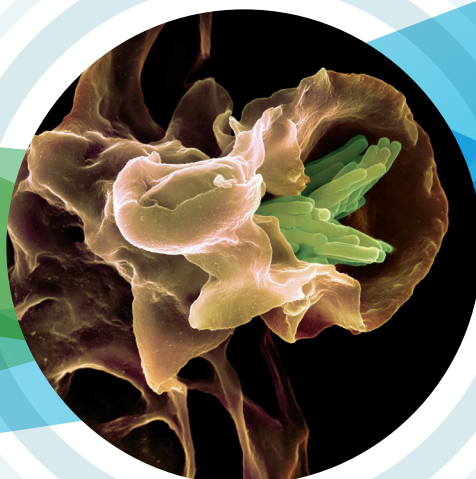




World Health
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Tuberculosis surveillance and monitoring in Europe

2018

2016 data

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and monitoring in Europe**

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

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This report was sent for consultation and review to the operational contact point for epidemiology or national focal point for tuberculosis in the EU/EEA Member States and TB surveillance country correspondents in the non-EU/EEA member states.

Trend tables and country profiles are included in the online report at Trend tables and country profiles are included in the online report at www.ecdc.europa.eu/en/publications/ and www.euro.who.int/tb.

Suggested citation for full report:

European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2018 – 2016 data.

Stockholm: European Centre for Disease Prevention and Control, 2018.

Tables and figures should be referenced:

European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2018 – 2016 data.

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ECDC and the WHO Regional Office for Europe would like to thank the nominated national operational contact points for tuberculosis (TB) surveillance from EU/EEA Member States and the national TB surveillance focal points from other

countries 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: Natavan Alikhanova; Belarus: Andrei Astravko; Belgium: Maryse Wanlin, Patrick de Smet; Bosnia and Herzegovina: Snježana Brčkalo; Bulgaria: Tonka Varleva; Croatia: Aleksandar Simunovic; Cyprus: Maria Koliou; Czech Republic: Jiří Wallenfels; Denmark: Peter Henrik Andersen, Troels Lillebæk; Estonia: Piret Viiklepp; Finland: Hanna Soini; the former Yugoslav Republic of Macedonia: Maja Zakoska; France: Jean-Paul Guthmann; Georgia: Ucha Nanava; Germany: Nita Perumal; Greece: Ourania Kalkouni; Hungary: Gabor Kovács; Iceland: Thorsteinn Blondal; Ireland: Joan O'Donnell, Sarah Jackson; Israel: Yana Levin; Italy: Stefania D'Amato; Kazakhstan: Yana Bestrashnova; Kyrgyzstan: Jekaterina Maljukova; Latvia: Dace Mihalovska; Liechtenstein: Marina Jamnicki Abegg; Lithuania: Edita Davidavičienė; Luxembourg: Irene Demuth; Malta: Analita Pace Ascjak; Moldova: Ana Ciobanu; Monaco: Jean Lorenzi; Montenegro: Biljana Grbavčević; Netherlands: Erika Slump; Norway: Trude Margrete Arnesen; Poland: Maria Korzeniewska-Kosela; Portugal: Raquel Duarte; Romania: Domnica Ioana Chiotan; Russia: Sergey Sterlikov; Serbia: Radmila Curcic; Kosovo¹: Majlinda Gjocaj; Slovakia: Ivan Solovič; Slovenia: Petra Svetina; Spain: Laura Sanchez-Cambronero Cejudo; Sweden: Jerker Jonsson; Switzerland: Ekkehardt Altpeter; Tajikistan: Firusa Sharipova; Turkey: Aysegul Yildirim; Ukraine: Liliia Masiuk; Turkmenistan: Aisoltan Charyeva; United Kingdom: Maeve Lalor; Uzbekistan: Salihdjan Alimov.

ECDC

ISBN 978-92-9498-174-5; ISSN 2443-5538; DOI 10.2900/1940

WHO

ISBN 978-92-89053037

¹ 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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Abbreviations

