)	22 718	(99.6)	–	–	22 804	47	(0.2)	19 008	(99.8)	–	–	19 055	0	(0.0)	18 441	(100.0)	–	–	18 441
Subtotal non-EU/EEA	4 348	(1.7)	252 747	(98.3)	–	(0.0)	257 095	1 745	(0.7)	238 607	(99.3)	–	(0.0)	240 352	4 628	(2.0)	219 809	(96.9)	–	–	226 777
Total European Region	21 811	(6.8)	294 891	(92.5)	2 213	(0.7)	318 915	20 294	(6.7)	279 318	(92.7)	–	(0.0)	301 301	24 471	(8.5)	258 350	(90.1)	–	–	286 752
Subtotal 18 HPCs	3 837	(1.4)	268 951	(98.6)	–	(0.0)	272 788	1 608	(0.6)	254 054	(99.5)	–	(0.0)	255 260	4 051	(1.7)	233 857	(97.3)	–	–	269 176

^a European Region^a comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs presented in italics.

HPCs - high-priority countries.

^b Origin is defined as nationality (citizenship), and if not reported it is defined as country of birth.

^c

	2017							2018							Country/area
	Foreign		Native		Unknown origin		All tuberculosis cases (N)	Foreign		Native		Unknown origin		All tuberculosis cases (N)	
	N	Percentage among all tuberculosis	N	Percentage among all tuberculosis	N	Percentage among all tuberculosis		N	Percentage among all tuberculosis	N	Percentage among all tuberculosis	N	Percentage among all tuberculosis		
														EU/EEA	
	372	(65.4)	197	(34.6)	0	(0.0)	569	299	(62.0)	183	(38.0)	0	(0.0)	482	Austria ^a
	502	(51.9)	465	(48.1)	0	(0.0)	967	511	(52.1)	470	(47.9)	0	(0.0)	981	Belgium ^a
	6	(0.4)	1 457	(99.6)	0	(0.0)	1 463	8	(0.6)	1 350	(99.4)	0	(0.0)	1 358	Bulgaria
	4	(1.1)	163	(43.1)	211	(55.8)	378	4	(1.1)	177	(47.6)	191	(51.3)	372	Croatia
	38	(71.7)	15	(28.3)	0	(0.0)	53	49	(94.2)	3	(5.8)	0	(0.0)	52	Cyprus
	158	(31.5)	343	(68.5)	0	(0.0)	501	147	(33.1)	297	(66.9)	0	(0.0)	444	Czech Republic
	184	(66.9)	90	(32.7)	1	(0.4)	275	198	(68.0)	93	(32.0)	0	(0.0)	291	Denmark
	23	(13.1)	152	(86.9)	0	(0.0)	175	32	(21.8)	115	(78.2)	0	(0.0)	147	Estonia
	96	(39.0)	140	(56.9)	10	(4.1)	246	92	(40.0)	130	(56.5)	8	(3.5)	230	Finland
	2 972	(59.4)	1 750	(35.0)	283	(5.7)	5 005	3 142	(61.7)	1 645	(32.3)	305	(6.0)	5 092	France
	3 900	(71.0)	1 477	(26.9)	118	(2.1)	5 495	3 890	(71.7)	1 374	(25.3)	165	(3.0)	5 429	Germany
	197	(42.2)	270	(57.8)	0	(0.0)	467	216	(50.0)	215	(49.8)	1	(0.2)	432	Greece ^a
	25	(3.6)	660	(96.4)	0	(0.0)	685	23	(3.6)	617	(96.4)	0	(0.0)	640	Hungary ^a
	8	(57.1)	6	(42.9)	0	(0.0)	14	8	(100.0)	0	(0.0)	0	(0.0)	8	Iceland
	142	(46.6)	148	(48.5)	15	(4.9)	305	140	(44.6)	144	(45.9)	30	(9.6)	314	Ireland
	2 611	(66.2)	1 333	(33.8)	0	(0.0)	3 944	2 313	(59.1)	1 509	(38.6)	90	(2.3)	3 912	Italy
	41	(7.4)	511	(92.6)	0	(0.0)	552	-	-	-	-	-	-	-	Latvia
	0	(0.0)	1	(100.0)	0	(0.0)	1	1	(100.0)	0	(0.0)	0	(0.0)	1	Liechtenstein
	15	(1.1)	1 372	(98.9)	0	(0.0)	1 387	12	(1.1)	1 130	(98.9)	0	(0.0)	1 142	Lithuania
	25	(78.1)	7	(21.9)	0	(0.0)	32	34	(81.0)	8	(19.0)	0	(0.0)	42	Luxembourg
	39	(92.9)	3	(7.1)	0	(0.0)	42	53	(96.4)	2	(3.6)	0	(0.0)	55	Malta
	586	(74.8)	197	(25.2)	0	(0.0)	783	619	(76.8)	181	(22.5)	6	(0.7)	806	Netherlands
	231	(88.5)	30	(11.5)	0	(0.0)	261	180	(86.1)	29	(13.9)	0	(0.0)	209	Norway
	108	(1.9)	5 679	(98.1)	0	(0.0)	5 787	97	(1.8)	5 390	(98.2)	0	(0.0)	5 487	Poland ^a
	351	(19.5)	1 448	(80.4)	1	(0.1)	1 800	497	(23.3)	1 640	(76.7)	0	(0.0)	2 137	Portugal
	27	(0.2)	12 970	(99.8)	0	(0.0)	12 997	33	(0.3)	12 172	(99.7)	0	(0.0)	12 205	Romania
	5	(2.0)	244	(98.0)	0	(0.0)	249	10	(3.6)	271	(96.4)	0	(0.0)	281	Slovakia
	45	(40.2)	67	(59.8)	0	(0.0)	112	44	(44.4)	55	(55.6)	0	(0.0)	99	Slovenia
	2 049	(36.0)	3 310	(58.2)	331	(5.8)	5 690	1 670	(35.9)	2 629	(56.6)	349	(7.5)	4 648	Spain
	467	(90.0)	52	(10.0)	0	(0.0)	519	423	(86.2)	68	(13.8)	0	(0.0)	491	Sweden
	3 824	(69.1)	1 630	(29.4)	83	(1.5)	5 537	3 501	(69.0)	1 468	(28.9)	106	(2.1)	5 075	United Kingdom
	19 051	(33.8)	36 187	(64.3)	1 053	(1.9)	56 291	18 246	(34.5)	33 365	(63.1)	1 251	(2.4)	52 862	Subtotal EU/EEA
															Non-EU/EEA
	0	(0.0)	503	(100.0)	-	-	503	0	(0.0)	440	(100.0)	-	-	440	Albania
	0	(0.0)	1	(100.0)	-	-	1	0	(0.0)	2	(100.0)	-	-	2	Andorra
	7	(0.8)	919	(99.2)	-	-	926	10	(1.3)	786	(98.7)	-	-	796	Armenia
	-	-	-	-	-	-	-	0	(0.0)	6 896	(100.0)	-	-	6 896	Azerbaijan
	0	(0.0)	3 052	(100.0)	-	-	3 052	0	(0.0)	2 542	(100.0)	-	-	2 542	Belarus
	0	(0.0)	768	(100.0)	-	-	768	0	(0.0)	669	(100.0)	-	-	669	Bosnia and Herzegovina
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Georgia
	190	(81.2)	44	(18.8)	-	-	234	245	(83.9)	47	(16.1)	-	-	292	Israel
	0	(0.0)	12 942	(100.0)	-	-	12 942	200	(1.5)	13 161	(98.5)	-	-	13 361	Kazakhstan
	-	-	-	-	-	-	-	0	(0.0)	7 585	(100.0)	-	-	7 585	Kyrgyzstan
	24	(0.6)	3 834	(99.4)	-	-	3 858	17	(0.5)	3 448	(99.5)	-	-	3 465	Moldova
					-	-						-	-	0	Monaco
	3	(3.9)	74	(96.1)	-	-	77	4	(4.8)	80	(95.2)	-	-	84	Montenegro
	3	(1.4)	216	(98.6)	-	-	219	1	(0.5)	216	(99.5)	-	-	217	North Macedonia
	2498	(2.2)	111 689	(97.8)	-	-	114 187	2066	(1.9)	104 847	(98.1)	-	-	106 913	Russia
	0	(0.0)	0	(100.0)	-	-	0	0	(0.0)	0	(100.0)	-	-	0	San Marino
	0	(0.0)	1 466	(100.0)	-	-	1 466	5	(0.4)	1 353	(99.6)	-	-	1 358	Serbia
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Serbia excluding Kosovo ^b
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Kosovo ^b
	366	(65.9)	189	(34.1)	-	-	555	352	(68.2)	164	(31.8)	-	-	516	Switzerland
	0	(0.0)	6 279	(100.0)	-	-	6 279	0	(0.0)	5 975	(100.0)	-	-	5 975	Tajikistan
	1107	(9.2)	10 939	(90.8)	-	-	12 046	1278	(10.8)	10 508	(89.2)	-	-	11 786	Turkey
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Turkmenistan
	26	(0.1)	31 558	(99.9)	-	-	31 584	47	(0.2)	30 331	(99.8)	-	-	30 378	Ukraine
	0	(0.0)	19 329	(100.0)	-	-	19 329	0	(0.0)	18 496	(100.0)	-	-	18 496	Uzbekistan
	4 224	(2.0)	203 802	(98.0)	-	-	208 026	4 225	(2.0)	207 546	(98.0)	-	-	211 771	Subtotal non-EU/EEA
	23 275	(8.8)	239 989	(90.8)	-	-	264 317	22 471	(8.5)	240 911	(91.0)	-	-	264 633	Total European Region
	3 774	(1.7)	217 003	(98.3)	-	-	220 777	3 703	(1.7)	219 342	(98.3)	-	-	223 045	Subtotal 18 HPCs

Table V. MDR tuberculosis notification among new bacteriologically-confirmed^a pulmonary tuberculosis cases with available DST results, European Region, 2014–2018

Country/area	2014			2015			2016			2017			2018			Mean annual % change in rate, 2014–2018
	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	
EU/EEA																
Austria	7	(2.6)	0.1	5	(1.9)	0.1	8	(3.0)	0.1	11	(4.2)	0.1	10	(4.8)	0.1	8.3%
Belgium ^b	6	(1.5)	0.1	6	(1.4)	0.1	6	(1.4)	0.1	1	(0.2)	0.0	5	(1.2)	0.0	-4.9%
Bulgaria	17	(2.7)	0.2	4	(0.7)	0.1	5	(0.9)	0.1	13	(2.5)	0.2	10	(2.2)	0.1	-11.8%
Croatia	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(0.4)	0.0	-
Cyprus	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(3.0)	0.1	0	(0.0)	0.0	-
Czech Republic	3	(1.0)	0.0	7	(2.2)	0.1	4	(1.3)	0.0	3	(1.0)	0.0	10	(3.6)	0.1	34.8%
Denmark ^b	1	(0.5)	0.0	4	(1.9)	0.1	3	(1.7)	0.1	1	(0.6)	0.0	4	(2.5)	0.1	40.5%
Estonia	30	(19.4)	2.3	18	(13.5)	1.4	17	(12.9)	1.3	26	(22.0)	2.0	22	(22.0)	1.7	-7.5%
Finland	5	(3.3)	0.1	7	(4.5)	0.1	2	(1.6)	0.0	4	(2.9)	0.1	4	(3.1)	0.1	-5.7%
France	25	(1.0)	0.0	-	-	-	33	(1.4)	0.0	-	-	-	21	(100.0)	0.0	-4.5%
Germany	9	(3.0)	0.0	40	(1.8)	0.0	50	(2.3)	0.1	53	(2.5)	0.1	55	(2.7)	0.1	56.3%
Greece	3	(2.5)	0.0	3	(1.9)	0.0	2	(2.0)	0.0	5	(3.5)	0.0	4	(3.5)	0.0	7.9%
Hungary	1	(0.4)	0.0	6	(1.8)	0.1	12	(4.1)	0.1	7	(2.5)	0.1	8	(2.7)	0.1	68.6%
Iceland	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Ireland ^b	2	(1.6)	0.0	1	(1.0)	0.0	4	(3.1)	0.1	2	(2.0)	0.0	3	(3.2)	0.1	9.5%
Italy	24	(2.0)	0.0	18	(2.3)	0.0	24	(3.1)	0.0	45	(2.4)	0.1	32	(1.8)	0.1	7.6%
Latvia	38	(8.2)	1.9	36	(7.9)	1.8	32	(7.6)	1.6	28	(7.7)	1.4	-	-	-	-
Liechtenstein	0	-	0.0	0	-	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Lithuania	128	(13.6)	4.3	104	(11.6)	3.6	117	(13.3)	4.1	110	(12.9)	3.9	88	(11.7)	3.1	-7.9%
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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	4	(1.2)	0.0	5	(1.4)	0.0	6	(1.8)	0.0	5	(1.5)	0.0	3	(0.9)	0.0	-7.4%
Norway ^b	5	(3.2)	0.1	4	(2.6)	0.1	8	(5.4)	0.2	6	(4.5)	0.1	4	(4.0)	0.1	-6.3%
Poland	17	(0.4)	0.0	19	(0.5)	0.0	27	(0.7)	0.1	30	(0.9)	0.1	31	(1.0)	0.1	16.2%
Portugal	17	(1.6)	0.2	12	(1.2)	0.1	11	(1.2)	0.1	9	(1.5)	0.1	6	(0.7)	0.1	-22.7%
Romania	125	(2.1)	0.6	129	(2.0)	0.6	129	(2.1)	0.7	102	(1.7)	0.5	117	(2.0)	0.6	-1.1%
Slovakia	1	(0.8)	0.0	1	(0.7)	0.0	2	(2.2)	0.0	4	(4.1)	0.1	0	(0.0)	0.0	-100.0%
Slovenia	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(1.2)	0.0	0	(0.0)	0.0	-
Spain	26	(1.7)	0.1	16	(2.0)	0.0	7	(2.2)	0.0	15	(1.7)	0.0	11	(1.4)	0.0	-19.4%
Sweden	9	(3.0)	0.1	14	(3.3)	0.1	11	(3.0)	0.1	8	(3.2)	0.1	5	(1.8)	0.0	-14.7%
United Kingdom ^b	30	(1.2)	0.0	28	(1.2)	0.0	35	(1.5)	0.1	27	(1.3)	0.0	17	(0.9)	0.0	-13.9%
Subtotal EU/EEA	533	(2.2)	0.1	487	(2.2)	0.1	555	(2.3)	0.1	517	(2.4)	0.1	471	(2.3)	0.1	-3.2%
Non-EU/EEA																
Albania	1	(4.8)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(1.7)	0.0	0.1%
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	57	(16.6)	2.0	42	(14.6)	1.4	55	(15.4)	1.9	40	(12.5)	1.4	43	(17.2)	1.5	-7.1%
Azerbaijan	158	(12.8)	1.7	195	(15.9)	2.0	161	(15.4)	1.7	170	(12.8)	1.7	160	(8.4)	1.6	-0.8%
Belarus	667	(34.1)	7.1	678	(35.8)	7.2	654	(37.1)	6.9	629	(37.2)	6.7	559	(36.6)	5.9	-4.4%
Bosnia and Herzegovina	2	(25.0)	0.1	2	(0.3)	0.1	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Georgia	172	(11.6)	4.3	168	(11.6)	4.2	142	(10.2)	3.5	129	(10.5)	3.2	93	(11.5)	2.3	-14.1%
Israel	13	(6.6)	0.2	10	(6.8)	0.1	9	(7.4)	0.1	7	(5.4)	0.1	13	(8.4)	0.2	-1.6%
Kazakhstan	1110	(23.8)	6.4	1310	(24.0)	7.5	832	(25.5)	4.7	710	(32.9)	3.9	435	(16.0)	2.4	-22.0%
Kyrgyzstan	456		7.8	426	(25.0)	7.1	398	(21.9)	6.6	392	(22.4)	6.3	523	(30.4)	8.3	1.5%
Moldova	398	(27.1)	9.8	402	(31.1)	9.9	304	(25.6)	7.5	308	(26.6)	7.6	309	(24.4)	7.6	-6.0%
Monaco	0		0.0	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
North Macedonia	2	(1.4)	0.1	3	(1.8)	0.1	2	(1.5)	0.1	0	(0.0)	0.0	2	(1.6)	0.1	-0.1%
Russia	7 634	(24.4)	5.3	8 603	(26.7)	5.9	8 463	(27.3)	5.8	8 206	(28.2)	5.6	8 880	(31.8)	6.1	3.7%
San Marino	-	-	-	-	-	-	0		0.0	0		0.0	0		0.0	-
Serbia	10	(1.7)	0.1	4	(1.0)	0.0	3	(0.8)	0.0	1	(0.3)	0.0	2	(0.7)	0.0	-32.9%
Serbia excluding Kosovo ^c	9	(1.7)	0.1	2	(0.9)	0.0	3	(0.8)	0.0	1	(0.3)	0.0	2	(0.7)	0.0	-31.0%
Kosovo ^c	1	(0.6)	0.1	2	(1.0)	0.1	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Switzerland	5	(3.1)	0.1	7	(3.2)	0.1	12	(4.3)	0.1	6	(2.2)	0.1	3	(1.1)	0.0	-12.8%
Tajikistan	158	(8.1)	1.9	484	(24.2)	5.7	495	(20.8)	5.7	413	(83.3)	4.7	296	(72.7)	3.3	14.2%
Turkey	116	(2.5)	0.2	122	(2.6)	0.2	110	(2.2)	0.1	121	(2.5)	0.1	123	(2.6)	0.1	-0.1%
Turkmenistan	32	(10.3)	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	2 753	(21.0)	6.1	2 856	(21.3)	6.4	2 881	(22.0)	6.4	2 594	(21.4)	5.8	2 755	(22.3)	6.2	0.5%
Uzbekistan	2 112	(66.1)	6.9	211	(44.6)	0.7	292	(38.6)	0.9	351	(9.9)	1.1	392	(8.1)	1.2	-35.4%
Subtotal non-EU/EEA	15 856	(23.8)	4.0	15 523	(22.9)	3.9	14 813	(22.9)	3.7	14 077	(23.1)	3.5	14 589	(23.8)	3.6	-2.4%
Total European Region	16 389	(18.0)	1.8	16 010	(17.7)	1.9	15 368	(17.4)	1.7	14 594	(17.6)	1.7	15 060	(18.3)	1.6	-2.3%
Subtotal 18 HPCs	16 161	(22.0)	4.1	15 788	(21.2)	4.0	15 087	(21.2)	3.8	14 342	(21.2)	3.6	14 805	(21.9)	3.7	-2.3%

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.

WHO European Region 18 tuberculosis high-priority countries 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.

HPC - High-priority country.

MDR - Multidrug-resistant.

^bBacteriologically-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.

^cPrevious tuberculosis history is defined as previous diagnosis.

^dThis designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table VI. MDR tuberculosis notification among previously treated bacteriologically-confirmed^a pulmonary tuberculosis cases with available DST results, European Region, 2014–2018

Country/area	2014			2015			2016			2017			2018			Mean annual % change in rate, 2014–2018
	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	
EU/EEA																
Austria	7	(36.8)	0.1	2	(16.7)	0.0	3	(17.6)	0.0	2	(13.3)	0.0	3	(21.4)	0.0	-19.8%
Belgium ^b	2	(4.2)	0.0	2	(5.9)	0.0	2	(5.7)	0.0	2	(5.1)	0.0	1	(2.9)	0.0	-16.3%
Bulgaria	19	(19.2)	0.3	19	(20.7)	0.3	14	(17.3)	0.2	11	(13.3)	0.2	14	(19.4)	0.2	-6.7%
Croatia	2	(6.9)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(6.3)	0.0	-15.2%
Cyprus	0	(0.0)	0.0	0	-	0.0	0	(0.0)	0.0	0	-	0.0	0	(0.0)	0.0	-
Czech Republic	2	(13.3)	0.0	2	(8.0)	0.0	2	(16.7)	0.0	3	(18.8)	0.0	0	(0.0)	0.0	-100.0%
Denmark ^b	0	(0.0)	0.0	1	(4.5)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Estonia	19	(63.3)	1.4	18	(51.4)	1.4	6	(46.2)	0.5	10	(47.6)	0.8	8	(44.4)	0.6	-19.5%
Finland	1	(20.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(33.3)	0.0	0	-	0.0	-100.0%
France	30	(10.4)	0.0	-	-	-	18	(6.8)	0.0	-	-	-	16	(100.0)	0.0	-14.8%
Germany	21	(15.1)	0.0	29	(18.1)	0.0	18	(12.8)	0.0	22	(18.8)	0.0	23	(17.8)	0.0	1.7%
Greece	0	(0.0)	0.0	5	(18.5)	0.0	2	(20.0)	0.0	1	(5.9)	0.0	0	(0.0)	0.0	-
Hungary	2	(8.7)	0.0	2	(5.0)	0.0	6	(16.2)	0.1	4	(14.8)	0.0	4	(11.8)	0.0	19.2%
Iceland	0	(0.0)	0.0	0	-	0.0	0	-	0.0	0	(0.0)	0.0	0	-	0.0	-
Ireland ^b	0	(0.0)	0.0	0	(0.0)	0.0	2	(16.7)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Italy	16	(7.2)	0.0	14	(12.5)	0.0	9	(9.3)	0.0	11	(14.7)	0.0	10	(14.9)	0.0	-11.0%
Latvia	32	(29.9)	1.6	26	(29.9)	1.3	21	(23.3)	1.1	17	(28.8)	0.9	-	-	-	-
Liechtenstein	0	(0.0)	0.0	0	(0.0)	0.0	0	-	0.0	0	-	0.0	0	-	0.0	-
Lithuania	138	(48.9)	4.7	134	(46.5)	4.6	125	(43.0)	4.3	138	(51.5)	4.8	82	(37.6)	2.9	-11.2%
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	0	(0.0)	0.0	0	-	0.0	0	-	0.0	0	-	0.0	0	-	0.0	-
Netherlands	1	(12.5)	0.0	2	(8.7)	0.0	4	(30.8)	0.0	1	(6.7)	0.0	0	(0.0)	0.0	-100.0%
Norway ^b	4	(23.5)	0.1	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-100.0%
Poland	18	(4.3)	0.0	13	(3.0)	0.0	18	(4.0)	0.0	14	(3.6)	0.0	15	(3.4)	0.0	-4.4%
Portugal	5	(5.7)	0.0	7	(8.2)	0.1	2	(2.9)	0.0	1	(2.0)	0.0	1	(2.6)	0.0	-32.9%
Romania	400	(17.9)	2.0	401	(17.3)	2.0	336	(15.6)	1.7	265	(13.6)	1.3	230	(12.7)	1.2	-12.5%
Slovakia	2	(7.7)	0.0	1	(6.3)	0.0	1	(5.6)	0.0	1	(3.8)	0.0	2	(13.3)	0.0	-0.1%
Slovenia	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	-
Spain	9	(8.2)	0.0	1	(2.0)	0.0	4	(0.8)	0.0	11	(2.0)	0.0	3	(6.4)	0.0	-24.1%
Sweden	2	(10.5)	0.0	2	(11.8)	0.0	3	(15.8)	0.0	1	(4.8)	0.0	2	(18.2)	0.0	-1.2%
United Kingdom ^b	6	(3.5)	0.0	5	(3.2)	0.0	8	(5.0)	0.0	4	(3.0)	0.0	7	(4.7)	0.0	3.2%
Subtotal EU/EEA	738	(16.6)	0.1	686	(16.7)	0.2	604	(13.3)	0.1	520	(13.3)	0.1	422	(13.1)	0.1	-13.2%
Non-EU/EEA																
Albania	1	(12.5)	0.0	4	(66.7)	0.1	1	(50.0)	0.0	0	(0.0)	0.0	1	(25.0)	0.0	0.1%
Andorra	0	(0.0)	0.0	0	-	0.0	0	-	0.0	0	-	-	-	-	-	-
Armenia	43	(86.0)	1.5	47	(87.0)	1.6	60	(57.7)	2.0	41	(38.0)	1.4	33	(40.2)	1.1	-6.7%
Azerbaijan	682	(35.0)	7.2	711	(29.7)	7.4	616	(39.3)	6.3	495	(29.0)	5.0	478	(19.0)	4.8	-9.5%
Belarus	584	(69.1)	6.2	597	(68.4)	6.3	568	(71.6)	6.0	459	(65.6)	4.9	425	(69.4)	4.5	-7.7%
Bosnia and Herzegovina	1	(50.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Georgia	197	(39.2)	4.9	186	(38.8)	4.6	154	(38.0)	3.8	133	(35.5)	3.3	74	(33.3)	1.8	-21.6%
Israel	2	(50.0)	0.0	1	(16.7)	0.0	0	(0.0)	0.0	1	(50.0)	0.0	0	(0.0)	0.0	-100.0%
Kazakhstan	1,152	(39.9)	6.7	1,411	(40.0)	8.0	399	(20.5)	2.2	953	(46.7)	5.3	1,027	(38.2)	5.6	-4.2%
Kyrgyzstan	194	-	3.3	450	(56.3)	7.6	466	(56.3)	7.7	435	(50.2)	7.0	718	(70.0)	11.4	36.1%
Moldova	453	(65.9)	11.1	501	(71.9)	12.3	221	(57.4)	5.4	178	(54.4)	4.4	316	(60.9)	7.8	-8.5%
Monaco	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	2	(40.0)	0.3	0	(0.0)	0.0	0	(0.0)	0.0	1	(14.3)	0.2	1	(33.3)	0.2	-15.9%
North Macedonia	-	(0.0)	0.0	1	(6.7)	0.0	0	(0.0)	0.0	1	(5.3)	0.0	-	(0.0)	0.0	-
Russia	7,951	(57.1)	5.5	8 529	(59.1)	5.9	17 508	(65.2)	12.1	14 611	(58.9)	10.0	15,155	(62.9)	10.4	17.3%
San Marino	-	-	-	-	-	-	0	-	-	0	-	-	0	-	-	-
Serbia	4	(7.5)	0.0	1	(2.8)	0.0	5	(12.5)	0.1	4	(13.3)	0.0	3	(1.0)	0.0	-6.7%
Serbia excluding Kosovo ^c	-	-	-	-	-	-	3	(7.5)	0.1	4	(13.3)	0.0	3	(0.0)	0.0	-
Kosovo ^c	-	-	-	-	-	-	2	(6.3)	0.1	0	(0.0)	0.0	0	-	0.0	-
Switzerland	4	(14.3)	0.0	4	(21.1)	0.0	1	(7.1)	0.0	2	(22.2)	0.0	1	(6.7)	0.0	-30.0%
Tajikistan	213	(52.2)	2.6	97	(48.7)	1.1	151	(46.3)	1.7	133	(86.4)	1.5	120	(83.3)	1.3	-15.5%
Turkey	130	(21.1)	0.2	102	(17.9)	0.1	80	(13.7)	0.1	61	(11.2)	0.1	44	(10.0)	0.1	-24.9%
Turkmenistan	32	(72.7)	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	3,562	(41.5)	7.9	3 169	(41.5)	7.1	2 875	(40.8)	6.4	2 414	(37.1)	5.4	2,299	(37.0)	5.2	-9.9%
Uzbekistan	720	(79.8)	2.4	185	(56.2)	0.6	311	(25.3)	1.0	189	(12.5)	0.6	424	(21.1)	1.3	-13.8%
Subtotal non-EU/EEA	15 927	(50.5)	4.0	15 996	(49.8)	4.0	23 416	(55.5)	5.9	20 111	(50.6)	5.0	21 119	(52.0)	5.2	7.0%
Total European Region	16 665	(46.3)	1.8	16 682	(46.1)	1.8	24 020	(51.4)	2.6	20 631	(47.3)	2.4	21 541	(49.1)	2.3	6.4%
Subtotal 18 HPCs	16 521	(48.4)	4.2	16 583	(47.7)	4.2	23 911	(53.5)	6.0	20 543	(48.9)	5.1	21 447	(50.2)	5.4	6.6%

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB HPCs presented in italics.

DST - drug-susceptibility testing.

HPCs - high-priority countries.

MDR-TB - multidrug-resistant tuberculosis.

^b Bacteriologically-confirmed cases – cases with positive identification for *M. tuberculosis* complex confirmed by culture and/or line probe assay for non-EU/EEA countries and areas, culture-positive OR microscopy-positive and nucleic acid amplification test-positive cases for EU/EEA countries.

^c Previous TB history is defined as previous diagnosis.

^d This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table VII. MDR tuberculosis notification among all bacteriologically-confirmed^a tuberculosis cases with available DST results, EU/EEA, 2014–2018

Country	2014			2015			2016			2017			2018			Mean annual % change in rate, 2014–2018
	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	
EU/EEA																
Austria	20	(4.8)	0.2	12	(2.8)	0.1	17	(3.6)	0.2	18	(4.2)	0.2	18	(5.2)	0.2	-3.5%
Belgium	11	(1.6)	0.1	15	(2.0)	0.1	10	(1.3)	0.1	5	(0.7)	0.0	7	(1.0)	0.1	-11.1%
Bulgaria	37	(5.0)	0.5	24	(3.6)	0.3	19	(2.8)	0.3	24	(4.0)	0.3	24	(4.4)	0.3	-9.6%
Croatia	2	(0.5)	0.0	1	(0.3)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	2	(0.7)	0.0	0.8%
Cyprus	0	(0.0)	0.0	0	(0.0)	0.0	1	(2.4)	0.1	1	(2.6)	0.1	0	(0.0)	0.0	-
Czech Republic	5	(1.5)	0.0	9	(2.4)	0.1	6	(1.6)	0.1	8	(2.3)	0.1	12	(3.7)	0.1	24.2%
Denmark	2	(0.7)	0.0	6	(2.2)	0.1	4	(1.6)	0.1	2	(0.9)	0.0	4	(1.8)	0.1	18.1%
Estonia	50	(26.0)	3.8	38	(21.2)	2.9	24	(15.8)	1.8	36	(25.4)	2.7	30	(24.6)	2.3	-12.0%
Finland	8	(3.8)	0.1	8	(3.8)	0.1	6	(3.3)	0.1	5	(2.6)	0.1	4	(2.2)	0.1	-16.1%
France	111	(2.6)	0.2	96	(2.3)	0.1	71	(1.7)	0.1	79	(1.9)	0.1	82	(100.0)	0.1	-7.6%
Germany	93	(3.0)	0.1	112	(2.8)	0.1	105	(2.6)	0.1	118	(3.1)	0.1	116	(3.1)	0.1	5.0%
Greece	4	(2.4)	0.0	9	(4.3)	0.1	4	(3.4)	0.0	7	(3.7)	0.1	5	(3.2)	0.0	6.2%
Hungary	3	(1.0)	0.0	8	(2.1)	0.1	18	(5.3)	0.2	11	(3.5)	0.1	12	(3.6)	0.1	41.8%
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	2	(0.9)	0.0	1	(0.5)	0.0	6	(2.6)	0.1	5	(2.5)	0.1	5	(2.4)	0.1	24.5%
Italy	-	-	-	70	(2.7)	0.1	70	(2.6)	0.1	66	(2.5)	0.1	53	(2.1)	0.1	-
Latvia	70	(11.9)	3.5	63	(11.1)	3.2	56	(10.4)	2.8	46	(10.6)	2.4	-	-	-	-
Liechtenstein	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	-
Lithuania	271	(21.5)	9.2	241	(19.7)	8.2	244	(20.3)	8.4	249	(21.7)	8.7	170	(17.1)	6.1	-10.0%
Luxembourg	1	(6.3)	0.2	0	(0.0)	0.0	1	(4.0)	0.2	1	(4.3)	0.2	1	(2.9)	0.2	-2.2%
Malta	0	(0.0)	0.0	1	(4.5)	0.2	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-
Netherlands	7	(1.3)	0.0	8	(1.4)	0.0	14	(2.5)	0.1	10	(1.9)	0.1	6	(1.2)	0.0	-4.3%
Norway	11	(4.2)	0.2	5	(2.0)	0.1	11	(4.8)	0.2	9	(4.2)	0.2	4	(2.4)	0.1	-23.0%
Poland	35	(0.8)	0.1	35	(0.8)	0.1	46	(1.1)	0.1	44	(1.2)	0.1	48	(1.3)	0.1	8.2%
Portugal	25	(2.0)	0.2	23	(1.8)	0.2	15	(1.3)	0.1	10	(1.4)	0.1	10	(0.9)	0.1	-20.2%
Romania	532	(6.4)	2.7	538	(6.0)	2.7	470	(5.5)	2.4	372	(4.5)	1.9	354	(4.4)	1.8	-9.2%
Slovakia	3	(1.9)	0.1	2	(1.3)	0.0	3	(2.7)	0.1	6	(4.5)	0.1	2	(1.4)	0.0	-9.8%
Slovenia	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(0.9)	0.0	0	(0.0)	0.0	-
Spain	-	-	-	18	(1.7)	0.0	15	(1.4)	0.0	30	(1.7)	0.1	33	(2.6)	0.1	-
Sweden	15	(2.9)	0.2	22	(3.2)	0.2	22	(3.7)	0.2	11	(2.6)	0.1	13	(3.2)	0.1	-4.7%
United Kingdom	58	(1.4)	0.1	48	(1.3)	0.1	58	(1.5)	0.1	49	(1.4)	0.1	37	(1.2)	0.1	-11.3%
Total EU/EEA	1 376	(4.2)	0.3	1 413	(3.7)	0.3	1 316	(3.6)	0.3	1 223	(3.4)	0.2	052	(3.6)	0.2	-12.0%

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein.

WHO European Region 18 tuberculosis high-priority countries 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.

MDR - Multidrug-resistant.

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

Table VIII. XDR tuberculosis notification among pulmonary MDR tuberculosis cases with second-line DST results, European Region, 2014–2018^a

Country	2014			2015			2016			2017			2018		
	MDR tuberculosis tested for SLD (N)	XDR tuberculosis (N)	Percent-age among tested for SLD	MDR tuberculosis tested for SLD (N)	XDR tuberculosis (N)	Percent-age among tested for SLD	MDR tuberculosis tested for SLD (N)	XDR tuberculosis (N)	Percent-age among tested for SLD	MDR tuberculosis tested for SLD (N)	XDR tuberculosis (N)	Percent-age among tested for SLD	MDR tuberculosis tested for SLD (N)	XDR tuberculosis (N)	Percent-age among tested for SLD
EU/EEA															
Austria	18	2	(11.1)	9	1	(11.1)	15	2	(13.3)	16	3	(18.8)	15	0	(0.0)
Belgium	10	1	(10.0)	11	2	(18.2)	9	0	(0.0)	3	0	(0.0)	7	3	(42.9)
Bulgaria	36	3	(8.3)	21	4	(19.0)	19	0	(0.0)	23	1	(4.3)	24	0	(0.0)
Croatia	2	0	(0.0)	1	0	(0.0)	0	-	-	0	-	-	1	0	(0.0)
Cyprus	0	-	-	0	-	-	0	-	-	1	0	(0.0)	0	-	-
Czech Republic	5	0	(0.0)	6	1	(16.7)	5	0	(0.0)	6	2	(33.3)	10	0	(0.0)
Denmark	1	0	(0.0)	5	1	(20.0)	3	0	(0.0)	1	0	(0.0)	4	0	(0.0)
Estonia	48	8	(16.7)	35	8	(22.9)	23	7	(30.4)	34	9	(26.5)	30	8	(26.7)
Finland	6	1	(16.7)	8	1	(12.5)	3	1	(33.3)	5	1	(20.0)	4	1	(25.0)
France	70	30	(42.9)	76	8	(10.5)	69	6	(0.0)	79	10	(12.7)	61	8	(13.1)
Germany	59	11	(18.6)	71	9	(12.7)	66	7	(10.6)	74	5	(6.8)	75	8	(10.7)
Greece	2	1	(50.0)	0	-	-	0	-	-	6	1	(16.7)	5	1	(20.0)
Hungary	2	0	(0.0)	7	1	(14.3)	15	7	(46.7)	10	4	(40.0)	11	3	(27.3)
Iceland	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Ireland	2	0	(0.0)	0	-	-	5	0	(0.0)	5	1	(20.0)	4	0	(0.0)
Italy	64	9	(14.1)	31	6	(19.4)	43	5	(11.6)	45	5	(11.1)	37	4	(10.8)
Latvia	70	13	(18.6)	62	16	(25.8)	53	20	(37.7)	45	17	(37.8)	-	-	-
Liechtenstein	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Lithuania	232	60	(25.9)	238	58	(24.4)	242	58	(24.0)	248	87	(35.1)	170	58	(34.1)
Luxembourg	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Malta	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Netherlands	5	0	(0.0)	0	-	-	8	0	(0.0)	6	0	(0.0)	3	1	(33.3)
Norway	9	1	(11.1)	4	0	(0.0)	8	0	(0.0)	6	0	(0.0)	4	0	(0.0)
Poland	25	5	(20.0)	23	4	(17.4)	38	8	(21.1)	35	5	(14.3)	41	12	(29.3)
Portugal	13	2	(15.4)	16	5	(31.3)	12	3	(25.0)	7	0	(0.0)	1	0	(0.0)
Romania	301	58	(19.3)	317	68	(21.5)	215	67	(31.2)	199	58	(29.1)	223	46	(20.6)
Slovakia	3	0	(0.0)	2	0	(0.0)	3	0	(0.0)	5	2	(40.0)	2	0	(0.0)
Slovenia	0	-	-	0	-	-	0	-	-	1	0	(0.0)	0	-	-
Spain	35	2	(5.7)	6	0	(0.0)	5	0	(0.0)	9	0	(0.0)	22	3	(13.6)
Sweden	11	1	(9.1)	16	1	(6.3)	14	4	(28.6)	9	0	(0.0)	7	0	(0.0)
United Kingdom	35	2	(5.7)	34	9	(26.5)	43	6	(14.0)	32	3	(9.4)	20	3	(15.0)
Subtotal EU/EEA	1 064	210	(19.7)	999	203	(20.3)	916	201	(21.9)	910	214	(23.5)	781	159	(20.4)
Non-EU/EEA															
Albania	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-
Andorra	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Armenia	100	8	(8.0)	89	8	(9.0)	53	6	(11.3)	81	13	(16.0)	76	14	(18.4)
Azerbaijan	840	100	(11.9)	670	125	(18.7)	-	-	-	-	-	-	864	77	(8.9)
Belarus	1 251	366	(29.3)	1 275	453	(35.5)	1 246	572	(45.9)	1 088	343	(31.5)	984	185	(18.8)
Bosnia and Herzegovina	3	0	(0.0)	-	-	-	0	0	-	-	-	-	-	-	-
Georgia	357	54	(15.1)	347	62	(17.9)	296	52	(17.6)	246	44	(17.9)	159	34	(21.4)
Israel	15	0	(0.0)	11	1	(9.1)	9	2	(22.2)	8	1	(12.5)	13	7	(53.8)
Kazakhstan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kyrgyzstan	0	12	-	235	44	(18.7)	407	72	(17.7)	353	127	(36.0)	926	119	(12.9)
Moldova	277	11	(4.0)	-	-	-	514	42	(8.2)	475	30	(6.3)	616	74	(12.0)
Monaco	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	2	0	(0.0)	0	-	-	0	-	-	1	1	(100.0)	1	0	(0.0)
North Macedonia	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Russia	-	-	-	-	-	-	25 258	3 402	(13.5)	20 477	3 562	(17.4)	23 997	4 970	(20.7)
San Marino	-	-	-	-	-	-	0	-	-	0	-	-	0	-	-
Serbia	7	0	(0.0)	-	-	-	14	1	(7.1)	-	-	-	0	-	-
Serbia excluding Kosovo ^b	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kosovo ^b	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Switzerland	11	1	(9.1)	11	2	(18.2)	13	0	(0.0)	-	-	-	4	1	(25.0)
Tajikistan	371	54	(14.6)	561	54	(9.6)	697	59	(8.5)	508	279	(54.9)	312	52	(16.7)
Turkey	169	2	(1.2)	133	3	(2.3)	130	9	(6.9)	100	2	(2.0)	120	8	(6.7)
Turkmenistan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	-	-	-	-	-	-	7 519	247	(3.3)	5 008	1 001	(20.0)	5 054	972	(19.2)
Uzbekistan	927	181	(19.5)	-	-	-	1 986	184	(9.3)	540	0	(0.0)	816	0	(0.0)
Subtotal non-EU/EEA	4 330	789	(18.2)	3 332	752	(22.6)	38 142	4 648	(12.2)	28 885	5 403	(18.7)	33 942	6 513	(19.2)
Total European Region	5 394	999	(18.5)	4 331	955	(22.1)	39 059	4 849	(12.4)	29 795	5 617	(18.9)	34 723	6 672	(19.2)
Subtotal 18 HPCs	4 979	930	(18.7)	3 983	903	(22.7)	38 658	4 797	(12.4)	29 425	5 573	(18.9)	34 371	6 617	(19.3)

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.

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

HPC - High-priority country.

MDR TB - Multidrug-resistant tuberculosis.

SLD - Susceptibility to second-line anti-TB drugs.

XDR TB - Extensively drug-resistant tuberculosis.

^aIncludes 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).^bThis designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table IX. Tuberculosis cases with HIV infection, European Region, 2014–2018^a

Country/area	2014					2015					2016				
	All tuberculosis cases (N)	Cases with known HIV status		HIV positive		All tuberculosis cases (N)	Cases with known HIV status		HIV positive		All tuberculosis cases (N)	Cases with known HIV status		HIV positive	
		N	%	N	% ^b		N	%	N	% ^b		N	%	N	% ^b
EU/EEA															
Austria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Belgium	949	494	(52.1)	38	(7.7)	977	432	(44.2)	31	(7.2)	1 042	477	(45.8)	33	(6.9)
Bulgaria	1 872	1 377	(73.6)	3	(0.2)	1 660	1 311	(79.0)	1	(0.1)	1 603	1 260	(78.6)	0	(0.0)
Croatia	-	-	-	-	-	-	-	-	-	-	464	4	(0.9)	0	(0.0)
Cyprus	41	28	(68.3)	1	(3.6)	63	48	(76.2)	2	(4.2)	60	48	(80.0)	0	(0.0)
Czech Republic	511	146	(28.6)	3	(2.1)	517	182	(35.2)	2	(1.1)	516	205	(39.7)	5	(2.4)
Denmark	320	6	(1.9)	5	(83.3)	357	9	(2.5)	8	(88.9)	330	150	(45.5)	9	(6.0)
Estonia	248	239	(96.4)	24	(10.0)	217	210	(96.8)	26	(12.4)	192	185	(96.4)	22	(11.9)
Finland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
France	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greece	519	336	(64.7)	18	(5.4)	482	343	(71.2)	22	(6.4)	440	296	(67.3)	8	(2.7)
Hungary	851	30	(3.5)	2	(6.7)	906	20	(2.2)	1	(5.0)	786	19	(2.4)	1	(5.3)
Iceland	9	7	(77.8)	0	(0.0)	7	7	(100.0)	0	(0.0)	6	6	(100.0)	0	(0.0)
Ireland	311	119	(38.3)	17	(14.3)	283	136	(48.1)	8	(5.9)	315	139	(44.1)	4	(2.9)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	761	488	(64.1)	95	(19.5)	721	449	(62.3)	78	(17.4)	660	507	(76.8)	57	(11.2)
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	1 607	1 135	(70.6)	36	(3.2)	1 507	1 082	(71.8)	39	(3.6)	1 442	1 138	(78.9)	41	(3.6)
Luxembourg	24	13	(54.2)	1	(7.7)	-	-	-	-	-	29	5	(17.2)	2	(40.0)
Malta	46	35	(76.1)	6	(17.1)	32	26	(81.3)	4	(15.4)	50	46	(92.0)	8	(17.4)
Netherlands	814	495	(60.8)	22	(4.4)	862	637	(73.9)	36	(5.7)	887	646	(72.8)	20	(3.1)
Norway	323	260	(80.5)	17	(6.5)	313	260	(83.1)	8	(3.1)	295	255	(86.4)	10	(3.9)
Poland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Portugal	2 278	1 959	(86.0)	226	(11.5)	2 196	1 985	(90.4)	232	(11.7)	1 936	1 697	(87.7)	183	(10.8)
Romania	15 879	11 178	(70.4)	314	(2.8)	15 183	11 533	(76.0)	308	(2.7)	13 601	10 844	(79.7)	305	(2.8)
Slovakia	336	282	(83.9)	0	(0.0)	317	201	(63.4)	0	(0.0)	296	132	(44.6)	0	(0.0)
Slovenia	144	110	(76.4)	0	(0.0)	130	108	(83.1)	0	(0.0)	118	95	(80.5)	1	(1.1)
Spain	4 913	3 201	(65.2)	228	(7.1)	5 020	3 156	(62.9)	223	(7.1)	5 070	3 021	(59.6)	243	(8.0)
Sweden	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
United Kingdom	7 030	5 675	(80.7)	218	(3.8)	6 229	5 211	(83.7)	219	(4.2)	6 117	5 244	(85.7)	178	(3.4)
Subtotal EU/EEA	39 786	27 613	(69.4)	1 274	(4.6)	37 979	27 346	(72.0)	1 248	(4.6)	36 255	26 419	(72.9)	1 130	(4.3)
Non-EU/EEA															
Albania	408	41	(10.0)	2	(4.9)	415	183	(44.1)	6	(3.3)	415	223	(53.7)	6	(2.7)
Andorra	6	0	(0.0)	0	-	4	0	(0.0)	0	-	4	0	(0.0)	0	-
Armenia	1 342	1 342	(100.0)	84	(6.3)	1 171	1 090	(93.1)	99	(9.1)	1 027	1 027	(100.0)	57	(5.6)
Azerbaijan	7 539	7 004	(92.9)	148	(2.1)	5 456	6 964	(127.6)	112	(1.6)	5 159	4 722	(91.5)	99	(2.1)
Belarus	4 274	4 274	(100.0)	271	(6.3)	3 765	3 740	(99.3)	206	(5.5)	3 211	3 148	(98.0)	275	(8.7)
Bosnia and Herzegovina	1 196	194	(16.2)	0	(0.0)	1 092	209	(19.1)	0	(0.0)	907	1	(0.1)	1	(100.0)
Georgia	3 850	2 591	(67.3)	57	(2.2)	3 152	2 809	(89.1)	79	(2.8)	2 983	2 866	(96.1)	61	(2.1)
Israel	361	367	(101.7)	25	(6.8)	280	280	(100.0)	14	(5.0)	250	250	(100.0)	18	(7.2)
Kazakhstan	15 718	15 435	(98.2)	625	(4.0)	14 006	13 838	(98.8)	376	(2.7)	12 322	10 616	(86.2)	576	(5.4)
Kyrgyzstan	7 423	7 052	(95.0)	221	(3.1)	7 027	6 745	(96.0)	206	(3.1)	7 026	6 254	(89.0)	210	(3.4)
Moldova	4 636	4 426	(95.5)	338	(7.6)	3 608	3 439	(95.3)	300	(8.7)	3 571	3 366	(94.3)	293	(8.7)
Monaco	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	113	94	(83.2)	0	(0.0)	80	73	(91.3)	1	(1.4)	87	60	(69.0)	0	(0.0)
North Macedonia	285	171	(60.0)	1	(0.6)	282	185	(65.6)	0	(0.0)	263	207	(78.7)	0	(0.0)
Russia	136 168	67 425	(49.5)	5 251	(7.8)	99 590	65 585	(65.9)	6 407	(9.8)	92 407	79 935	(86.5)	16 570	(20.7)
San Marino	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
Serbia	1 832	127	(6.9)	8	(6.3)	1 649	91	(5.5)	4	(6.3)	1 472	84	(5.7)	5	(6.0)
Serbia excluding Kosovo ^c	998	127	(12.7)	8	(6.3)	879	91	(10.4)	4	-	755	84	(11.1)	5	(6.0)
Kosovo ^c	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Switzerland	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tajikistan	6 260	5 656	(90.4)	161	(2.8)	5 894	5 627	(95.5)	152	(2.7)	5 965	5 850	(98.1)	201	(3.4)
Turkey	13 378	9 344	(69.8)	45	(0.5)	12 550	8 759	(69.8)	59	(0.7)	12 186	8 549	(70.2)	56	(0.7)
Turkmenistan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	40 302	39 057	(96.9)	7 640	(19.6)	30 151	29 749	(98.7)	6 637	(22.3)	29 052	28 194	(97.0)	5 832	(20.7)
Uzbekistan	22 804	22 347	(98.0)	780	(3.5)	16 315	13 058	(80.0)	841	(6.4)	16 050	16 050	(100.0)	758	(4.7)
Subtotal non-EU/EEA	267 895	186 947	(69.8)	15 657	(8.4)	206 487	162 424	(78.7)	15 499	(9.5)	194 357	171 402	(88.2)	25 018	(14.6)
Total European Region	307 681	214 560	(69.7)	16 931	(7.9)	244 466	189 770	(77.6)	16 747	(8.8)	230 612	197 821	(85.8)	26 148	(13.2)
Subtotal 18 HPCs	284 061	200 370	(70.5)	16 093	(8.0)	221 973	175 988	(79.3)	15 926	(9.0)	208 457	184 511	(88.5)	25 413	(13.8)

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.WHO European Region 18 tuberculosis high-priority countries presented in *italics*.