ADR	Adverse drug reactions
AFB	Acid-fast bacilli
AIDS	Acquired immunodeficiency syndrome
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
EPTB	Extrapulmonary tuberculosis
EQA	External quality assessment
EU	European Union
HIV	Human immunodeficiency virus
HPC	High-priority countries (Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Romania, Russia, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan)
LTBI	Latent tuberculosis infection
MDR	Multidrug resistance
MDR TB	Multidrug-resistant tuberculosis
MSM	Men who have sex with men
PTB	Pulmonary tuberculosis
PLHIV	People living with HIV/AIDS
RR TB	Rifampicin-resistant tuberculosis
SLD	Second-line drugs
TB	Tuberculosis
TESSy	The European Surveillance System
TME	WHO Tuberculosis Monitoring and Evaluation platform
TOM	Treatment outcome monitoring
UN	United Nations
WHO	World Health Organization
WRD	WHO-approved rapid diagnostics
XDR	Extensive drug resistance
XDR TB	Extensively drug-resistant tuberculosis



Summary

Executive summary

The WHO European Region

Tuberculosis incidence in the WHO European Region increased sharply from 1990 onwards, reaching a peak in 1999. Since 2000, the number of TB cases emerging in the Region has consistently decreased. The average annual decline in the TB incidence rate was 4.3% during the period 2007–2016, and 4.4% between 2015 and 2016. Over the last 10 years TB incidence in the Region has decreased from 47 to 32 cases per 100 000 population; the equivalent of 410 000 in 2007 and 290 000 in 2016. This represents a decrease of the TB burden in the Region by a third, as well as a decline from 4% to 3% in the Region's proportion of the Global TB burden during the period 2007–2016. Yet, despite this being the fastest decline in the world compared to other regions, it will still need to be accelerated to achieve the milestone of reducing TB incidence as part of the End TB strategy.

In 2016, the TB mortality rate had fallen more than two-fold compared with the rate for 2007, 2.8 and 6.5 TB deaths per 100 000 population respectively, which on average represents a decline of 8.9% per year. Over the last five years, this decline has accelerated to 10.5% per year, which is notably higher than the global rate of decline for TB mortality (3.2% between 2012 and 2016). Yet in 2016, 26 000 TB deaths occurred in the European Region.

Nine out of 30 countries with the highest multidrug-resistant (MDR) TB burden in the world are in the WHO European Region. In 2016, an estimated 71 000 incident cases of rifampicin-resistant and multidrug-resistant tuberculosis (RR/MDR TB) emerged in the WHO European Region. This represents about 20% of the global RR/MDR-TB burden which is 350 000. The proportion of RR/MDR-TB among new and previously treated TB cases in the Region is also significantly above the global average, with 19% in new and 55% in previously treated cases compared to 4.1% and 19% respectively. Since 2011, and with the introduction and scale up of the WHO-recommended rapid diagnostics, the detection rate of MDR-TB has increased significantly, from 33% in 2011 to 73% in 2016.

During the period 2007–2016, the WHO European Region faced an unprecedented increase in HIV prevalence in incident TB cases from 3% to 12%. This is higher than both the global average and the dynamic, which declined from 13% in 2007 to 10% in 2016. The number of TB/HIV co-infections emerging in the WHO European Region has increased from 13 000 to 34 000, representing a 260% increase during the period from 2007 to 2016. This situation is driven by the spread and dynamic of the HIV epidemic in the Region.

Despite universal treatment coverage for TB and RR/MDR-TB patients, the treatment success rate in the Region is still below the 85% and 75% Regional targets respectively. Nevertheless, when data for 2012 and 2016 are compared,

a slow but sustainable increase can be seen in both cohorts for all new and relapse TB and RR/MDR-TB cases, from 72% to 75% and from 49% to 55% respectively. Nonetheless, several high countries with high MDR-TB burdens have shown remarkable success in the treatment of MDR-TB patients (Kazakhstan 76.5% and Latvia 73.2%).

To commemorate the tenth anniversary of the Berlin Declaration 'All against Tuberculosis' and the fact that we are now half way through implementation of the Tuberculosis Action Plan for the WHO European Region 2016–2020, this report also provides an overview of the progress made and the challenges faced in addressing TB in the Region.

European Union and European Economic Area countries

Epidemiology

In 2016, 58 994 cases of TB were reported in 30 EU/EEA countries (Liechtenstein did not report). The decreasing notification rates observed in most countries are reassuring, but annual rates of decline are still insufficient to achieve the WHO target of TB elimination by 2050 in European low-incidence countries.

Of all notified TB cases, 70.4% were newly diagnosed and 71.0% were confirmed by culture, smear or nucleic acid amplification test. Thirty-three per cent of all TB cases were of foreign origin, mostly residing in low-incidence countries. Overall, adult age groups were equally affected by TB. Children under 15 years of age accounted for 4.1% of all TB cases, corresponding to a notification rate of 3.0 per 100 000 population. Higher-incidence countries also had the highest age-specific notification rates in children. Males were over-represented in all EU/EEA Member States.

Multidrug-resistant (MDR) TB was reported for 3.7% of 36 071 cases with drug susceptibility testing (DST) results and continues to be highest (more than 10%) in the three Baltic countries. Extensively drug-resistant (XDR) TB was reported for 20.1% of 984 MDR TB cases tested for second-line drug susceptibility. The drug resistance for the second line anti-TB drugs has slightly increased compared to recent years.

Data on HIV co-infection remained very incomplete, and the number of countries reporting HIV status was similar to 2015. Of all TB cases with known HIV status, 4.5% were co-infected with the virus.

TB in prisons remains poorly reported. For the 18 EU/EEA countries reporting data, the notification rate amounted to 163.8 per 100 000 inmates - i.e. an incidence ratio of 11.1 compared to the general population in the same countries.

Monitoring progress towards TB elimination

In 2016, 19 of 26 WHO targets could be effectively monitored based on the data available from EU/EEA Member States. Almost all EU/EEA Member States met the four targets regarding estimated TB case detection (at least 84%), 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 countries met or were close to the targets on first-line DST coverage among bacteriologically confirmed cases (100%) and the percentage of RR/MDR TB among previously treated TB patients (decrease compared with 2014). However, only a minority of reporting Member States met the targets regarding use of WHO-recommended rapid tests for diagnosis (40% of new cases and relapses), the percentage of RR/MDR TB among new TB patients (decrease compared with 2014) and the percentage of TB/HIV co-infection (decrease compared with 2014).

Finally, a small minority, sometimes only a single Member State, met the targets regarding estimated RR/MDR TB case detection (at least 85%), TB and MDR TB treatment success (at least 85% and 75%, respectively), HIV testing coverage (100%) and the detection of TB/HIV co-infection (100%).

Резюме

Европейский регион ВОЗ

Начиная с 1990 г. в Европейском регионе ВОЗ отмечался резкий рост заболеваемости туберкулезом, которая достигла максимального значения в 1999 г. С 2000 г. число возникающих в Регионе случаев ТБ неуклонно снижается. В период с 2007 по 2016 г. показатель заболеваемости ТБ снижался в среднем на 4,3% в год и на 4,4% в год в период с 2015 по 2016 г. За последние 10 лет абсолютное число случаев ТБ, возникающих в Регионе ежегодно, сократилось с 47 до 32 на 100 000 населения, что эквивалентно снижению с 410 000 случаев в 2007 г. до 290 000 случаев в 2016 г. Это означает, что в период с 2007 по 2016 гг. бремя ТБ в Регионе сократилось на треть, а процентный вклад Региона в глобальное бремя ТБ снизился с 4% до 3%. При этом несмотря на то, что Региону удалось обеспечить самые высокие в мире темпы снижения показателей ТБ, их недостаточно, чтобы достичь целевого показателя снижения заболеваемости ТБ, предусмотренного стратегией «Ликвидировать ТБ».

В 2016 г. показатель смертности от ТБ сократился более чем вдвое по сравнению с 2007 г., до 2,8 с 6,5 случаев на 100 000 населения, что соответствует снижению этого показателя в среднем на 8,9% в год. За последние пять лет темпы снижения ускорились до 10,5% в год, что существенно выше глобальных темпов снижения смертности от ТБ (3,2% в период с 2012 по 2016 г.). Тем не менее, в 2016 г. в Европейском регионе от ТБ умерло 26 000 человек.

Девять из 30 стран мира с самым высоким бременем МЛУ-ТБ находятся в Европейском регионе ВОЗ. В 2016 г. расчетное число новых случаев и рецидивов ТБ с устойчивостью к рифампицину и множественной лекарственной устойчивостью (РУ/МЛУ-ТБ) в Европейском регионе ВОЗ составляло 71 000. Это соответствовало приблизительно 20% от 350 000 случаев, составляющих глобальное бремя РУ/МЛУ-ТБ. Доля РУ/МЛУ-ТБ среди впервые выявленных и ранее леченных больных ТБ в Регионе также значительно превышает среднемировой показатель и достигает 19% среди впервые выявленных и 55% среди ранее леченных больных, по сравнению с 4,1% и 19% соответственно. С 2011 г. и с внедрением и расширением масштабов применения рекомендованных ВОЗ методов ускоренной диагностики существенно вырос уровень выявления МЛУ-ТБ, с 33% в 2011 г. до 73% в 2016 г.