HIV - Human immunodeficiency virus.

HPC - High-priority country.

^bHIV 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.

^cProportion calculated from TB cases with known HIV test results.^dThis designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

For non-EU countries new and relapsed data are for new and relapsed cases only for 2015 and after.

	2017					2018					Country/area
	All TB cases (N)	Cases with known HIV status		HIV positive		All tuberculosis cases (N)	Cases with known HIV status		HIV positive		
		N	%	N	% ^b		N	%	N	% ^b	
											EU/EEA
	-	-	-	-	-	-	-	-	-	-	Austria
	967	514	(53.2)	43	(8.4)	981	503	(51.3)	36	(7.2)	Belgium
	1 463	1 204	(82.3)	3	(0.2)	1 358	1 118	(82.3)	0	(0.0)	Bulgaria
	378	3	(0.8)	0	(0.0)	372	2	(0.5)	0	(0.0)	Croatia
	53	49	(92.5)	0	(0.0)	52	41	(78.8)	1	(2.4)	Cyprus
	501	195	(38.9)	8	(4.1)	444	190	(42.8)	4	(2.1)	Czech Republic
	275	211	(76.7)	3	(1.4)	291	234	(80.4)	3	(1.3)	Denmark
	175	163	(93.1)	14	(8.6)	147	137	(93.2)	13	(9.5)	Estonia
	-	-	-	-	-	-	-	-	-	-	Finland
	-	-	-	-	-	-	-	-	-	-	France
	-	-	-	-	-	-	-	-	-	-	Germany
	467	389	(83.3)	13	(3.3)	432	362	(83.8)	11	(3.0)	Greece
	685	18	(2.6)	1	(5.6)	640	23	(3.6)	3	(13.0)	Hungary
	14	13	(92.9)	0	(0.0)	8	8	(100.0)	1	(12.5)	Iceland
	305	141	(46.2)	13	(9.2)	314	140	(44.6)	12	(8.6)	Ireland
	-	-	-	-	-	-	-	-	-	-	Italy
	552	471	(85.3)	52	(11.0)	-	-	-	-	-	Latvia
	-	-	-	-	-	-	-	-	-	-	Liechtenstein
	1 387	1 125	(81.1)	42	(3.7)	1 142	954	(83.5)	32	(3.4)	Lithuania
	32	3	(9.4)	1	(33.3)	42	7	(16.7)	0	(0.0)	Luxembourg
	42	37	(88.1)	0	(0.0)	-	-	-	-	-	Malta
	783	599	(76.5)	23	(3.8)	806	534	(66.3)	21	(3.9)	Netherlands
	261	228	(87.4)	7	(3.1)	209	184	(88.0)	7	(3.8)	Norway
	-	-	-	-	-	-	-	-	-	-	Poland
	1 800	1 183	(65.7)	135	(11.4)	2 137	2 011	(94.1)	193	(9.6)	Portugal
	12 997	10 890	(83.8)	232	(2.1)	12 205	10 246	(83.9)	254	(2.5)	Romania
	249	227	(91.2)	0	(0.0)	281	238	(84.7)	2	(0.8)	Slovakia
	112	80	(71.4)	0	(0.0)	99	80	(80.8)	0	(0.0)	Slovenia
	5 690	2 875	(50.5)	290	(10.1)	4 648	2 448	(52.7)	275	(11.2)	Spain
	-	-	-	-	-	-	-	-	-	-	Sweden
	5 537	4 817	(87.0)	150	(3.1)	5 075	4 323	(85.2)	123	(2.8)	United Kingdom
	34 725	25 435	(73.2)	1 030	(4.0)	31 683	23 783	(75.1)	991	(4.2)	Subtotal EU/EEA
											Non-EU/EEA
	503	235	(46.7)	4	(1.7)	440	215	(48.9)	6	(2.8)	Albania
	1	0	(0.0)	0	-	2	0	(0.0)	-	-	Andorra
	841	838	(99.6)	66	(7.9)	734	699	(95.2)	72	(10.3)	Armenia
	5 231	5889	(112.6)	95	(1.6)	5 038	6 483	(128.7)	87	(1.3)	Azerbaijan
	2 781	2 781	(100.0)	202	(7.3)	2 359	2 359	(100.0)	182	(7.7)	Belarus
	766	18	(2.3)	0	(0.0)	-	-	-	-	-	Bosnia and Herzegovina
	2 597	2 442	(94.0)	43	(1.8)	2 316	2 174	(93.9)	45	(2.1)	Georgia
	234	234	(100.0)	12	(5.1)	292	292	(100.0)	12	(4.1)	Israel
	12 449	11 056	(88.8)	443	(4.0)	12 832	12 236	(95.4)	717	(5.9)	Kazakhstan
	6 687	5 966	(89.2)	216	(3.6)	6 338	6 338	(100.0)	187	(3.0)	Kyrgyzstan
	3 358	3 352	(99.8)	277	(8.3)	3 022	2 893	(95.7)	248	(8.6)	Moldova
	-	-	-	-	-	-	-	-	-	-	Monaco
	75	63	(84.0)	0	(0.0)	84	43	(51.2)	0	(0.0)	Montenegro
	216	178	(82.4)	0	(0.0)	217	126	(58.1)	3	(2.4)	North Macedonia
	84 510	81 443	(96.4)	15 695	(19.3)	78 258	74 075	(94.7)	14 797	(20.0)	Russia
	0	-	-	-	-	0	-	-	-	-	San Marino
	1 450	71	(4.9)	8	(11.3)	1 330	56	(4.2)	8	(14.3)	Serbia
	738	91	(12.3)	4	(4.4)	641	56	(8.7)	8	(14.3)	Serbia excluding Kosovo ^c
	712	0	(0.0)	-	-	-	-	-	-	-	Kosovo ^c
	-	-	-	-	-	-	-	-	-	-	Switzerland
	5 895	5 937	(100.7)	219	(3.7)	5 726	5 545	(96.8)	227	(4.1)	Tajikistan
	11 821	8 423	(71.3)	65	(0.8)	11 576	8 234	(71.1)	67	(0.8)	Turkey
	-	-	-	-	-	-	-	-	-	-	Turkmenistan
	27 229	26 623	(97.8)	5 955	(22.4)	26 512	26 312	(99.2)	6 053	(23.0)	Ukraine
	16 842	16 842	(100.0)	935	(5.6)	16 413	16 413	(100.0)	736	(4.5)	Uzbekistan
	183 486	172 391	(94.0)	24 235	(14.1)	173 489	164 493	(94.8)	23 447	(14.3)	Subtotal non-EU/EEA
	218 211	197 826	(90.7)	25 265	(12.8)	205 172	188 276	(91.8)	24 438	(13.0)	Total European Region
	196 815	185 445	(94.2)	24 554	(13.2)	185 976	176 216	(94.8)	23 717	(13.5)	Subtotal 18 HPCs

Table X. Treatment success after 12 months for new^a tuberculosis cases and relapses, European Region, 2013–2017^b

Country/area	2013			2014			2015			2016			2017		
	Cases reported	Success		Cases reported	Success		Cases reported	Success		Cases reported	Success		Cases reported	Success	
		N	(%)		N	(%)		N	(%)		N	(%)		N	(%)
EU/EEA															
Austria	621	452	(72.8)	553	410	(74.1)	553	404	(73.1)	604	453	(75.0)	543	377	(69.4)
Belgium ^c	876	690	(78.8)	867	700	(80.7)	905	719	(79.4)	973	793	(81.5)	905	718	(79.3)
Bulgaria	1 893	1 620	(85.6)	1 789	1 530	(85.5)	1 598	1 350	(84.5)	1 510	1 291	(85.5)	1 386	1 167	(84.2)
Croatia	510	224	(43.9)	496	354	(71.4)	484	275	(56.8)	452	264	(58.4)	372	245	(65.9)
Cyprus	40	20	(50.0)	39	23	(59.0)	63	35	(55.6)	56	37	(66.1)	51	34	(66.7)
Czech Republic	468	321	(68.6)	467	355	(76.0)	499	343	(68.7)	505	346	(68.5)	489	337	(68.9)
Denmark ^c	329	239	(72.6)	291	156	(53.6)	314	157	(50.0)	288	113	(39.2)	251	99	(39.4)
Estonia	222	193	(86.9)	194	162	(83.5)	172	143	(83.1)	165	132	(80.0)	138	111	(80.4)
Finland	265	140	(52.8)	249	115	(46.2)	259	100	(38.6)	216	69	(31.9)	237	85	(35.9)
France	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	4 003	2 681	(67.0)	4 264	2 707	(63.5)	5 525	3 590	(65.0)	5 635	3 926	(69.7)	5 233	3 721	(71.1)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	1 029	759	(73.8)	795	577	(72.6)	851	600	(70.5)	722	511	(70.8)	639	429	(67.1)
Iceland	11	10	(90.9)	9	8	(88.9)	7	7	(100.0)	6	5	(83.3)	13	12	(92.3)
Ireland ^c	346	213	(61.6)	288	162	(56.3)	265	191	(72.1)	285	168	(58.9)	282	100	(35.5)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	804	669	(83.2)	675	561	(83.1)	642	540	(84.1)	592	505	(85.3)	-	-	-
Liechtenstein	-	-	-	-	-	-	1	0	(0.0)	2	2	(100.0)	1	1	(100.0)
Lithuania	1 374	1 111	(80.9)	1 282	1 033	(80.6)	1 219	975	(80.0)	1 152	958	(83.2)	1 086	900	(82.9)
Luxembourg	38	0	(0.0)	-	-	-	-	-	-	-	-	-	31	0	(0.0)
Malta	48	36	(75.0)	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	814	728	(89.4)	797	708	(88.8)	838	732	(87.4)	864	758	(87.7)	762	660	(86.6)
Norway ^c	348	316	(90.8)	292	251	(86.0)	277	244	(88.1)	262	226	(86.3)	228	207	(90.8)
Poland	7 005	4 161	(59.4)	6 500	3 783	(58.2)	6 196	3 293	(53.1)	6 099	3 300	(54.1)	-	-	-
Portugal	2 341	1 748	(74.7)	2 197	1 592	(72.5)	2 131	1 557	(73.1)	1 872	1 316	(70.3)	1 751	659	(37.6)
Romania	15 115	12 814	(84.8)	14 525	12 304	(84.7)	13 908	11 834	(85.1)	12 458	10 723	(86.1)	12 007	10 348	(86.2)
Slovakia	395	370	(93.7)	318	280	(88.1)	305	263	(86.2)	279	241	(86.4)	222	204	(91.9)
Slovenia	139	107	(77.0)	142	110	(77.5)	129	105	(81.4)	118	84	(71.2)	111	85	(76.6)
Spain	-	-	-	-	-	-	4 798	3 454	(72.0)	3 964	2 669	(67.3)	4 527	2 739	(60.5)
Sweden	595	537	(90.3)	610	535	(87.7)	754	659	(87.4)	669	607	(90.7)	477	413	(86.6)
United Kingdom ^c	7 272	6 022	(82.8)	6 516	5 346	(82.0)	5 797	4 663	(80.4)	5 674	4 635	(81.7)	5 176	4 216	(81.5)
Subtotal EU/EEA	46 901	36 181	(77.1)	44 155	33 762	(76.5)	48 490	36 233	(74.7)	45 422	34 132	(75.1)	36 918	27 867	(75.5)
Non-EU/EEA															
Albania	472	416	(88.1)	406	358	(88.2)	409	354	(86.6)	409	357	(87.3)	499	435	(87.2)
Andorra	5	3	(60.0)	6	5	(83.3)	4	4	(100.0)	4	3	(75.0)	1	1	(100.0)
Armenia	1 251	1 008	(80.6)	1 228	959	(78.1)	910	721	(79.2)	869	703	(80.9)	710	563	(79.3)
Azerbaijan	4 294	3 504	(81.6)	1 623	1 349	(83.1)	1 475	1 221	(82.8)	1 464	1 225	(83.7)	1 777	1 492	(84.0)
Belarus	3 034	2 626	(86.6)	2 706	2 381	(88.0)	2 525	2 243	(88.8)	2 123	1 894	(89.2)	1 792	1 587	(88.6)
Bosnia and Herzegovina	1 261	1 040	(82.5)	1 196	923	(77.2)	1 092	707	(64.7)	907	505	(55.7)	766	343	(44.8)
Georgia	3 098	2 465	(79.6)	2 862	2 377	(83.1)	2 841	2 386	(84.0)	2 715	2 263	(83.4)	2 351	1 977	(84.1)
Israel	305	257	(84.3)	322	285	(88.5)	263	218	(82.9)	250	198	(79.2)	225	196	(87.1)
Kazakhstan	14 456	12 841	(88.8)	12 473	11 186	(89.7)	14 006	12 691	(90.6)	6 775	5 962	(88.0)	8 589	7 826	(91.1)
Kyrgyzstan	5 658	4 797	(84.8)	5 731	4 837	(84.4)	6 139	5 063	(82.5)	6 072	4 968	(81.8)	5 752	4 728	(82.2)
Moldova	3 889	3 095	(79.6)	3 459	2 724	(78.8)	2 992	2 379	(79.5)	3 048	2 515	(82.5)	2 715	2 187	(80.6)
Monaco	3	3	(100.0)	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	119	104	(87.4)	113	101	(89.4)	80	74	(92.5)	87	70	(80.5)	75	65	(86.7)
North Macedonia	317	287	(90.5)	281	244	(86.8)	282	243	(86.2)	263	232	(88.2)	219	193	(88.1)
Russia	83 301	56 980	(68.4)	77 136	53 266	(69.1)	80 424	57 060	(70.9)	73 137	52 335	(71.6)	67 593	46 938	(69.4)
San Marino	-	-	-	-	-	-	0	-	-	0	-	-	0	-	-
Serbia	1 427	1 118	(78.3)	1 281	1 042	(81.3)	1 647	1 471	(89.3)	1 443	1 191	(82.5)	1 440	1 239	(86.0)
Serbia excluding Kosovo ^d	1 184	928	(78.4)	1 045	828	(79.2)	882	733	(83.1)	733	590	(80.5)	738	616	(83.5)
Kosovo ^d	243	190	(78.2)	236	214	(90.7)	765	738	(96.5)	710	601	(84.6)	702	623	(88.7)
Switzerland	-	-	-	-	-	-	-	-	-	565	384	(68.0)	518	406	(78.4)
Tajikistan	5 263	4 619	(87.8)	5 149	4 606	(89.5)	5 298	4 734	(89.4)	5 324	4 751	(89.2)	5 259	4 789	(91.1)
Turkey	13 170	11 373	(86.4)	12 933	11 245	(86.9)	12 362	10 735	(86.8)	12 017	10 462	(87.1)	11 638	10 014	(86.0)
Turkmenistan	3 046	2 199	(72.2)	2 122	1 797	(84.7)	1 669	1 451	(86.9)	2 068	1 738	(84.0)	1 968	1 676	(85.2)
Ukraine	29 726	20 959	(70.5)	22 294	16 109	(72.3)	23 892	17 939	(75.1)	22 615	17 234	(76.2)	21 165	16 189	(76.5)
Uzbekistan	17 373	14 457	(83.2)	16 328	14 215	(87.1)	15 220	13 536	(88.9)	14 743	12 906	(87.5)	15 167	13 554	(89.4)
Subtotal non-EU/EEA	191 468	144 151	(75.3)	169 649	130 009	(76.6)	173 530	135 230	(77.9)	156 898	121 896	(77.7)	150 219	116 398	(77.5)
Total European Region	238 369	180 332	(75.7)	213 804	163 771	(76.6)	222 020	171 463	(77.2)	202 320	156 028	(77.1)	187 137	144 265	(77.1)
Subtotal 18 HPCs	206 967	157 330	(76.0)	184 509	142 641	(77.3)	187 292	147 001	(78.5)	168 847	132 565	(78.5)	161 093	126 046	(78.2)

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein.

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

EU/EEA: Country data are shown as missing (-) when data on treatment outcome are not reported. For inclusion in the cohort, drug susceptibility data are also required.

HPC - High-priority country.

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

^c Excluding rifampicin-resistant cases.

^d Previous tuberculosis history is defined as previous diagnosis.

^e This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table XI. Treatment success after 12 months of all tuberculosis cases, European Region, 2013–2017

Country/area	2013			2014			2015			2016			2017		
	Cases reported ^a	Success		Cases reported	Success		Cases reported	Success		Cases reported	Success		Cases reported	Success	
		N	(%)		N	(%)		N	(%)		N	(%)		N	(%)
EU/EEA															
Austria	653	464	(71.1)	586	423	(72.2)	583	418	(71.7)	634	464	(73.2)	569	382	(67.1)
Belgium	963	743	(77.2)	949	752	(79.2)	977	762	(78.0)	1 042	844	(81.0)	967	764	(79.0)
Bulgaria	1 932	1 626	(84.2)	1 872	1 565	(83.6)	1 660	1 385	(83.4)	1 603	1 345	(83.9)	1 463	1 215	(83.0)
Croatia	516	225	(43.6)	499	354	(70.9)	488	278	(57.0)	464	269	(58.0)	378	246	(65.1)
Cyprus	41	20	(48.8)	41	24	(58.5)	63	35	(55.6)	60	39	(65.0)	53	35	(66.0)
Czech Republic	497	345	(69.4)	511	379	(74.2)	517	350	(67.7)	516	348	(67.4)	501	341	(68.1)
Denmark	356	252	(70.8)	320	174	(54.4)	357	171	(47.9)	330	134	(40.6)	275	110	(40.0)
Estonia	290	203	(70.0)	248	167	(67.3)	217	150	(69.1)	192	134	(69.8)	175	112	(64.0)
Finland	273	141	(51.6)	263	118	(44.9)	272	102	(37.5)	233	72	(30.9)	246	88	(35.8)
France	4 947	2 474	(50.0)	4 888	2 592	(53.0)	4 744	2 535	(53.4)	5 735	2 625	(45.8)	5 005	1 193	(23.8)
Germany	4 340	2 838	(65.4)	4 524	2 819	(62.3)	5 837	3 717	(63.7)	5 926	4 046	(68.3)	5 495	3 829	(69.7)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	1 045	765	(73.2)	851	607	(71.3)	906	631	(69.6)	786	544	(69.2)	685	450	(65.7)
Iceland	11	10	(90.9)	9	8	(88.9)	7	7	(100.0)	6	5	(83.3)	14	13	(92.9)
Ireland	374	232	(62.0)	311	173	(55.6)	283	198	(70.0)	315	179	(56.8)	305	103	(33.8)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	904	688	(76.1)	761	593	(77.9)	721	551	(76.4)	660	512	(77.6)	-	-	-
Liechtenstein	-	-	-	-	-	-	2	1	(50.0)	2	2	(100.0)	1	1	(100.0)
Lithuania	1 705	1 132	(66.4)	1 607	1 054	(65.6)	1 507	994	(66.0)	1 442	982	(68.1)	1 387	924	(66.6)
Luxembourg	38	0	(0.0)	-	-	-	-	-	-	-	-	-	32	0	(0.0)
Malta	50	37	(74.0)	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	845	737	(87.2)	814	717	(88.1)	862	742	(86.1)	887	765	(86.2)	783	670	(85.6)
Norway	392	346	(88.3)	323	268	(83.0)	313	268	(85.6)	295	245	(83.1)	261	226	(86.6)
Poland	7 250	4 252	(58.6)	6 698	3 865	(57.7)	6 430	3 387	(52.7)	6 444	3 432	(53.3)	-	-	-
Portugal	2 410	1 779	(73.8)	2 278	1 625	(71.3)	2 196	1 580	(71.9)	1 936	1 347	(69.6)	1 800	671	(37.3)
Romania	16 689	13 272	(79.5)	15 879	12 679	(79.8)	15 183	12 184	(80.2)	13 601	11 056	(81.3)	12 997	10 626	(81.8)
Slovakia	401	372	(92.8)	336	291	(86.6)	317	271	(85.5)	296	252	(85.1)	249	219	(88.0)
Slovenia	140	108	(77.1)	144	111	(77.1)	130	106	(81.5)	118	84	(71.2)	112	85	(75.9)
Spain	5 632	4 582	(81.4)	4 913	2 827	(57.5)	5 020	3 582	(71.4)	5 070	3 568	(70.4)	5 690	3 573	(62.8)
Sweden	639	566	(88.6)	659	570	(86.5)	815	688	(84.4)	714	630	(88.2)	519	439	(84.6)
United Kingdom	7 871	6 414	(81.5)	7 030	5 676	(80.7)	6 229	4 937	(79.3)	6 117	4 931	(80.6)	5 537	4 449	(80.4)
Subtotal EU/EEA	61 204	44 623	(72.9)	57 314	40 431	(70.5)	56 636	40 030	(70.7)	55 424	38 854	(70.1)	45 499	30 764	(67.6)
Non-EU/EEA															
Albania	472	416	(88.1)	406	358	(88.2)	409	354	(86.6)	409	357	(87.3)	499	435	(87.2)
Andorra	5	3	(60.0)	6	5	(83.3)	4	4	(100.0)	4	3	(75.0)	1	1	(100.0)
Armenia	1 269	1 022	(80.5)	1 242	966	(77.8)	923	731	(79.2)	893	720	(80.6)	752	591	(78.6)
Azerbaijan	6 946	5 436	(78.3)	3 997	3 109	(77.8)	4 213	3 230	(76.7)	3 684	2 866	(77.8)	4 273	3 337	(78.1)
Belarus	3 256	2 784	(85.5)	2 955	2 562	(86.7)	2 788	2 444	(87.7)	2 325	2 050	(88.2)	1 924	1 677	(87.2)
Bosnia and Herzegovina	1 261	1 040	(82.5)	1 196	923	(77.2)	1 095	707	(64.6)	907	505	(55.7)	768	343	(44.7)
Georgia	3 877	3 006	(77.5)	3 371	2 727	(80.9)	3 144	2 582	(82.1)	2 941	2 395	(81.4)	2 576	2 121	(82.3)
Israel	305	257	(84.3)	322	285	(88.5)	263	218	(82.9)	258	203	(78.7)	225	196	(87.1)
Kazakhstan	14 920	13 133	(88.0)	12 803	11 441	(89.4)	14 631	13 172	(90.0)	7 021	6 159	(87.7)	8 839	8 030	(90.8)
Kyrgyzstan	6 788	5 656	(83.3)	6 646	5 563	(83.7)	6 686	5 423	(81.1)	6 715	5 397	(80.4)	6 342	5 096	(80.4)
Moldova	4 246	3 234	(76.2)	3 751	2 861	(76.3)	3 209	2 480	(77.3)	3 390	2 667	(78.7)	2 891	2 275	(78.7)
Monaco	3	3	(100.0)	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	120	104	(86.7)	113	101	(89.4)	80	74	(92.5)	87	70	(80.5)	77	65	(84.4)
North Macedonia	322	292	(90.7)	282	245	(86.9)	284	245	(86.3)	267	235	(88.0)	222	196	(88.3)
Russia	90 235	59 691	(66.2)	82 926	55 673	(67.1)	88 718	61 238	(69.0)	82 382	56 881	(69.0)	76 932	51 653	(67.1)
San Marino	-	-	-	-	-	-	0	-	-	0	-	-	0	-	-
Serbia	1 476	1 152	(78.0)	1 295	1 049	(81.0)	1 669	1 484	(88.9)	1 464	1 203	(82.2)	1 458	1 249	(85.7)
Serbia excluding Kosovo ^a	-	-	-	-	-	-	897	739	(82.4)	751	600	(79.9)	745	620	(83.2)
Kosovo ^a	-	-	-	-	-	-	772	745	(96.5)	713	603	(84.6)	713	629	(88.2)
Switzerland	-	-	-	-	-	-	-	-	-	601	404	(67.2)	542	420	(77.5)
Tajikistan	6 075	5 282	(86.9)	5 504	4 896	(89.0)	5 584	4 964	(88.9)	5 536	4 923	(88.9)	5 485	4 976	(90.7)
Turkey	13 409	11 465	(85.5)	13 125	11 341	(86.4)	12 520	10 807	(86.3)	12 196	10 554	(86.5)	11 818	10 118	(85.6)
Turkmenistan	3 675	2 364	(64.3)	2 265	1 890	(83.4)	1 880	1 621	(86.2)	2 340	1 964	(83.9)	2 232	1 878	(84.1)
Ukraine	38 875	26 014	(66.9)	27 563	19 586	(71.1)	27 548	20 034	(72.7)	26 351	19 484	(73.9)	24 474	18 147	(74.1)
Uzbekistan	21 713	17 843	(82.2)	20 275	17 402	(85.8)	17 837	15 694	(88.0)	16 408	14 244	(86.8)	16 891	14 836	(87.8)
Subtotal non-EU/EEA	219 248	160 197	(73.1)	190 043	142 983	(75.2)	193 485	147 506	(76.2)	176 179	133 284	(75.7)	169 221	127 640	(75.4)
Total European Region	280 452	204 820	(73.0)	247 357	183 414	(74.1)	250 121	187 536	(75.0)	231 603	172 138	(74.3)	214 720	158 404	(73.8)
Subtotal 18 HPCs	236 804	173 851	(73.4)	206 790	156 075	(75.5)	208 969	159 684	(76.4)	189 680	144 333	(76.1)	181 451	137 612	(75.8)

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein.

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

EU/EEA: Country data are shown as missing (-) when data on treatment outcome are not reported.

HPC - High-priority country.

^a This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table XII. Treatment success after 24 months of RR/MDR tuberculosis cases started on treatment^a, European Region, 2012–2016

Country/area	2012			2013			2014			2015			2016		
	Cases reported	Success		Cases reported	Success		Cases reported	Success		Cases reported	Success		Cases reported	Success	
		N	(%)		N	(%)		N	(%)		N	(%)		N	(%)
EU/EEA															
Austria	27	14	(51.9)	16	12	(75.0)	21	13	(61.9)	13	12	(92.3)	17	11	(64.7)
Belgium	25	17	(68.0)	14	11	(78.6)	13	7	(53.8)	16	16	(100.0)	12	10	(83.3)
Bulgaria	58	38	(65.5)	37	17	(45.9)	44	22	(50.0)	28	17	(60.7)	22	12	(54.5)
Croatia	1	0	(0.0)	0	0	-	1	0	(0.0)	1	1	(100.0)	0	0	-
Cyprus	0	0	-	-	-	-	0	0	-	0	0	-	-	-	-
Czech Republic	5	2	(40.0)	0	0	-	7	3	(42.9)	9	3	(33.3)	5	2	(40.0)
Denmark	1	0	(0.0)	2	1	(50.0)	2	1	(50.0)	7	0	(0.0)	5	3	(60.0)
Estonia	57	42	(73.7)	54	34	(63.0)	51	32	(62.7)	40	25	(62.5)	25	18	(72.0)
Finland	-	-	-	-	-	-	7	2	(28.6)	9	4	(44.4)	6	4	(66.7)
France	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	71	35	(49.3)	114	41	(36.0)	105	35	(33.3)	131	54	(41.2)	122	45	(36.9)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	13	6	(46.2)	11	4	(36.4)	4	4	(100.0)	9	2	(22.2)	20	8	(40.0)
Iceland	-	-	-	0	0	-	0	0	-	0	0	-	0	0	-
Ireland	4	4	(100.0)	4	3	(75.0)	2	1	(50.0)	1	0	(0.0)	7	5	(71.4)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	107	66	(61.7)	79	54	(68.4)	71	52	(73.2)	63	39	(61.9)	-	-	-
Liechtenstein	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Lithuania	285	101	(35.4)	274	90	(32.8)	279	91	(32.6)	248	99	(39.9)	255	110	(43.1)
Luxembourg	0	0	-	0	0	-	-	-	-	0	0	-	-	-	-
Malta	0	0	-	2	1	(50.0)	0	0	-	-	-	-	0	0	-
Netherlands	14	10	(71.4)	17	17	(100.0)	7	6	(85.7)	10	6	(60.0)	15	11	(73.3)
Norway	7	3	(42.9)	7	5	(71.4)	11	9	(81.8)	6	6	(100.0)	11	10	(90.9)
Poland	41	7	(17.1)	47	10	(21.3)	49	9	(18.4)	45	16	(35.6)	-	-	-
Portugal	27	13	(48.1)	18	10	(55.6)	28	15	(53.6)	26	9	(34.6)	19	5	(26.3)
Romania	777	290	(37.3)	657	258	(39.3)	597	246	(41.2)	589	259	(44.0)	547	271	(49.5)
Slovakia	1	0	(0.0)	2	0	(0.0)	4	2	(50.0)	3	1	(33.3)	3	0	(0.0)
Slovenia	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	15	13	(86.7)	10	7	(70.0)	17	15	(88.2)	26	24	(92.3)	25	23	(92.0)
United Kingdom	84	55	(65.5)	79	53	(67.1)	58	35	(60.3)	54	36	(66.7)	66	42	(63.6)
Subtotal EU/EEA	1 620	716	(44.2)	1 444	628	(43.5)	1 378	600	(43.5)	1 334	629	(47.2)	1 182	590	(49.9)
Non-EU/EEA															
Albania	-	-	-	-	-	-	-	-	-	3	3	(100.0)	1	1	(100.0)
Andorra	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Armenia	115	51	(44.3)	104	45	(43.3)	118	68	(57.6)	95	40	(42.1)	118	58	(49.2)
Azerbaijan	373	225	(60.3)	647	382	(59.0)	745	441	(59.2)	800	473	(59.1)	798	480	(60.2)
Belarus	2 509	1 366	(54.4)	2 136	1 152	(53.9)	1 472	872	(59.2)	1 400	899	(64.2)	1 180	796	(67.5)
Bosnia and Herzegovina	7	3	(42.9)	1	1	(100.0)	3	2	(66.7)	1	1	(100.0)	0	-	-
Georgia	623	296	(47.5)	411	176	(42.8)	411	201	(48.9)	412	231	(56.1)	339	222	(65.5)
Israel	13	12	(92.3)	7	4	(57.1)	16	12	(75.0)	10	8	(80.0)	9	6	(66.7)
Kazakhstan	7 213	5 265	(73.0)	6 527	4 730	(72.5)	6 320	4 813	(76.2)	6 482	5 063	(78.1)	6 260	4 979	(79.5)
Kyrgyzstan	775	486	(62.7)	1 064	611	(57.4)	1 157	650	(56.2)	1 162	624	(53.7)	1 232	655	(53.2)
Moldova	856	504	(58.9)	943	538	(57.1)	919	457	(49.7)	996	487	(48.9)	979	518	(52.9)
Monaco	0	-	-	0	-	-	-	-	-	-	-	-	-	-	-
Montenegro	1	1	(100.0)	0	-	-	2	0	(0.0)	1	1	(100.0)	0	-	-
North Macedonia	3	2	(66.7)	2	1	(50.0)	3	1	(33.3)	5	2	(40.0)	2	1	(50.0)
Russia	16 021	6 427	(40.1)	18 213	8 802	(48.3)	20 089	10 170	(50.6)	22 607	12 117	(53.6)	22 593	12 141	(53.7)
San Marino	-	-	-	-	-	-	0	-	-	0	-	-	0	-	-
Serbia	7	4	(57.1)	19	15	(78.9)	19	12	(63.2)	10	9	(90.0)	12	9	(75.0)
Serbia excluding Kosovo ^b	6	3	(50.0)	13	10	(76.9)	13	7	(53.8)	5	4	(80.0)	10	7	(70.0)
Kosovo ^b	1	1	(100.0)	6	5	(83.3)	6	5	(83.3)	5	5	(100.0)	2	2	(100.0)
Switzerland	-	-	-	-	-	-	12	9	(75.0)	16	7	(43.8)	17	8	(47.1)
Tajikistan	535	351	(65.6)	625	375	(60.0)	804	398	(49.5)	682	398	(58.4)	681	440	(64.6)
Turkey	291	193	(66.3)	228	149	(65.4)	257	163	(63.4)	230	156	(67.8)	211	131	(62.1)
Turkmenistan	-	-	-	-	-	-	213	143	(67.1)	210	142	(67.6)	557	303	(54.4)
Ukraine	5 556	1 909	(34.4)	7 633	2 948	(38.6)	7 174	3 297	(46.0)	7 592	3 855	(50.8)	7 277	3 590	(49.3)
Uzbekistan	1 491	737	(49.4)	2 647	1 390	(52.5)	3 602	2 216	(61.5)	2 149	1 259	(58.6)	1 986	1 140	(57.4)
Subtotal non-EU/EEA	36 389	17 832	(49.0)	41 207	21 319	(51.7)	43 336	23 925	(55.2)	44 863	25 775	(57.5)	44 252	25 478	(57.6)
Total European Region	38 009	18 548	(48.8)	42 651	21 947	(51.5)	44 714	24 525	(54.8)	46 197	26 404	(57.2)	45 434	26 068	(57.4)
Subtotal 18 HPCs	37 642	18 347	(48.7)	42 279	21 751	(51.4)	44 323	24 332	(54.9)	45 785	26 183	(57.2)	45 060	25 864	(57.4)

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.WHO European Region 18 tuberculosis high-priority countries presented in *italics*.

EU/EEA: Country data are shown as missing (-) when data on treatment outcome are not reported. For inclusion in the cohort, drug susceptibility data are also required.

HPC - High-priority country.

MDR - Multidrug-resistant.

RR - Rifampicin-resistant.

^a For EU/EEA countries, cases diagnosed postmortem were excluded, and cases with no data on treatment enrolment were assumed to be enrolled to treatment.^b This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table XIII. Treatment success after 24 months of XDR tuberculosis cases started on treatment^a, European Region, 2012–2016

Country/area	2012			2013			2014			2015			2016		
	XDR tuberculosis cases	Success		XDR tuberculosis cases	Success		XDR tuberculosis cases	Success		MD tuberculosis cases	Success		XDR tuberculosis cases	Success	
		N	(%)		N	(%)		N	(%)		N	(%)		N	(%)
EU/EEA															
Austria	7	2	(28.6)	3	2	(66.7)	2	1	(50.0)	1	1	(100.0)	2	1	(50.0)
Belgium	2	2	(100.0)	0	0	-	1	1	(100.0)	2	2	(100.0)	0	0	-
Bulgaria	5	1	(20.0)	4	0	(0.0)	3	0	(0.0)	4	2	(50.0)	0	0	-
Croatia	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Cyprus	0	0	-	-	-	-	0	0	-	0	0	-	0	0	-
Czech Republic	1	0	(0.0)	0	0	-	0	0	-	1	0	(0.0)	0	0	-
Denmark	0	0	-	1	1	(100.0)	0	0	-	1	0	(0.0)	0	0	-
Estonia	3	1	(33.3)	10	3	(30.0)	8	1	(12.5)	9	3	(33.3)	6	3	(50.0)
Finland	-	-	-	0	0	-	1	0	(0.0)	1	0	(0.0)	1	0	(0.0)
France	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	1	0	(0.0)	3	0	(0.0)	11	2	(18.2)	9	3	(33.3)	7	3	(42.9)
Greece	0	0	-	0	0	-	-	-	-	0	0	-	0	0	-
Hungary	2	1	(50.0)	1	0	(0.0)	0	0	-	1	0	(0.0)	7	3	(42.9)
Iceland	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Ireland	0	0	-	1	1	(100.0)	0	0	-	0	0	-	0	0	-
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	17	9	(52.9)	15	11	(73.3)	13	10	(76.9)	16	8	(50.0)	-	-	-
Liechtenstein	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Lithuania	52	5	(9.6)	47	0	(0.0)	61	0	(0.0)	59	0	(0.0)	58	0	(0.0)
Luxembourg	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Malta	0	0	-	1	0	(0.0)	0	0	-	0	0	-	0	0	-
Netherlands	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Norway	0	0	-	1	0	(0.0)	1	0	(0.0)	0	0	-	0	0	-
Poland	0	0	-	1	0	(0.0)	5	1	(20.0)	4	3	(75.0)	-	-	-
Portugal	4	2	(50.0)	4	2	(50.0)	3	2	(66.7)	6	1	(16.7)	4	0	(0.0)
Romania	41	3	(7.3)	56	9	(16.1)	57	9	(15.8)	71	28	(39.4)	68	23	(33.8)
Slovakia	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Slovenia	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Spain	-	-	-	-	-	-	-	-	-	0	0	-	0	0	-
Sweden	2	2	(100.0)	2	1	(50.0)	1	0	(0.0)	1	0	(0.0)	4	2	(50.0)
United Kingdom	2	0	(0.0)	3	2	(66.7)	3	1	(33.3)	8	2	(25.0)	7	3	(42.9)
Subtotal EU/EEA	139	28	(20.1)	153	32	(20.9)	170	28	(16.5)	194	53	(27.3)	164	38	(23.2)
Non-EU/EEA															
Albania	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-
Andorra	0	-	-	0	-	-	0	-	-	0	-	-	0	-	-
Armenia	2	0	(0.0)	10	2	(20.0)	10	4	(40.0)	8	4	(50.0)	10	3	(30.0)
Azerbaijan	33	12	(36.4)	95	25	(26.3)	69	16	(23.2)	-	-	-	-	-	-
Belarus	-	-	-	60	23	(38.3)	431	157	(36.4)	508	268	(52.8)	393	207	(52.7)
Bosnia and Herzegovina	0	-	-	-	-	-	0	-	-	-	-	-	-	-	-
Georgia	43	12	(27.9)	70	15	(21.4)	56	18	(32.1)	62	35	(56.5)	55	31	(56.4)
Israel	4	4	(100.0)	1	0	(0.0)	2	1	(50.0)	1	1	(100.0)	2	2	(100.0)
Kazakhstan	-	-	-	360	109	(30.3)	318	98	(30.8)	391	126	(32.2)	435	207	(47.6)
Kyrgyzstan	0	-	-	43	12	(27.9)	32	5	(15.6)	51	9	(17.6)	68	10	(14.7)
Moldova	-	-	-	-	-	-	9	3	(33.3)	32	5	(15.6)	65	17	(26.2)
Monaco	0	-	-	3	3	(100.0)	-	-	-	-	-	-	-	-	-
Montenegro	0	-	-	0	-	-	0	-	-	0	-	-	1	1	(100.0)
North Macedonia	1	1	(100.0)	0	-	-	0	-	-	0	-	-	0	-	-
Russia	1 318	344	(26.1)	1965	520	(26.5)	2209	687	(31.1)	2882	960	(33.3)	2909	1094	(37.6)
San Marino	-	-	-	-	-	-	0	-	-	0	-	-	0	-	-
Serbia	1	1	(100.0)	0	-	-	0	-	-	0	-	-	1	0	(0.0)
Serbia excluding Kosovo ^b	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kosovo ^b	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Switzerland	-	-	-	-	-	-	1	0	(0.0)	0	-	-	0	-	-
Tajikistan	1	1	(100.0)	4	3	(75.0)	0	-	-	-	-	-	43	20	(46.5)
Turkey	6	4	(66.7)	3	1	(33.3)	2	0	(0.0)	3	2	(66.7)	9	5	(55.6)
Turkmenistan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	-	-	-	-	-	-	1097	278	(25.3)	1206	424	(35.2)	1353	501	(37.0)
Uzbekistan	21	3	(14.3)	-	-	-	-	-	-	147	34	(23.1)	184	91	(49.5)
Subtotal non-EU/EEA	1 430	382	(26.7)	2 614	713	(27.3)	4 236	1 267	(29.9)	5 291	1 868	(35.3)	5 528	2 189	(39.6)
Total European Region	1 569	410	(26.1)	2 767	745	(26.9)	4 406	1 295	(29.4)	5 485	1 921	(35.0)	5 692	2 227	(39.1)
Subtotal 18 HPCs	1 542	395	(25.6)	2 742	733	(26.7)	4 375	1 286	(29.4)	5 449	1 908	(35.0)	5 656	2 212	(39.1)

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein.

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

EU/EEA: Country data is shown as missing (-) when data on treatment outcome are not reported. For inclusion in the cohort, drug susceptibility data are also required.

HPC - High-priority country.

XDR TB - Extensively drug-resistant tuberculosis.

^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.

^c This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

Table XIV. Treatment success after 36 months of XDR tuberculosis cases notified in EU/EEA, 2011–2015

Country/area	2011			2012			2013			2014			2015		
	XDR tuberculosis cases	Success		XDR tuberculosis cases	Success		XDR tuberculosis cases	Success		XDR tuberculosis cases	Success		XDR tuberculosis cases	Success	
		N	(%)		N	(%)		N	(%)		N	(%)		N	(%)
EU/EEA															
Austria	7	4	(57.1)	7	2	(28.6)	3	2	(66.7)	2	2	(100.0)	1	1	(100.0)
Belgium	3	3	(100.0)	2	2	(100.0)	0	0	-	1	1	(100.0)	2	2	(100.0)
Bulgaria	0	0	-	5	1	(20.0)	4	0	(0.0)	3	0	(0.0)	4	2	(50.0)
Croatia	-	-	-	0	0	-	0	0	-	0	0	-	0	0	-
Cyprus	0	0	-	0	0	-	-	-	-	0	0	-	0	0	-
Czech Republic	2	0	(0.0)	1	0	(0.0)	0	0	-	0	0	-	1	0	(0.0)
Denmark	0	0	-	0	0	-	1	1	(100.0)	0	0	-	1	0	(0.0)
Estonia	15	6	(40.0)	4	1	(25.0)	10	5	(50.0)	8	3	(37.5)	9	3	(33.3)
Finland	0	0	-	-	-	-	0	0	-	-	-	-	-	-	-
France	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	1	1	(100.0)	1	0	(0.0)	3	0	(0.0)	11	2	(18.2)	9	4	(44.4)
Greece	-	-	-	0	0	-	0	0	-	-	-	-	0	0	-
Hungary	0	0	-	2	1	(50.0)	1	0	(0.0)	0	0	-	1	0	(0.0)
Iceland	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Ireland	0	0	-	0	0	-	-	-	-	0	0	-	0	0	-
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	12	7	(58.3)	17	9	(52.9)	15	11	(73.3)	13	10	(76.9)	-	-	-
Liechtenstein	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Lithuania	52	11	(21.2)	52	6	(11.5)	47	11	(23.4)	61	15	(24.6)	59	15	(25.4)
Luxembourg	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Malta	0	0	-	0	0	-	-	-	-	0	0	-	0	0	-
Netherlands	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Norway	0	0	-	0	0	-	1	0	(0.0)	1	0	(0.0)	0	0	-
Poland	1	0	(0.0)	0	0	-	1	0	(0.0)	5	1	(20.0)	-	-	-
Portugal	9	7	(77.8)	4	4	(100.0)	4	4	(100.0)	3	2	(66.7)	6	2	(33.3)
Romania	34	6	(17.6)	41	5	(12.2)	56	11	(19.6)	58	9	(15.5)	71	28	(39.4)
Slovakia	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Slovenia	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Spain	-	-	-	-	-	-	-	-	-	-	-	-	0	0	-
Sweden	0	0	-	2	2	(100.0)	2	2	(100.0)	1	0	(0.0)	1	1	(100.0)
United Kingdom	6	3	(50.0)	2	1	(50.0)	3	3	(100.0)	3	2	(66.7)	9	7	(77.8)
Total EU/EEA	142	48	(33.8)	140	34	(24.3)	151	50	(33.1)	170	47	(27.6)	174	65	(37.4)

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

EU/EEA: Country data are shown as missing (-) when data on treatment outcome are not reported. For inclusion in the cohort, drug susceptibility data are also required.