В период с 2007 по 2016 г. Европейский регион ВОЗ столкнулся с беспрецедентным ростом распространенности ВИЧ-инфекции у впервые выявленных больных и больных с рецидивом ТБ - с 3% до 12%, что превышало среднемировой показатель и шло в разрез с глобальной тенденцией к снижению с 13% в 2007 г. до 10% в 2016 г. Число случаев сочетанной инфекции ТБ/ВИЧ в Европейском регионе ВОЗ выросло с 13 000 до

34 000, что соответствует росту этого показателя к 2016 г. на 260% по сравнению с 2007 г. Сложившаяся ситуация обусловлена распространением и динамикой развития эпидемии ВИЧ-инфекции в Регионе.

Несмотря на всеобщий охват лечением больных ТБ и РУ/МЛУ-ТБ, показатель успешности лечения в Регионе по-прежнему остается ниже целевых показателей 85% и 75% соответственно. Тем не менее, сравнивая данные за 2012 и 2016 гг., отмечается медленный, но устойчивый рост успешности лечения в обеих когортах как среди всех впервые выявленных больных ТБ, так и среди больных РУ/МЛУ-ТБ, с 72% до 75% и с 49% до 55% соответственно. При этом, нескольким странам с высоким бременем МЛУ-ТБ удалось достичь значительных успехов в лечении больных МЛУ-ТБ (Казахстан 76,5% и Латвия 73,2%).

По случаю 10-й годовщины принятия Берлинской декларации «Все против туберкулеза» и в ознаменование половины срока реализации Плана действий по борьбе с туберкулезом для Европейского региона ВОЗ на 2016-2020 гг. в настоящем докладе также представлен обзор достигнутого прогресса и проблем в борьбе с ТБ в Регионе.

Страны Европейского союза и Европейской экономической зоны

Эпидемиология

В 2016 г. в 30 странах ЕС/ЕЭЗ (Лихтенштейн не предоставил отчетных данных) было зарегистрировано 58 994 случая ТБ. Наблюдаемое в большинстве стран снижение показателей регистрации случаев ТБ обнадеживает, но ежегодных темпов снижения по-прежнему недостаточно для достижения целевого ориентира ВОЗ в отношении ликвидации ТБ к 2050 году в европейских странах с низким уровнем заболеваемости.

В структуре всех зарегистрированных случаев ТБ 70,4% составили впервые выявленные случаи, 71,0% случаев был подтвержден культурально, с помощью микроскопии мазка мокроты или метода амплификации нуклеиновых кислот. Тридцать три процента всех случаев ТБ были зарегистрированы у лиц иностранного происхождения, в основном проживавших в странах с низкой заболеваемостью ТБ. В целом, взрослые возрастные группы были в равной степени затронуты ТБ. Дети в возрасте до 15 лет составляли 4,1% всех больных ТБ, что соответствовало показателю регистрации случаев 3,0 на 100 000 населения. В странах с более высоким уровнем заболеваемости также отмечались самые высокие возрастные показатели регистрации случаев ТБ у детей. Во всех государствах членах ЕС/ЕЭЗ в структуре больных преобладают мужчины.

Туберкулез с множественной лекарственной устойчивостью (МЛУ) был зарегистрирован в 3,7% от 36 071 случая ТБ с результатами тестирования на лекарственную чувствительность (ТЛЧ), и его показатели остаются самыми высокими (свыше 10%) в трех странах Балтии. Туберкулез с широкой лекарственной устойчивостью (ШЛУ) был зарегистрирован в 20,1% от 984 случаев МЛУ-ТБ, протестированных на лекарственную чувствительность к препаратам второго ряда. По сравнению с прошедшими годами отмечался незначительный рост лекарственной устойчивости к противотуберкулезным препаратам второго ряда.

Данные о сочетанной ВИЧ-инфекции оставались весьма неполными, и число стран, предоставивших данные о ВИЧ-статусе, осталось неизменным с 2015 г. Сочетанная ВИЧ-инфекция была зафиксирована у 4,5% всех больных ТБ с известным ВИЧ-статусом.

По-прежнему сохраняются проблема качества отчетности о случаях ТБ в местах лишения свободы. Для 18 стран ЕС/ЕЭЗ, предоставивших данные, показатель регистрации равнялся 163,8 на 100 000 заключенных, т. е. коэффициент заболеваемости составил 11,1 по сравнению с населением в целом в тех же странах.