XDR TB - Extensively drug-resistant tuberculosis.

Table XV. New and relapsed tuberculosis cases tested using WHO recommended rapid diagnostics such as Xpert MTB/RIF^a, European Region, 2015–2018

Country/area	2015			2016			2017			2018		
	New and relapse tuberculosis cases ^b	Cases tested using WHO recommended rapid diagnostics ^c		New and relapse tuberculosis cases ^b	Cases tested using WHO recommended rapid diagnostics ^c		New and relapse tuberculosis cases ^b	Cases tested using WHO recommended rapid diagnostics ^c		New and relapse tuberculosis cases ^b	Cases tested using WHO recommended rapid diagnostics ^c	
	N	N	(%)	N	N	(%)	N	N	(%)	N	N	(%)
EU/EEA												
Austria	564	424	(75.2)	619	490	(79.2)	561	444	(79.1)	470	376	(80.0)
Belgium ^d	919	444	(48.3)	982	473	(48.2)	911	484	(53.1)	913	523	(57.3)
Bulgaria	1 619	10	(0.6)	1 525	6	(0.4)	1 408	5	(0.4)	1 290	7	(0.5)
Croatia	485	0	(0.0)	452	0	(0.0)	372	0	(0.0)	364	0	(0.0)
Cyprus	63	5	(7.9)	57	4	(7.0)	52	14	(26.9)	51	17	(33.3)
Czech Republic	507	273	(53.8)	511	252	(49.3)	495	334	(67.5)	435	274	(63.0)
Denmark ^d	320	186	(58.1)	292	209	(71.6)	253	198	(78.3)	270	262	(97.0)
Estonia	206	153	(74.3)	188	144	(76.6)	171	138	(80.7)	145	124	(85.5)
Finland	268	85	(31.7)	222	62	(27.9)	243	92	(37.9)	229	105	(45.9)
France	4 457	0	(0.0)	5 446	0	(0.0)	4 715	0	(0.0)	4 779	0	(0.0)
Germany	5 626	4 154	(73.8)	5 740	4 455	(77.6)	5 349	4 302	(80.4)	5 265	4 350	(82.6)
Greece	438	187	(42.7)	417	168	(40.3)	434	204	(47.0)	406	181	(44.6)
Hungary	858	0	(0.0)	737	0	(0.0)	650	0	(0.0)	602	0	(0.0)
Iceland	7	6	(85.7)	6	5	(83.3)	13	12	(92.3)	8	8	(100.0)
Ireland ^d	266	84	(31.6)	290	118	(40.7)	288	124	(43.1)	294	136	(46.3)
Italy	3 476	0	(0.0)	3 778	0	(0.0)	3 828	0	(0.0)	3 777	0	(0.0)
Latvia	697	0	(0.0)	641	0	(0.0)	543	178	(32.8)	-	-	-
Liechtenstein	1	0	(0.0)	2	0	(0.0)	1	1	(100.0)	1	1	(100.0)
Lithuania	1 395	0	(0.0)	1 347	0	(0.0)	1 268	0	(0.0)	1 063	0	(0.0)
Luxembourg	30	0	(0.0)	29	0	(0.0)	32	0	(0.0)	42	0	(0.0)
Malta	32	2	(6.3)	50	17	(34.0)	42	13	(31.0)	55	0	(0.0)
Netherlands	846	634	(74.9)	875	588	(67.2)	772	577	(74.7)	791	554	(70.0)
Norway ^d	282	252	(89.4)	273	204	(74.7)	237	183	(77.2)	189	151	(79.9)
Poland	6 237	743	(11.9)	6 143	888	(14.5)	5 535	1 037	(18.7)	5 196	1 054	(20.3)
Portugal	2 155	333	(15.5)	1 891	349	(18.5)	1 760	377	(21.4)	2 111	1 197	(56.7)
Romania	14 215	1	(0.0)	12 774	846	(6.6)	12 303	3 214	(26.1)	11 586	2 746	(23.7)
Slovakia	308	68	(22.1)	281	58	(20.6)	228	56	(24.6)	273	66	(24.2)
Slovenia	129	109	(84.5)	118	96	(81.4)	112	95	(84.8)	98	81	(82.7)
Spain	4 818	997	(20.7)	3 973	976	(24.6)	4 551	1 241	(27.3)	4 500	1 155	(25.7)
Sweden	776	551	(71.0)	691	461	(66.7)	487	412	(84.6)	477	326	(68.3)
United Kingdom ^d	5 845	303	(5.2)	5 727	364	(6.4)	5 225	394	(7.5)	4 775	367	(7.7)
Subtotal EU/EEA	57 845	10 004	(17.3)	56 077	11 233	(20.0)	52 839	14 129	(26.7)	50 455	14 061	(27.9)
Non-EU/EEA												
Albania	-	-	-	-	-	-	-	-	-	-	-	-
Andorra	4	3	(75.0)	4	4	(100.0)	1	1	(100.0)	2	2	(100.0)
Armenia	1 171	192	(16.4)	1 027	57	(5.6)	841	631	(75.0)	734	619	(84.3)
Azerbaijan	5 456	2 339	(42.9)	5 159	2 025	(39.3)	5 231	2 869	(54.8)	5 038	3 472	(68.9)
Belarus	3 765	2 708	(71.9)	3 211	2 555	(79.6)	2 781	2 452	(88.2)	2 359	2 201	(93.3)
Bosnia and Herzegovina	1 092	1 092	(100.0)	907	0	(0.0)	-	-	-	-	-	-
Georgia	3 152	2 008	(63.7)	2 983	2 421	(81.2)	2 597	2 099	(80.8)	2 316	1 940	(83.8)
Israel	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan	14 006	11 631	(83.0)	12 322	10 505	(85.3)	12 449	10 226	(82.1)	12 832	11 454	(89.3)
Kyrgyzstan	7 027	1 502	(21.4)	7 026	2 533	(36.1)	6 687	4 330	(64.8)	6 338	3 910	(61.7)
Moldova	3 608	3 054	(84.6)	3 571	1 813	(50.8)	3 358	3 129	(93.2)	3 022	2 857	(94.5)
Monaco	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	80	0	(0.0)	87	25	(28.7)	75	48	(64.0)	84	64	(76.2)
North Macedonia	-	-	-	263	0	(0.0)	216	152	(70.4)	217	147	(67.7)
Russia	-	-	-	92 407	64 512	(69.8)	84 510	65 843	(77.9)	78 258	57 344	(73.3)
San Marino	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	1 450	275	(19.0)	1 330	399	(30.0)
Serbia excluding Kosovo ^a	-	-	-	-	-	-	738	0	(0.0)	712	0	(0.0)
Kosovo ^a	-	-	-	-	-	-	712	275	(38.6)	618	399	(64.6)
Switzerland	-	-	-	-	-	-	529	354	(66.9)	-	-	-
Tajikistan	-	-	-	5 965	4 368	(73.2)	5 895	3 075	(52.2)	5 726	4 235	(74.0)
Turkey	-	-	-	-	-	-	-	-	-	-	-	-
Turkmenistan	-	-	-	-	-	-	1 968	1 488	(75.6)	2 157	1 611	(74.7)
Ukraine	30 151	23 177	(76.9)	-	-	-	-	-	-	26 512	23 093	(87.1)
Uzbekistan	-	-	-	16 050	12 270	(76.4)	16 842	11 368	(67.5)	16 413	14 390	(87.7)
Subtotal non-EU/EEA	69 512	47 706	(68.6)	150 982	103 088	(68.3)	145 430	108 340	(74.5)	163 338	127 738	(78.2)
Total European Region	127 357	57 710	(45.3)	207 059	114 321	(55.2)	198 269	122 469	(61.8)	213 793	141 799	(66.3)
Subtotal 18 HPCs	86 468	46 775	(54.1)	166 196	104 055	(62.6)	158 852	111 045	(69.9)	175 789	130 003	(74.0)

^aEuropean Region^a comprises the 53 countries of the WHO European Region and Liechtenstein.WHO European Region 18 tuberculosis high-priority countries presented in *italics*.

HPC - High-priority country.

^bWorld Health Organization. Automated real-time nucleic acid amplification technology for rapid and simultaneous detection of tuberculosis and rifampicin resistance. Policy update. WHO/HTM/TB/2013.16. Geneva, Switzerland: WHO, 2013.^cCases with unknown previous tuberculosis history are included among new tuberculosis cases.^dAll nucleic acid amplification tests are counted as 'tested using WHO-recommended rapid diagnostics' for EU/EEA countries.^ePrevious tuberculosis history is defined as previous diagnosis.^fThis designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.



8. Country profiles



AD	Andorra	GE	Georgia	PL	Poland
AL	Albania	HR	Croatia	PT	Portugal
AM	Armenia	HU	Hungary	RO	Romania
AT	Austria	IE	Ireland	RS	Serbia
AZ	Azerbaijan	IL	Israel	RU	Russian Federation
BA	Bosnia and Herzegovina	IS	Iceland	SE	Sweden
BE	Belgium	IT	Italy	SI	Slovenia
BG	Bulgaria	KG	Kyrgyzstan	SK	Slovakia
BY	Belarus	KZ	Kazakhstan	TJ	Tajikistan
CH	Switzerland	LI	Liechtenstein	TM	Turkmenistan
CY	Cyprus	LT	Lithuania	TR	Turkey
CZ	Czech Republic	LU	Luxembourg	UA	Ukraine
DE	Germany	LV	Latvia	UK	United Kingdom
DK	Denmark	MD	Republic of Moldova	UZ	Uzbekistan
EE	Estonia	ME	Montenegro		
EL	Greece	MK	North Macedonia		
ES	Spain	MT	Malta		
FI	Finland	NL	Netherlands		
FR	France	NO	Norway		

Albania

Population estimate 2018 by UN Statistical Database: 2 882 740

TB case notifications, 2018

Total number of cases	440
Notification rate per 100 000	15.3
New ^a and relapses	440
New ^a and relapses notification rate per 100 000	15.3
Pulmonary	330 (75.0%)
of which microscopy-positive	
of which laboratory-confirmed	208 (63.0%)
Laboratory-confirmed TB cases	208 (47.3%)
Mean age of new native TB cases	46.1 years
Mean age of new foreign TB cases	— years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	424 (96.4%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	510 (430–580)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	No
Completeness of HIV data ^b	No
Case-linked data reporting	Yes
Cases with DST results	63 (30.3%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	5 (1–10)
Pulmonary MDR-TB cases notified	2 (3.2%)
of which XDR-TB cases	—
Notified MDR-TB	—
of which XDR-TB cases	0
TB cases tested for HIV	215 (48.9%)
HIV-positive TB cases	6 (2.8%)
of these on ART	6 (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.

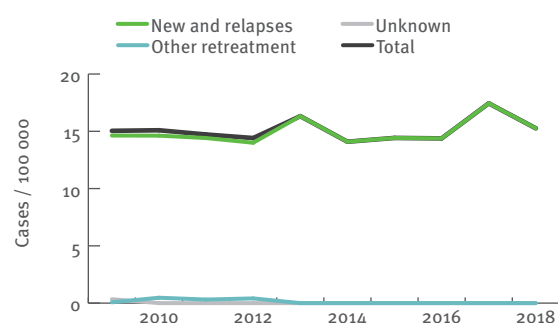
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	499	1
Success	435 (87.2%)	1 (100.0%)
Died	19 (3.8%)	0 (0.0%)
Failed	2 (0.4%)	0 (0.0%)
Lost to follow-up	23 (4.6%)	0 (0.0%)
Not evaluated	20 (4.0%)	0 (0.0%)

^a Treatment outcome as presented is treatment outcome after 12 months.

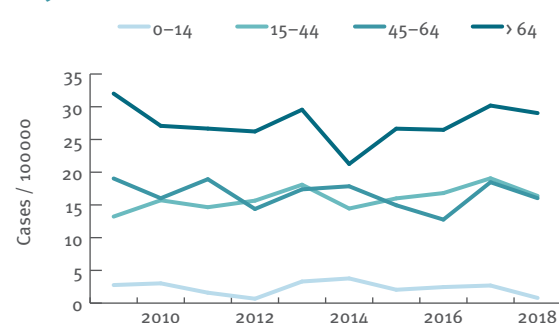
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



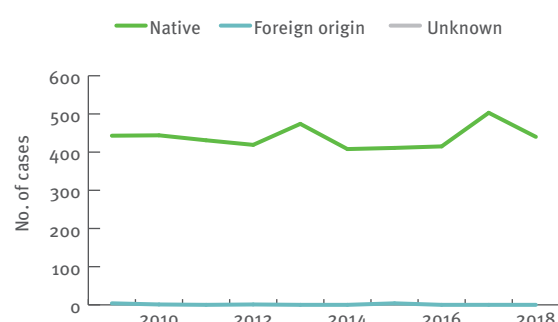
^a Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

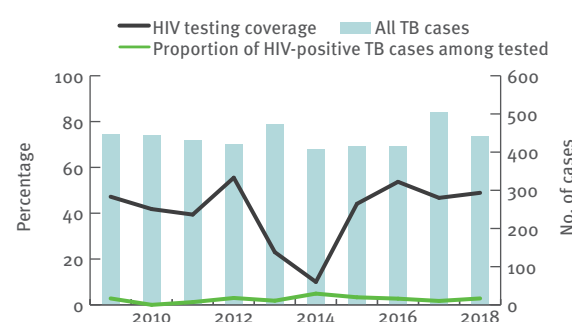


^a Data up to 2012 include new TB cases only.

TB cases by geographical origin, 2009–2018

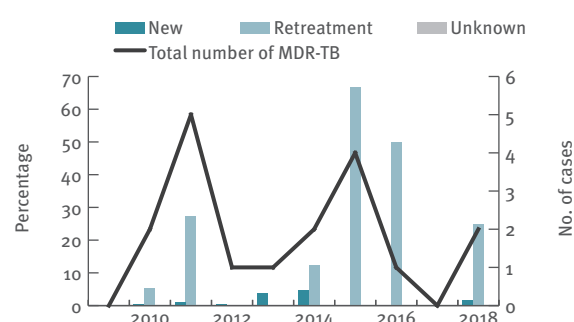


TB/HIV coinfection, 2009–2018^a

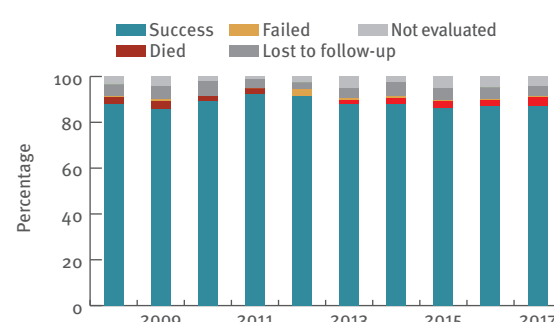


^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new and relapsed TB cases, 2009–2018^a



^a 2008–2011 cohorts include new cases only.

Andorra

Population estimate 2018 by UN Statistical Database: 77 006

TB case notifications, 2018

Total number of cases	2
Notification rate per 100 000	2.6
New ^a and relapses	2
New ^a and relapses notification rate per 100 000	2.6
Pulmonary	2 (100.0%)
of which microscopy-positive of which laboratory-confirmed	2 (100.0%)
Laboratory-confirmed TB cases	2 (100.0%)
Mean age of new native TB cases	30.0 years
Mean age of new foreign TB cases	— years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	2 (100.0%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	2 (2–3)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	No
Completeness of HIV data ^b	No
Case-linked data reporting	Yes
Cases with DST results	1 (50.0%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	0 (0–2)
Pulmonary MDR-TB cases notified	0 (0.0%)
of which XDR-TB cases	—
Notified MDR-TB	0 (0.0%)
of which XDR-TB cases	—
TB cases tested for HIV	0 (0.0%)
HIV-positive TB cases	—
of these on ART	—

^a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

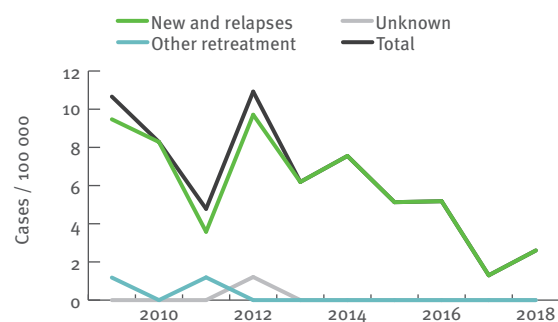
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
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%)	—
Not evaluated	0 (0.0%)	—

^a Treatment outcome as presented is treatment outcome after 12 months.

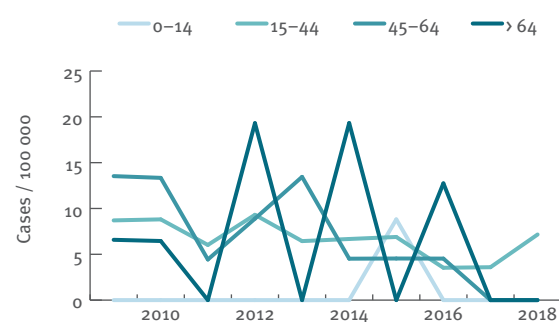
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



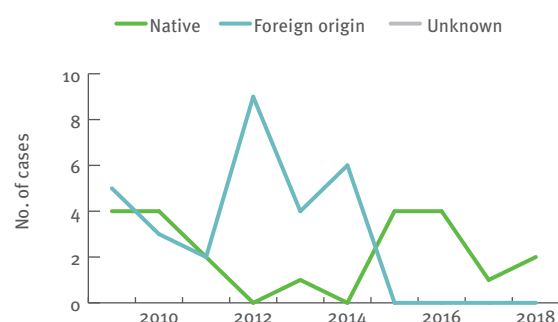
^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

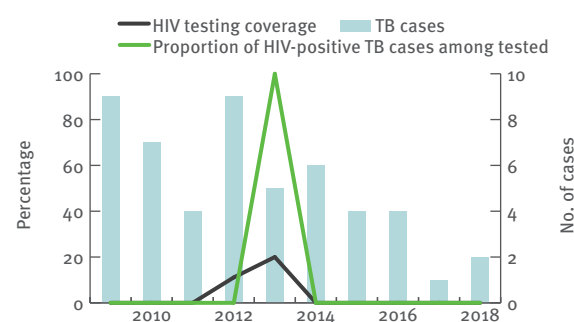


^a Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2009–2018

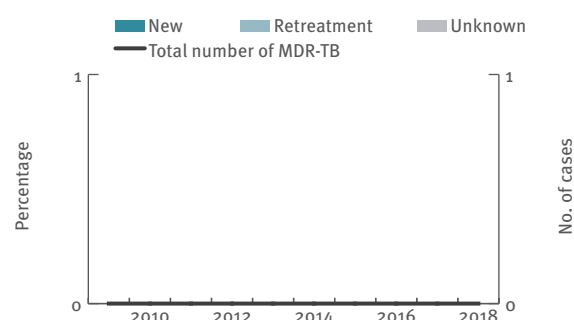


TB/HIV coinfection, 2009–2018^a

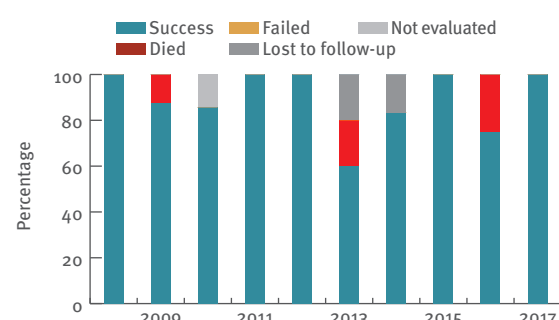


^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new and relapsed TB cases, 2008–2017^a



^a 2008–2011 cohorts include new cases only.

Armenia

Population estimate 2018 by UN Statistical Database: 2 951 745

TB case notifications, 2018

Total number of cases	796
Notification rate per 100 000	27.0
New ^a and relapses	734
New ^a and relapses notification rate per 100 000	24.9
Pulmonary	567 (77.2%)
of which microscopy-positive of which laboratory-confirmed	296 (52.2%)
Laboratory-confirmed TB cases	358 (45.0%)
Mean age of new native TB cases	44.4 years
Mean age of new foreign TB cases	— years
Foreign origin of all TB cases	10 (1.3%)
New (not previously treated)	621 (78.0%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	920 (700-1200)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	332 (92.7%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	98 (82-110)
Pulmonary MDR-TB cases notified	76 (22.9%)
of which XDR-TB cases	14 (18.4%)
Notified MDR-TB	85 (25.6%)
of which XDR-TB cases	14 (16.5%)
TB cases tested for HIV	699 (95.2%)
HIV-positive TB cases	72 (10.3%)
of these on ART	71 (98.6%)

^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.

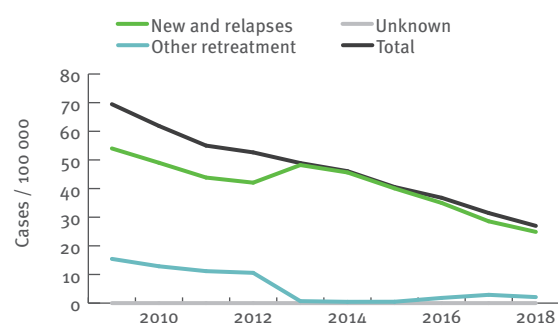
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	710	118
Success	563 (79.3%)	58 (49.2%)
Died	43 (6.1%)	13 (11.0%)
Failed	12 (1.7%)	14 (11.9%)
Lost to follow-up	92 (13.0%)	33 (28.0%)
Not evaluated	0 (0.0%)	0 (0.0%)

^a Treatment outcome as presented is treatment outcome after 12 months.

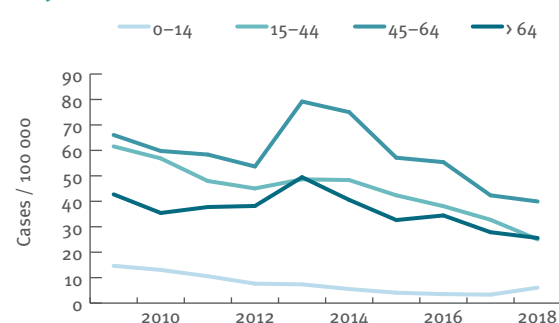
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



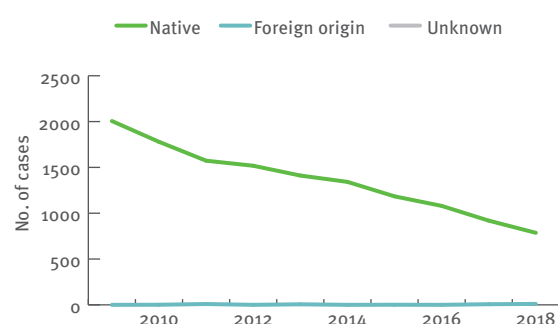
^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

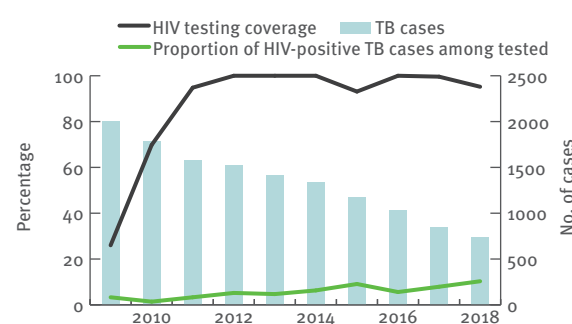


^a Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2009–2018

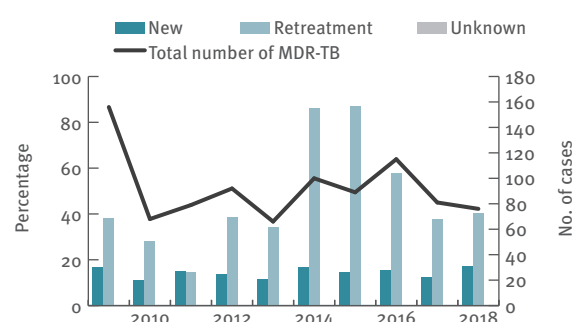


TB/HIV coinfection, 2009–2018^a

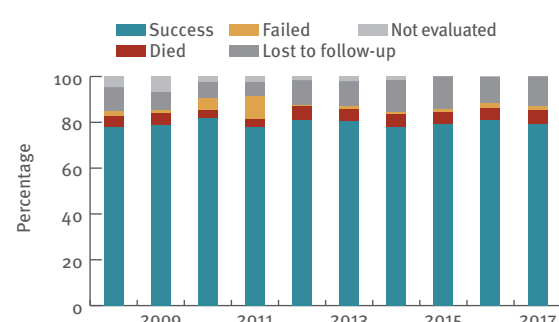


^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new and relapsed TB cases, 2008–2017^a



^a 2008–2011 cohorts include new cases only.

Austria

Total population at 10 May 2019 by EUROSTAT: 8 822 267

TB case notifications, 2018

Total number of cases	482
Notification rate per 100 000	5.5
New ^a and relapses	470
New ^a and relapses notification rate per 100 000	5.3
Pulmonary	364 (75.5%)
of which microscopy-positive	119 (32.7%)
of which laboratory-confirmed	296 (81.3%)
Laboratory-confirmed TB cases	365 (75.7%)
Mean age of new native TB cases	57.9 years
Mean age of new foreign TB cases	32.8 years
Foreign origin of all TB cases	299 (62.0%)
New (not previously treated)	349 (72.4%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	630–540–730

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	–
Case-linked data reporting	Yes
Cases with DST results	349 (95.6%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	11–4–18
Pulmonary MDR-TB cases notified	15 (5.3%)
of which XDR-TB cases	0 (0.0%)
Notified MDR-TB	18 (5.2%)
of which XDR-TB cases	0 (0.0%)
TB cases tested for HIV	–
HIV-positive TB cases	–
of these on ART	–

^a National coverage 100% or culturing ≥90%, C+/ALL TB cases ≥50%, DST done for C+ ≥75%, EQA ≥95%.

^b More than 50% of TB cases with reported HIV status.

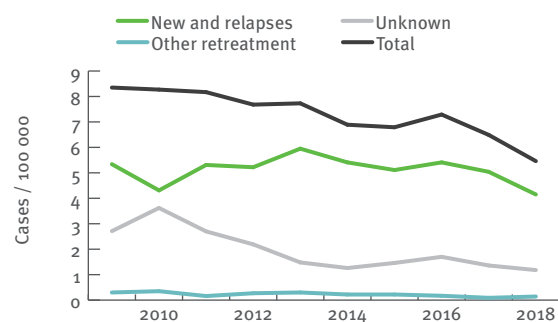
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	266	17
Success	178 (66.9%)	11 (64.7%)
Died	20 (7.5%)	0 (0.0%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	4 (1.5%)	1 (5.9%)
Still on treatment	35 (13.2%)	1 (5.9%)
Not evaluated	29 (10.9%)	4 (23.5%)

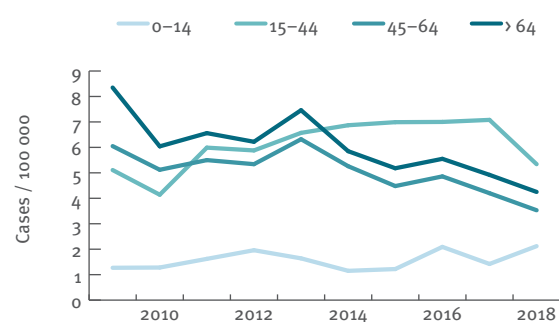
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

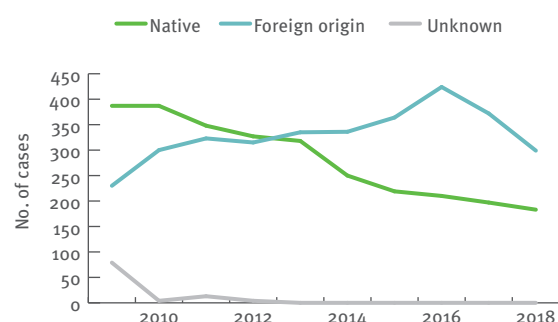
TB notification rates by treatment history, 2009–2018



New and relapsed TB cases – notification rates by age group, 2009–2018



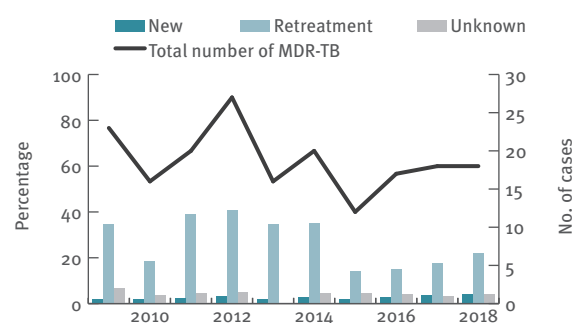
TB cases by geographical origin, 2009–2018



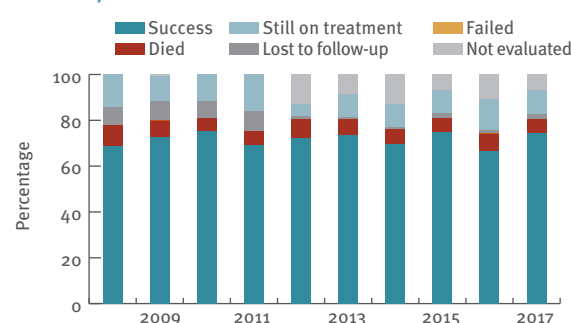
TB/HIV coinfection, 2009–2018

Data not available

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Azerbaijan

Population estimate 2018 by UN Statistical Database: 9 949 537

TB case notifications, 2018

Total number of cases	6 896
Notification rate per 100 000	69.3
New ^a and relapses	5038
New ^a and relapses notification rate per 100 000	50.6
Pulmonary	4 021 (79.8%)
of which microscopy-positive	
of which laboratory-confirmed	3 029 (75.3%)
Laboratory-confirmed TB cases	4824 (70.0%)
Mean age of new native TB cases	27.7 years
Mean age of new foreign TB cases	~ years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	3762 (54.6%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	6300 (4800–8000)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	4 726 (98.0%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	960 (910–1000)
Pulmonary MDR-TB cases notified	638 (13.5%)
of which XDR-TB cases	–
Notified MDR-TB	938 (19.8%)
of which XDR-TB cases	77 (8.9%)
TB cases tested for HIV	6483 (128.7%)
HIV-positive TB cases	87 (1.3%)
of these on ART	74 (85.1%)

^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.

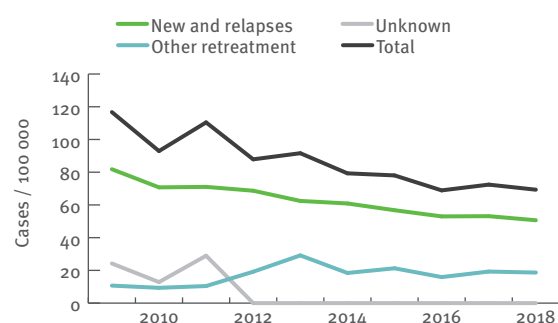
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	Bacteriologically confirmed new TB cases in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	1 777	798
Success	1 492 (84.0%)	480 (60.2%)
Died	30 (1.7%)	112 (14.0%)
Failed	109 (6.1%)	134 (16.8%)
Lost to follow-up	121 (6.8%)	72 (9.0%)
Not evaluated	25 (1.4%)	0 (0.0%)

^a Treatment outcome as presented is treatment outcome after 12 months.

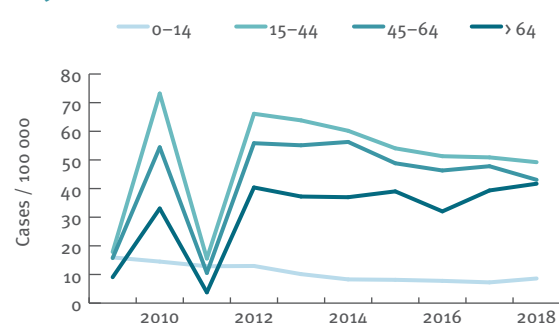
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



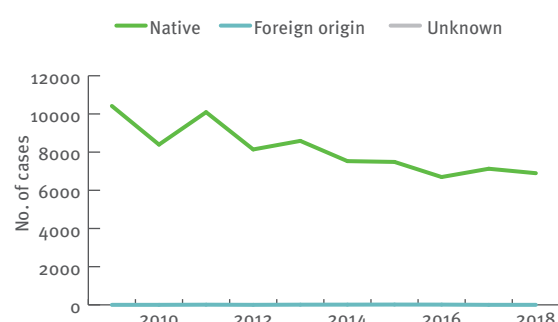
^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

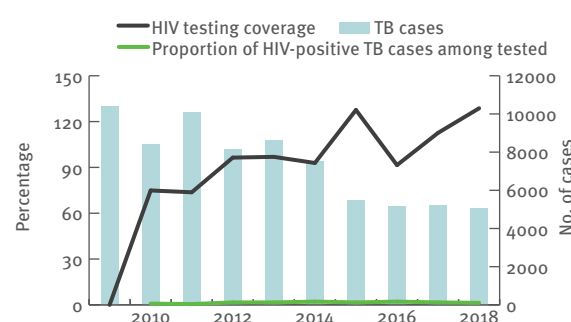


^a Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2009–2018

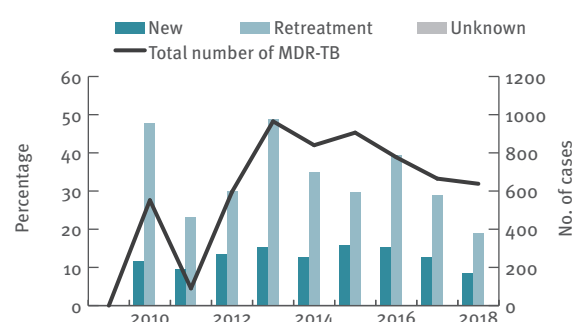


TB/HIV coinfection, 2009–2018^a

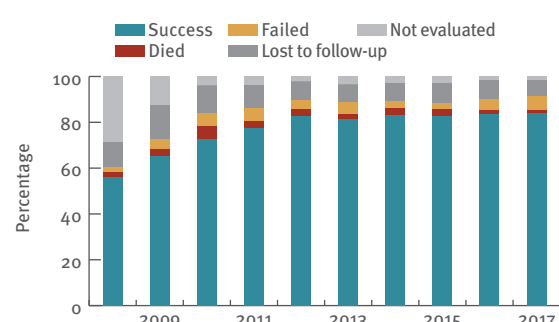


^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome of new TB cases, 2008–2017



Belarus

Population estimate 2018 by UN Statistical Database: 9 452 617

TB case notifications, 2018

Total number of cases	2 542
Notification rate per 100 000	26.9
New ^a and relapses	2 359
New ^a and relapses notification rate per 100 000	25.0
Pulmonary	2 143 (90.8%)
of which microscopy-positive	
of which laboratory-confirmed	1 981 (92.4%)
Laboratory-confirmed TB cases	2 141 (84.2%)
Mean age of new native TB cases	48.1 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	1 886 (74.2%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	2 900 (2 300-3 700)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	2 141 (100.0%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	980 (940-1000)
Pulmonary MDR-TB cases notified	984 (46.0%)
of which XDR-TB cases	185 (18.8%)
Notified MDR-TB	984 (46.0%)
of which XDR-TB cases	185 (18.8%)
TB cases tested for HIV	2 359 (100.0%)
HIV-positive TB cases	182 (7.7%)
of these on ART	171 (94.0%)

^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.

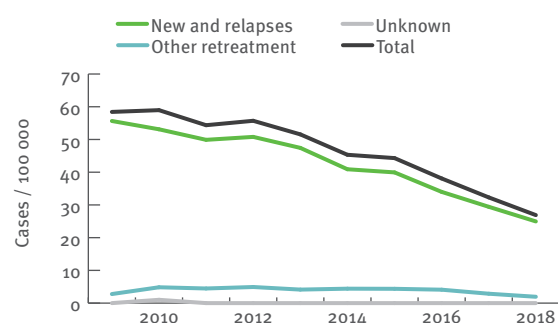
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	1 792	1 180
Success	1 587 (88.6%)	796 (67.5%)
Died	98 (5.5%)	96 (8.1%)
Failed	47 (2.6%)	157 (13.3%)
Lost to follow-up	60 (3.3%)	115 (9.7%)
Not evaluated	0 (0.0%)	16 (1.4%)

^a Treatment outcome as presented is treatment outcome after 12 months.

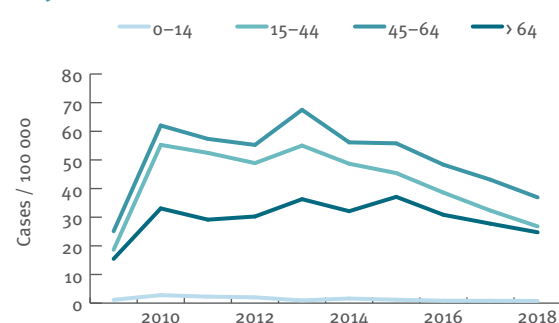
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



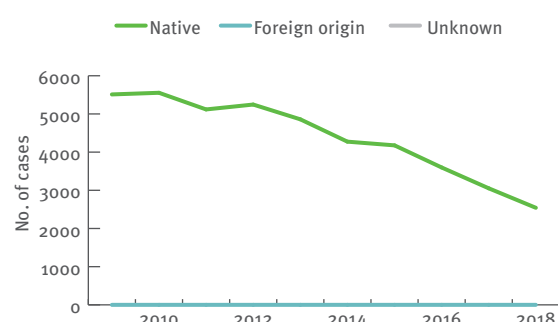
^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

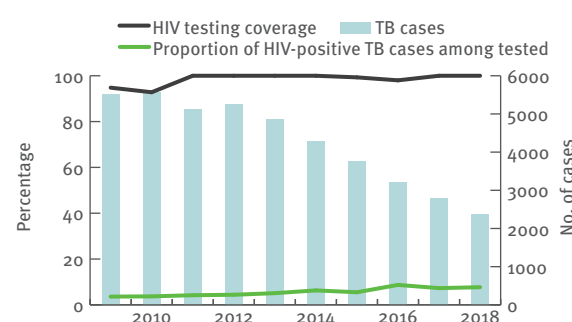


^a Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2009–2018

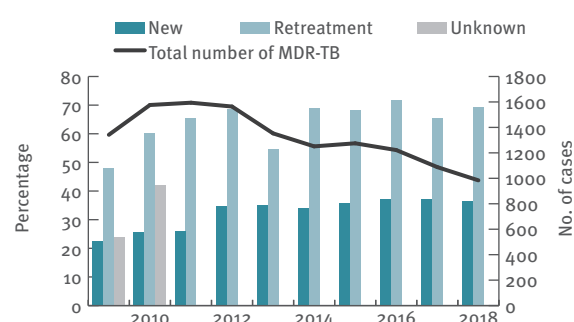


TB/HIV coinfection, 2009–2018^a

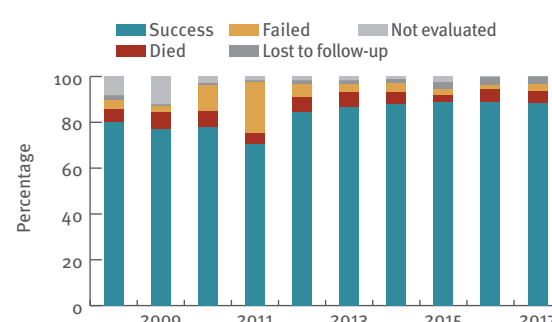


^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new and relapsed TB cases, 2008–2017^a



^a 2008–2011 cohorts include new cases only.

Belgium

Total population at 10 May 2019 by EUROSTAT: 11 398 589

TB case notifications, 2018

Total number of cases	981
Notification rate per 100 000	8.6
New ^a and relapses	913
New ^a and relapses notification rate per 100 000	8.0
Pulmonary	703 (71.7%)
of which microscopy-positive	312 (44.4%)
of which laboratory-confirmed	551 (78.4%)
Laboratory-confirmed TB cases	730 (74.4%)
Mean age of new native TB cases	45.0 years
Mean age of new foreign TB cases	34.1 years
Foreign origin of all TB cases	511 (52.1%)
New (not previously treated)	757 (77.2%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	1 000-880-1 200

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	695 (95.2%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	13-5-21
Pulmonary MDR-TB cases notified	7 (1.3%)
of which XDR-TB cases	3 (42.9%)
Notified MDR-TB	7 (1.0%)
of which XDR-TB cases	3 (42.9%)
TB cases tested for HIV	503 (51.3%)
HIV-positive TB cases	36 (7.2%)
of these on ART	-

^a National coverage 100% or culturing ≥ 90%, C+ ≥ 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

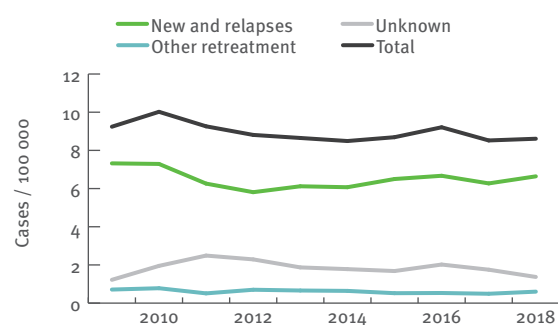
Treatment outcome monitoring

Geographical coverage	National		
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b	
Case-linked data reporting	Yes		
Cases notified	435	10	
Success	344 (79.1%)	9 (90.0%)	
Died	31 (7.1%)	0 (0.0%)	
Failed	0 (0.0%)	0 (0.0%)	
Lost to follow-up	43 (9.9%)	1 (10.0%)	
Still on treatment	6 (1.4%)	0 (0.0%)	
Not evaluated	11 (2.5%)	0 (0.0%)	

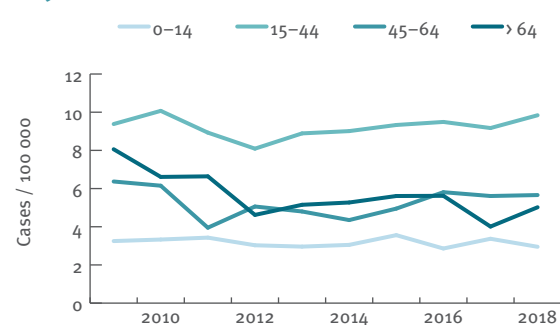
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

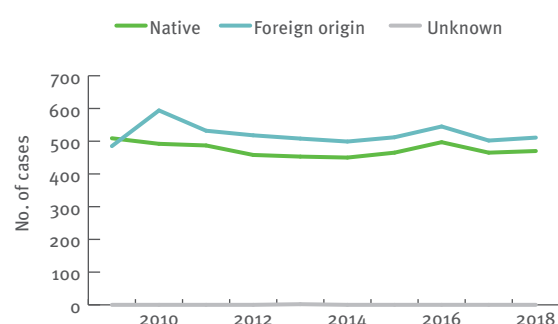
TB notification rates by treatment history, 2009–2018



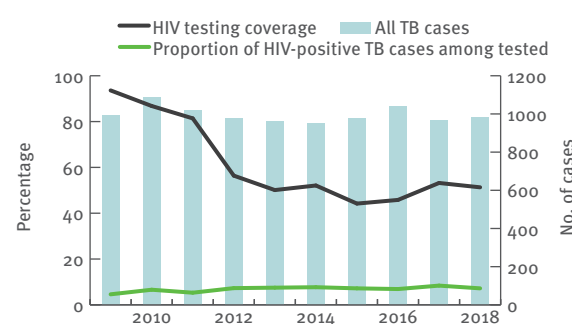
New and relapsed TB cases – notification rates by age group, 2009–2018



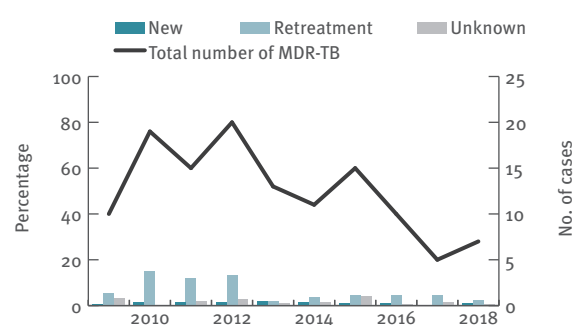
TB cases by geographical origin, 2009–2018



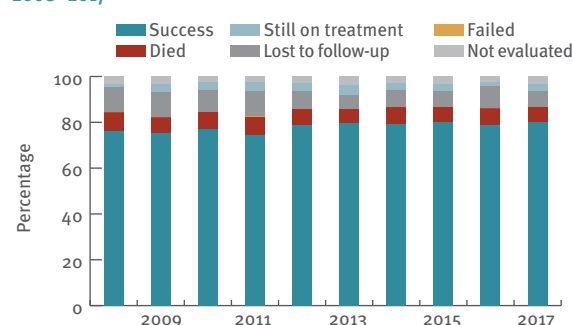
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Bosnia and Herzegovina

Population estimate 2018 by UN Statistical Database: 3 323 925

TB case notifications, 2018

Total number of cases	669
Notification rate per 100 000	20.1
New ^a and relapses	666
New ^a and relapses notification rate per 100 000	20.0
Pulmonary	600 (90.1%)
of which microscopy-positive	
of which laboratory-confirmed	448 (74.7%)
Laboratory-confirmed TB cases	448 (67.0%)
Mean age of new native TB cases	52.8 years
Mean age of new foreign TB cases	~ years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	617 (92.2%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	830 (640-1100)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	No
Case-linked data reporting	Yes
Cases with DST results	426 (95.1%)
Estimated RR-TB among notified bac conf pulmonary cases N, (best-low-high)	2 (0-5)
Pulmonary MDR-TB cases notified	0 (0.0%)
of which XDR-TB cases	-
Notified MDR-TB	2 (0.5%)
of which XDR-TB cases	-
TB cases tested for HIV	0 (0.0%)
HIV-positive TB cases	-
of these on ART	-

^a National coverage 100% or culturing ≥ 90%, C+ ≥ 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

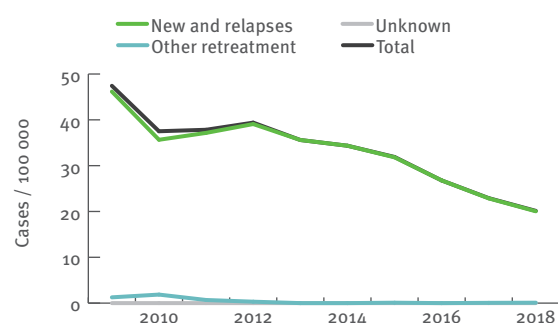
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	766	0
Success	343 (44.8%)	-
Died	47 (6.1%)	-
Failed	17 (2.2%)	-
Lost to follow-up	4 (0.5%)	-
Not evaluated	355 (46.3%)	-

^a Treatment outcome as presented is treatment outcome after 12 months.