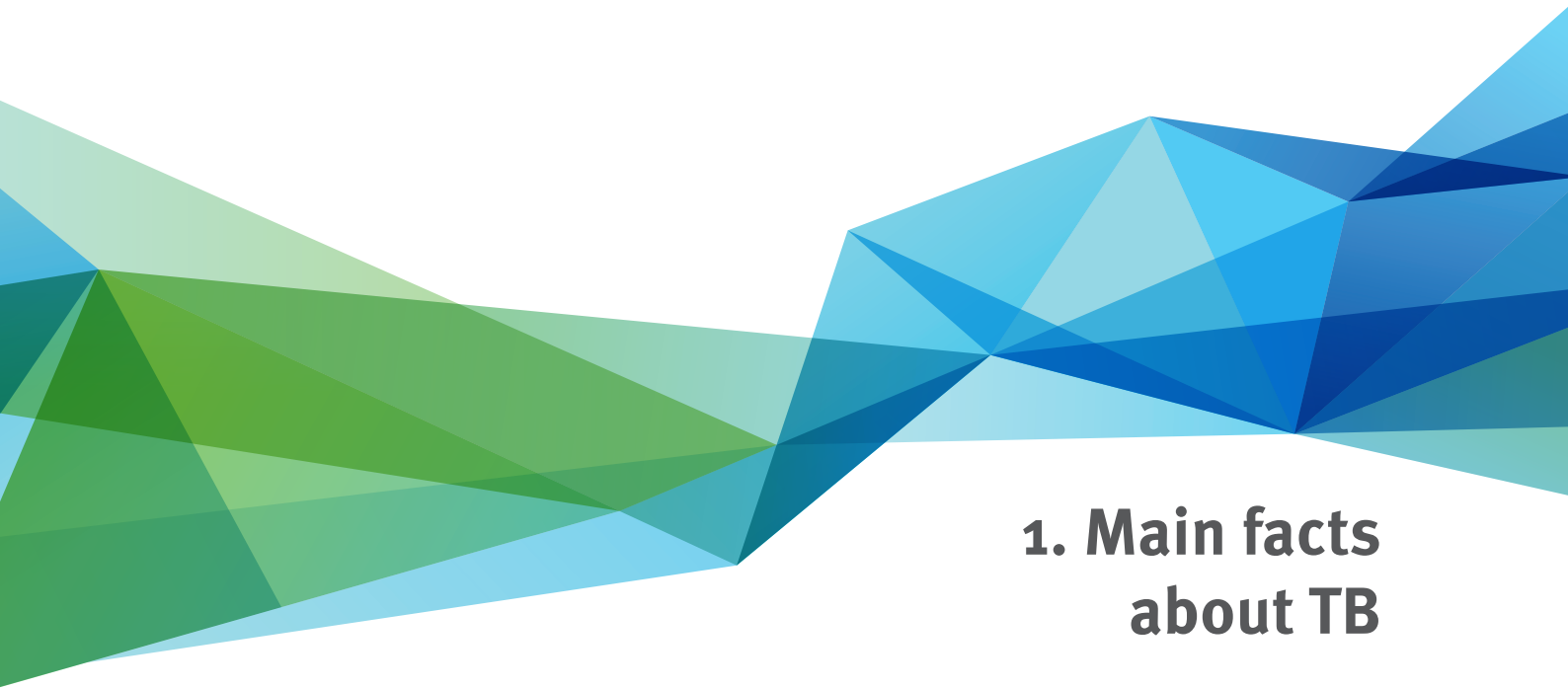
Мониторинг прогресса в направлении ликвидации туберкулеза

В 2016 году на основе данных, полученный от государств-членов ЕС/ЕЭЗ было возможным проведения

мониторинга по 19 из 26 показателям ВОЗ. Почти все государства-члены ЕС/ЕЭП достигли все четыре цели, касающиеся выявления случаев ТБ (не менее 84%), заболеваемости туберкулезом (ниже 24,6 на 100 000), покрытию лечением РУ/МЛУ-ТБ случаев (100%) и смертности от туберкулеза (ниже 2,7 на 100 000).

Большинство стран, подающие отчет о ТБ, достигли или были близки к достижению намеченных целевых уровня показателей в отношении охвата тестами на лекарственную чувствительность к препаратам первого ряда (ТЛЧ ПТП) среди бактериологически подтвержденных случаями (100%) и распространенности РУ/МЛУ ТБ среди ранее леченного больного туберкулеза (снижение по сравнению с 2014 годом). Однако, лишь немногие страны достигли целевых показателей в отношении использования рекомендованных ВОЗ экспресс-тестов для диагностики (40% новых случаев и рецидивов), процентное соотношение РР/МЛУ ТБ среди новых больных туберкулезом (снижение по сравнению с 2014 годом) и доля коинфекции ТБ/ВИЧ (снижение по сравнению с 2014 годом).

Наконец, несколько стран, а иногда и только одно государство-член, достигло целевых показателей по выявлению случаев РУ/МЛУ-ТБ (не менее 85%), успеха лечения ТБ и МЛУ-ТБ (по меньшей мере, 85% и 75% соответственно), охватом тестирования на ВИЧ (100%) и выявлению коинфекции ТБ/ВИЧ (100%).



1. Main facts about TB

1. Main facts about TB

Tuberculosis (TB) is an infectious disease caused by a group of *Mycobacterium* species called the *Mycobacterium tuberculosis* complex [1]. 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 people with pulmonary TB expel bacteria by coughing.

Only a small proportion of people ($\approx 10\%$) infected with *Mycobacterium tuberculosis* will develop TB disease during their lifetime, but this probability is much higher among immunocompromised individuals (e.g. people infected with HIV).

Sputum smear microscopy is the most common TB diagnostic method worldwide. However, culture remains the gold standard and 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% [2]. Multidrug-resistant (MDR)

and extensively-drug-resistant (XDR) TB require longer treatments with more drugs and are associated with lower success rates.

In 2016, the World Health Organization (WHO) estimated that 10.4 million people fell ill with TB, 62% of them in South-East Asia and the Western Pacific Region. The African Region accounted for 25% of all TB cases. Smaller proportions of cases were estimated for the Eastern Mediterranean Region (7%), and the Region of the Americas (3%). The European Region accounted for 3% of all cases [3].

Overall, in the European Union and European Economic Area (EU/EEA), TB remains a common infection [4]. However, most EU/EEA countries are low-incidence countries (i.e. with a notification rate below 10 per 100 000) where TB predominantly affects vulnerable populations, such as migrants, prison inmates or people co-infected with HIV.

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



2. Technical note

2. Technical note

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

Since 1 January 2008, 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 countries of 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 [5].

This report covers the 53 countries of the WHO European Region plus Liechtenstein. These are collectively referred to as the 'European Region'.

The data published in this report may differ from figures in national reports due to variation in reporting periods. The deadline for updating the data used in this report was 1 October 2017.

2.1 Data reporting and analysis

Designated experts within the national surveillance institutes submitted their TB surveillance and control programme management data for 2016 electronically to the ECDC–WHO Regional Office for Europe Joint TB Information System via a common portal¹. Designated experts within the national surveillance institutes submitted their TB surveillance and control programme management data for 2016 electronically to the ECDC–WHO Regional Office for Europe Joint TB Information System via a common portal. The TB surveillance data from the EU/EEA countries were redirected to The European Surveillance System (TESSy) platform, hosted by ECDC (Annex 1). The surveillance data from the non-EU/EEA countries, from France for 2016, and the programme management data from the entire European Region were processed through WHO's Tuberculosis Monitoring and Evaluation (TME) platform in aggregated format. A total of 29 EU/EEA Member States reported case-based data². All countries in the European Region were also asked to provide updates for 2013, 2014 and 2015 to allow for the exclusion of duplicate cases, or those later found not to have TB, and for the reporting of treatment outcomes in previously-notified cases.

The TESSy variable list for collection of the 2016 data (Annex 2) has not undergone any changes compared to the previous year.

Reporting completeness (Annex 3 and 4) varied among countries due to differences in legislation, specifics of

national surveillance systems and TB case ascertainment. Although the quality and comparability of reported data have improved in recent years, the reader should be cautious when making comparisons across countries. Data for the year 2016 from France have been noted as provisional and reported only in aggregated format to the WHO Global TB database. For the calculation of notification rates, country total population denominators by age group and gender were obtained from Eurostat³ (22 September 2017) for the EU and EEA countries and from United Nations Population Division statistics⁴ for all others.