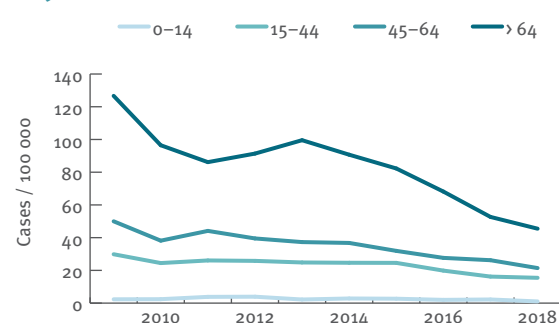
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



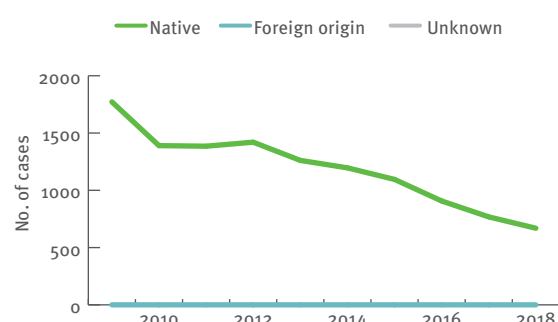
^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

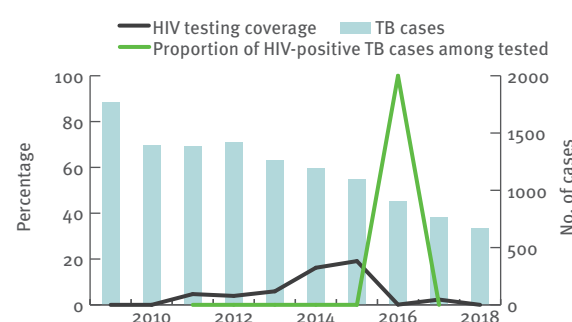


^a Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2009–2018

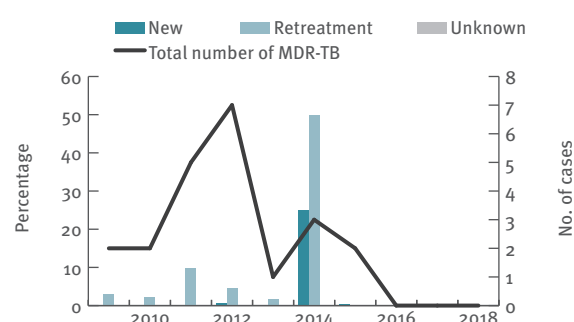


TB/HIV coinfection, 2009–2018^a

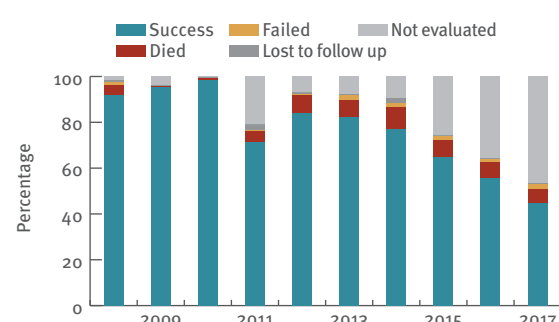


^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new and relapsed TB cases, 2008–2017^a



^a 2008–2011 cohorts include new cases only.

Bulgaria

Total population at 10 May 2019 by EUROSTAT: 7 050 034

TB case notifications, 2018

Total number of cases	1,358
Notification rate per 100 000	19.3
New ^a and relapses	1,290
New ^a and relapses notification rate per 100 000	18.3
Pulmonary	1 063 (78.3%)
of which microscopy-positive	520 (48.9%)
of which laboratory-confirmed	597 (56.2%)
Laboratory-confirmed TB cases	618 (45.5%)
Mean age of new native TB cases	48.0 years
Mean age of new foreign TB cases	50.9 years
Foreign origin of all TB cases	8 (0.6%)
New (not previously treated)	1 163 (85.6%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	1 600-1 200-2 000

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	551 (89.2%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	24-15-33
Pulmonary MDR-TB cases notified	24 (4.5%)
of which XDR-TB cases	0 (0.0%)
Notified MDR-TB	24 (4.4%)
of which XDR-TB cases	0 (0.0%)
TB cases tested for HIV	1 118 (82.3%)
HIV-positive TB cases	0 (0.0%)
of these on ART	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.

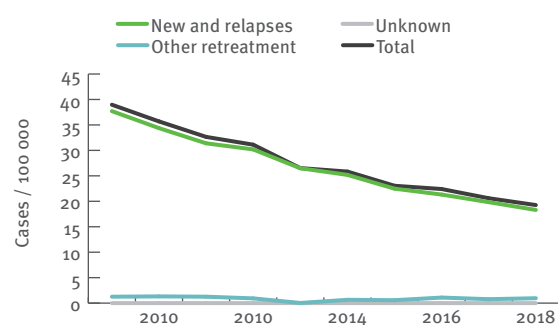
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	588	19
Success	484 (82.3%)	10 (52.6%)
Died	55 (9.4%)	6 (31.6%)
Failed	10 (1.7%)	3 (15.8%)
Lost to follow-up	33 (5.6%)	0 (0.0%)
Still on treatment	5 (0.9%)	0 (0.0%)
Not evaluated	1 (0.2%)	0 (0.0%)

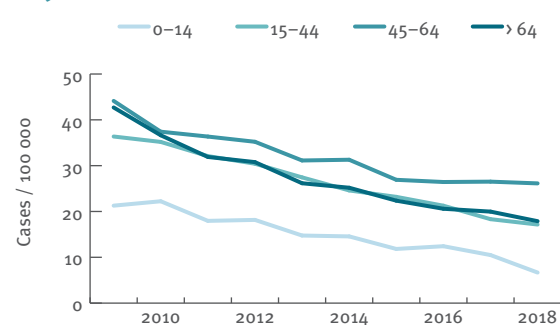
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

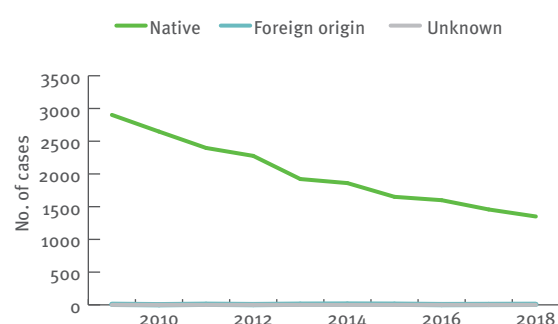
TB notification rates by treatment history, 2009–2018



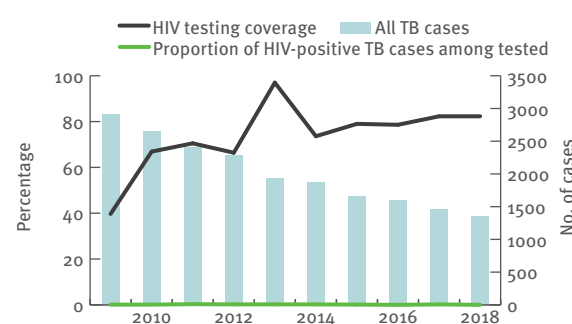
New and relapsed TB cases – notification rates by age group, 2009–2018



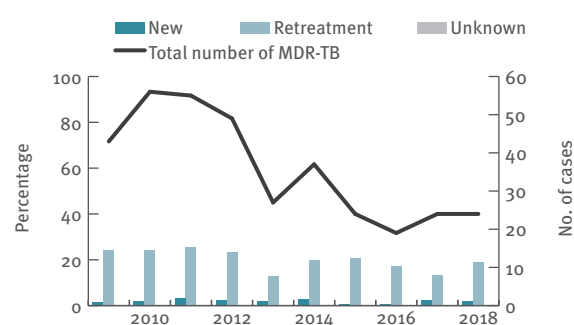
TB cases by geographical origin, 2009–2018



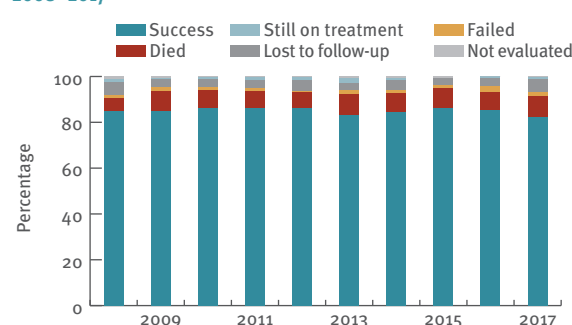
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Croatia

Total population at 10 May 2019 by EUROSTAT: 4 105 493

TB case notifications, 2018

Total number of cases	372
Notification rate per 100 000	9.1
New ^a and relapses	364
New ^a and relapses notification rate per 100 000	8.9
Pulmonary	319 (85.8%)
of which microscopy-positive	154 (48.3%)
of which laboratory-confirmed	287 (90.0%)
Laboratory-confirmed TB cases	325 (87.4%)
Mean age of new native TB cases	57.0 years
Mean age of new foreign TB cases	68.3 years
Foreign origin of all TB cases	4 (1.1%)
New (not previously treated)	291 (78.2%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	350-300-400

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	No
Case-linked data reporting	Yes
Cases with DST results	295 (90.8%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	0-0-3
Pulmonary MDR-TB cases notified	2 (0.8%)
of which XDR-TB cases	0 -
Notified MDR-TB	2 (0.7%)
of which XDR-TB cases	0 -
TB cases tested for HIV	2 (0.5%)
HIV-positive TB cases	0 (0.0%)
of these on ART	- -

^a National coverage 100% or culturing ≥ 90%, C+ all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

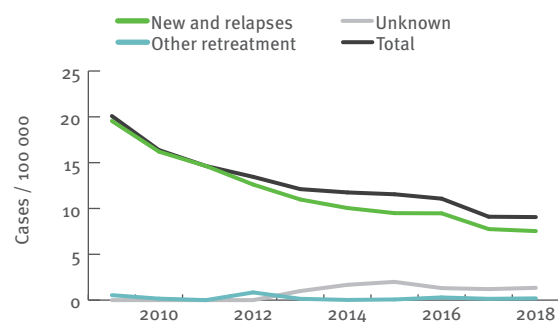
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	241	0
Success	163 (67.6%)	0 -
Died	39 (16.2%)	0 -
Failed	0 (0.0%)	0 -
Lost to follow-up	5 (2.1%)	0 -
Still on treatment	18 (7.5%)	0 -
Not evaluated	16 (6.6%)	0 -

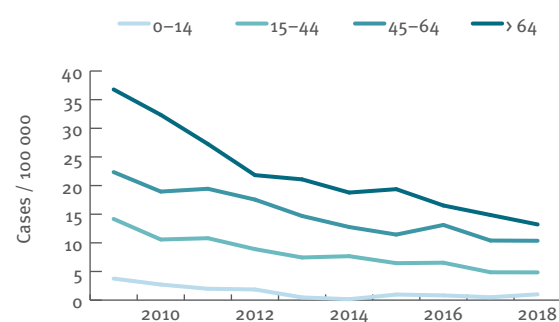
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

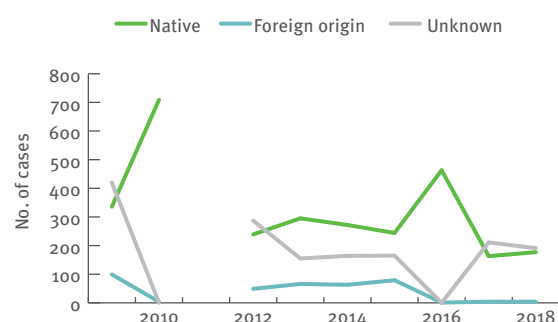
TB notification rates by treatment history, 2009–2018



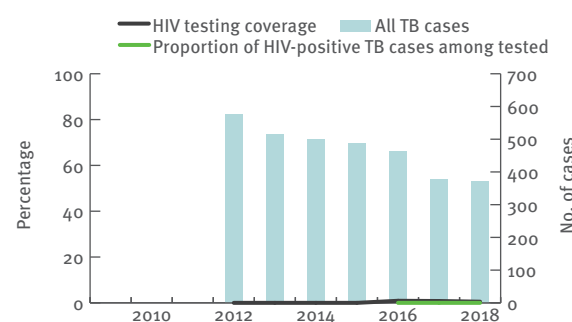
New and relapsed TB cases – notification rates by age group, 2009–2018



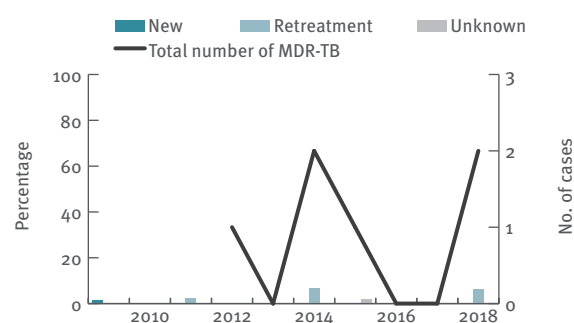
TB cases by geographical origin, 2009–2018



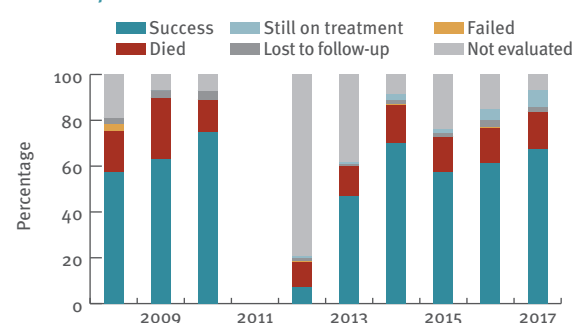
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Cyprus

Total population at 10 May 2019 by EUROSTAT: 864 236

TB case notifications, 2018

Total number of cases	52
Notification rate per 100 000	6.0
New ^a and relapses	51
New ^a and relapses notification rate per 100 000	5.9
Pulmonary	42 (80.8%)
of which microscopy-positive	14 (33.3%)
of which laboratory-confirmed	35 (83.3%)
Laboratory-confirmed TB cases	40 (76.9%)
Mean age of new native TB cases	48.5 years
Mean age of new foreign TB cases	35.6 years
Foreign origin of all TB cases	49 (94.2%)
New (not previously treated)	47 (90.4%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	65-55-75

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	39 (97.5%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	0-0-2
Pulmonary MDR-TB cases notified	0 (0.0%)
of which XDR-TB cases	0 -
Notified MDR-TB	0 (0.0%)
of which XDR-TB cases	0 -
TB cases tested for HIV	41 (78.8%)
HIV-positive TB cases	1 (2.4%)
of these on ART	- -

^a National coverage 100% or culturing ≥ 90%, C+ ≥ 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

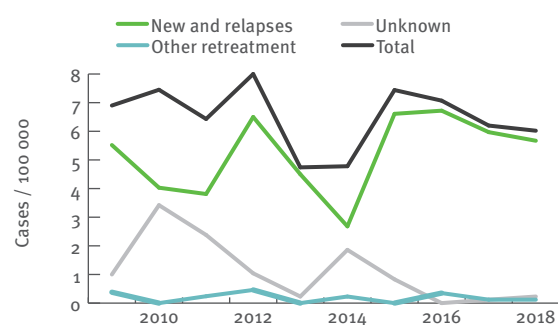
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	33	1
Success	19 (57.6%)	0 -
Died	1 (3.0%)	0 -
Failed	0 (0.0%)	0 -
Lost to follow-up	0 (0.0%)	0 -
Still on treatment	5 (15.2%)	0 -
Not evaluated	8 (24.2%)	1 -

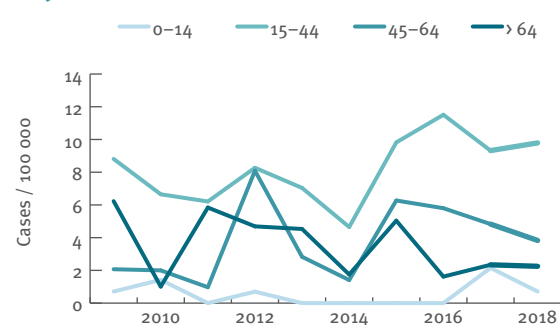
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

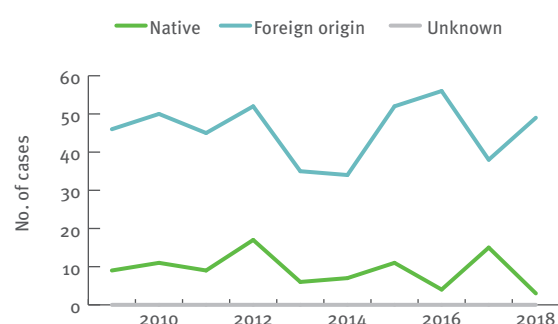
TB notification rates by treatment history, 2009–2018



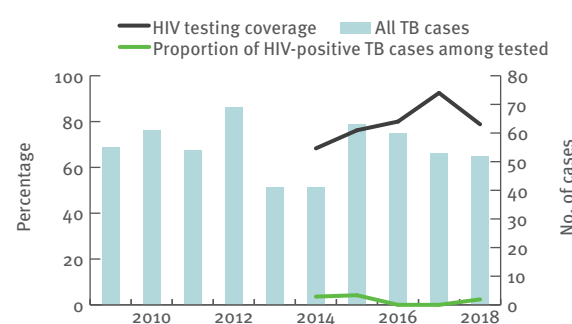
New and relapsed TB cases – notification rates by age group, 2009–2018



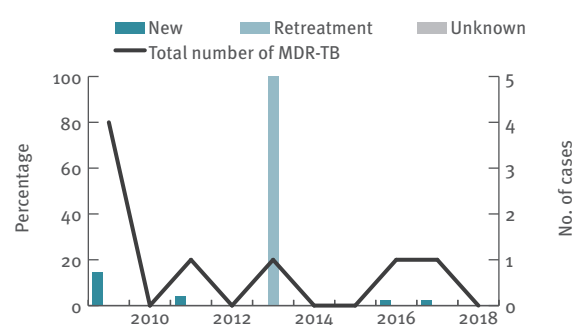
TB cases by geographical origin, 2009–2018



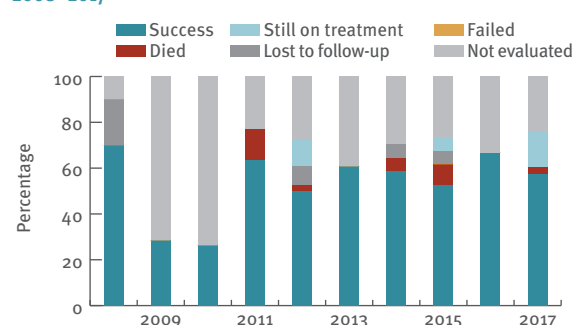
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Czech Republic

Total population at 10 May 2019 by EUROSTAT: 10 610 055

TB case notifications, 2018

Total number of cases	444
Notification rate per 100 000	4.2
New ^a and relapses	435
New ^a and relapses notification rate per 100 000	4.1
Pulmonary	397 (89.4%)
of which microscopy-positive	165 (41.6%)
of which laboratory-confirmed	325 (81.9%)
Laboratory-confirmed TB cases	361 (81.3%)
Mean age of new native TB cases	55.5 years
Mean age of new foreign TB cases	39.1 years
Foreign origin of all TB cases	147 (33.1%)
New (not previously treated)	413 (93.0%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	580-500-670

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	No
Case-linked data reporting	Yes
Cases with DST results	327 (90.6%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	10-4-17
Pulmonary MDR-TB cases notified	10 (3.4%)
of which XDR-TB cases	0 (0.0%)
Notified MDR-TB	12 (3.7%)
of which XDR-TB cases	1 (8.3%)
TB cases tested for HIV	190 (42.8%)
HIV-positive TB cases	4 (2.1%)
of these on ART	-

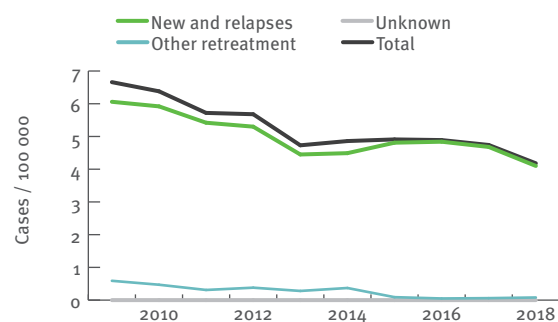
^a National coverage 100% or culturing ≥ 90%, C+ ≥ 75%, EQA ≥ 95%.^b More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

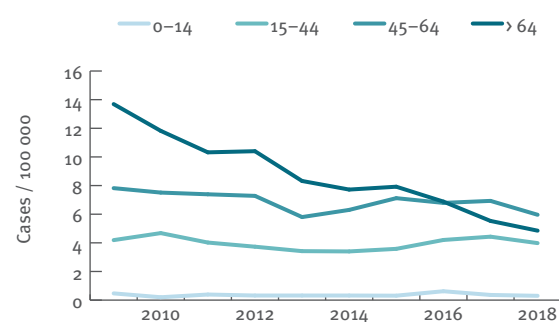
Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	318	6
Success	220 (69.2%)	1 (16.7%)
Died	39 (12.3%)	2 (33.3%)
Failed	1 (0.3%)	0 (0.0%)
Lost to follow-up	36 (11.3%)	1 (16.7%)
Still on treatment	13 (4.1%)	1 (16.7%)
Not evaluated	9 (2.8%)	1 (16.7%)

^a Treatment outcome as presented is treatment outcome after 12 months.^b Treatment outcome as presented is treatment outcome after 24 months.

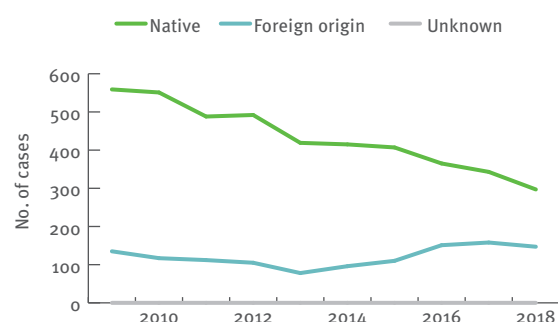
TB notification rates by treatment history, 2009–2018



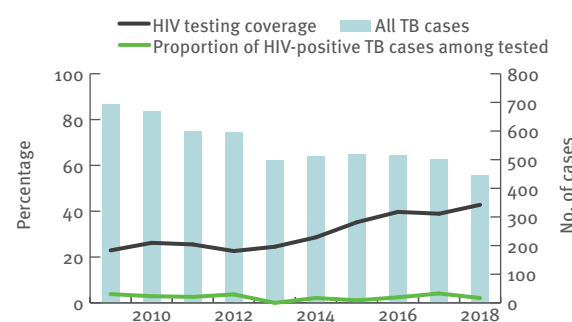
New and relapsed TB cases – notification rates by age group, 2009–2018



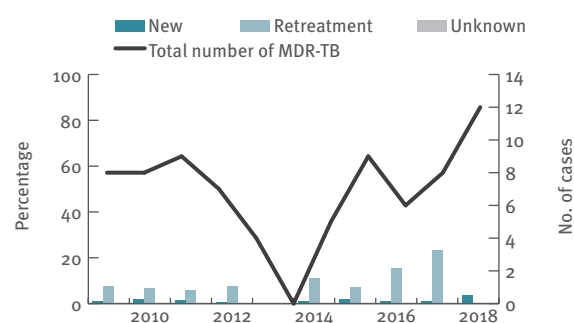
TB cases by geographical origin, 2009–2018



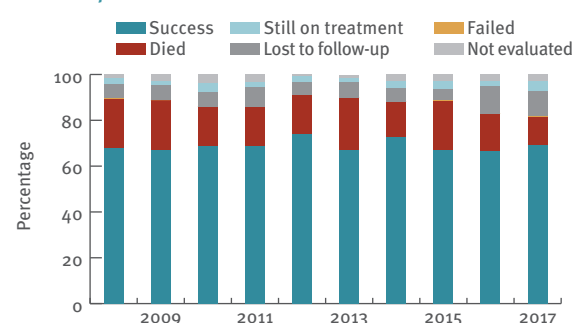
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Denmark

Total population at 10 May 2019 by EUROSTAT: 5 781 190

TB case notifications, 2018

Total number of cases	291
Notification rate per 100 000	5.0
New ^a and relapses	270
New ^a and relapses notification rate per 100 000	4.7
Pulmonary	221 (75.9%)
of which microscopy-positive	106 (48.0%)
of which laboratory-confirmed	174 (78.7%)
Laboratory-confirmed TB cases	221 (75.9%)
Mean age of new native TB cases	46.8 years
Mean age of new foreign TB cases	41.0 years
Foreign origin of all TB cases	198 (68.0%)
New (not previously treated)	270 (92.8%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	310-270-360

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	218 (98.6%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	4-0-9
Pulmonary MDR-TB cases notified	4 (2.3%)
of which XDR-TB cases	0 (0.0%)
Notified MDR-TB	4 (1.8%)
of which XDR-TB cases	0 (0.0%)
TB cases tested for HIV	234 (80.4%)
HIV-positive TB cases	3 (1.3%)
of these on ART	-

^a National coverage 100% or culturing ≥ 90%, C+ all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

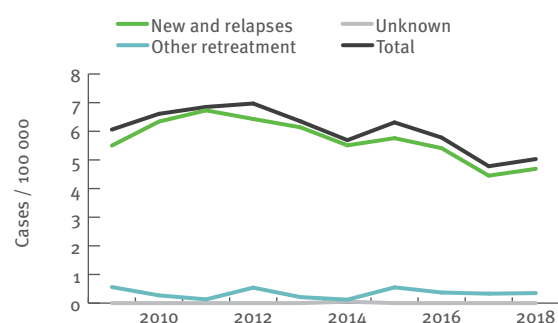
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	157	4
Success	67 (42.7%)	3 (75.0%)
Died	2 (1.3%)	0 (0.0%)
Failed	1 (0.6%)	0 (0.0%)
Lost to follow-up	0 (0.0%)	0 (0.0%)
Still on treatment	2 (1.3%)	0 (0.0%)
Not evaluated	85 (54.1%)	1 (25.0%)

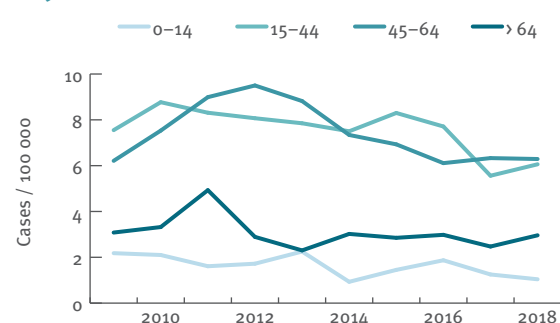
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

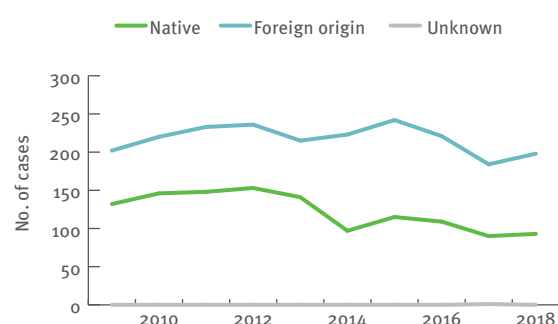
TB notification rates by treatment history, 2009–2018



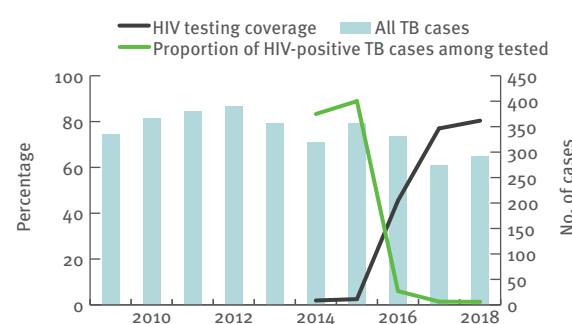
New and relapsed TB cases – notification rates by age group, 2009–2018



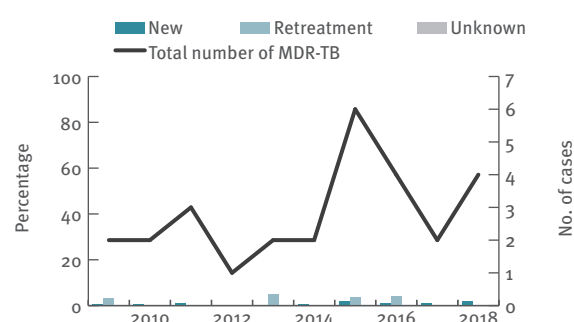
TB cases by geographical origin, 2009–2018



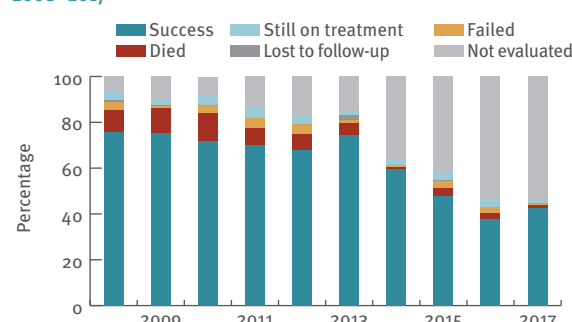
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Estonia

Total population at 10 May 2019 by EUROSTAT: 1 319 133

TB case notifications, 2018

Total number of cases	147
Notification rate per 100 000	11.1
New ^a and relapses	145
New ^a and relapses notification rate per 100 000	11.0
Pulmonary	138 (93.9%)
of which microscopy-positive	73 (52.9%)
of which laboratory-confirmed	121 (87.7%)
Laboratory-confirmed TB cases	125 (85.0%)
Mean age of new native TB cases	47.9 years
Mean age of new foreign TB cases	57.3 years
Foreign origin of all TB cases	32 (21.8%)
New (not previously treated)	121 (82.3%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	170-140-190

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	122 (97.6%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	33-24-43
Pulmonary MDR-TB cases notified	30 (25.4%)
of which XDR-TB cases	8 (26.7%)
Notified MDR-TB	30 (24.6%)
of which XDR-TB cases	8 (26.7%)
TB cases tested for HIV	137 (93.2%)
HIV-positive TB cases	13 (9.5%)
of these on ART	10 (76.9%)

^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.

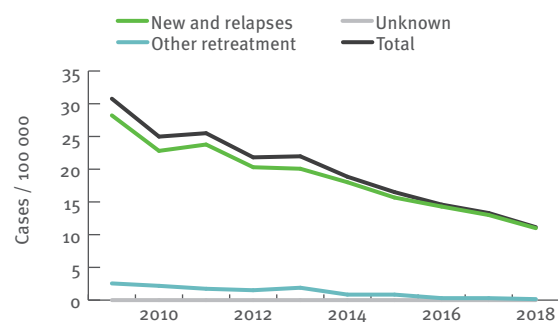
Treatment outcome monitoring

Geographical coverage	National		
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b	
Case-linked data reporting	Yes		
Cases notified	119	24	
Success	77 (64.7%)	17	(70.8%)
Died	18 (15.1%)	5	(20.8%)
Failed	1 (0.8%)	1	(4.2%)
Lost to follow-up	2 (1.7%)	0	(0.0%)
Still on treatment	21 (17.6%)	1	(4.2%)
Not evaluated	0 (0.0%)	0	(0.0%)

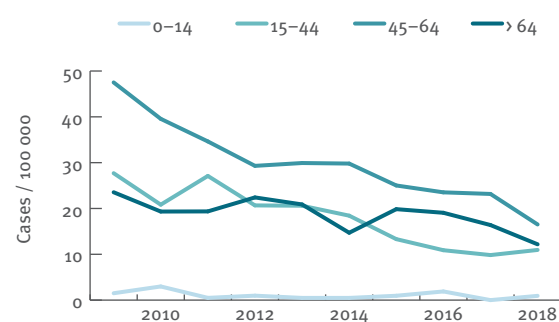
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

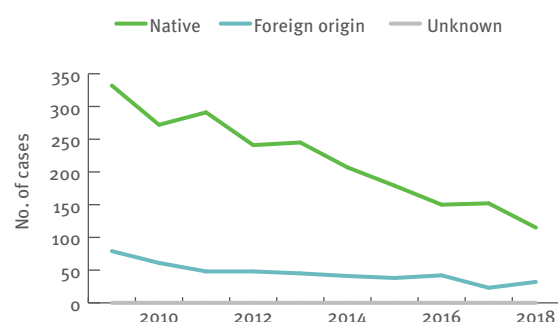
TB notification rates by treatment history, 2009–2018



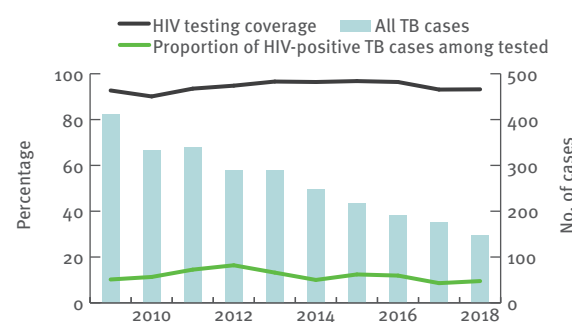
New and relapsed TB cases – notification rates by age group, 2009–2018



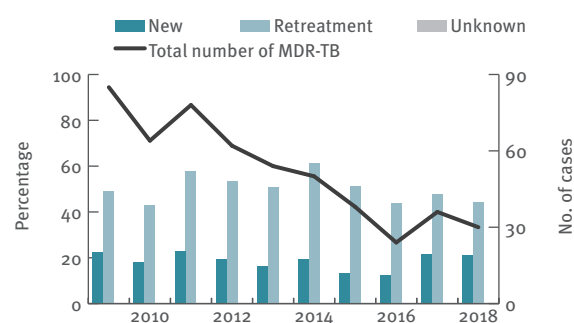
TB cases by geographical origin, 2009–2018



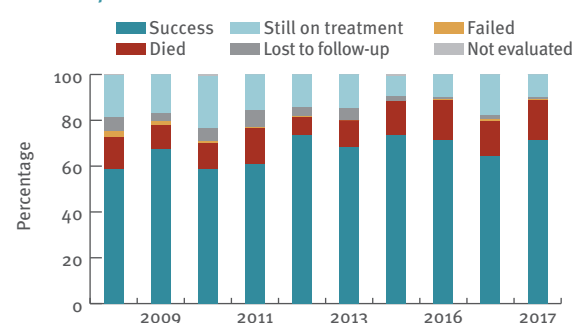
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Finland

Total population at 10 May 2019 by EUROSTAT: 5 513 130

TB case notifications, 2018

Total number of cases	230
Notification rate per 100 000	4.2
New ^a and relapses	229
New ^a and relapses notification rate per 100 000	4.2
Pulmonary	155 (67.4%)
of which microscopy-positive	51 (32.9%)
of which laboratory-confirmed	136 (87.7%)
Laboratory-confirmed TB cases	194 (84.3%)
Mean age of new native TB cases	72.5 years
Mean age of new foreign TB cases	36.9 years
Foreign origin of all TB cases	92 (40.0%)
New (not previously treated)	222 (96.5%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	260-220-300

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	–
Case-linked data reporting	Yes
Cases with DST results	182 (93.8%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	6-1-10
Pulmonary MDR-TB cases notified	4 (3.1%)
of which XDR-TB cases	1 (25.0%)
Notified MDR-TB	4 (2.2%)
of which XDR-TB cases	1 (25.0%)
TB cases tested for HIV	–
HIV-positive TB cases	–
of these on ART	–

^a National coverage 100% or culturing ≥ 90%, C+ all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

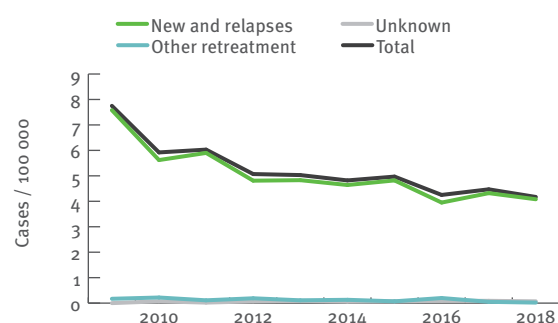
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	138	6
Success	75 (54.3%)	4 (66.7%)
Died	0 (0.0%)	0 (0.0%)
Failed	1 (0.7%)	0 (0.0%)
Lost to follow-up	1 (0.7%)	1 (16.7%)
Still on treatment	3 (2.2%)	0 (0.0%)
Not evaluated	58 (42.0%)	1 (16.7%)

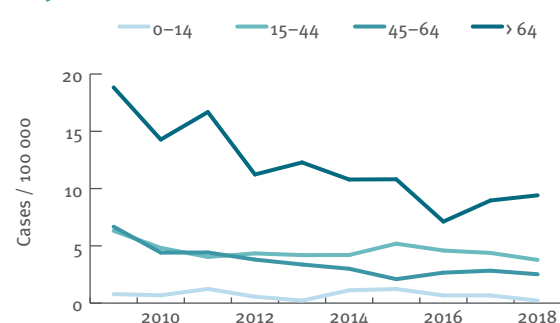
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

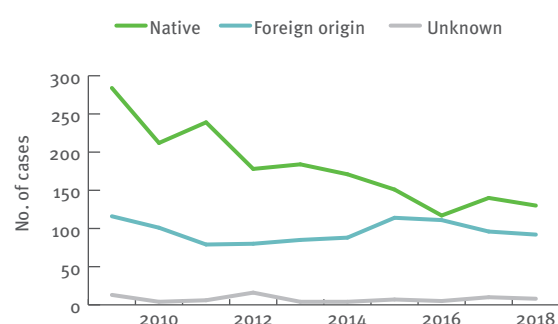
TB notification rates by treatment history, 2009–2018



New and relapsed TB cases – notification rates by age group, 2009–2018



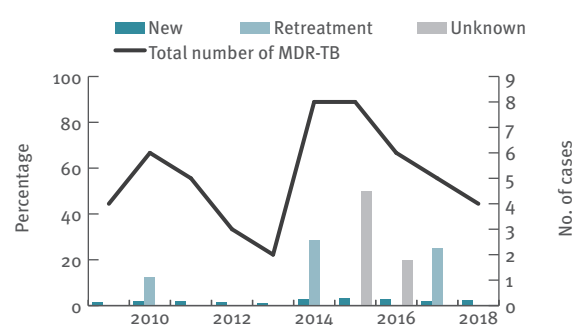
TB cases by geographical origin, 2009–2018



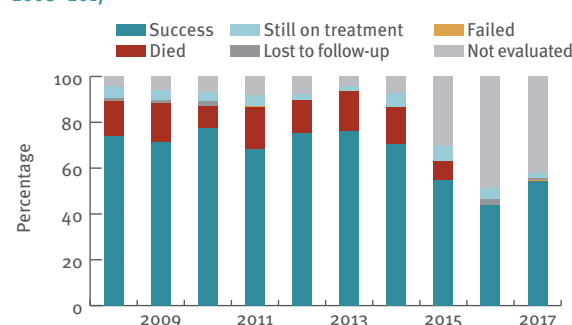
TB/HIV coinfection, 2009–2018

Data not available

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



France

Total population at 10 May 2019 by EUROSTAT: 66 926 166

TB case notifications, 2018

Total number of cases	5,092
Notification rate per 100 000	7.6
New ^a and relapses	4,779
New ^a and relapses notification rate per 100 000	7.1
Pulmonary	3,583 (70.4%)
of which microscopy-positive	1,652 –
of which laboratory-confirmed	1,659 (46.3%)
Laboratory-confirmed TB cases	2,234 (43.9%)
Mean age of new native TB cases	48.7 years
Mean age of new foreign TB cases	37.2 years
Foreign origin of all TB cases	3,142 (61.7%)
New (not previously treated)	– –
Estimate	
Estimated new and relapsed cases N, (best-low-high)	5 800-5 100-6 500

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	–
Case-linked data reporting	No
Cases with DST results	82 (1.6%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	43-31-54
Pulmonary MDR-TB cases notified	66 (100.0%)
of which XDR-TB cases	8 (13.1%)
Notified MDR-TB	82 (100.0%)
of which XDR-TB cases	8 (10.5%)
TB cases tested for HIV	– –
HIV-positive TB cases	– –
of these on ART	– –

^a National coverage 100% or culturing ≥ 90%, C+ ≥ 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

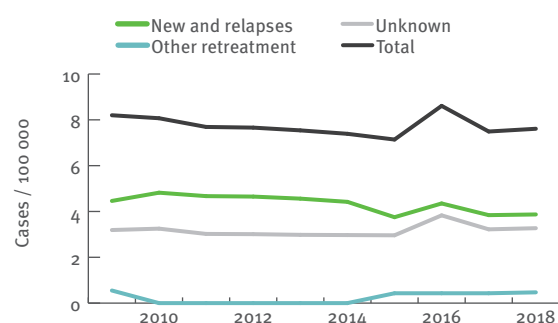
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	1 041	–
Success	325 (31.2%)	– –
Died	31 (3.0%)	– –
Failed	0 (0.0%)	– –
Lost to follow-up	25 (2.4%)	– –
Still on treatment	9 (0.9%)	– –
Not evaluated	651 (62.5%)	– –

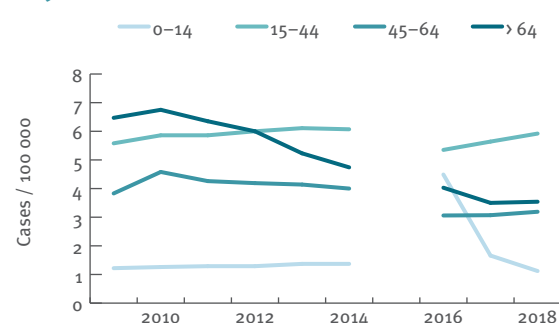
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

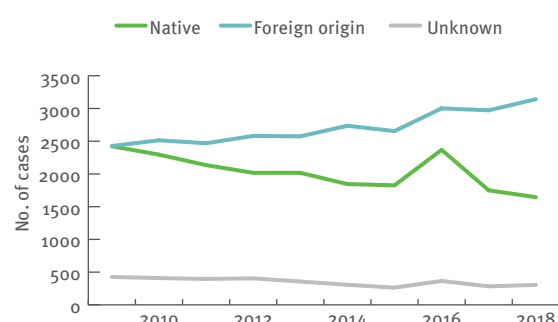
TB notification rates by treatment history, 2009–2018



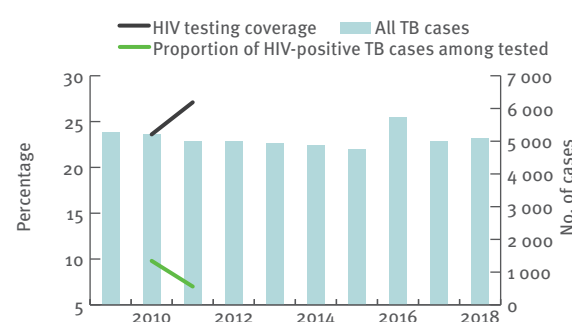
New and relapsed TB cases – notification rates by age group, 2009–2018



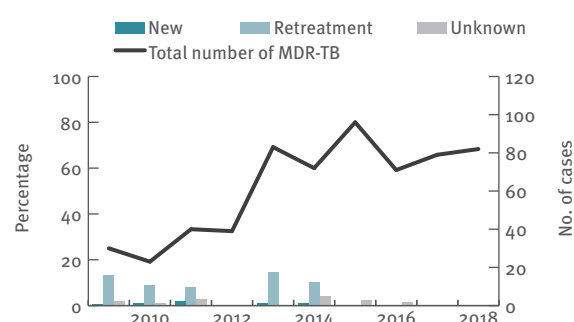
TB cases by geographical origin, 2009–2018



TB/HIV coinfection, 2009–2018

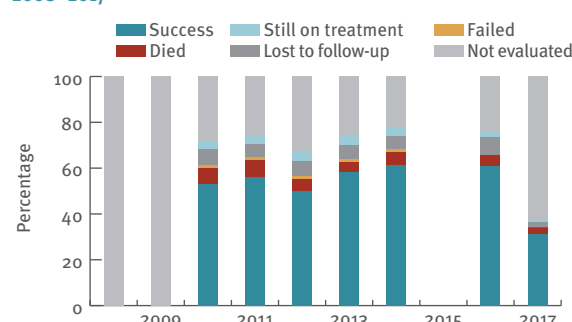


MDR-TB cases by previous treatment history, 2009–2018



In 2018, the bars show 100% since France reported INH and RIF data only for MDR cases.

Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Georgia

Population estimate 2018 by UN Statistical Database: 4 002 942

TB case notifications, 2018

Total number of cases	2 590
Notification rate per 100 000	64.7
New ^a and relapses	2 316
New ^a and relapses notification rate per 100 000	57.9
Pulmonary	1 863 (80.4%)
of which microscopy-positive	
of which laboratory-confirmed	1 628 (87.4%)
Laboratory-confirmed TB cases	1 862 (71.9%)
Mean age of new native TB cases	42.5 years
Mean age of new foreign TB cases	~ years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	1 944 (75.1%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	3 200 (2 700-3 800)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	1 756 (94.3%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	320 (290-360)
Pulmonary MDR-TB cases notified	167 (9.5%)
of which XDR-TB cases	34 (21.4%)
Notified MDR-TB	297 (16.9%)
of which XDR-TB cases	49 (23.2%)
TB cases tested for HIV	2 174 (93.9%)
HIV-positive TB cases	45 (2.1%)
of these on ART	45 (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.

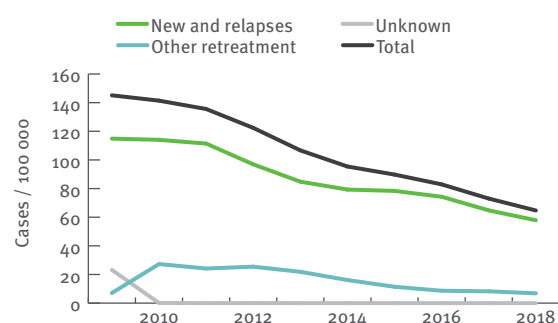
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	2 351	339
Success	1 977 (84.1%)	222 (65.5%)
Died	85 (3.6%)	20 (5.9%)
Failed	61 (2.6%)	18 (5.3%)
Lost to follow-up	143 (6.1%)	65 (19.2%)
Not evaluated	85 (3.6%)	14 (4.1%)

^a Treatment outcome as presented is treatment outcome after 12 months.

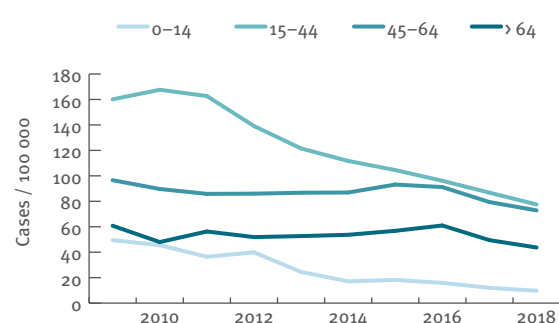
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



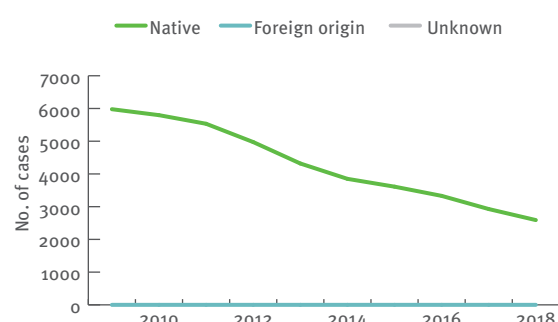
^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

New TB cases – notification rates by age group, 2009–2018^a

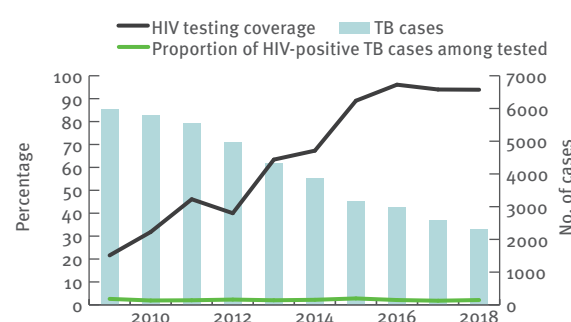


^a Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2009–2018

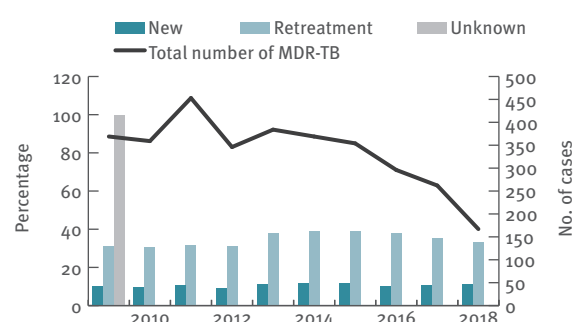


TB/HIV coinfection, 2009–2018^a

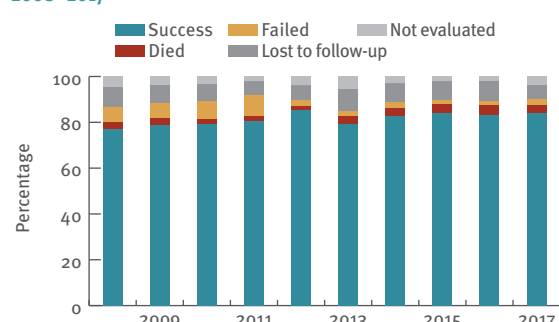


^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017^a



^a 2008–2011 cohorts include new cases only.

Germany

Total population at 10 May 2019 by EUROSTAT: 82 792 351

TB case notifications, 2018

Total number of cases	5 429
Notification rate per 100 000	6.6
New ^a and relapses	5 265
New ^a and relapses notification rate per 100 000	6.4
Pulmonary	3 916 (72.1%)
of which microscopy-positive	1 901 (48.5%)
of which laboratory-confirmed	3 159 (80.7%)
Laboratory-confirmed TB cases	4 127 (76.0%)
Mean age of new native TB cases	51.7 years
Mean age of new foreign TB cases	35.2 years
Foreign origin of all TB cases	3 890 (71.7%)
New (not previously treated)	5 119 (94.3%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	6 100-5 200-7 000

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	–
Case-linked data reporting	Yes
Cases with DST results	3 731 (90.4%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	140-65-210
Pulmonary MDR-TB cases notified	98 (3.4%)
of which XDR-TB cases	8 (10.7%)
Notified MDR-TB	116 (3.1%)
of which XDR-TB cases	8 (8.9%)
TB cases tested for HIV	–
HIV-positive TB cases	–
of these on ART	–

^a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

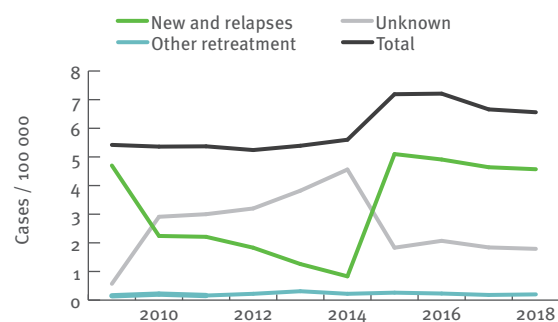
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	2245	105
Success	1630 (72.6%)	35 (33.3%)
Died	187 (8.3%)	8 (7.6%)
Failed	0 (0.0%)	1 (1.0%)
Lost to follow-up	34 (1.5%)	8 (7.6%)
Still on treatment	77 (3.4%)	11 (10.5%)
Not evaluated	317 (14.1%)	42 (40.0%)

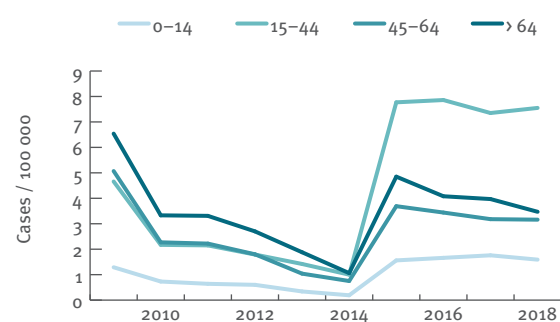
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

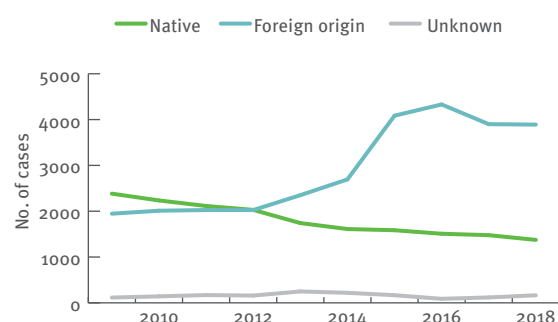
TB notification rates by treatment history, 2009–2018



New and relapsed TB cases – notification rates by age group, 2009–2018



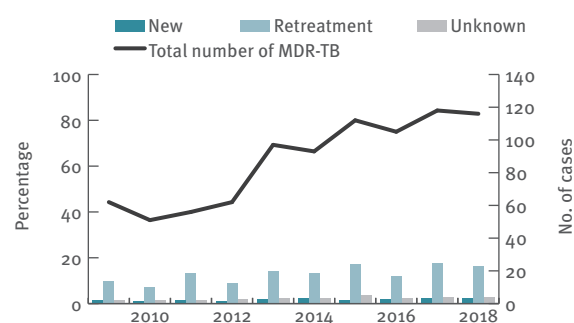
TB cases by geographical origin, 2009–2018



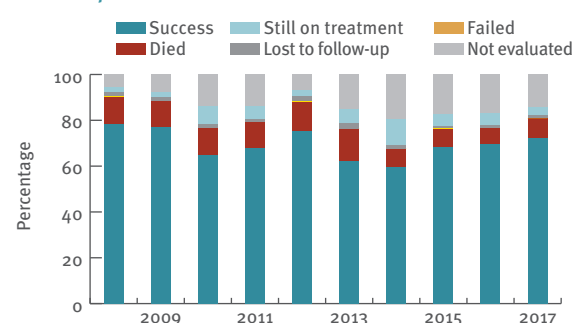
TB/HIV coinfection, 2009–2018

Data not available

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Greece

Total population at 10 May 2019 by EUROSTAT: 10 741 165

TB case notifications, 2018

Total number of cases	432
Notification rate per 100 000	4.0
New ^a and relapses	406
New ^a and relapses notification rate per 100 000	3.8
Pulmonary	361 (83.6%)
of which microscopy-positive	175 (48.5%)
of which laboratory-confirmed	197 (54.6%)
Laboratory-confirmed TB cases	225 (52.1%)
Mean age of new native TB cases	61.1 years
Mean age of new foreign TB cases	32.6 years
Foreign origin of all TB cases	216 (50.0%)
New (not previously treated)	395 (91.4%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	470-400-550

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	154 (68.4%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	6-0-14
Pulmonary MDR-TB cases notified	5 (3.7%)
of which XDR-TB cases	1 (20.0%)
Notified MDR-TB	5 (3.2%)
of which XDR-TB cases	1 (20.0%)
TB cases tested for HIV	362 (83.8%)
HIV-positive TB cases	11 (3.0%)
of these on ART	-

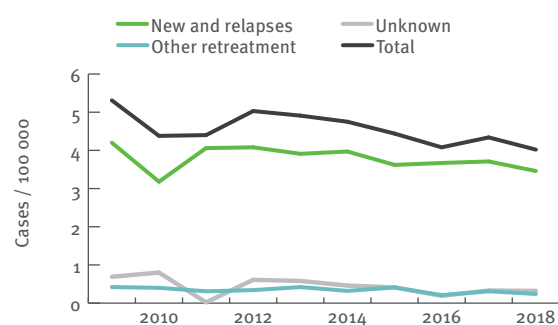
^a National coverage 100% or culturing ≥ 90%, C+ all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

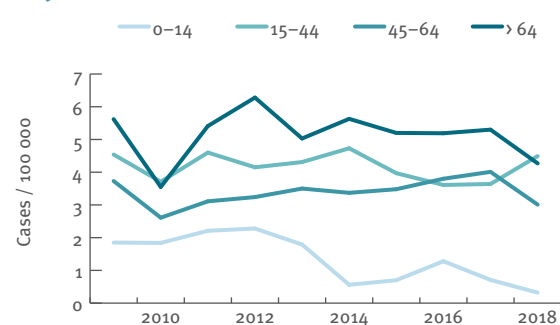
Treatment outcome monitoring

Data not available

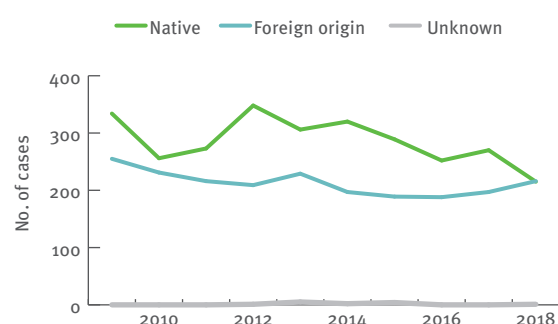
TB notification rates by treatment history, 2009–2018



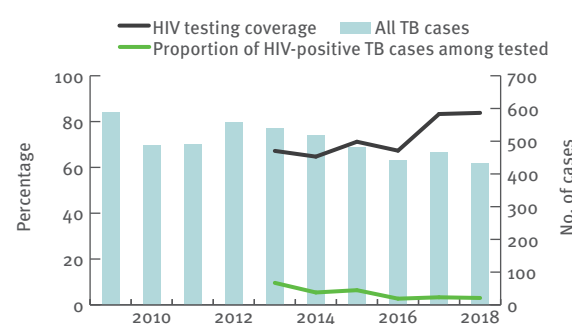
New and relapsed TB cases – notification rates by age group, 2009–2018



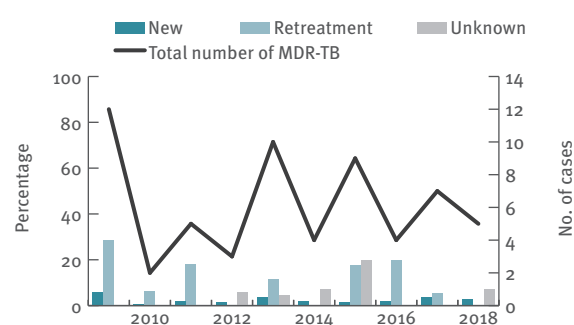
TB cases by geographical origin, 2009–2018



TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017

Data not available

Hungary

Total population at 10 May 2019 by EUROSTAT: 9 778 371

TB case notifications, 2018

Total number of cases	640
Notification rate per 100 000	6.5
New ^a and relapses	602
New ^a and relapses notification rate per 100 000	6.2
Pulmonary	621 (97.0%)
of which microscopy-positive	222 (35.7%)
of which laboratory-confirmed	362 (58.3%)
Laboratory-confirmed TB cases	367 (57.3%)
Mean age of new native TB cases	55.2 years
Mean age of new foreign TB cases	34.6 years
Foreign origin of all TB cases	23 (3.6%)
New (not previously treated)	573 (89.5%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	620-530-720

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	No
Case-linked data reporting	Yes
Cases with DST results	330 (89.9%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	13-8-19
Pulmonary MDR-TB cases notified	12 (3.7%)
of which XDR-TB cases	3 (27.3%)
Notified MDR-TB	12 (3.6%)
of which XDR-TB cases	3 (27.3%)
TB cases tested for HIV	23 (3.6%)
HIV-positive TB cases	3 (13.0%)
of these on ART	-

^a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

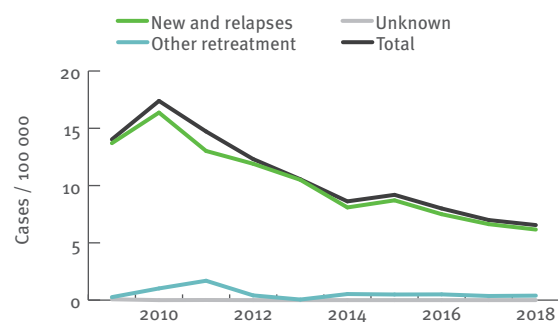
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	312	18
Success	189 (60.6%)	8 (44.4%)
Died	53 (17.0%)	2 (11.1%)
Failed	7 (2.2%)	0 (0.0%)
Lost to follow-up	27 (8.7%)	0 (0.0%)
Still on treatment	27 (8.7%)	4 (22.2%)
Not evaluated	9 (2.9%)	4 (22.2%)

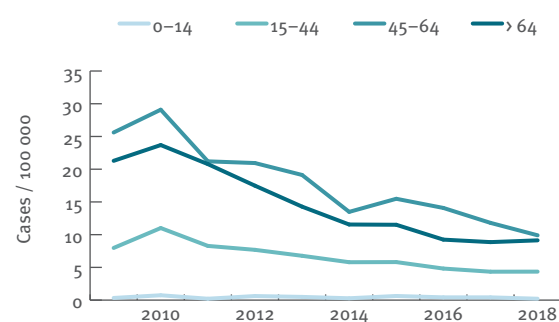
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

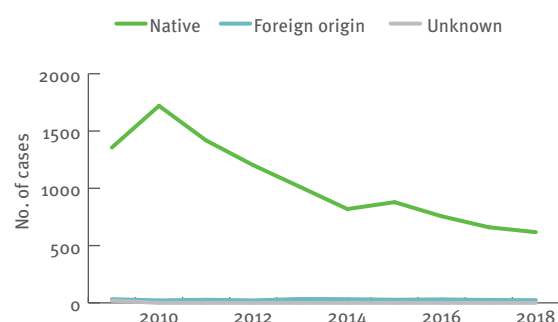
TB notification rates by treatment history, 2009–2018



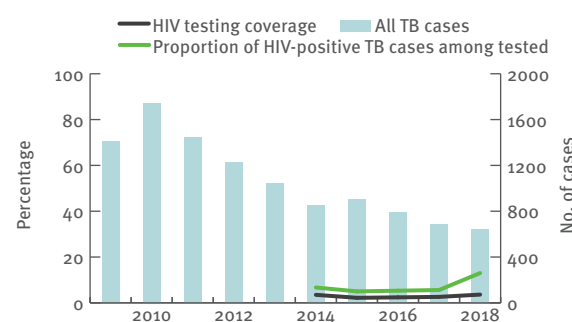
New and relapsed TB cases – notification rates by age group, 2009–2018



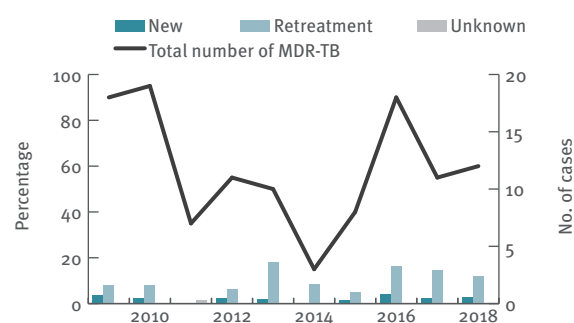
TB cases by geographical origin, 2009–2018



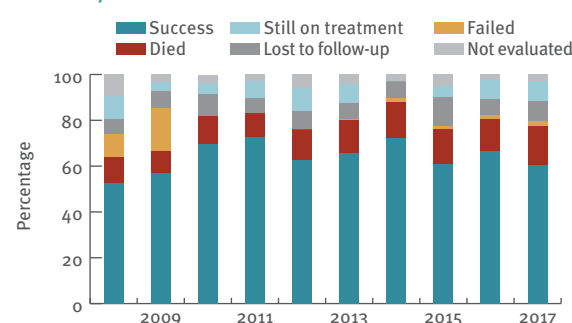
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Iceland

Total population at 10 May 2019 by EUROSTAT: 348 450

TB case notifications, 2018

Total number of cases	8
Notification rate per 100 000	2.3
New ^a and relapses	8
New ^a and relapses notification rate per 100 000	2.3
Pulmonary	5 (62.5%)
of which microscopy-positive	2 (40.0%)
of which laboratory-confirmed	2 (40.0%)
Laboratory-confirmed TB cases	2 (25.0%)
Mean age of new native TB cases	– years
Mean age of new foreign TB cases	53.9 years
Foreign origin of all TB cases	8 (100.0%)
New (not previously treated)	8 (100.0%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	9-8-11

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	2 (100.0%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	0-0-1
Pulmonary MDR-TB cases notified	0 (0.0%)
of which XDR-TB cases	0 –
Notified MDR-TB	0 (0.0%)
of which XDR-TB cases	0 –
TB cases tested for HIV	8 (100.0%)
HIV-positive TB cases	1 (12.5%)
of these on ART	–

^a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

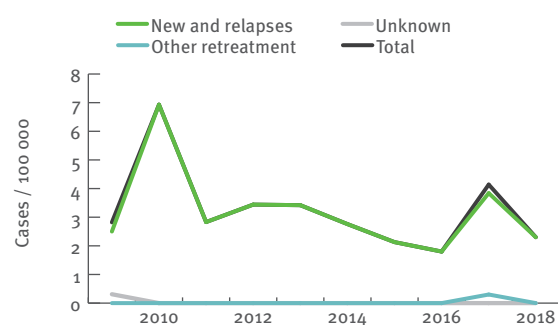
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	6	0
Success	6 (100.0%)	0 –
Died	0 (0.0%)	0 –
Failed	0 (0.0%)	0 –
Lost to follow-up	0 (0.0%)	0 –
Still on treatment	0 (0.0%)	0 –
Not evaluated	0 (0.0%)	0 –

^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

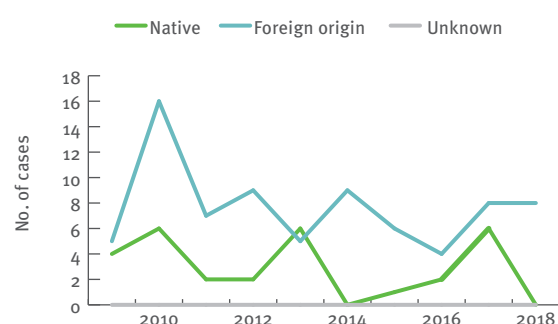
TB notification rates by treatment history, 2009–2018



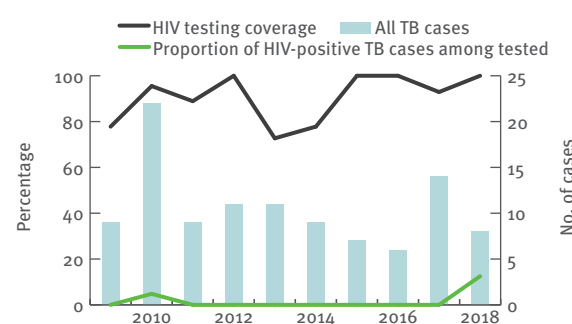
New and relapsed TB cases – notification rates by age group, 2009–2018



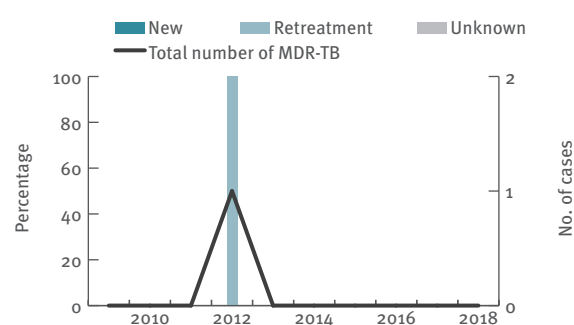
TB cases by geographical origin, 2009–2018



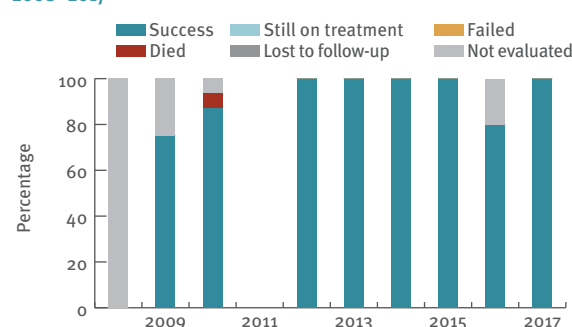
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Ireland

Total population at 10 May 2019 by EUROSTAT: 4 830 392

TB case notifications, 2018

Total number of cases	314
Notification rate per 100 000	6.5
New ^a and relapses	294
New ^a and relapses notification rate per 100 000	6.1
Pulmonary	215 (68.5%)
of which microscopy-positive	66 (30.7%)
of which laboratory-confirmed	167 (77.7%)
Laboratory-confirmed TB cases	228 (72.6%)
Mean age of new native TB cases	50.7 years
Mean age of new foreign TB cases	38.1 years
Foreign origin of all TB cases	140 (44.6%)
New (not previously treated)	294 (93.6%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	340-290-390

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	No
Case-linked data reporting	Yes
Cases with DST results	205 (89.9%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	2-0-6
Pulmonary MDR-TB cases notified	4 (2.6%)
of which XDR-TB cases	0 (0.0%)
Notified MDR-TB	5 (2.4%)
of which XDR-TB cases	0 (0.0%)
TB cases tested for HIV	140 (44.6%)
HIV-positive TB cases	12 (8.6%)
of these on ART	8 (66.7%)

^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.

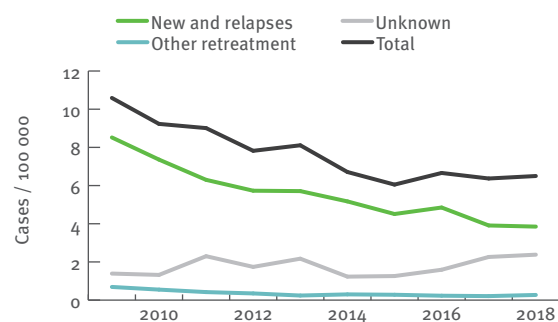
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	107	6
Success	52 (48.6%)	5 (83.3%)
Died	3 (2.8%)	0 (0.0%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	2 (1.9%)	0 (0.0%)
Still on treatment	1 (0.9%)	0 (0.0%)
Not evaluated	49 (45.8%)	1 (16.7%)

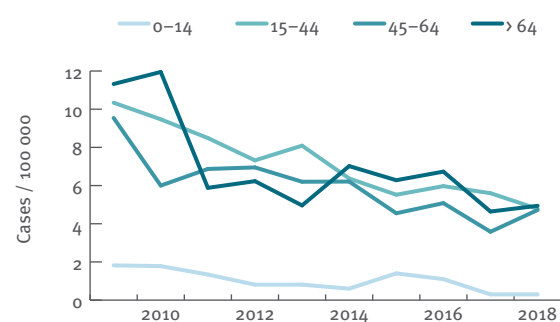
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

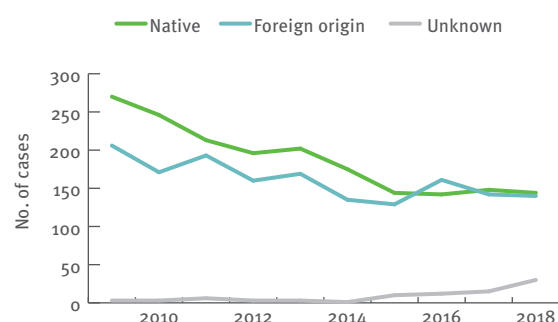
TB notification rates by treatment history, 2009–2018



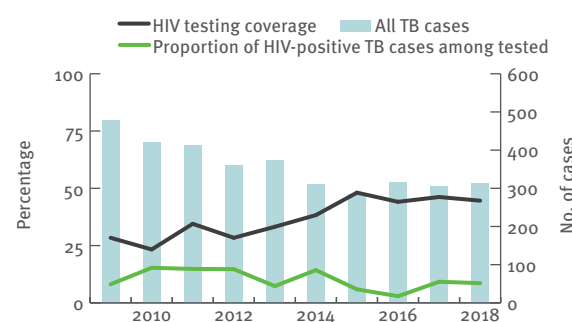
New and relapsed TB cases – notification rates by age group, 2009–2018



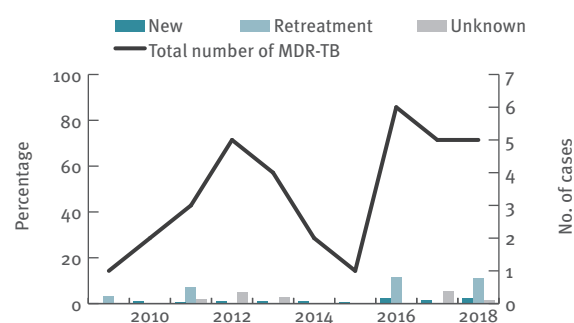
TB cases by geographical origin, 2009–2018



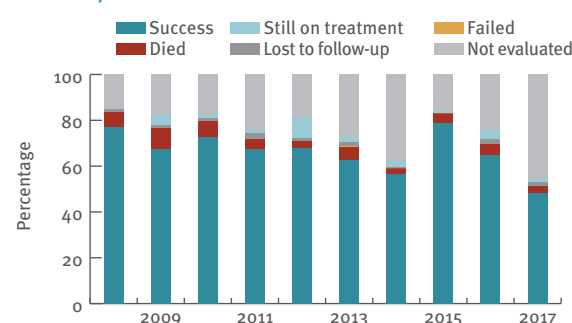
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Israel

Population estimate 2018 by UN Statistical Database: 8 381 516

TB case notifications, 2018

Total number of cases	292
Notification rate per 100 000	3.5
New ^a and relapses	292
New ^a and relapses notification rate per 100 000	3.5
Pulmonary	225 (77.1%)
of which microscopy-positive	
of which laboratory-confirmed	160 (71.1%)
Laboratory-confirmed TB cases	160 (54.8%)
Mean age of new native TB cases	44.9 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	245 (83.9%)
New (not previously treated)	284 (97.3%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	340 (290-390)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	160 (100.0%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	15 (8-22)
Pulmonary MDR-TB cases notified	13 (8.1%)
of which XDR-TB cases	7 (53.8%)
Notified MDR-TB	15 (9.4%)
of which XDR-TB cases	7 (46.7%)
TB cases tested for HIV	292 (100.0%)
HIV-positive TB cases	12 (4.1%)
of these on ART	12 (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.

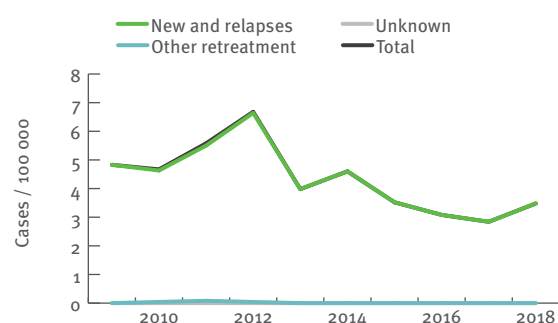
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	225	9
Success	196 (87.1%)	6 (66.7%)
Died	9 (4.0%)	1 (11.1%)
Failed	1 (0.4%)	0 (0.0%)
Lost to follow-up	5 (2.2%)	2 (22.2%)
Not evaluated	14 (6.2%)	0 (0.0%)

^a Treatment outcome as presented is treatment outcome after 12 months.

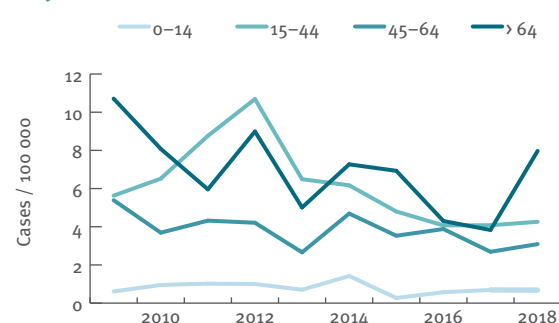
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



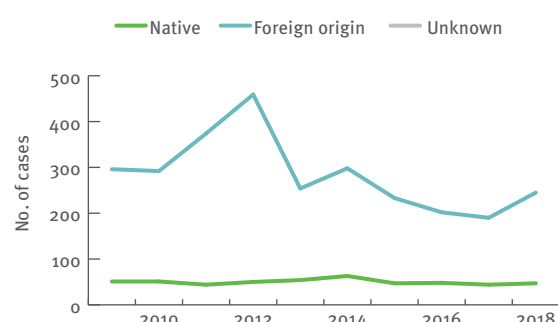
^a Cases with unknown previous treatment included to new cases.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

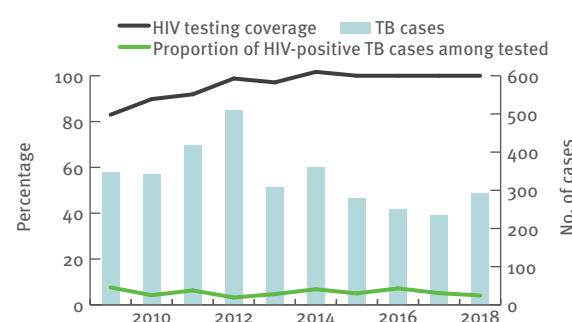


^a Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2009–2018

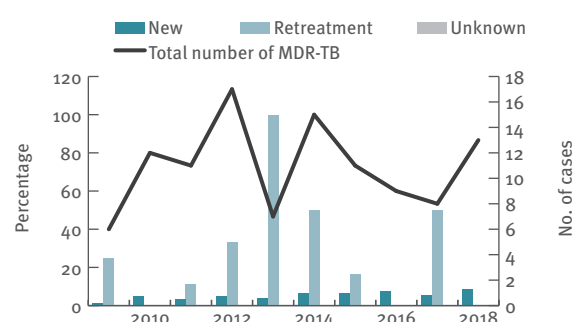


TB/HIV coinfection, 2009–2018^a

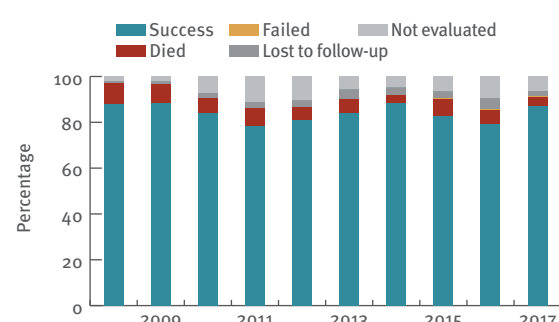


^a Data up to 2014 includes all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new and relapsed TB cases, 2008–2017^a



^a 2008–2011 cohorts include new cases only.

Italy

Total population at 10 May 2019 by EUROSTAT: 60 483 973

TB case notifications, 2018

Total number of cases	3 912
Notification rate per 100 000	6.5
New ^a and relapses	3 777
New ^a and relapses notification rate per 100 000	6.2
Pulmonary	2 744 (70.1%)
of which microscopy-positive	1 468 (53.5%)
of which laboratory-confirmed	2 220 (80.9%)
Laboratory-confirmed TB cases	2 728 (69.7%)
Mean age of new native TB cases	53.6 years
Mean age of new foreign TB cases	34.9 years
Foreign origin of all TB cases	2 313 (59.1%)
New (not previously treated)	2 913 (74.5%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	4 300-3 700-4 900

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	No
Completeness of HIV data ^b	–
Case-linked data reporting	No
Cases with DST results	–
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	72-46-97
Pulmonary MDR-TB cases notified	42 (2.3%)
of which XDR-TB cases	4 (10.8%)
Notified MDR-TB	53
of which XDR-TB cases	–
TB cases tested for HIV	–
HIV-positive TB cases	–
of these on ART	–

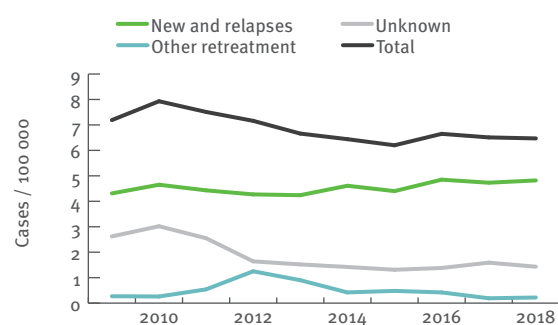
^a National coverage 100% or culturing ≥ 90%, C+ all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

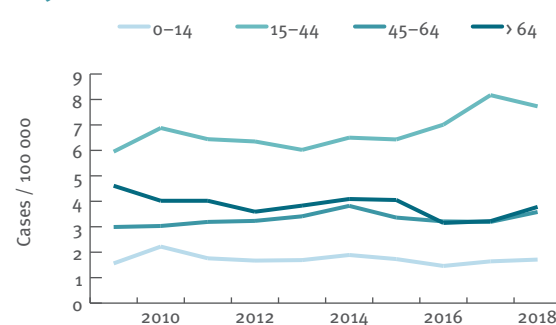
Treatment outcome monitoring

Data not available

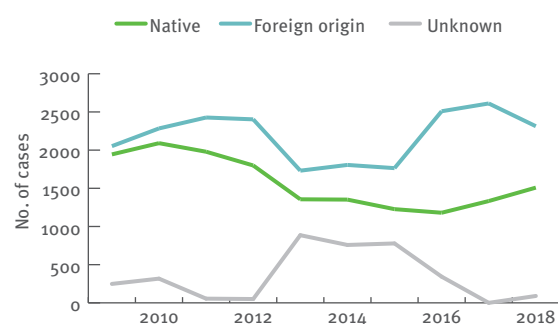
TB notification rates by treatment history, 2009–2018



New and relapsed TB cases – notification rates by age group, 2009–2018



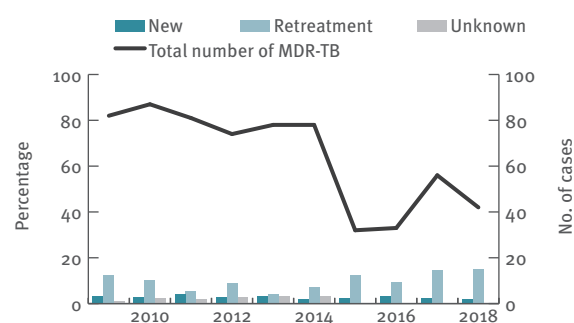
TB cases by geographical origin, 2009–2018



TB/HIV coinfection, 2009–2018

Data not available

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017

Data not available

Kazakhstan

Population estimate 2018 by UN Statistical Database: 18 319 618

TB case notifications, 2018

Total number of cases	13 361
Notification rate per 100 000	72.9
New ^a and relapses	12 832
New ^a and relapses notification rate per 100 000	70.0
Pulmonary	11 695 (91.1%)
of which microscopy-positive	
of which laboratory-confirmed	10 307 (88.1%)
Laboratory-confirmed TB cases	10 774 (80.6%)
Mean age of new native TB cases	41.7 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	200 (1.5%)
New (not previously treated)	8 937 (66.9%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	12 000 (8100-18000)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	9 934 (92.2%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	4400 (4300-4500)
Pulmonary MDR-TB cases notified	1462 (14.7%)
of which XDR-TB cases	-
Notified MDR-TB	4043 (40.7%)
of which XDR-TB cases	336 (9.4%)
TB cases tested for HIV	12236 (95.4%)
HIV-positive TB cases	717 (5.9%)
of these on ART	689 (96.1%)

^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.

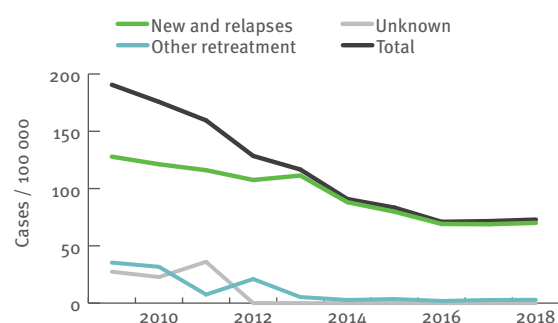
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	8 589	6260
Success	7 826 (91.1%)	4979 (79.5%)
Died	425 (4.9%)	558 (8.9%)
Failed	232 (2.7%)	319 (5.1%)
Lost to follow-up	82 (1.0%)	257 (4.1%)
Not evaluated	24 (0.3%)	147 (2.3%)

^a Treatment outcome as presented is treatment outcome after 12 months.

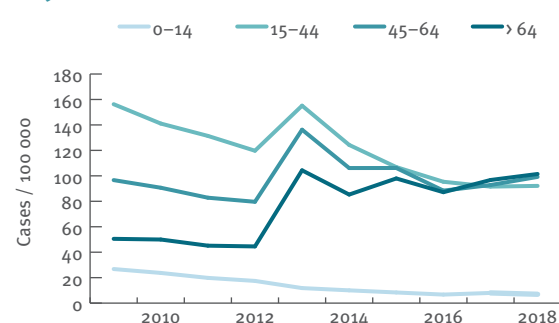
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



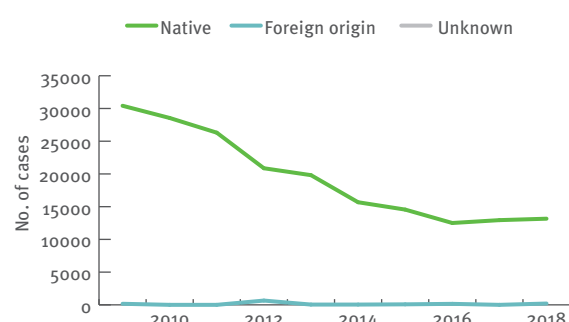
^a Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

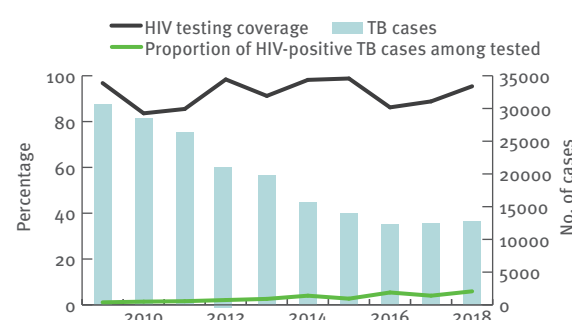


^a Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2009–2018

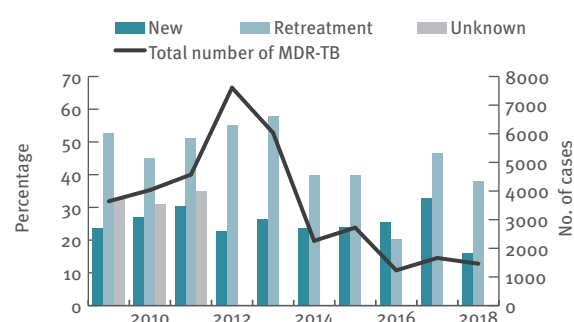


TB/HIV coinfection, 2009–2018^a

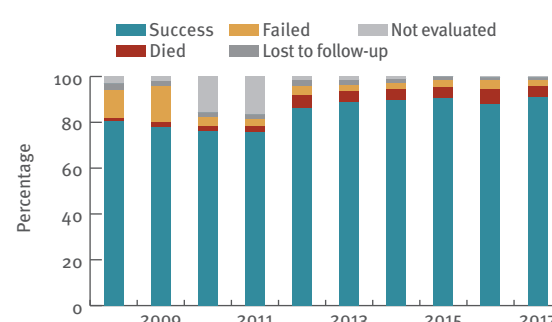


^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new and relapsed TB cases 2008–2017^a



^a 2008–2011 cohorts include new cases only.

Kyrgyzstan

Population estimate 2018 by UN Statistical Database: 6 304 030

TB case notifications, 2018

Total number of cases	7 585
Notification rate per 100 000	120.3
New ^a and relapses	6338
New ^a and relapses notification rate per 100 000	100.5
Pulmonary	4 978 (78.5%)
of which microscopy-positive	
of which laboratory-confirmed	3 050 (61.3%)
Laboratory-confirmed TB cases	3875 (51.1%)
Mean age of new native TB cases	39.7 years
Mean age of new foreign TB cases	~ years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	5249 (69.2%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	7300 (6200-8400)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	3 535 (91.2%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	1600 (1600-1700)
Pulmonary MDR-TB cases notified	1241 (35.1%)
of which XDR-TB cases	119 (12.9%)
Notified MDR-TB	1513 (42.8%)
of which XDR-TB cases	114 (17.1%)
TB cases tested for HIV	6338 (100.0%)
HIV-positive TB cases	187 (3.0%)
of these on ART	132 (70.6%)

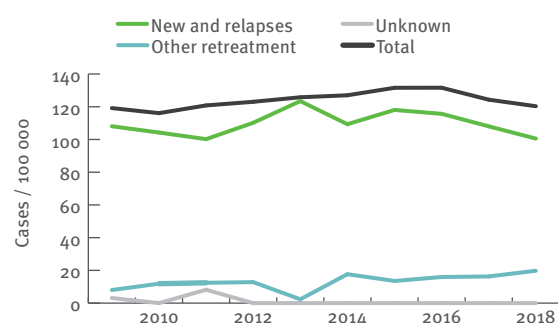
^a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.^b More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

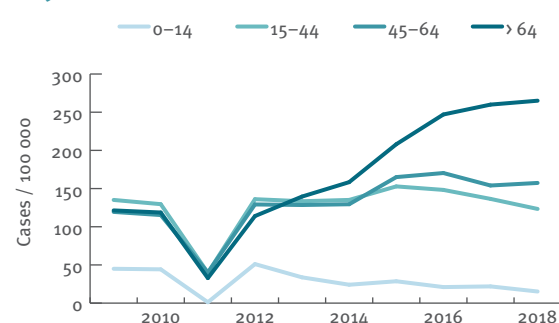
Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	5 752	1 232
Success	4 728 (82.2%)	655 (53.2%)
Died	302 (5.3%)	141 (11.4%)
Failed	109 (1.9%)	147 (11.9%)
Lost to follow-up	590 (10.3%)	288 (23.4%)
Not evaluated	23 (0.4%)	1 (0.1%)

^a Treatment outcome as presented is treatment outcome after 12 months.^b Treatment outcome as presented is treatment outcome after 24 months.