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

TB/HIV co-infection

Case-based HIV serostatus was reported by Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Hungary, Iceland, Ireland, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Portugal, Romania, Slovakia, Slovenia and Spain. The non-EU/EEA countries, Latvia (for years 2004–2014), the Netherlands (2004–2012) and United Kingdom (2011–2013) submitted this information in aggregate format via WHO's TME platform. Finland and Poland reported the number of HIV-infected TB cases for most of the years, but not the denominator of known HIV test results. United Kingdom reported the number of HIV-tested TB cases but not the test results and were therefore excluded from the analysis. The proportion of HIV-TB co-infection was expressed as a percentage of reported TB cases with known HIV status. HIV status had to be available for >50% of all TB cases to be considered complete in the country profiles. Antiretroviral therapy was reported by eight EU/EEA Member States.

Laboratory network performance and drug resistance

Since the reporting year 1998, the results of drug susceptibility testing (DST) from initial isolates of *Mycobacterium tuberculosis* have been collected for isoniazid and rifampicin, and most EU/EEA countries have also reported susceptibility to ethambutol and streptomycin. Data on second-line drug resistance to amikacin, kanamycin, capreomycin, ciprofloxacin and ofloxacin have been reported via TESSy since 2008 and via CISID/TME since 2009. Data on resistance to gatifloxacin, levofloxacin and moxifloxacin

¹ ECDC/WHO Europe Joint Surveillance: <http://www.ecdcwhosurveillance.org>

² As Liechtenstein has not provided any TB data, except for five cases in 2007, it is not included in the commentary.

³ Available from: <http://ec.europa.eu/eurostat/data/database>

⁴ Population by UN Population Division, World Population Prospects: The 2015 Revision, medium variant (2016).

were added in 2013 and bedaquiline and delamanid in 2016. In countries where DST results are linked to TB case notifications, case-based information on DST is collected (27 countries in 2016). When individual DST data are not available, data are collected in aggregate format in TME based on previous anti-TB treatment history. Information on the organisation and laboratory practices for anti-TB DST in the country is collected using the TME module of the joint TB surveillance system. Drug resistance surveillance (DRS) methods vary across countries. 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 and linked to TB case notifications in countries routinely using culture (> 50% culture confirmation);
- DST results for isoniazid and rifampicin were available for ≥75% of culture-positive cases;
- at least 95% of external quality assessment (EQA) results were confirmed by a supranational reference laboratory.

DRS data are considered incomplete for Albania, Andorra, Azerbaijan, Greece, Italy, Kazakhstan, Kyrgyzstan, Moldova, Portugal, San Marino, Spain, Turkmenistan and Uzbekistan.

External quality assurance (EQA) systems are essential for ensuring accurate diagnosis of TB and drug-resistant TB. The implementation of 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 2016 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. If the cases had DST results for ethambutol and streptomycin, these were shown under resistance to any TB drugs. The results of DST for second-line drugs were analysed for MDR TB cases only.

Treatment outcome monitoring (TOM)

Since the reporting year 2002, treatment outcome data have been provided by EU/EEA countries 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. Thus, as part of the 2017 data call, for 2016 data, outcome data were collected for TB cases reported in 2015, MDR TB cases reported in 2014 and XDR TB cases reported in 2013. Non-EU/EEA countries have reported aggregated treatment outcome data following the same principle since 2013.

For the purpose of TOM analysis, two types of MDR TB cases were considered: cases with a known treatment start and cases with no indication of treatment. For countries 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 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 3.2: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, 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, the former Yugoslav Republic of Macedonia, Moldova, Monaco, Montenegro, Russia, San Marino, Serbia, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

Data from Serbia include TB cases reported from Kosovo⁵, and these are also stratified in tables to reflect UN Security Council Resolution No. 1244 (1999).

In order to highlight the 18 high-priority countries (HPC) identified by WHO Regional Office for Europe's Stop TB Strategy in the European Region, their data are presented in italics and as subtotals alongside the subtotals for the EU/EEA and non-EU/EEA Member States. The 18 high-priority countries in the WHO European Region are: Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, 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.

2.2 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 the EU Member States and published by the European Commission⁶. 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* nucleic acid or granulomata. Confirmed cases require a

⁵ 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

⁶ European Union Commission. 2008/426/EC: Commission Decision of 28 April 2008 amending Decision 2002/253/EC laying down case definitions for reporting communicable diseases to the Community network under Decision No 2119/98/EC of the European Parliament and of the Council (notified under document number C(2008) 1589). OJ L 159, 18.06.2008, p. 46

positive culture or detection of both AFB by microscopy and *M. tuberculosis* by nucleic acid amplification testing.

Data from all countries in the European Region also follow the WHO-recommended definitions – 2013 revision⁷. 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-approved 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, whereby gross pathological findings are 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 patients have never been treated for TB or have taken anti-TB drugs for less than one month.