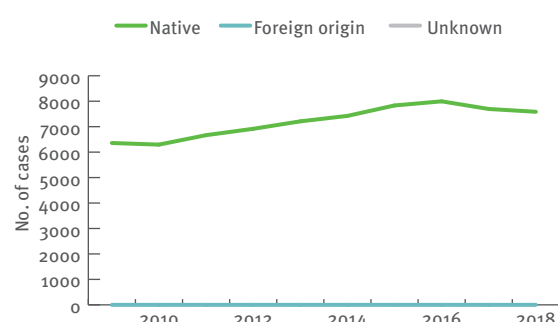
TB notification rates by treatment history, 2009–2018^a

^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

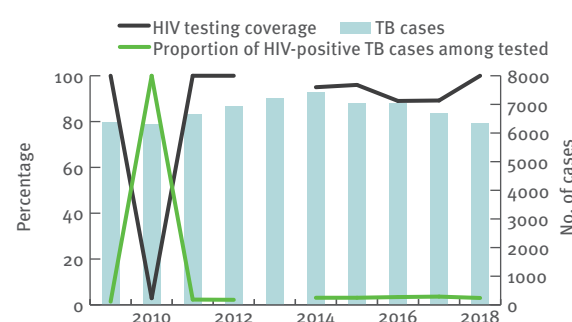
New and relapsed TB cases - notification rates by age group, 2009–2018^a

^a Data up to 2012 includes new TB cases only.

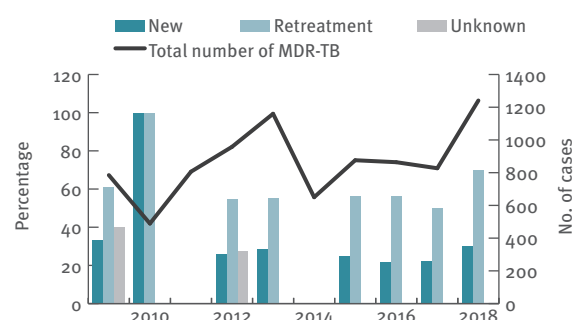
TB cases by geographical origin, 2009–2018



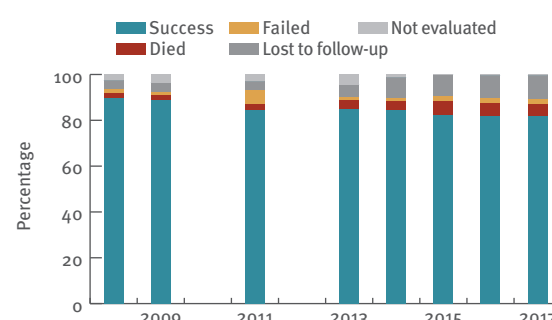
TB/HIV coinfection, 2009–2018^a

^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome of new TB cases, 2008–2017^a

^a 2008–2011 cohorts include new cases only.

Latvia

Total population at 10 May 2019 by EUROSTAT: 1 934 379

TB case notifications, 2018

Total number of cases	-
Notification rate per 100 000	-
New ^a and relapses	-
New ^a and relapses notification rate per 100 000	-
Pulmonary	-
of which microscopy-positive	-
of which laboratory-confirmed	-
Laboratory-confirmed TB cases	-
Mean age of new native TB cases	- years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	-
New (not previously treated)	-
Estimate	-
Estimated new and relapsed cases N, (best-low-high)	560-480-650

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	No
Completeness of HIV data ^b	-
Case-linked data reporting	No
Cases with DST results	-
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	-
Pulmonary MDR-TB cases notified	-
of which XDR-TB cases	-
Notified MDR-TB	-
of which XDR-TB cases	-
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on ART	-

^a National coverage 100% or culturing ≥ 90%, C+ ≥ 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

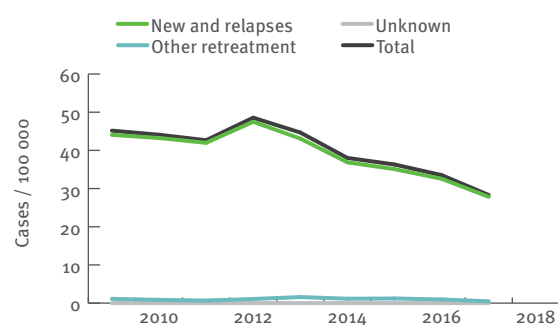
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	379	56
Success	-	-
Died	-	-
Failed	-	-
Lost to follow-up	-	-
Still on treatment	-	-
Not evaluated	-	-

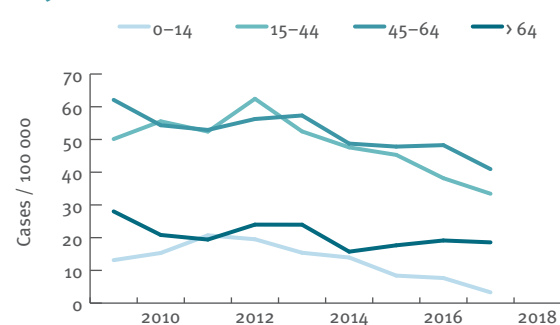
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

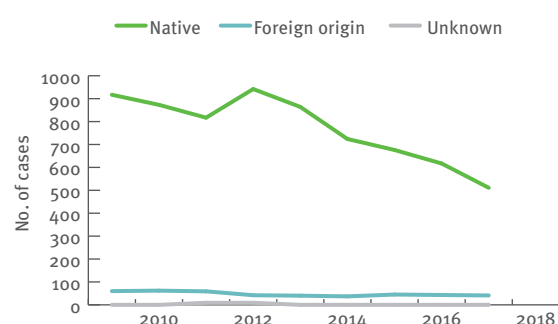
TB notification rates by treatment history, 2009–2018



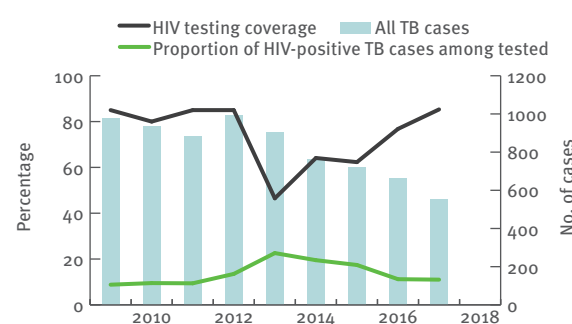
New and relapsed TB cases – notification rates by age group, 2009–2018



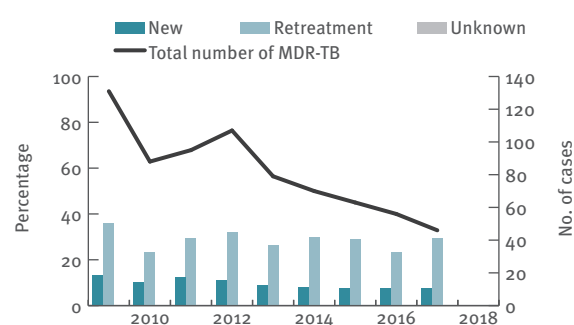
TB cases by geographical origin, 2009–2018



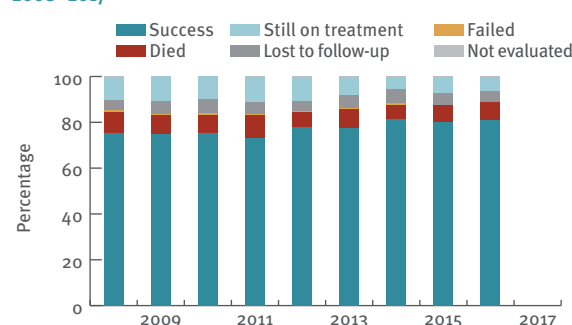
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Liechtenstein

Total population at 10 May 2019 by EUROSTAT: 38 114

TB case notifications, 2018

Total number of cases	1
Notification rate per 100 000	2.6
New ^a and relapses	1
New ^a and relapses notification rate per 100 000	2.6
Pulmonary	1 (100.0%)
of which microscopy-positive	0 (0.0%)
of which laboratory-confirmed	1 (100.0%)
Laboratory-confirmed TB cases	1 (100.0%)
Mean age of new native TB cases	~ years
Mean age of new foreign TB cases	37.0 years
Foreign origin of all TB cases	1 (100.0%)
New (not previously treated)	1 (100.0%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	-

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	-
Case-linked data reporting	Yes
Cases with DST results	1 (100.0%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	-
Pulmonary MDR-TB cases notified	0 (0.0%)
of which XDR-TB cases	0 (0.0%)
Notified MDR-TB	0 (0.0%)
of which XDR-TB cases	0 -
TB cases tested for HIV	- -
HIV-positive TB cases	- -
of these on ART	- -

^a National coverage 100% or culturing ≥ 90%, C+ all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

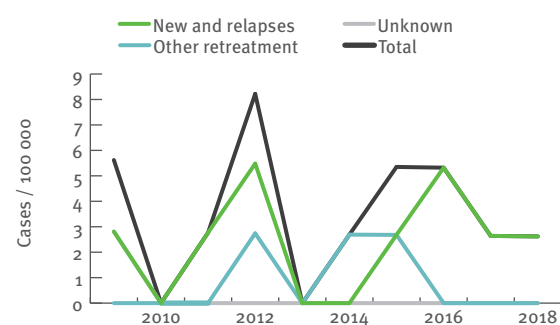
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	1	0
Success	1 (100.0%)	0 -
Died	0 (0.0%)	0 -
Failed	0 (0.0%)	0 -
Lost to follow-up	0 (0.0%)	0 -
Still on treatment	0 (0.0%)	0 -
Not evaluated	0 (0.0%)	0 -

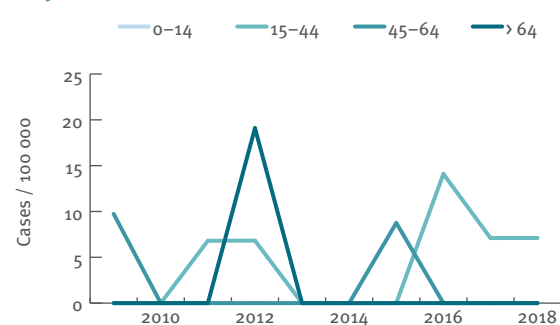
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

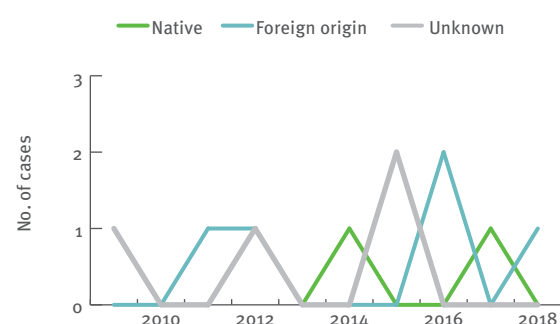
TB notification rates by treatment history, 2009–2018



New and relapsed TB cases - notification rates by age group, 2009–2018



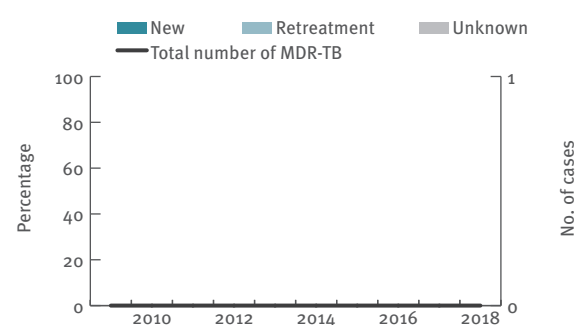
TB cases by geographical origin, 2009–2018



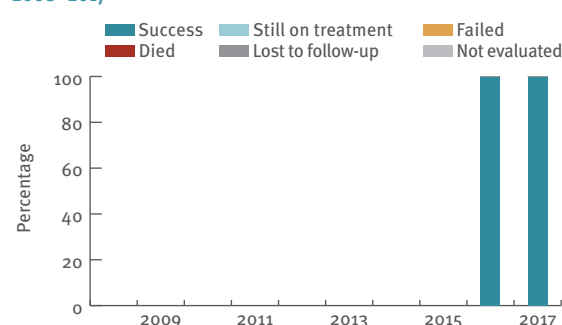
TB/HIV coinfection, 2009–2018

Data not available

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Lithuania

Total population at 10 May 2019 by EUROSTAT: 2 808 901

TB case notifications, 2018

Total number of cases	1 142
Notification rate per 100 000	40.7
New ^a and relapses	1 063
New ^a and relapses notification rate per 100 000	37.8
Pulmonary	1 065 (93.3%)
of which microscopy-positive	673 (63.2%)
of which laboratory-confirmed	969 (91.0%)
Laboratory-confirmed TB cases	992 (86.9%)
Mean age of new native TB cases	47.8 years
Mean age of new foreign TB cases	43.2 years
Foreign origin of all TB cases	12 (1.1%)
New (not previously treated)	922 (80.7%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	1 200-1 000-1 400

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	992 (100.0%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	190-170-210
Pulmonary MDR-TB cases notified	170 (17.5%)
of which XDR-TB cases	58 (34.1%)
Notified MDR-TB	170 (17.1%)
of which XDR-TB cases	58 (34.1%)
TB cases tested for HIV	954 (83.5%)
HIV-positive TB cases	32 (3.4%)
of these on ART	-

^a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

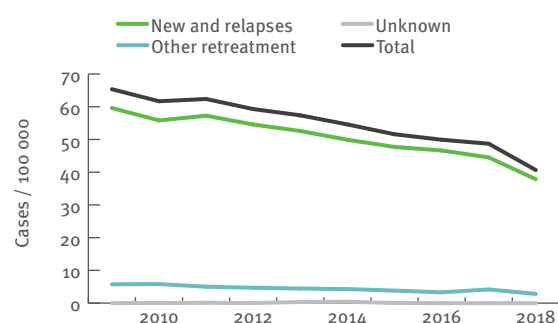
Treatment outcome monitoring

Geographical coverage	National		
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b	
Case-linked data reporting	Yes		
Cases notified	855	244	
Success	606 (70.9%)	103 (42.2%)	
Died	101 (11.8%)	52 (21.3%)	
Failed	15 (1.8%)	14 (5.7%)	
Lost to follow-up	19 (2.2%)	52 (21.3%)	
Still on treatment	112 (13.1%)	18 (7.4%)	
Not evaluated	2 (0.2%)	5 (2.0%)	

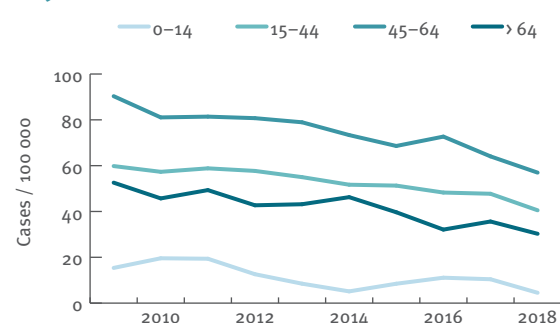
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

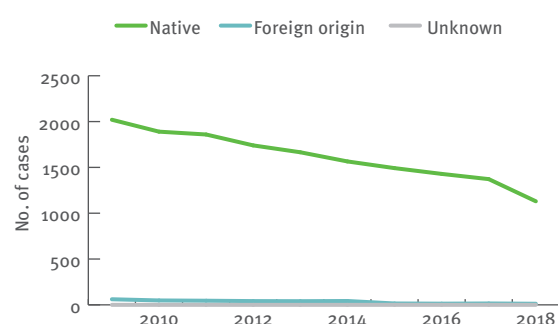
TB notification rates by treatment history, 2009–2018



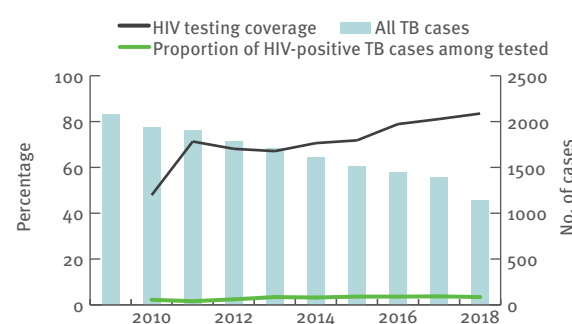
New and relapsed TB cases – notification rates by age group, 2009–2018



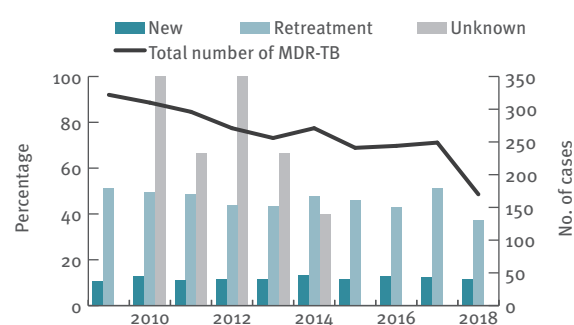
TB cases by geographical origin, 2009–2018



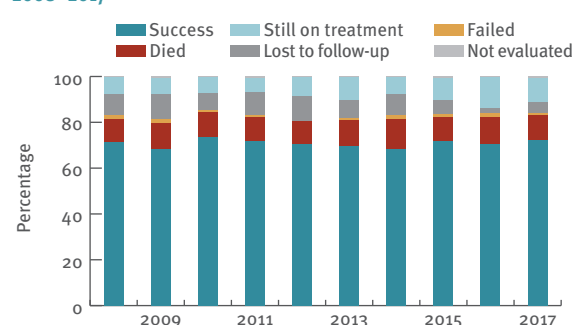
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Luxembourg

Total population at 10 May 2019 by EUROSTAT: 602 005

TB case notifications, 2018

Total number of cases	42
Notification rate per 100 000	7.0
New ^a and relapses	42
New ^a and relapses notification rate per 100 000	7.0
Pulmonary	32 (76.2%)
of which microscopy-positive	20 (62.5%)
of which laboratory-confirmed	29 (90.6%)
Laboratory-confirmed TB cases	35 (83.3%)
Mean age of new native TB cases	~ years
Mean age of new foreign TB cases	~ years
Foreign origin of all TB cases	34 (81.0%)
New (not previously treated)	42 (100.0%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	48-41-56

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	No
Case-linked data reporting	Yes
Cases with DST results	35 (100.0%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	1-0-1
Pulmonary MDR-TB cases notified	1 (3.4%)
of which XDR-TB cases	0 -
Notified MDR-TB	1 (2.9%)
of which XDR-TB cases	0 -
TB cases tested for HIV	7 (16.7%)
HIV-positive TB cases	0 (0.0%)
of these on ART	0 -

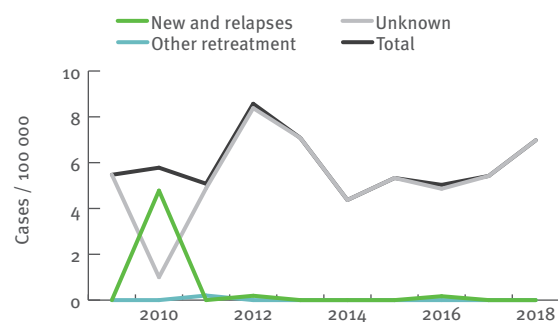
^a National coverage 100% or culturing ≥ 90%, C+ ≥ 75%, EQA ≥ 95%.^b More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

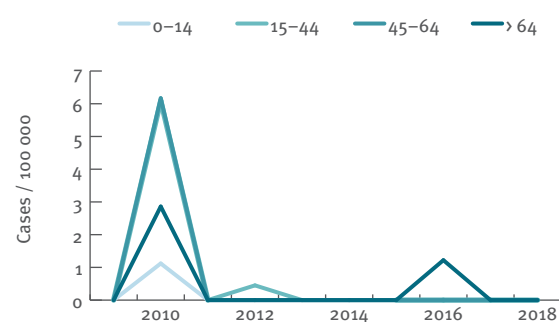
Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	0	1
Success	0 -	-
Died	0 -	-
Failed	0 -	-
Lost to follow-up	0 -	-
Still on treatment	0 -	-
Not evaluated	0 -	-

^a Treatment outcome as presented is treatment outcome after 12 months.^b Treatment outcome as presented is treatment outcome after 24 months.

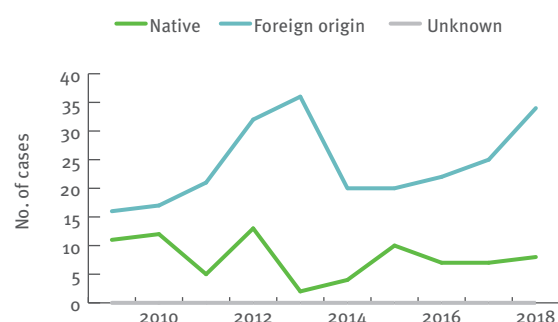
TB notification rates by treatment history, 2009–2018



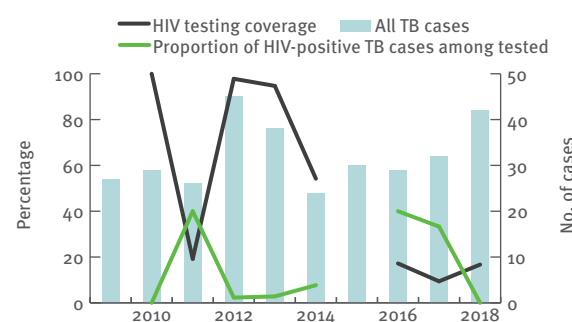
New and relapsed TB cases – notification rates by age group, 2009–2018



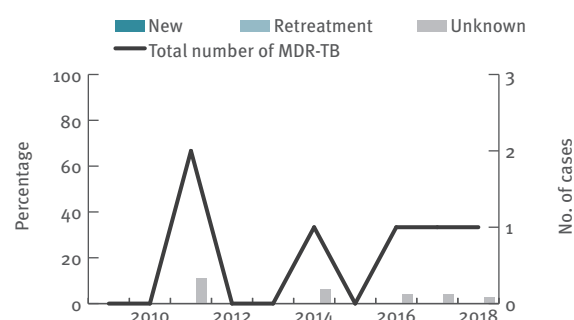
TB cases by geographical origin, 2009–2018



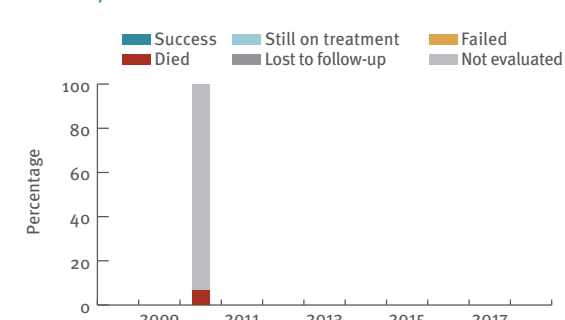
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Malta

Total population at 10 May 2019 by EUROSTAT: 475 701

TB case notifications, 2018

Total number of cases	55
Notification rate per 100 000	11.6
New ^a and relapses	55
New ^a and relapses notification rate per 100 000	11.6
Pulmonary	39 (70.9%)
of which microscopy-positive	21 (53.8%)
of which laboratory-confirmed	29 (74.4%)
Laboratory-confirmed TB cases	34 (61.8%)
Mean age of new native TB cases	64.5 years
Mean age of new foreign TB cases	27.7 years
Foreign origin of all TB cases	53 (96.4%)
New (not previously treated)	55 (100.0%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	60-51-69

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	–
Case-linked data reporting	Yes
Cases with DST results	32 (94.1%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best–low–high)	0-0-4
Pulmonary MDR-TB cases notified	0 (0.0%)
of which XDR-TB cases	0 –
Notified MDR-TB	0 (0.0%)
of which XDR-TB cases	0 –
TB cases tested for HIV	– –
HIV-positive TB cases	– –
of these on ART	– –

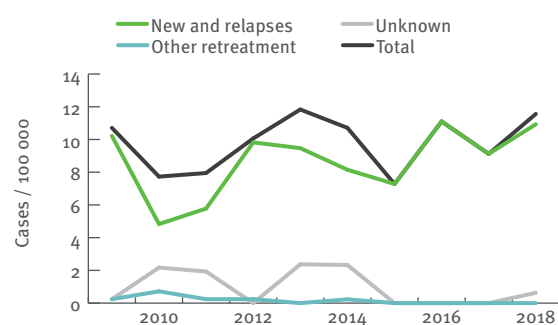
^a National coverage 100% or culturing ≥ 90%, C+ all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

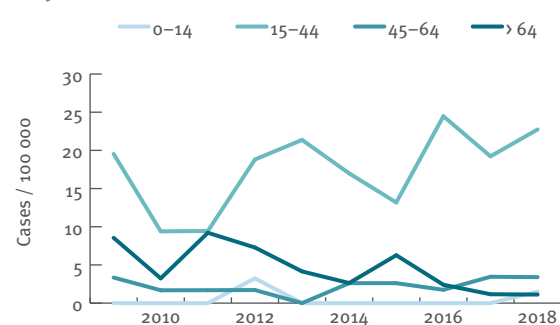
Treatment outcome monitoring

Data not available

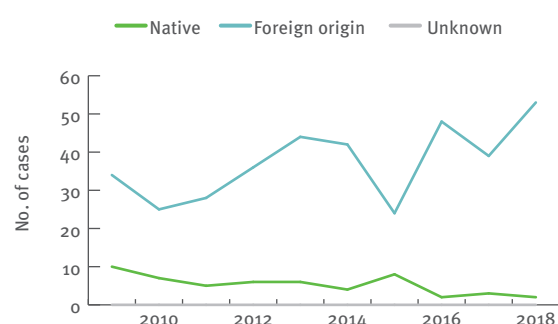
TB notification rates by treatment history, 2009–2018



New and relapsed TB cases – notification rates by age group, 2009–2018

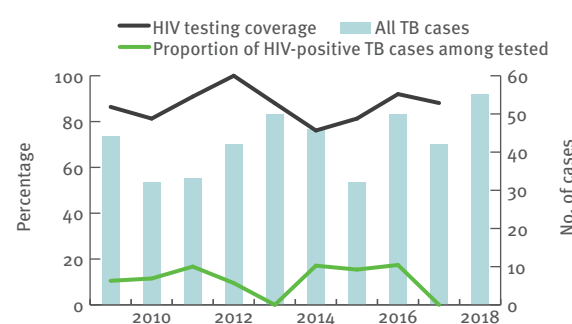


TB cases by geographical origin, 2009–2018

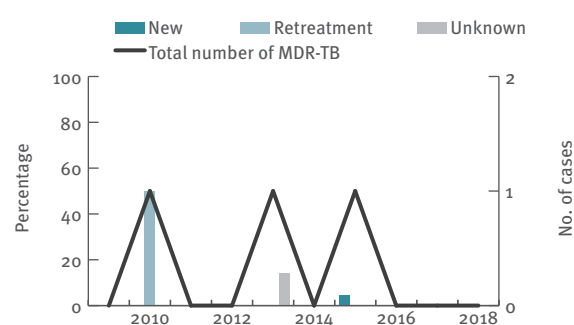


^a By nationality for 2000–2006

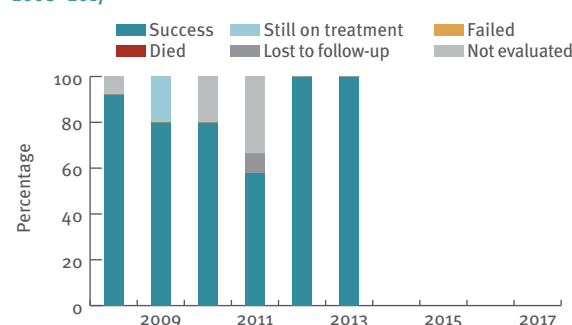
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Montenegro

Population estimate 2018 by UN Statistical Database: 627 809

TB case notifications, 2018

Total number of cases	84
Notification rate per 100 000	13.4
New ^a and relapses	84
New ^a and relapses notification rate per 100 000	13.4
Pulmonary	74 (88.1%)
of which microscopy-positive	
of which laboratory-confirmed	64 (86.5%)
Laboratory-confirmed TB cases	64 (76.2%)
Mean age of new native TB cases	44.7 years
Mean age of new foreign TB cases	— years
Foreign origin of all TB cases	4 (4.8%)
New (not previously treated)	81 (96.4%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	97 (83-110)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	63 (98.4%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	1 (0-3)
Pulmonary MDR-TB cases notified	1 (1.6%)
of which XDR-TB cases	0 (0.0%)
Notified MDR-TB	1 (1.6%)
of which XDR-TB cases	0 (0.0%)
TB cases tested for HIV	43 (51.2%)
HIV-positive TB cases	0 (0.0%)
of these on ART	—

^a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

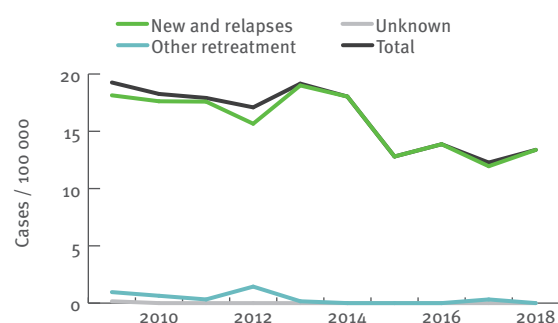
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	75	0
Success	65 (86.7%)	—
Died	6 (8.0%)	—
Failed	1 (1.3%)	—
Lost to follow-up	1 (1.3%)	—
Not evaluated	2 (2.7%)	—

^a Treatment outcome as presented is treatment outcome after 12 months.

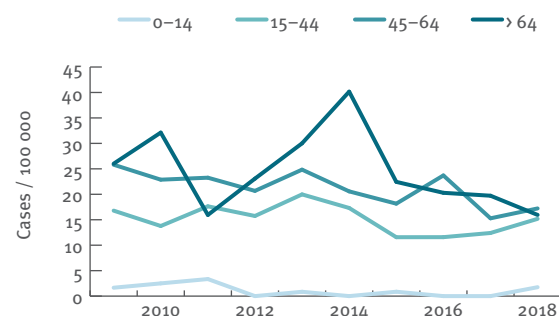
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



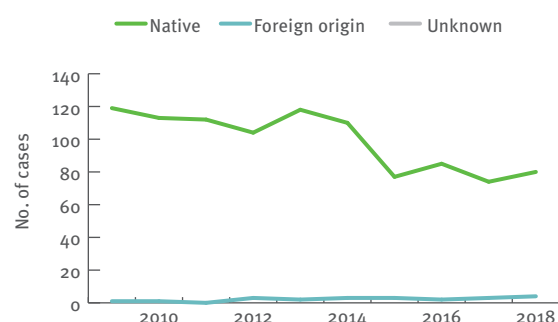
^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

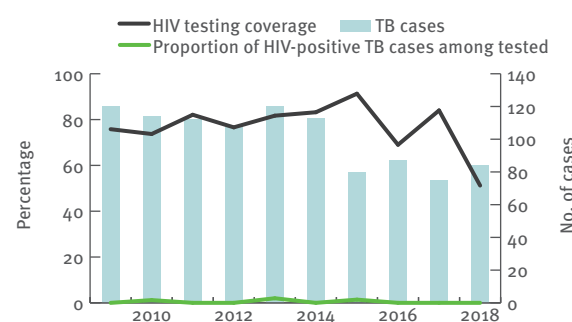


^a Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2009–2018

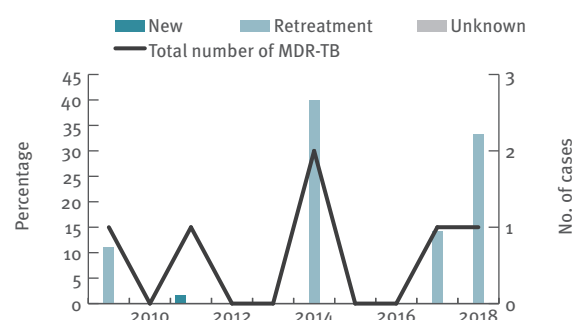


TB/HIV coinfection, 2009–2018^a

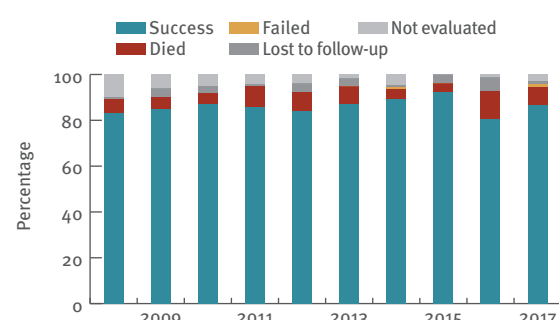


^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome of new TB cases, 2008–2017^a



^a 2008–2011 cohorts include new cases only.

Netherlands

Total population at 10 May 2019 by EUROSTAT: 17 181 084

TB case notifications, 2018

Total number of cases	806
Notification rate per 100 000	4.7
New ^a and relapses	791
New ^a and relapses notification rate per 100 000	4.6
Pulmonary	464 (57.6%)
of which microscopy-positive	212 (45.7%)
of which laboratory-confirmed	380 (81.9%)
Laboratory-confirmed TB cases	560 (69.5%)
Mean age of new native TB cases	46.6 years
Mean age of new foreign TB cases	37.5 years
Foreign origin of all TB cases	619 (76.8%)
New (not previously treated)	770 (95.5%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	910-780-1 100

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	500 (89.3%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	5-0-9
Pulmonary MDR-TB cases notified	3 (0.9%)
of which XDR-TB cases	1 (33.3%)
Notified MDR-TB	6 (1.2%)
of which XDR-TB cases	1 (16.7%)
TB cases tested for HIV	534 (66.3%)
HIV-positive TB cases	21 (3.9%)
of these on ART	12 (57.1%)

^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.

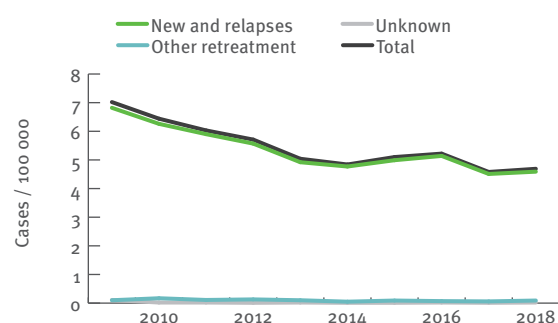
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	354	14
Success	299 (84.5%)	10 (71.4%)
Died	17 (4.8%)	1 (7.1%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	10 (2.8%)	2 (14.3%)
Still on treatment	8 (2.3%)	0 (0.0%)
Not evaluated	20 (5.6%)	1 (7.1%)

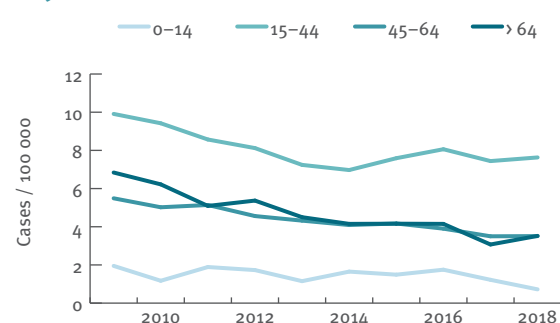
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

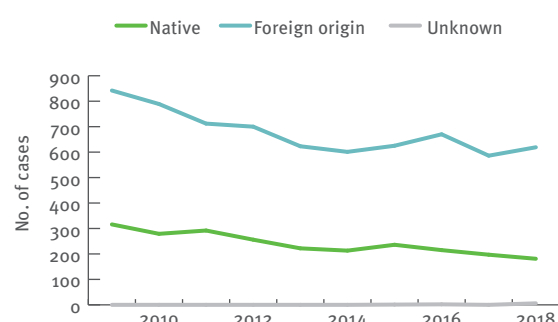
TB notification rates by treatment history, 2009–2018



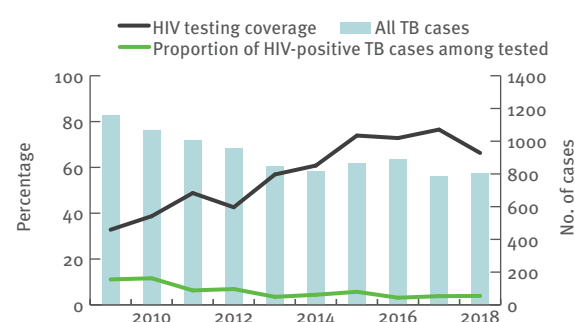
New and relapsed TB cases – notification rates by age group, 2009–2018



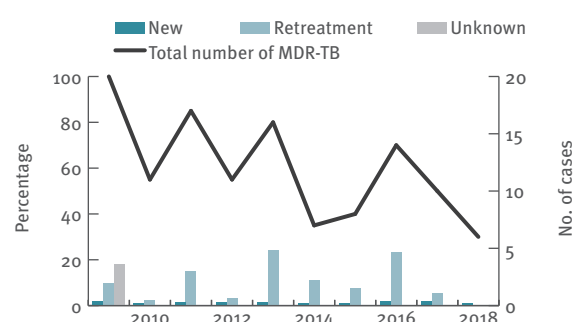
TB cases by geographical origin, 2009–2018



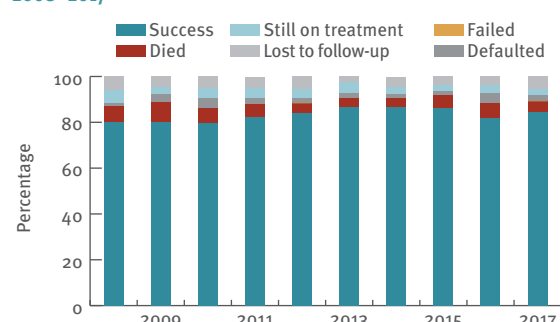
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



North Macedonia

Population estimate 2018 by UN Statistical Database: 2 082 957

TB case notifications, 2018

Total number of cases	217
Notification rate per 100 000	10.4
New ^a and relapses	217
New ^a and relapses notification rate per 100 000	10.4
Pulmonary	165 (76.0%)
of which microscopy-positive	
of which laboratory-confirmed	146 (88.5%)
Laboratory-confirmed TB cases	146 (67.3%)
Mean age of new native TB cases	43.3 years
Mean age of new foreign TB cases	— years
Foreign origin of all TB cases	1 (0.5%)
New (not previously treated)	202 (93.1%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	270 (210-340)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	139 (95.2%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	0 (0-2)
Pulmonary MDR-TB cases notified	2 (1.4%)
of which XDR-TB cases	-
Notified MDR-TB	0 (0.0%)
of which XDR-TB cases	-
TB cases tested for HIV	126 (58.1%)
HIV-positive TB cases	3 (2.4%)
of these on ART	3 (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.

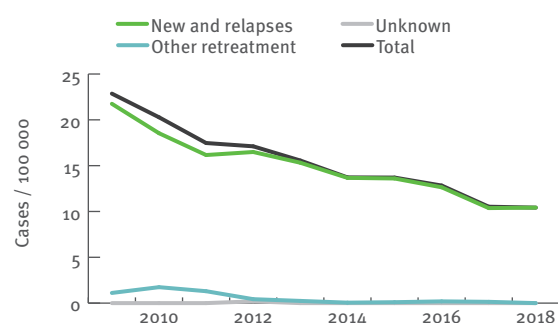
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	219	2
Success	193 (88.1%)	1 (50.0%)
Died	13 (5.9%)	0 (0.0%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	9 (4.1%)	1 (50.0%)
Not evaluated	4 (1.8%)	0 (0.0%)

^a Treatment outcome as presented is treatment outcome after 12 months.

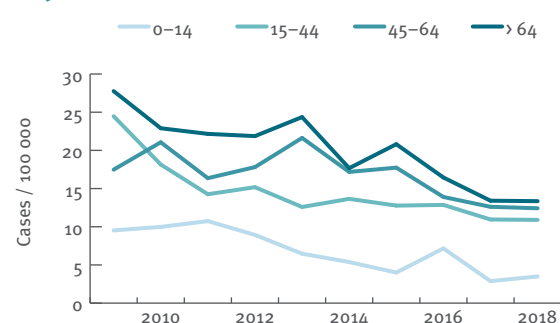
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



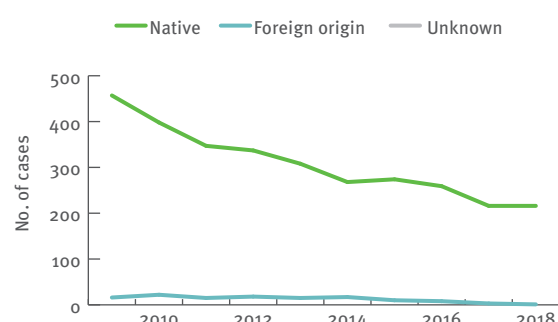
^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

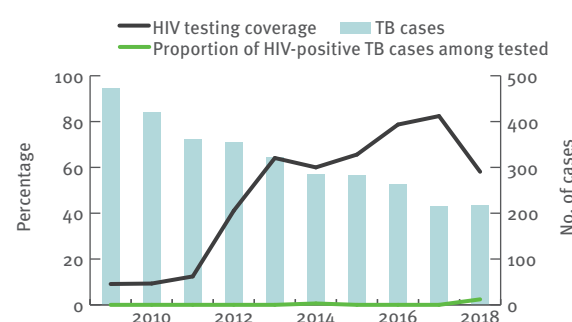


^a Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2009–2018

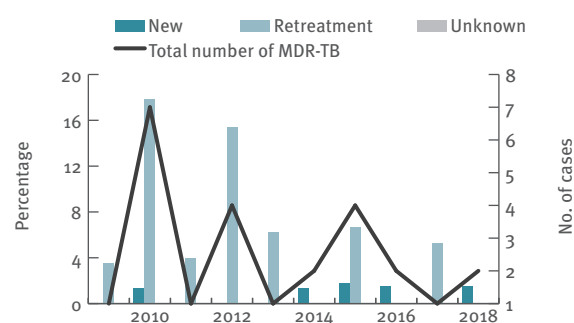


TB/HIV coinfection, 2009–2018^a

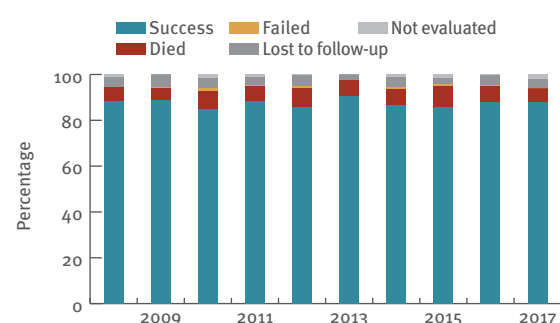


^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new and relapsed TB cases, 2008–2017^a



^a 2008–2011 cohorts include new cases only.

Norway

Total population at 10 May 2019 by EUROSTAT: 5 295 619

TB case notifications, 2018

Total number of cases	209
Notification rate per 100 000	3.9
New ^a and relapses	189
New ^a and relapses notification rate per 100 000	3.6
Pulmonary	126 (60.3%)
of which microscopy-positive	51 (40.5%)
of which laboratory-confirmed	111 (88.1%)
Laboratory-confirmed TB cases	170 (81.3%)
Mean age of new native TB cases	45.6 years
Mean age of new foreign TB cases	35.9 years
Foreign origin of all TB cases	180 (86.1%)
New (not previously treated)	189 (90.4%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	220-190-250

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	167 (98.2%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	6-1-11
Pulmonary MDR-TB cases notified	4 (3.7%)
of which XDR-TB cases	0 (0.0%)
Notified MDR-TB	4 (2.4%)
of which XDR-TB cases	0 (0.0%)
TB cases tested for HIV	184 (88.0%)
HIV-positive TB cases	7 (3.8%)
of these on ART	-

^a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

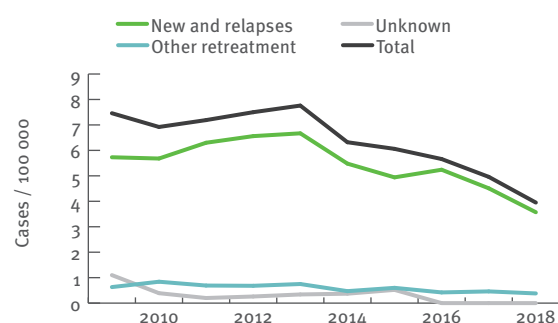
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	135	11
Success	116 (85.9%)	10 (90.9%)
Died	1 (0.7%)	0 (0.0%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	0 (0.0%)	0 (0.0%)
Still on treatment	11 (8.1%)	0 (0.0%)
Not evaluated	7 (5.2%)	1 (9.1%)

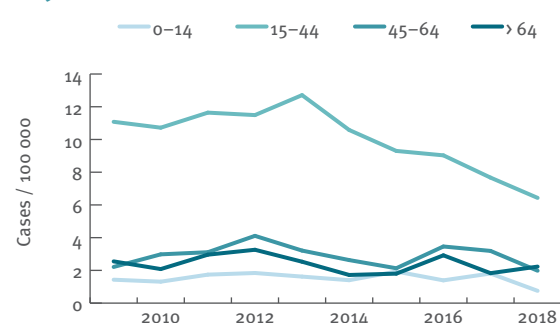
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

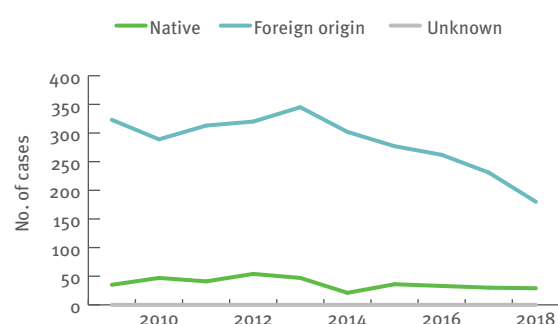
TB notification rates by treatment history, 2009–2018



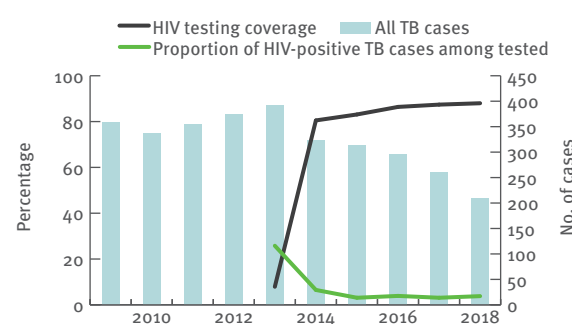
New and relapsed TB cases – notification rates by age group, 2009–2018



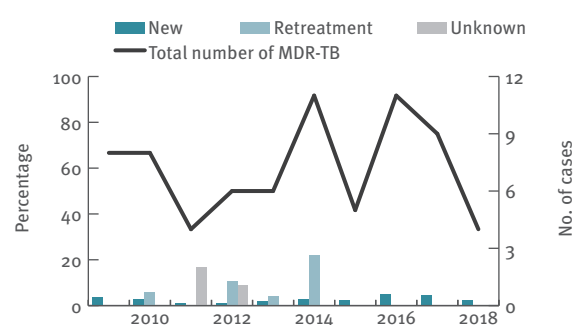
TB cases by geographical origin, 2009–2018



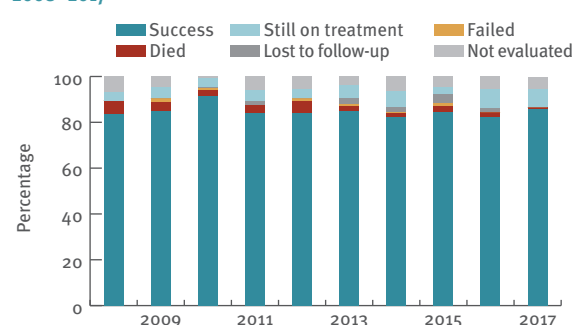
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Poland

Total population at 10 May 2019 by EUROSTAT: 37 976 687

TB case notifications, 2018

Total number of cases	5 487
Notification rate per 100 000	14.4
New ^a and relapses	5 196
New ^a and relapses notification rate per 100 000	13.7
Pulmonary	5 244 (95.6%)
of which microscopy-positive	2 353 (44.9%)
of which laboratory-confirmed	3 935 (75.0%)
Laboratory-confirmed TB cases	4 075 (74.3%)
Mean age of new native TB cases	54.2 years
Mean age of new foreign TB cases	35.1 years
Foreign origin of all TB cases	97 (1.8%)
New (not previously treated)	4 852 (88.4%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	6 000-5 100-6 900

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	–
Case-linked data reporting	Yes
Cases with DST results	3 764 (92.4%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	63-46-79
Pulmonary MDR-TB cases notified	46 (1.3%)
of which XDR-TB cases	12 (29.3%)
Notified MDR-TB	48 (1.3%)
of which XDR-TB cases	13 (30.2%)
TB cases tested for HIV	–
HIV-positive TB cases	–
of these on ART	–

^a National coverage 100% or culturing ≥ 90%, C+ ≥ 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

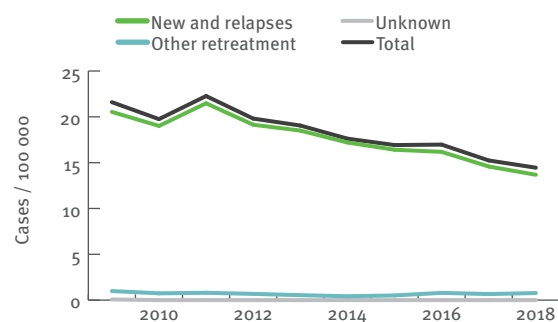
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	3 603	46
Success	–	–
Died	–	–
Failed	–	–
Lost to follow-up	–	–
Still on treatment	–	–
Not evaluated	–	–

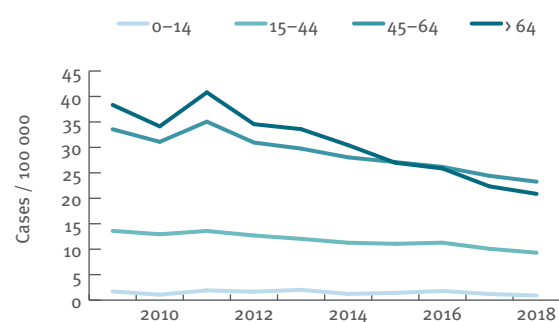
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

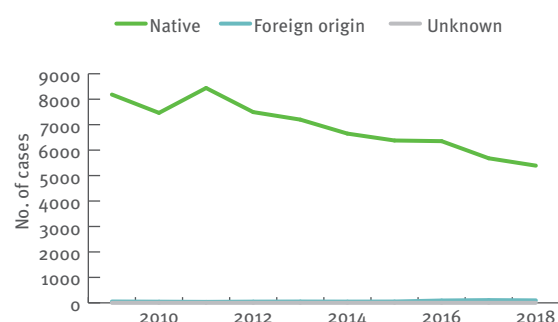
TB notification rates by treatment history, 2009–2018



New and relapsed TB cases – notification rates by age group, 2009–2018



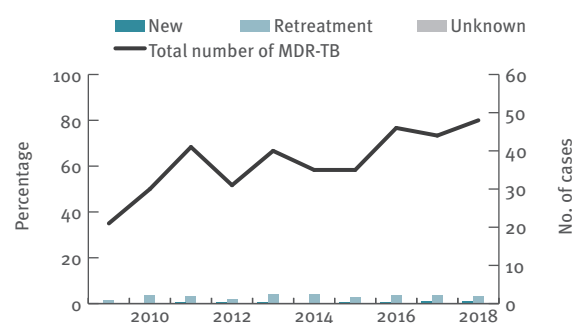
TB cases by geographical origin, 2009–2018



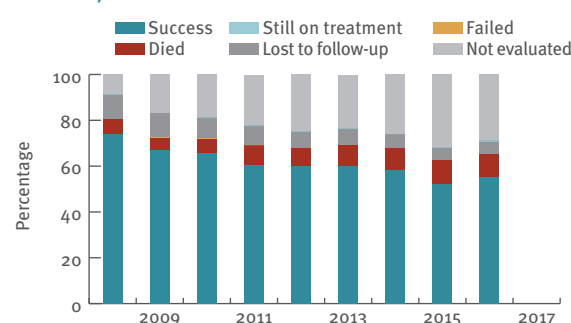
TB/HIV coinfection, 2009–2018

Data not available

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Portugal

Total population at 10 May 2019 by EUROSTAT: 10 291 027

TB case notifications, 2018

Total number of cases	2 137
Notification rate per 100 000	20.8
New ^a and relapses	2 111
New ^a and relapses notification rate per 100 000	20.5
Pulmonary	1 612 (75.4%)
of which microscopy-positive	1 002 (62.2%)
of which laboratory-confirmed	1 321 (81.9%)
Laboratory-confirmed TB cases	1 527 (71.5%)
Mean age of new native TB cases	51.7 years
Mean age of new foreign TB cases	39.4 years
Foreign origin of all TB cases	497 (23.3%)
New (not previously treated)	2 047 (95.8%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	2 400-2 100-2 800

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	1 066 (69.8%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	18-10-27
Pulmonary MDR-TB cases notified	7 (0.7%)
of which XDR-TB cases	0 (0.0%)
Notified MDR-TB	10 (0.9%)
of which XDR-TB cases	0 (0.0%)
TB cases tested for HIV	2 011 (94.1%)
HIV-positive TB cases	193 (9.6%)
of these on ART	-

^a National coverage 100% or culturing ≥ 90%, C+ all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

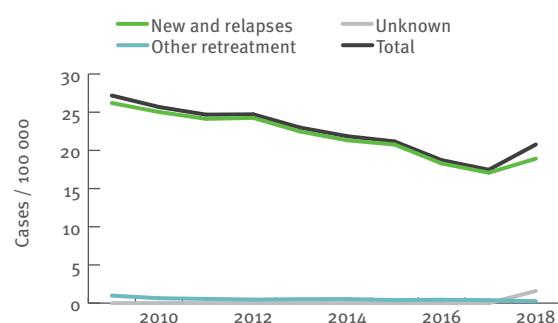
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	843	15
Success	373 (44.2%)	3 (20.0%)
Died	62 (7.4%)	0 (0.0%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	28 (3.3%)	0 (0.0%)
Still on treatment	352 (41.8%)	0 (0.0%)
Not evaluated	28 (3.3%)	12 (80.0%)

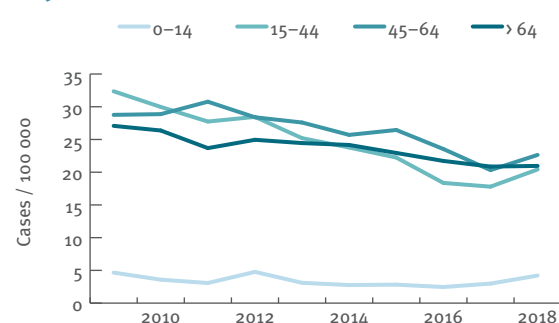
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

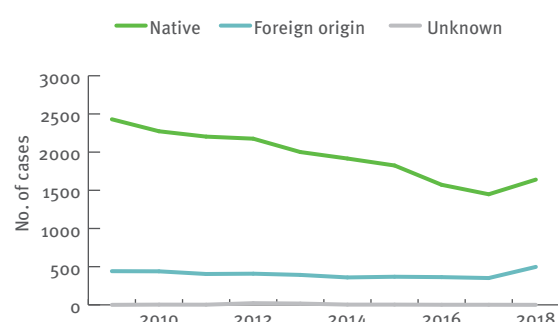
TB notification rates by treatment history, 2009–2018



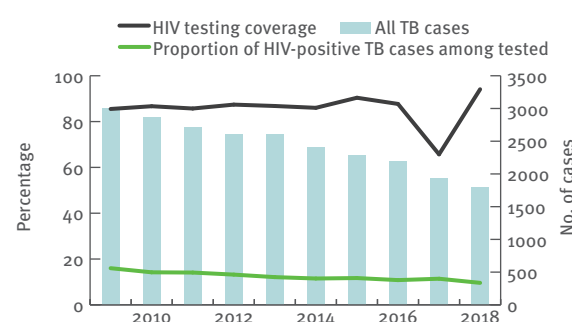
New and relapsed TB cases – notification rates by age group, 2009–2018



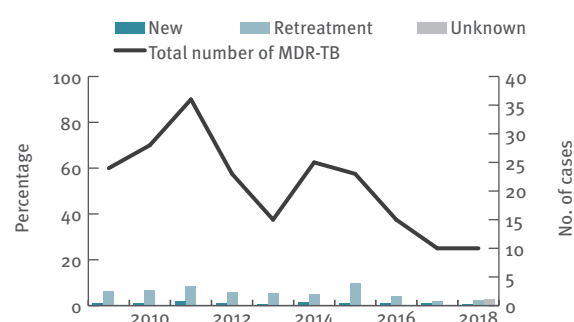
TB cases by geographical origin, 2009–2018



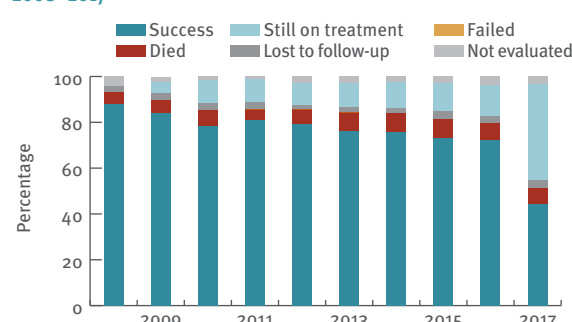
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Republic of Moldova

Population estimate 2018 by UN Statistical Database: 4 051 944

TB case notifications, 2018

Total number of cases	3 465
Notification rate per 100 000	85.5
New ^a and relapses	3022
New ^a and relapses notification rate per 100 000	74.6
Pulmonary	2 735 (90.5%)
of which microscopy-positive	–
of which laboratory-confirmed	1 839 (67.2%)
Laboratory-confirmed TB cases	2 197 (63.4%)
Mean age of new native TB cases	43.6 years
Mean age of new foreign TB cases	– years
Foreign origin of all TB cases	17 (0.5%)
New (not previously treated)	2 455 (70.9%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	3 500 (3 000–4 000)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	1 999 (91.0%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	860 (820–910)
Pulmonary MDR-TB cases notified	625 (31.3%)
of which XDR-TB cases	74 (12.0%)
Notified MDR-TB	761 (38.1%)
of which XDR-TB cases	80 (12.2%)
TB cases tested for HIV	2 893 (95.7%)
HIV-positive TB cases	248 (8.6%)
of these on ART	168 (67.7%)

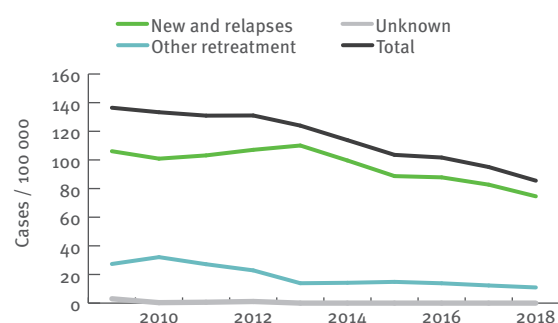
^a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.^b More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

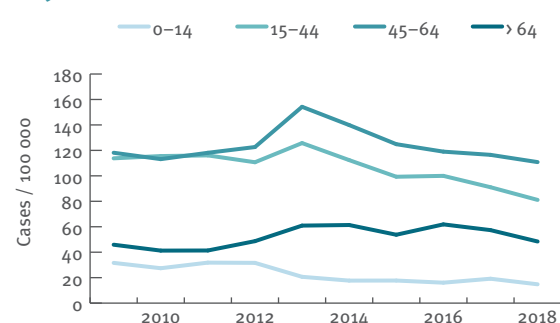
Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	2 715	979
Success	2 187 (80.6%)	518 (52.9%)
Died	286 (10.5%)	125 (12.8%)
Failed	79 (2.9%)	132 (13.5%)
Lost to follow-up	123 (4.5%)	198 (20.2%)
Not evaluated	40 (1.5%)	6 (0.6%)

^a Treatment outcome as presented is treatment outcome after 12 months.^b Treatment outcome as presented is treatment outcome after 24 months.

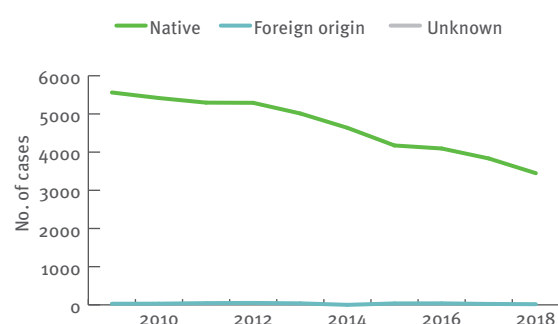
TB notification rates by treatment history, 2009–2018^a

^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

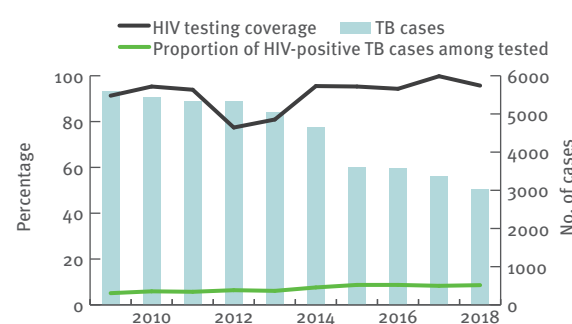
New and relapsed TB cases – notification rates by age group, 2009–2018^a

^a Data up to 2012 includes new TB cases only.

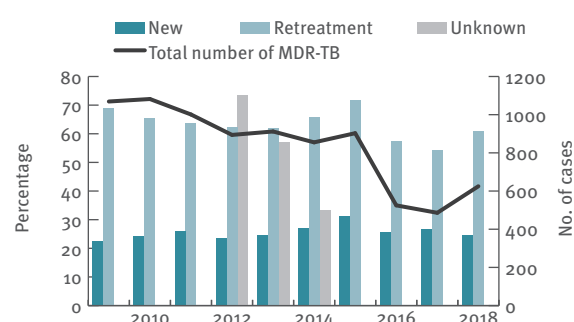
TB cases by geographical origin, 2009–2018



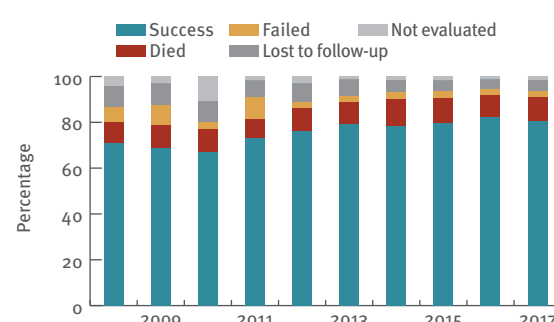
TB/HIV coinfection, 2009–2018^a

^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new and relapsed TB cases, 2008–2017^a

^a 2008–2011 cohorts include new cases only.

Romania

Total population at 10 May 2019 by EUROSTAT: 19 530 631

TB case notifications, 2018

Total number of cases	12 205
Notification rate per 100 000	62.5
New ^a and relapses	11 586
New ^a and relapses notification rate per 100 000	59.3
Pulmonary	10 416 (85.3%)
of which microscopy-positive	6 749 (64.8%)
of which laboratory-confirmed	8 368 (80.3%)
Laboratory-confirmed TB cases	8 720 (71.4%)
Mean age of new native TB cases	44.7 years
Mean age of new foreign TB cases	24.1 years
Foreign origin of all TB cases	33 (0.3%)
New (not previously treated)	9 786 (80.2%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	13 000-11 000-15 000

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	8 042 (92.2%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	480-440-520
Pulmonary MDR-TB cases notified	347 (4.5%)
of which XDR-TB cases	46 (20.6%)
Notified MDR-TB	354 (4.4%)
of which XDR-TB cases	47 (20.6%)
TB cases tested for HIV	10 246 (83.9%)
HIV-positive TB cases	254 (2.5%)
of these on ART	200 (78.7%)

^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.

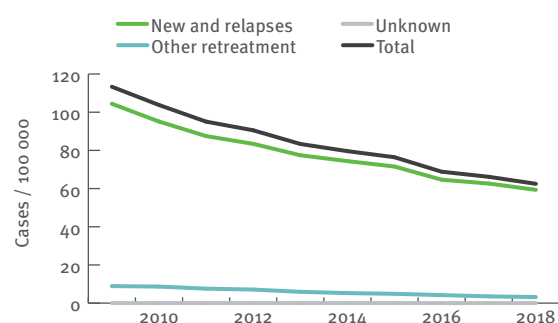
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	6 762	470
Success	5 745 (85.0%)	223 (47.4%)
Died	547 (8.1%)	95 (20.2%)
Failed	111 (1.6%)	104 (22.1%)
Lost to follow-up	267 (3.9%)	46 (9.8%)
Still on treatment	90 (1.3%)	2 (0.4%)
Not evaluated	2 (0.0%)	0 (0.0%)

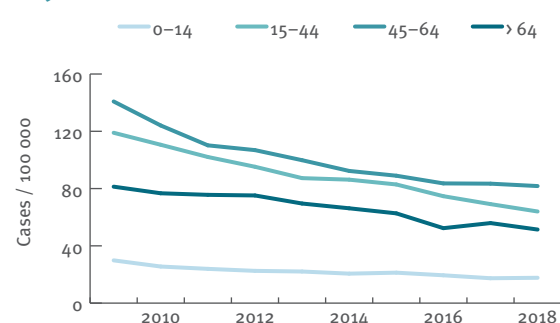
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

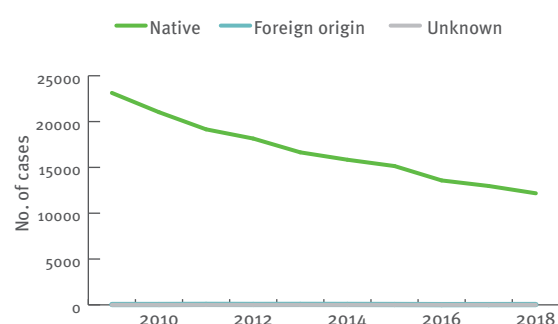
TB notification rates by treatment history, 2009–2018



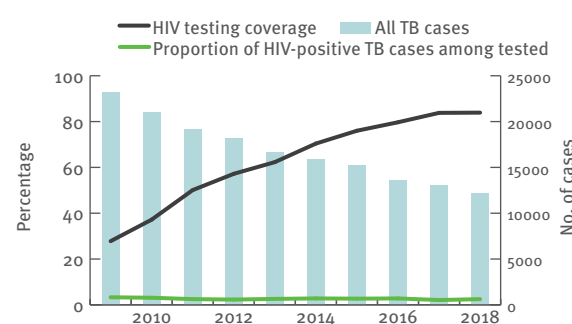
New and relapsed TB cases – notification rates by age group, 2009–2018



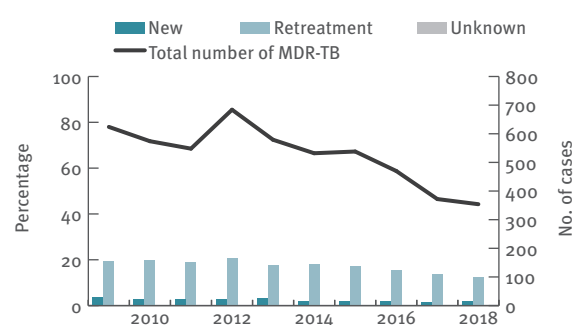
TB cases by geographical origin, 2009–2018



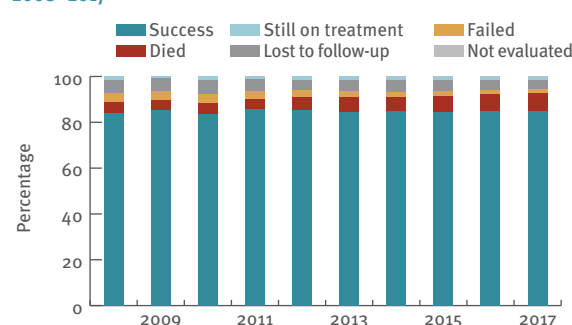
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Russia

Population estimate 2018 by UN Statistical Database: 145 734 038

TB case notifications, 2018

Total number of cases	106 913
Notification rate per 100 000	73.4
New ^a and relapses	78 258
New ^a and relapses notification rate per 100 000	53.7
Pulmonary	71 913 (91.9%)
of which microscopy-positive	–
of which laboratory-confirmed	38 774 (53.9%)
Laboratory-confirmed TB cases	57 187 (53.5%)
Mean age of new native TB cases	41.7 years
Mean age of new foreign TB cases	– years
Foreign origin of all TB cases	2 066 (1.9%)
New (not previously treated)	65 234 (61.0%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	79 000 (51 000–112 000)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	52 048 (91.0%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	29 000 (29 000–29 000)
Pulmonary MDR-TB cases notified	24 035 (46.2%)
of which XDR-TB cases	4 970 (20.7%)
Notified MDR-TB	26 665 (51.2%)
of which XDR-TB cases	4 970 (20.8%)
TB cases tested for HIV	74 075 (94.7%)
HIV-positive TB cases	14 797 (20.0%)
of these on ART	10 077 (68.1%)

^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.

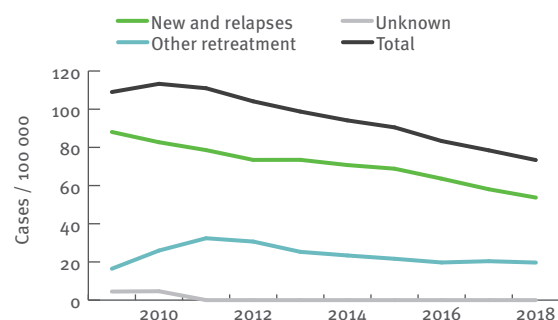
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	67 593	22 593
Success	46 938 (69.4%)	12 141 (53.7%)
Died	7162 (10.6%)	3 396 (15.0%)
Failed	4 632 (6.9%)	2 718 (12.0%)
Lost to follow-up	3 404 (5.0%)	2 046 (9.1%)
Not evaluated	5 457 (8.1%)	2 292 (10.1%)

^a Treatment outcome as presented is treatment outcome after 12 months.

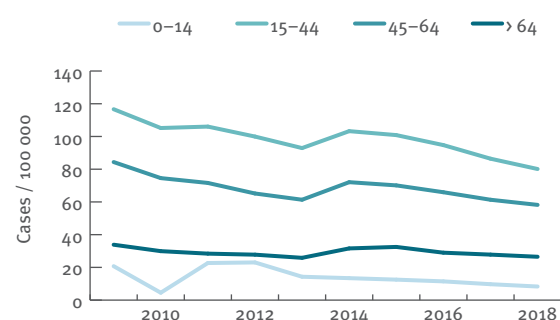
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



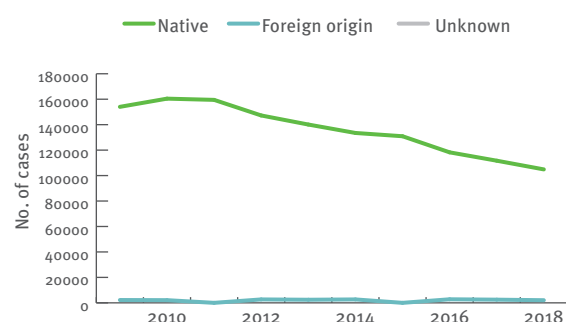
^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

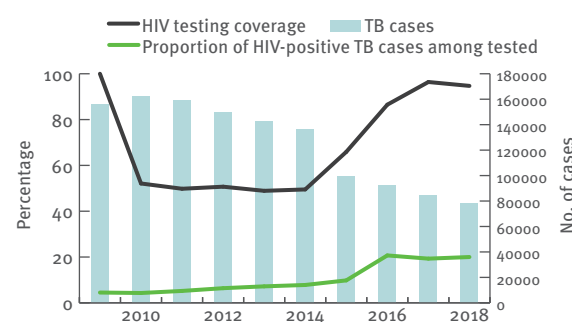


^a Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2009–2018

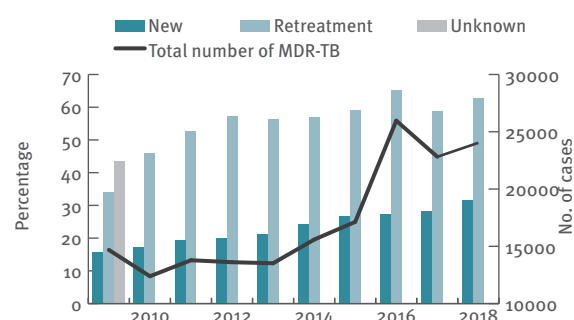


TB/HIV coinfection, 2009–2018^a

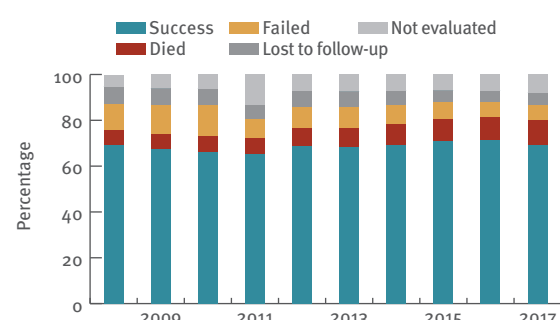


^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new and relapsed TB cases, 2008–2017^a



^a 2008–2011 cohorts include new cases only.

Serbia

Population estimate 2018 by UN Statistical Database: 8 802 754

TB case notifications, 2018

Total number of cases	1 358
Notification rate per 100 000	15.4
New ^a and relapses	1330
New ^a and relapses notification rate per 100 000	15.1
Pulmonary	1 071 (80.5%)
of which microscopy-positive	
of which laboratory-confirmed	772 (72.1%)
Laboratory-confirmed TB cases	557 (41.0%)
Mean age of new native TB cases	49.8 years
Mean age of new foreign TB cases	– years
Foreign origin of all TB cases	5 (0.4%)
New (not previously treated)	1240 (91.3%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	1500 (1300-1800)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	No
Completeness of HIV data ^b	No
Case-linked data reporting	Yes
Cases with DST results	302 (54.2%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	11 (5-17)
Pulmonary MDR-TB cases notified	3 (1.0%)
of which XDR-TB cases	–
Notified MDR-TB	3 (1.0%)
of which XDR-TB cases	–
TB cases tested for HIV	56 (4.2%)
HIV-positive TB cases	8 (14.3%)
of these on ART	8 (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.

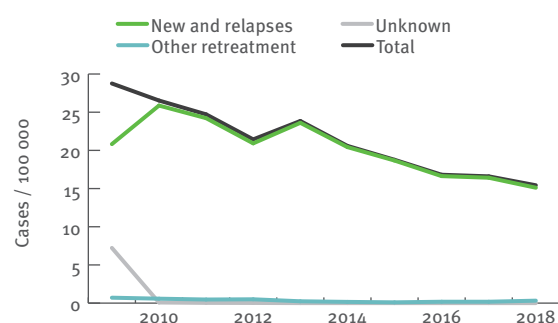
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	1 440	12
Success	1 239 (86.0%)	9 (75.0%)
Died	38 (2.6%)	2 (16.7%)
Failed	3 (0.2%)	0 (0.0%)
Lost to follow-up	58 (4.0%)	1 (8.3%)
Not evaluated	102 (7.1%)	0 (0.0%)

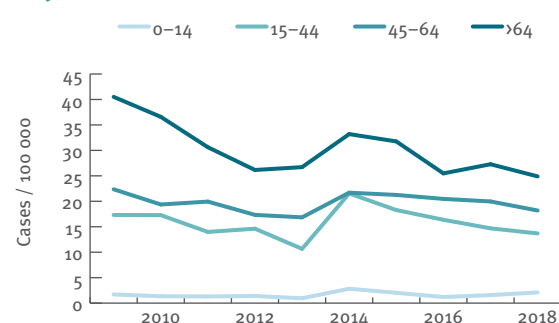
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

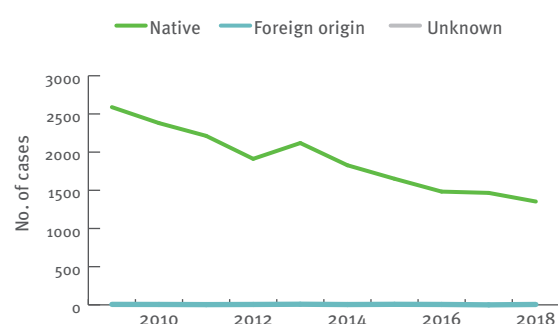
TB notification rates by treatment history, 2009–2018



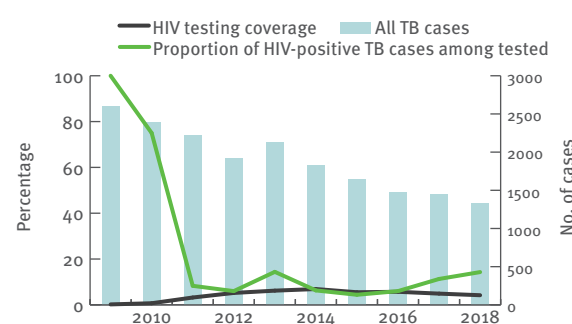
New and relapsed TB cases – notification rates by age group, 2009–2018



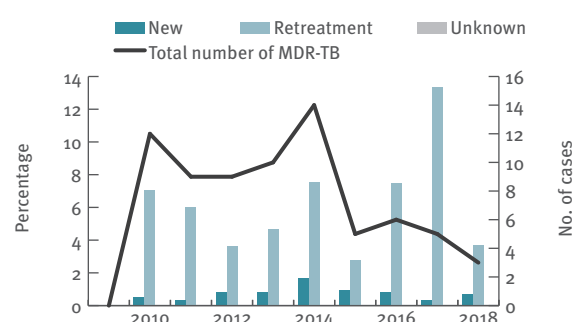
TB cases by geographical origin, 2009–2018



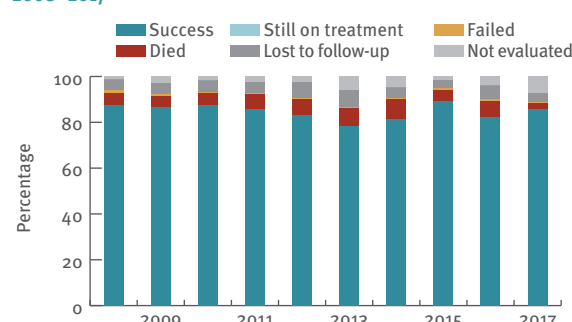
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Slovakia

Total population at 10 May 2019 by EUROSTAT: 5 443 120

TB case notifications, 2018

Total number of cases	281
Notification rate per 100 000	5.2
New ^a and relapses	273
New ^a and relapses notification rate per 100 000	5.0
Pulmonary	244 (86.8%)
of which microscopy-positive	72 (29.5%)
of which laboratory-confirmed	135 (55.3%)
Laboratory-confirmed TB cases	146 (52.0%)
Mean age of new native TB cases	48.5 years
Mean age of new foreign TB cases	37.4 years
Foreign origin of all TB cases	10 (3.6%)
New (not previously treated)	254 (90.4%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	310-270-360

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	144 (98.6%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	4-0-7
Pulmonary MDR-TB cases notified	2 (1.5%)
of which XDR-TB cases	0 (0.0%)
Notified MDR-TB	2 (1.4%)
of which XDR-TB cases	0 (0.0%)
TB cases tested for HIV	238 (84.7%)
HIV-positive TB cases	2 (0.8%)
of these on ART	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.

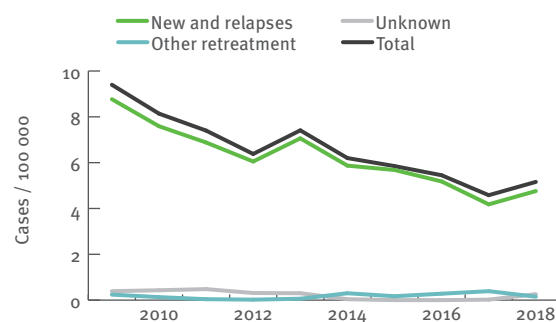
Treatment outcome monitoring

Geographical coverage	National		
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b	
Case-linked data reporting	Yes		
Cases notified	98	3	
Success	87 (88.8%)	0 (0.0%)	
Died	5 (5.1%)	2 (66.7%)	
Failed	0 (0.0%)	0 (0.0%)	
Lost to follow-up	0 (0.0%)	0 (0.0%)	
Still on treatment	4 (4.1%)	1 (33.3%)	
Not evaluated	2 (2.0%)	0 (0.0%)	

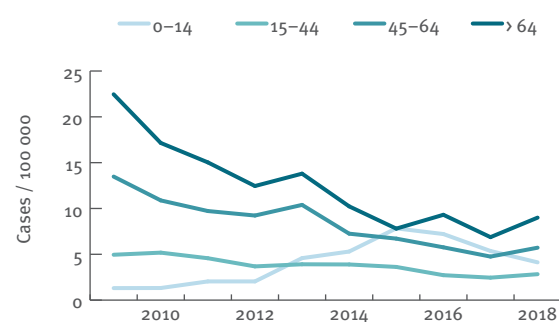
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

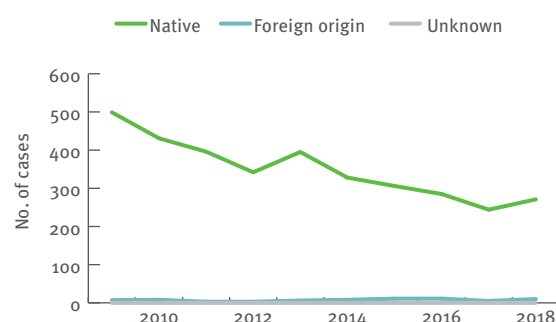
TB notification rates by treatment history, 2009–2018



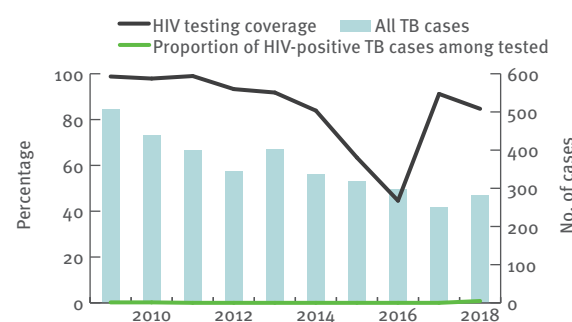
New and relapsed TB cases – notification rates by age group, 2009–2018



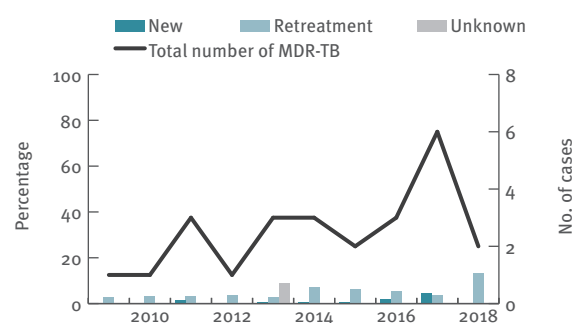
TB cases by geographical origin, 2009–2018



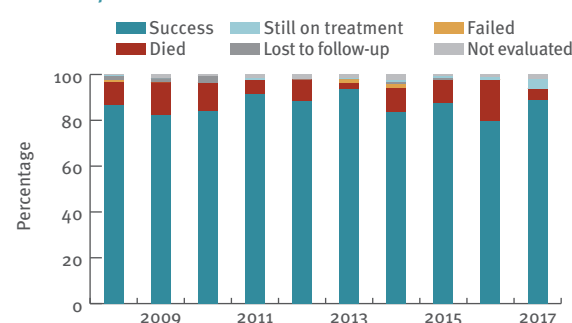
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Slovenia

Total population at 10 May 2019 by EUROSTAT: 2 066 880

TB case notifications, 2018

Total number of cases	99
Notification rate per 100 000	4.8
New ^a and relapses	98
New ^a and relapses notification rate per 100 000	4.7
Pulmonary	84 (84.8%)
of which microscopy-positive	45 (53.6%)
of which laboratory-confirmed	80 (95.2%)
Laboratory-confirmed TB cases	92 (92.9%)
Mean age of new native TB cases	66.4 years
Mean age of new foreign TB cases	46.3 years
Foreign origin of all TB cases	44 (3.6%)
New (not previously treated)	89 (90.4%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	110-95-130

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	92 (100.0%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	0-0-3
Pulmonary MDR-TB cases notified	0 (0.0%)
of which XDR-TB cases	0 -
Notified MDR-TB	0 (0.0%)
of which XDR-TB cases	0 -
TB cases tested for HIV	80 (80.8%)
HIV-positive TB cases	0 (0.0%)
of these on ART	- -

^a National coverage 100% or culturing ≥ 90%, C+ ≥ 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

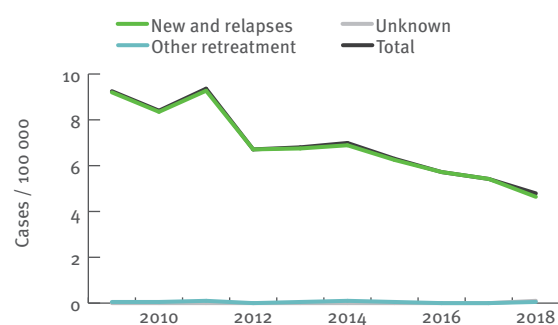
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	85	0
Success	67 (78.8%)	0 -
Died	12 (14.1%)	0 -
Failed	0 (0.0%)	0 -
Lost to follow-up	0 (0.0%)	0 -
Still on treatment	4 (4.7%)	0 -
Not evaluated	2 (2.4%)	0 -

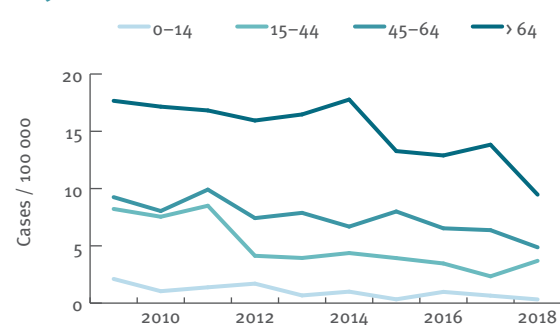
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

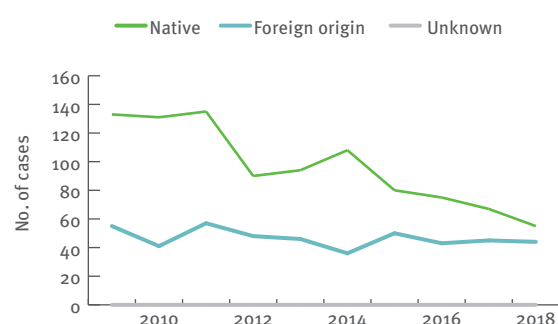
TB notification rates by treatment history, 2009–2018



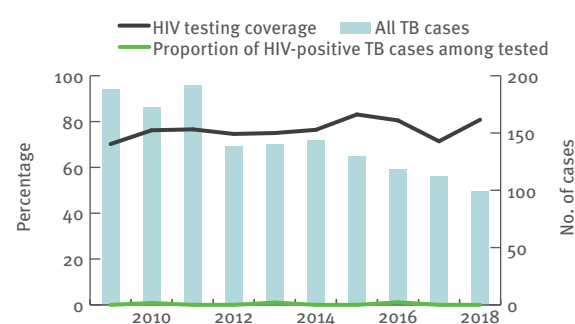
New and relapsed TB cases – notification rates by age group, 2009–2018



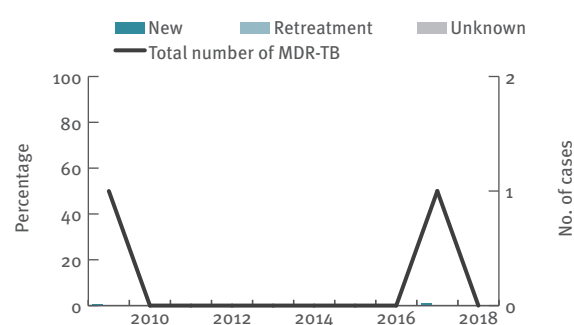
TB cases by geographical origin, 2009–2018



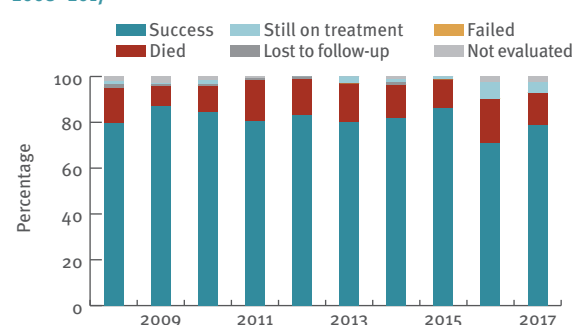
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Spain

Total population at 10 May 2019 by EUROSTAT: 46 658 447

TB case notifications, 2018

Total number of cases	4 648
Notification rate per 100 000	10.0
New ^a and relapses	4 500
New ^a and relapses notification rate per 100 000	9.6
Pulmonary	3 369 (72.5%)
of which microscopy-positive	1 595 (47.3%)
of which laboratory-confirmed	2 600 (77.2%)
Laboratory-confirmed TB cases	3 250 (69.9%)
Mean age of new native TB cases	50.9 years
Mean age of new foreign TB cases	37.6 years
Foreign origin of all TB cases	1 670 (35.9%)
New (not previously treated)	4 500 (96.8%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	4 400-3 800-5 100

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	1258 (38.7%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	130-92-170
Pulmonary MDR-TB cases notified	28 (2.2%)
of which XDR-TB cases	3 (13.6%)
Notified MDR-TB	33 (2.6%)
of which XDR-TB cases	3 (12.5%)
TB cases tested for HIV	2 448 (52.7%)
HIV-positive TB cases	275 (11.2%)
of these on ART	-

^a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

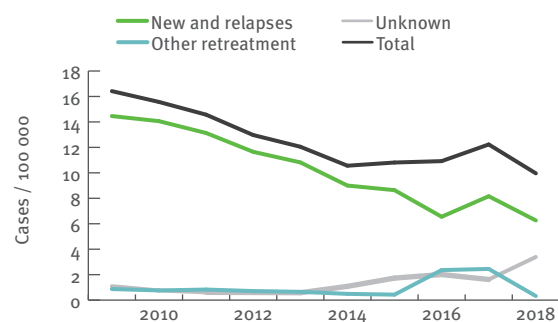
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	2264	15
Success	1382 (61.0%)	-
Died	144 (6.4%)	-
Failed	0 (0.0%)	-
Lost to follow-up	8 (0.4%)	-
Still on treatment	61 (2.7%)	-
Not evaluated	669 (29.5%)	-

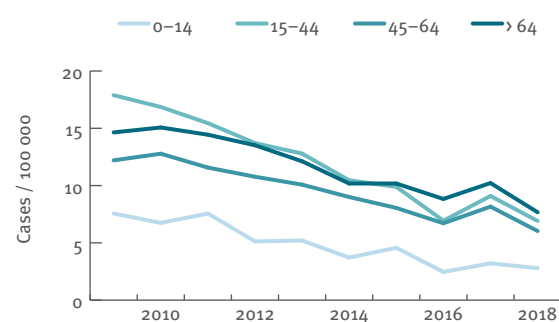
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

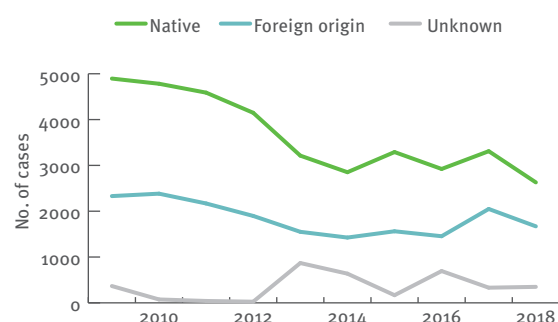
TB notification rates by treatment history, 2009–2018



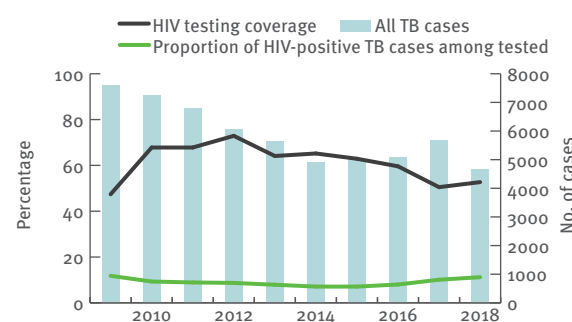
New and relapsed TB cases – notification rates by age group, 2009–2018



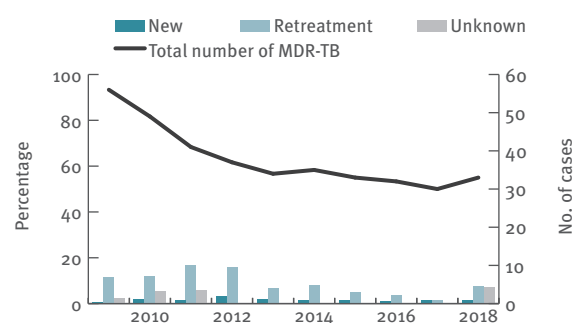
TB cases by geographical origin, 2009–2018



TB/HIV coinfection, 2009–2018

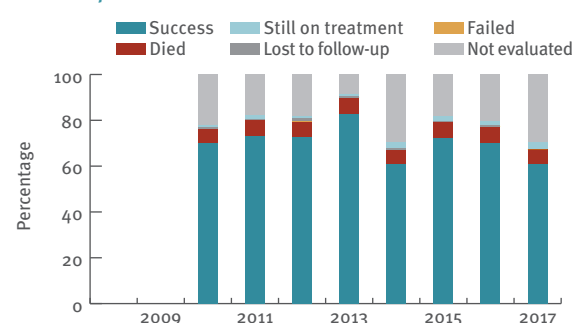


MDR-TB cases by previous treatment history, 2009–2018^a



^a In 2013, 2015 and 2016, only pulmonary MDR-TB cases were reported.

Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Sweden

Total population at 10 May 2019 by EUROSTAT: 10 120 242

TB case notifications, 2018

Total number of cases	491
Notification rate per 100 000	4.9
New ^a and relapses	477
New ^a and relapses notification rate per 100 000	4.7
Pulmonary	334 (68.0%)
of which microscopy-positive	106 (31.7%)
of which laboratory-confirmed	292 (87.4%)
Laboratory-confirmed TB cases	408 (83.1%)
Mean age of new native TB cases	46.4 years
Mean age of new foreign TB cases	35.9 years
Foreign origin of all TB cases	423 (86.2%)
New (not previously treated)	468 (95.3%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	550-470-630

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	–
Case-linked data reporting	Yes
Cases with DST results	407 (99.8%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	8-3-14
Pulmonary MDR-TB cases notified	7 (2.4%)
of which XDR-TB cases	0 (0.0%)
Notified MDR-TB	13 (3.2%)
of which XDR-TB cases	0 (0.0%)
TB cases tested for HIV	–
HIV-positive TB cases	–
of these on ART	–

^a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

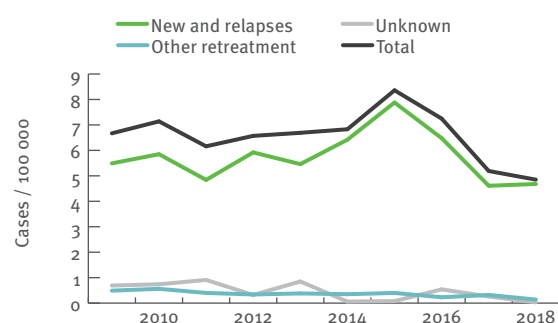
Treatment outcome monitoring

Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a		All MDR-TB cases notified in 2016 ^b	
Case-linked data reporting	Yes			
Cases notified	252		22	
Success	210	(83.3%)	20	(90.9%)
Died	12	(4.8%)	1	(4.5%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	5	(2.0%)	0	(0.0%)
Still on treatment	8	(3.2%)	0	(0.0%)
Not evaluated	17	(6.7%)	1	(4.5%)

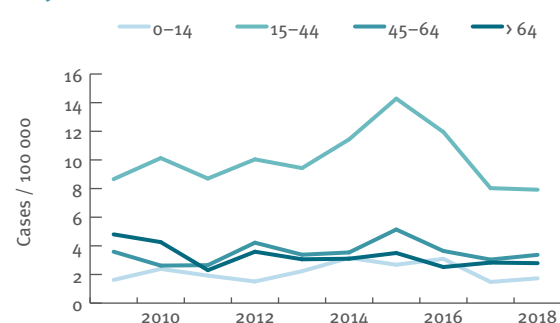
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

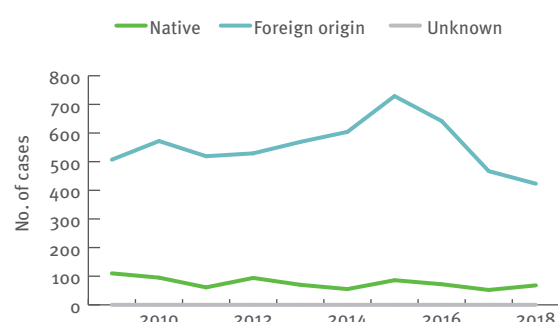
TB notification rates by treatment history, 2009–2018



New and relapsed TB cases – notification rates by age group, 2009–2018



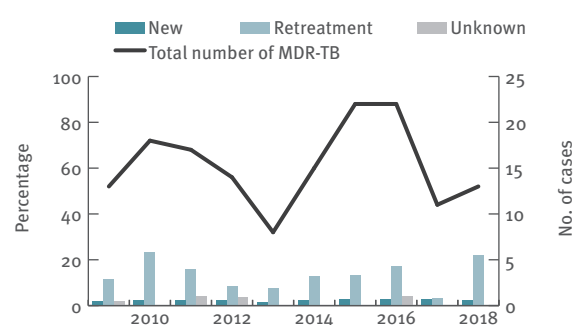
TB cases by geographical origin, 2009–2018



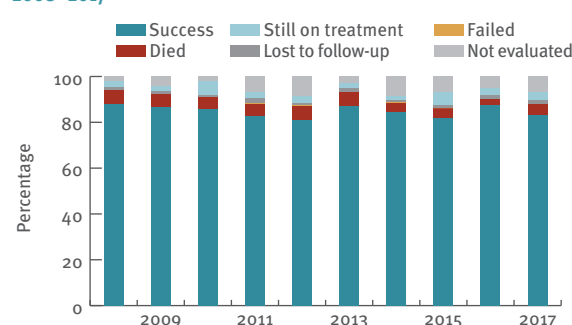
TB/HIV coinfection, 2009–2018

Data not available

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Switzerland

Population estimate 2018 by UN Statistical Database: 8 525 611

TB case notifications, 2018

Total number of cases	516
Notification rate per 100 000	6.1
New ^a and relapses	473
New ^a and relapses notification rate per 100 000	5.5
Pulmonary	337 (71.2%)
of which microscopy-positive	
of which laboratory-confirmed	317 (94.1%)
Laboratory-confirmed TB cases	342 (66.3%)
Mean age of new native TB cases	40.4 years
Mean age of new foreign TB cases	— years
Foreign origin of all TB cases	352 (68.2%)
New (not previously treated)	473 (91.7%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	540 (470-630)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	No
Case-linked data reporting	Yes
Cases with DST results	276 (80.7%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	10 (4-17)
Pulmonary MDR-TB cases notified	4 (1.4%)
of which XDR-TB cases	1 (25.0%)
Notified MDR-TB	4 (1.4%)
of which XDR-TB cases	1 (25.0%)
TB cases tested for HIV	0 (0.0%)
HIV-positive TB cases	—
of these on ART	—

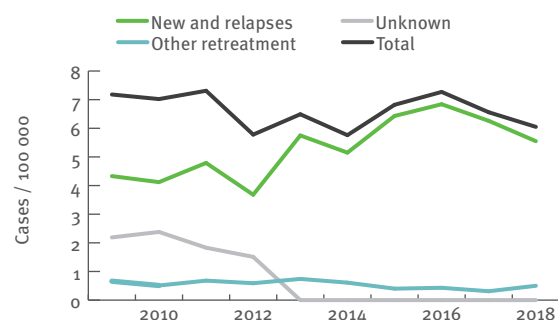
^a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.^b More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

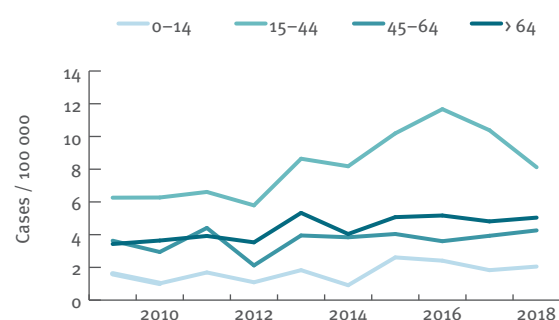
Geographical coverage	National			
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a		All MDR-TB cases notified in 2016 ^b	
Case-linked data reporting	Yes			
Cases notified	518		17	
Success	406	(78.4%)	8	(47.1%)
Died	23	(4.4%)	0	(0.0%)
Failed	0	(0.0%)	0	(0.0%)
Lost to follow-up	13	(2.5%)	1	(5.9%)
Not evaluated	76	(14.7%)	8	(47.1%)

^a Treatment outcome as presented is treatment outcome after 12 months.^b Treatment outcome as presented is treatment outcome after 24 months.

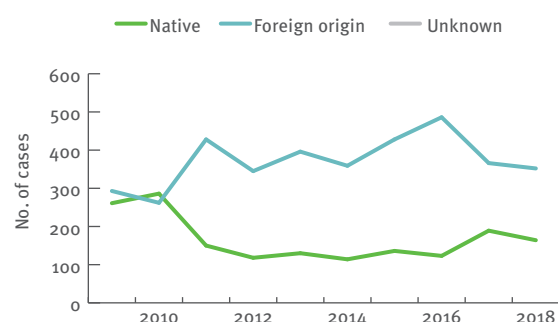
TB notification rates by treatment history, 2009–2018^a

^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

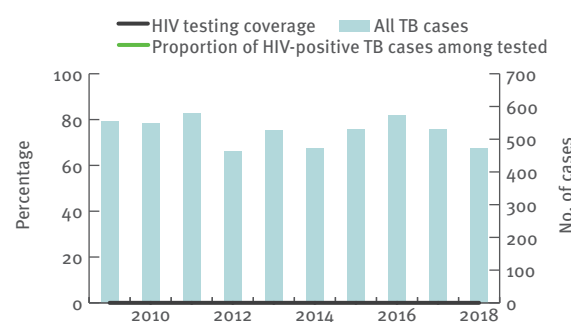
New and relapsed TB cases – notification rates by age group, 2009–2018^a

^a Data up to 2012 includes new TB cases only.

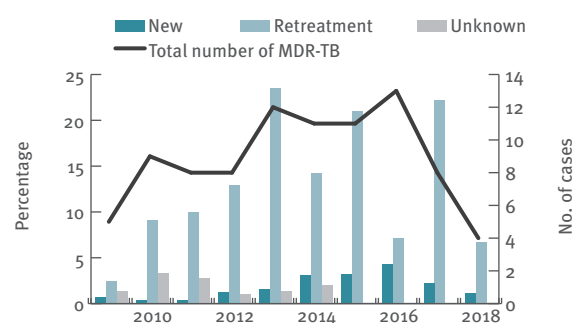
TB cases by geographical origin, 2009–2018



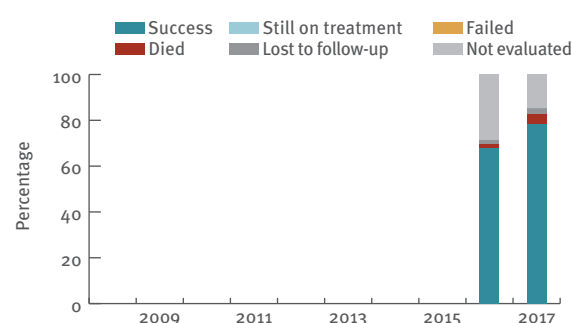
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new and relapsed TB cases, 2008–2017



Tajikistan

Population estimate 2018 by UN Statistical Database: 9 100 835

TB case notifications, 2018

Total number of cases	5 975
Notification rate per 100 000	65.7
New ^a and relapses	5726
New ^a and relapses notification rate per 100 000	62.9
Pulmonary	4 153 (72.5%)
of which microscopy-positive	
of which laboratory-confirmed	2 870 (69.1%)
Laboratory-confirmed TB cases	3037 (50.8%)
Mean age of new native TB cases	36.7 years
Mean age of new foreign TB cases	– years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	5102 (85.4%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	7600 (5900-9600)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	3 037 (100.0%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best–low–high)	740 (680-800)
Pulmonary MDR-TB cases notified	416 (13.7%)
of which XDR-TB cases	52 (16.7%)
Notified MDR-TB	904 (29.8%)
of which XDR-TB cases	56 (9.6%)
TB cases tested for HIV	5545 (96.8%)
HIV-positive TB cases	227 (4.1%)
of these on ART	178 (78.4%)

^a National coverage 100% or culturing ≥ 90%, C+ all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

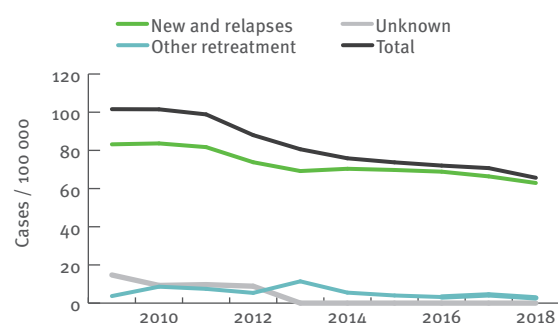
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	5 259	681
Success	4 789 (91.1%)	440 (64.6%)
Died	205 (3.9%)	115 (16.9%)
Failed	78 (1.5%)	62 (9.1%)
Lost to follow-up	144 (2.7%)	58 (8.5%)
Not evaluated	43 (0.8%)	6 (0.9%)

^a Treatment outcome as presented is treatment outcome after 12 months.

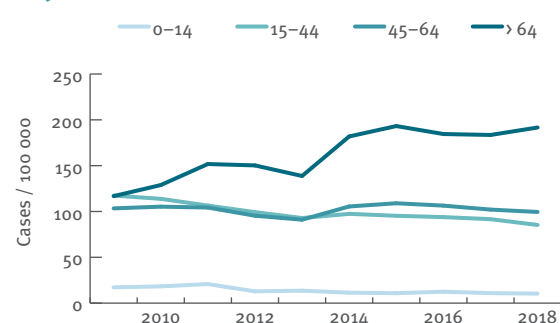
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



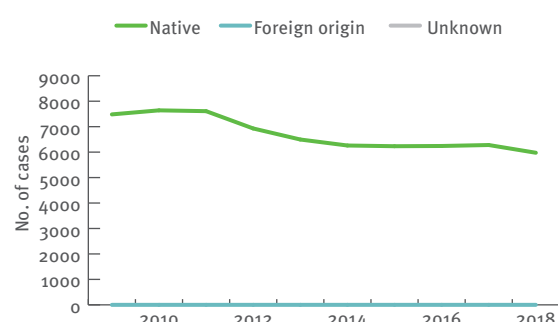
^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

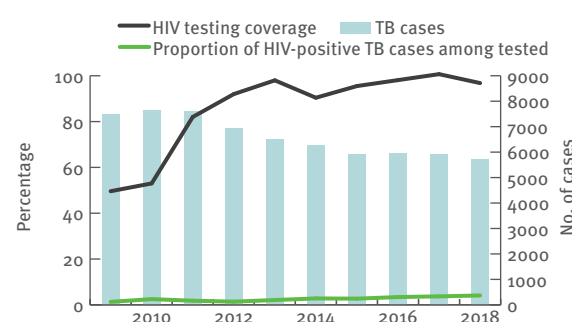


^a Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2009–2018

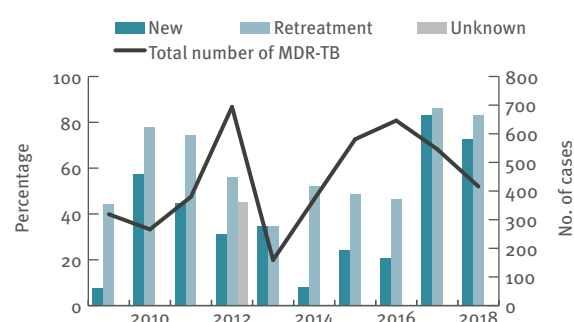


TB/HIV coinfection, 2009–2018^a

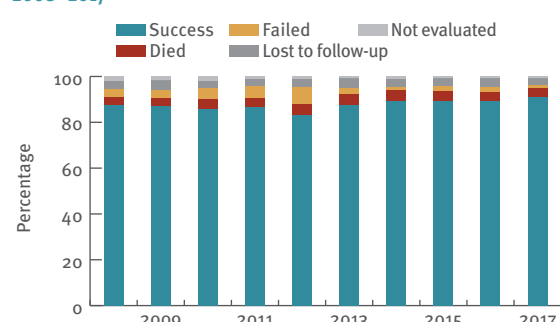


^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017^a



^a 2008–2011 cohorts include new cases only.

Turkey

Population estimate 2018 by UN Statistical Database: 82 340 088

TB case notifications, 2018

Total number of cases	11 786
Notification rate per 100 000	14.3
New ^a and relapses	11 576
New ^a and relapses notification rate per 100 000	14.1
Pulmonary	7 559 (65.3%)
of which microscopy-positive	
of which laboratory-confirmed	5 861 (77.5%)
Laboratory-confirmed TB cases	5 995 (50.9%)
Mean age of new native TB cases	44.0 years
Mean age of new foreign TB cases	— years
Foreign origin of all TB cases	1 278 (10.8%)
New (not previously treated)	10 948 (92.9%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	13 000 (11 000-15 000)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	5 164 (86.1%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	250 (220-280)
Pulmonary MDR-TB cases notified	167 (3.2%)
of which XDR-TB cases	8 (6.7%)
Notified MDR-TB	216 (4.2%)
of which XDR-TB cases	8 (5.6%)
TB cases tested for HIV	8 234 (71.1%)
HIV-positive TB cases	67 (0.8%)
of these on ART	52 (77.6%)

^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.

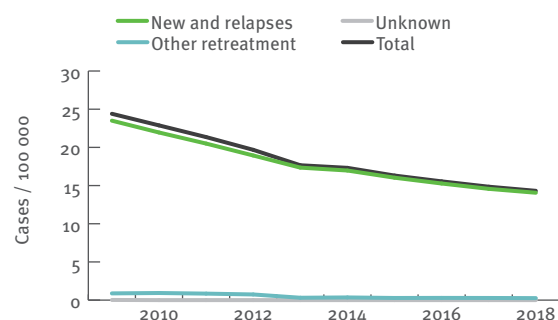
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	11 638	211
Success	10 014 (86.0%)	131 (62.1%)
Died	803 (6.9%)	19 (9.0%)
Failed	32 (0.3%)	16 (7.6%)
Lost to follow-up	320 (2.7%)	27 (12.8%)
Not evaluated	469 (4.0%)	18 (8.5%)

^a Treatment outcome as presented is treatment outcome after 12 months.

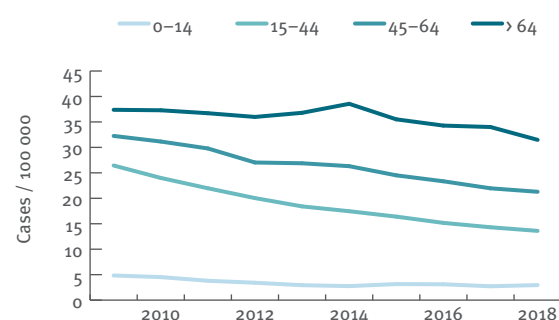
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



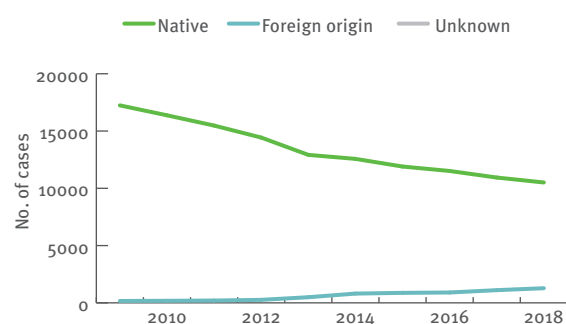
^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

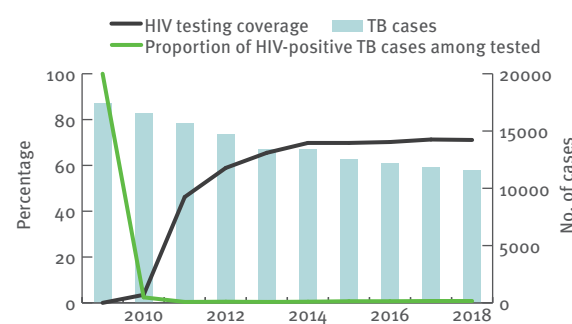


^a Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2009–2018

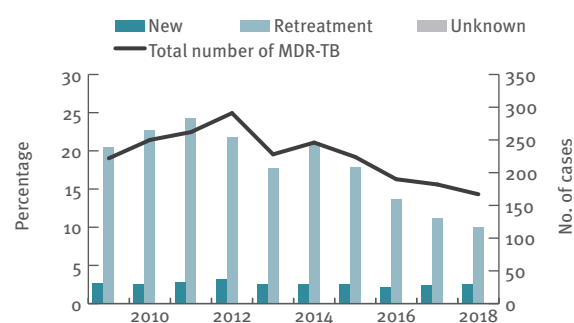


TB/HIV coinfection, 2009–2018^a

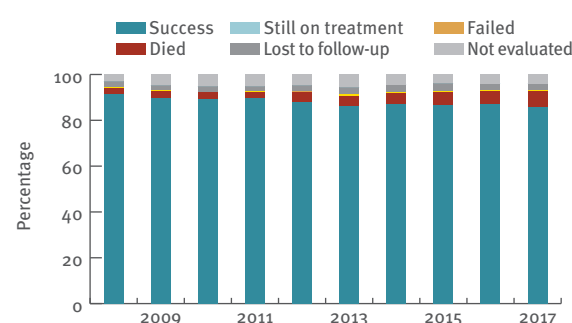


^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new and relapsed TB cases, 2008–2017^a



^a 2008–2011 cohorts include new cases only.

Turkmenistan

Population estimate 2018 by UN Statistical Database: 5 850 901

TB case notifications, 2018

Total number of cases	2 636
Notification rate per 100 000	45.1
New ^a and relapses	2157
New ^a and relapses notification rate per 100 000	36.9
Pulmonary	1 611 (74.7%)
of which microscopy-positive	
of which laboratory-confirmed	782 (48.5%)
Laboratory-confirmed TB cases	854 (32.4%)
Mean age of new native TB cases	41.0 years
Mean age of new foreign TB cases	– years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	1981 (75.2%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	2700 (2100-3400)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	No
Completeness of HIV data ^b	No
Case-linked data reporting	Yes
Cases with DST results	– –
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	270 (250-300)
Pulmonary MDR-TB cases notified	– –
of which XDR-TB cases	– –
Notified MDR-TB	– –
of which XDR-TB cases	– –
TB cases tested for HIV	– –
HIV-positive TB cases	– –
of these on ART	– –

^a National coverage 100% or culturing 90%, C+/all TB cases >50%, DST done for C+ >75%, EQA >95%.

^b More than 50% of TB cases with reported HIV status.

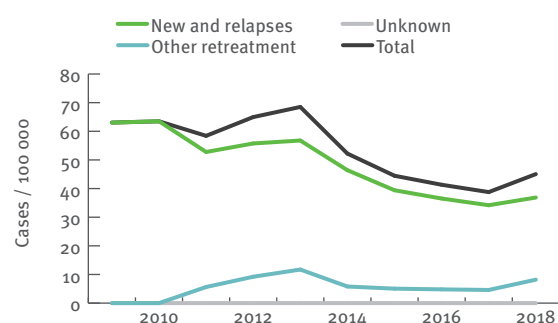
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	1 968	557
Success	1 676 (85.2%)	303 (54.4%)
Died	64 (3.3%)	93 (16.7%)
Failed	116 (5.9%)	99 (17.8%)
Lost to follow-up	78 (4.0%)	52 (9.3%)
Not evaluated	34 (1.7%)	10 (1.8%)

^a Treatment outcome as presented is treatment outcome after 12 months.

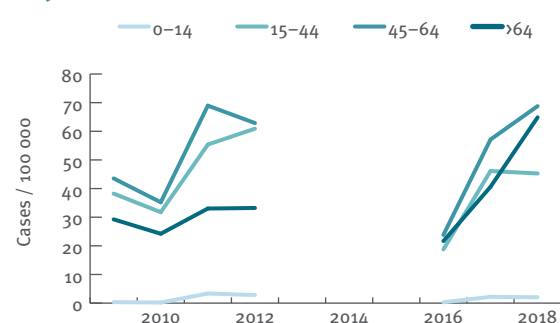
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



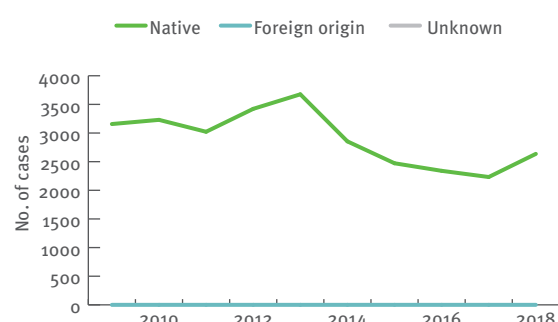
^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

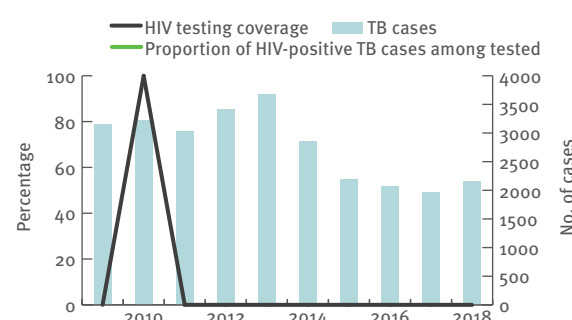


^a Data up to 2012 includes new TB cases only.

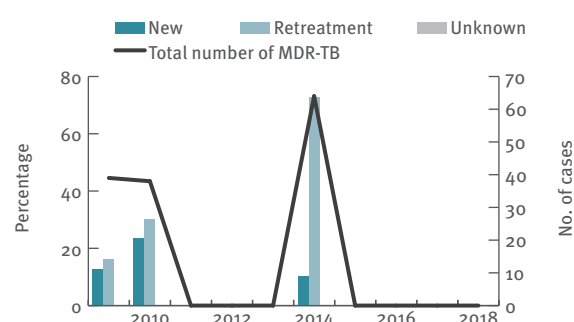
TB cases by geographical origin, 2009–2018



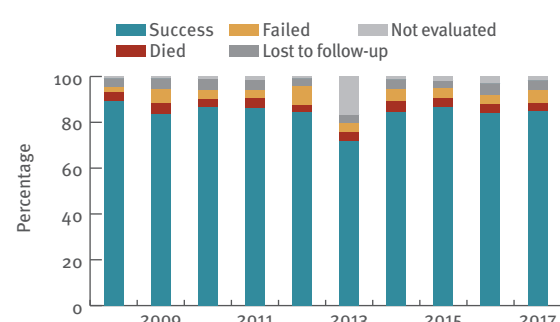
TB/HIV coinfection, 2006–2014



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome of new TB cases, 2008–2017^a



^a 2008–2011 cohorts include new cases only.

Ukraine

Population estimate 2018 by UN Statistical Database: 44 246 156

TB case notifications, 2018

Total number of cases	30 378
Notification rate per 100 000	68.7
New ^a and relapses	26512
New ^a and relapses notification rate per 100 000	59.9
Pulmonary	24 213 (91.3%)
of which microscopy-positive of which laboratory-confirmed	16 596 (68.5%)
Laboratory-confirmed TB cases	19705 (64.9%)
Mean age of new native TB cases	43.3 years
Mean age of new foreign TB cases	– years
Foreign origin of all TB cases	47 (0.2%)
New (not previously treated)	21323 (70.2%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	36000 (23000-51000)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	18 568 (94.2%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	6900 (6800-7000)
Pulmonary MDR-TB cases notified	5054 (27.2%)
of which XDR-TB cases	972 (19.2%)
Notified MDR-TB	6475 (34.9%)
of which XDR-TB cases	1028 (15.9%)
TB cases tested for HIV	26312 (99.2%)
HIV-positive TB cases	6053 (23.0%)
of these on ART	4806 (79.4%)

^a National coverage 100% or culturing ≥ 90%, C+/all TB cases > 50%, DST done for C+ > 75%, EQA ≥ 95%.

^b More than 50% of TB cases with reported HIV status.

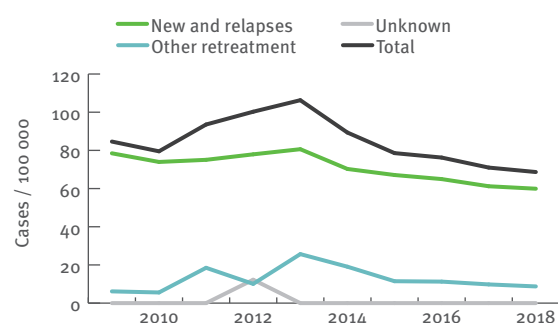
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	21 165	7277
Success	16 189 (76.5%)	3590 (49.3%)
Died	2050 (9.7%)	1160 (15.9%)
Failed	1574 (7.4%)	1308 (18.0%)
Lost to follow-up	1290 (6.1%)	1149 (15.8%)
Not evaluated	62 (0.3%)	70 (1.0%)

^a Treatment outcome as presented is treatment outcome after 12 months.

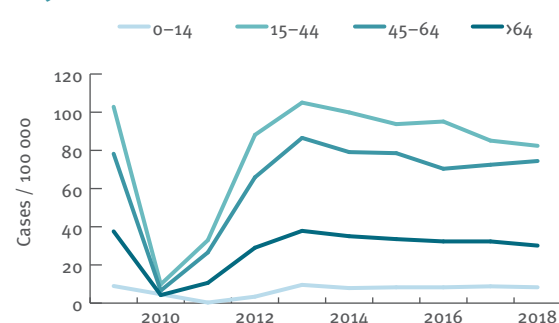
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



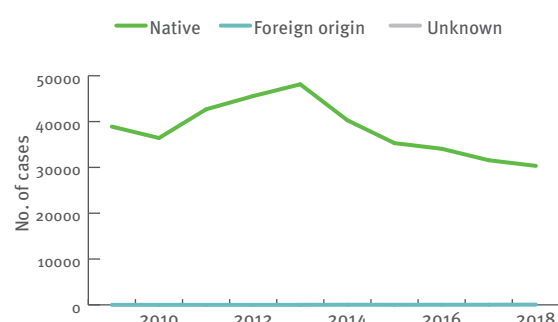
^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

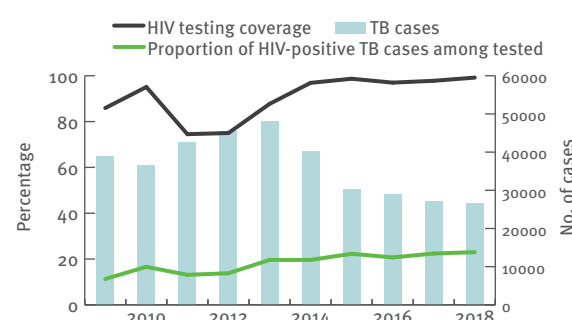


^a Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2009–2018

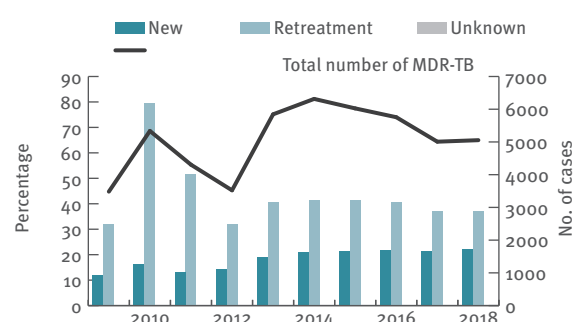


TB/HIV coinfection, 2009–2018^a

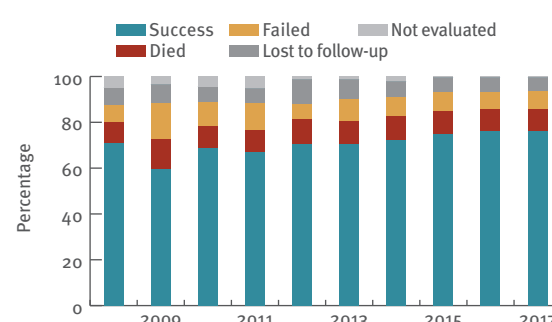


^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new and relapsed TB cases, 2008–2017^a



^a 2008–2011 cohorts include new cases only.

United Kingdom

Total population at 10 May 2019 by EUROSTAT: 66 273 576

TB case notifications, 2018

Total number of cases	5 075
Notification rate per 100 000	7.7
New ^a and relapses	4 775
New ^a and relapses notification rate per 100 000	7.2
Pulmonary	2 948 (58.1%)
of which microscopy-positive	1 221 (41.4%)
of which laboratory-confirmed	2 197 (74.5%)
Laboratory-confirmed TB cases	3 147 (62.0%)
Mean age of new native TB cases	44.6 years
Mean age of new foreign TB cases	42.1 years
Foreign origin of all TB cases	3 501 (69.0%)
New (not previously treated)	4 775 (94.1%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	5 400-4 800-5 900

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	3 099 (98.5%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	35-23-48
Pulmonary MDR-TB cases notified	25 (1.2%)
of which XDR-TB cases	3 (15.0%)
Notified MDR-TB	37 (1.2%)
of which XDR-TB cases	3 (10.3%)
TB cases tested for HIV	4 323 (85.2%)
HIV-positive TB cases	123 (2.8%)
of these on ART	100 (81.3%)

^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.

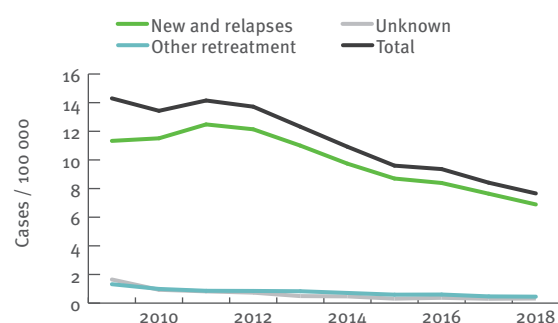
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2017 ^a	All MDR-TB cases notified in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	2 121	58
Success	1 639 (77.3%)	34 (58.6%)
Died	147 (6.9%)	6 (10.3%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	127 (6.0%)	7 (12.1%)
Still on treatment	170 (8.0%)	10 (17.2%)
Not evaluated	38 (1.8%)	1 (1.7%)

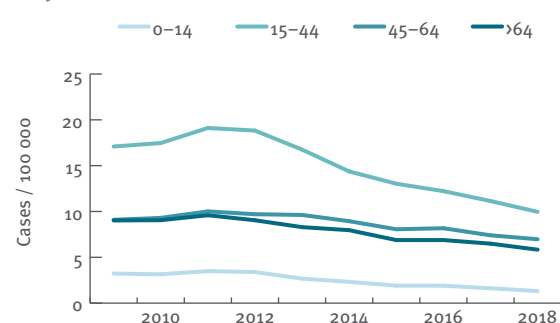
^a Treatment outcome as presented is treatment outcome after 12 months.

^b Treatment outcome as presented is treatment outcome after 24 months.

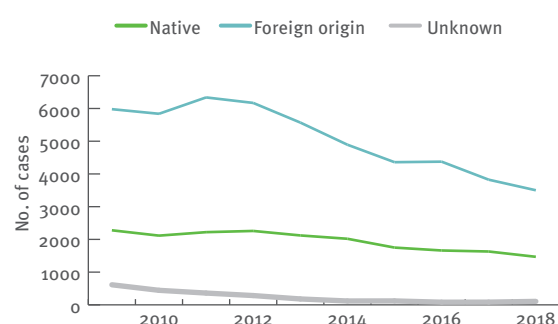
TB notification rates by treatment history, 2009–2018



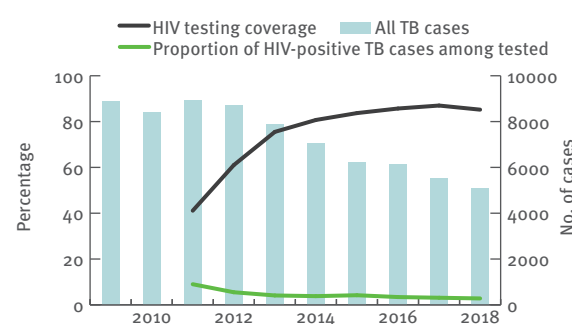
New and relapsed TB cases – notification rates by age group, 2009–2018



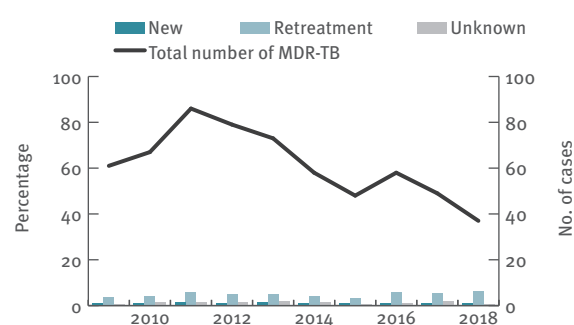
TB cases by geographical origin, 2009–2018



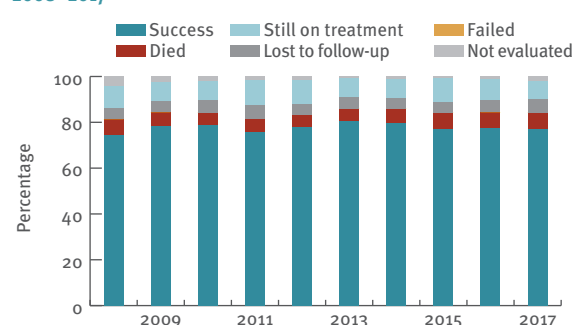
TB/HIV coinfection, 2009–2018



MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new culture-confirmed pulmonary TB cases, 2008–2017



Uzbekistan

Population estimate 2018 by UN Statistical Database: 32 476 244

TB case notifications, 2018

Total number of cases	18 496
Notification rate per 100 000	57.0
New ^a and relapses	16 413
New ^a and relapses notification rate per 100 000	50.5
Pulmonary	10 811 (65.9%)
of which microscopy-positive	
of which laboratory-confirmed	5 929 (54.8%)
Laboratory-confirmed TB cases	6841 (37.0%)
Mean age of new native TB cases	40.6 years
Mean age of new foreign TB cases	– years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	14 162 (76.6%)
Estimate	
Estimated new and relapsed cases N, (best-low-high)	23 000 (16 000–31 000)

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

Drug resistance surveillance and TB/HIV coinfection, 2018

Completeness of DRS data ^a	Yes
Completeness of HIV data ^b	Yes
Case-linked data reporting	Yes
Cases with DST results	6 841 (100.0%)
Estimated RR TB among notified bac conf pulmonary TB cases N, (best-low-high)	1400 (1400–1500)
Pulmonary MDR-TB cases notified	816 (11.9%)
of which XDR-TB cases	0 (0.0%)
Notified MDR-TB	1422 (20.8%)
of which XDR-TB cases	400 (22.9%)
TB cases tested for HIV	16 413 (100.0%)
HIV-positive TB cases	736 (4.5%)
of these on ART	612 (83.2%)

^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.

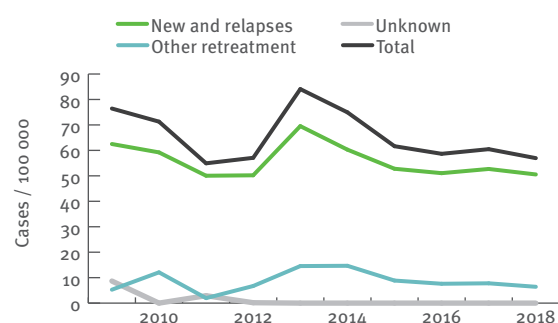
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2017 ^a	All RR/MDR-TB cases enrolled into second-line treatment in 2016 ^b
Case-linked data reporting	Yes	
Cases notified	15 167	1986
Success	13 554 (89.4%)	1140 (57.4%)
Died	698 (4.6%)	311 (15.7%)
Failed	154 (1.0%)	109 (5.5%)
Lost to follow-up	331 (2.2%)	244 (12.3%)
Not evaluated	430 (2.8%)	182 (9.2%)

^a Treatment outcome as presented is treatment outcome after 12 months.

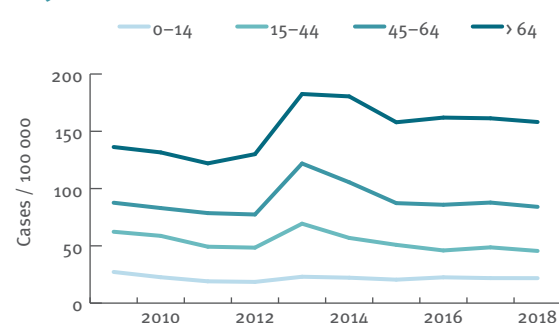
^b Treatment outcome as presented is treatment outcome after 24 months.

TB notification rates by treatment history, 2009–2018^a



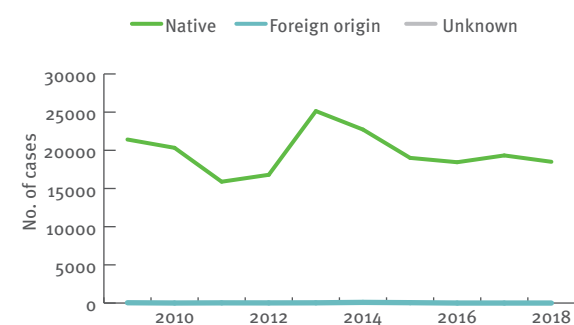
^a Starting from 2013 onward, cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2009–2018^a

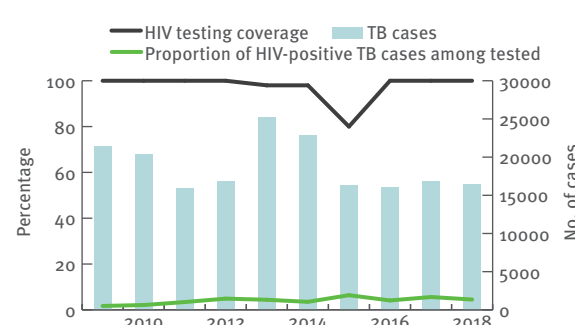


^a Data up to 2012 includes new TB cases only.

TB cases by geographical origin, 2009–2018

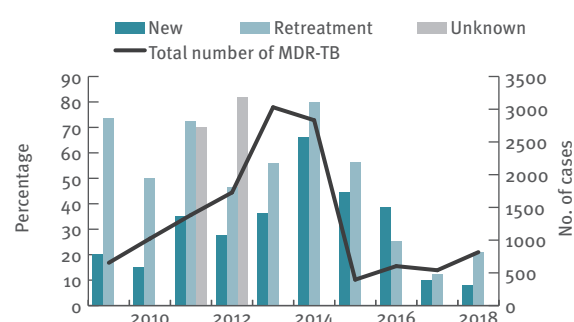


TB/HIV coinfection, 2009–2018^a

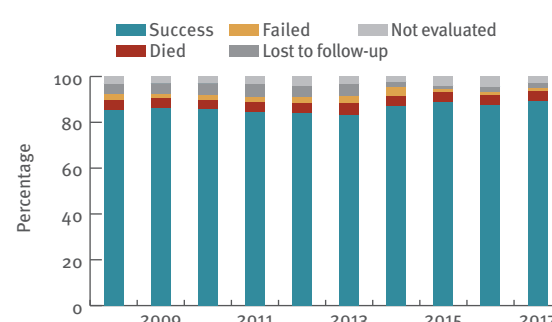


^a Data up to 2014 include all TB cases.

MDR-TB cases by previous treatment history, 2009–2018



Treatment outcome, new and relapsed TB cases, 2008–2017^a



^a 2008–2011 cohorts include new cases only.



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