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’.)
- **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 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 tuberculosis (PTB) 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 PTB.

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

Notes on the definition

- The above definitions 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 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. However, a case should be reported again if the diagnosis of confirmed tuberculosis is made following completion of anti-TB treatment (relapse), even if this occurs within 12 months of reporting the initial episode of disease.
- 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, Ireland, France, Luxembourg, Malta, Norway, Spain and United Kingdom.
- DST data were analysed for laboratory-confirmed cases.

Origin of cases

The geographic origin of a TB case is classified according to place of birth of a person with TB disease (born in the country/born outside of the country) for Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Iceland, Ireland, Israel, Italy, Kyrgyzstan, Latvia, Lithuania, Luxembourg, the former Yugoslav Republic of Macedonia, Malta, the Netherlands, Norway, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Turkey, the United Kingdom and Uzbekistan. Albania, Andorra, Armenia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Georgia, Greece, Hungary, Kazakhstan, Moldova, Montenegro, Poland, Russia, Serbia, Turkmenistan and Ukraine used citizenship (citizen/non-citizen) for classification. Azerbaijan and Turkmenistan did not report information on origin. In Denmark, the birthplace of the parents is also used to classify origin (similarly, in the Netherlands, the birthplace of parents is 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.

⁷ WHO. Definitions and reporting framework for tuberculosis 2013 revision, updated December 2014. Geneva: WHO; 2015. Available from: <http://www.who.int/tb/publications/definitions/en/>

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.

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

Extensive drug resistance (XDR): resistance to (i) isoniazid and rifampicin (i.e. MDR), (ii) resistance to a fluoroquinolone, and (iii) resistance to one or more of the following injectable drugs: amikacin, capreomycin, or kanamycin [7].

Rifampicin resistance: 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 mono-resistance, multi-drug resistance, polydrug resistance or extensive drug resistance.

Treatment outcome

Cohorts

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 new WHO treatment outcome definitions⁸ two types of cases were considered:

- patients treated for drug-susceptible TB;
- patients treated for drug-resistant TB using second-line treatment (defined as combination chemotherapy for drug-resistant tuberculosis).

The two groups are mutually exclusive. Any patient found to have drug-resistant TB and placed on second-line treatment is removed from the drug-susceptible TB outcome cohort.

Period of observation

Cases are observed until the first outcome 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'⁹. 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'¹⁰. Non-EU/EEA countries evaluate treatment outcomes according to the WHO definition.

⁸ WHO. Definitions and reporting framework for tuberculosis 2013 revision, updated December 2014. Geneva, Switzerland: World Health Organization; 2015. Available from: <http://www.who.int/tb/publications/definitions/en>

⁹ The degree of adherence to the 12-month limit is unknown, and a number of countries are known to exceed it.

¹⁰ The degree of adherence to the 24-month limit is unknown.

Treatment outcome categories

All outcome categories but one apply to the entire region and follow the recommendations in 'Definitions and reporting framework for tuberculosis – 2013 revision'. The additional category: 'still on treatment' only applies to the EU/EEA Member States. The categories are as follows:

Cured: A pulmonary TB patient with bacteriologically confirmed TB at the beginning of treatment who was smear- or culture-negative in the last month of treatment and on at least one previous occasion.

Cured of MDR TB: Treatment completed as recommended under national policy without evidence of failure AND three or more consecutive cultures taken at least 30 days apart are negative after the intensive phase.

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

Treatment failed: A TB patient whose sputum smear or culture is positive at month 5 or later during treatment.

Treatment failed for MDR TB case:

Treatment terminated or 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 (ADRs).

Died: A TB patient who dies for any reason before starting or during the course of treatment.

Lost to follow-up: A TB patient who did not start treatment or whose treatment was interrupted for two consecutive months or more.

Still on treatment¹¹:

- patient still on treatment at 12 months without any other outcome during treatment;

or

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

Not evaluated: a TB patient for whom no treatment outcome is assigned. This includes cases 'transferred out' to another treatment unit as well as cases for whom the treatment outcome is unknown to the reporting unit.

In this report:

Success: The sum of 'cured' and 'treatment completed'.

¹¹ Definition applicable to EU/EEA countries only.



3. Commentary

3. Commentary

3.1 The WHO European Region

Tuberculosis burden estimates

In 2016, an estimated 290 000 new and relapse TB cases (range 251 000–333 000) occurred in countries of the WHO European Region, equivalent to an average incidence of 31.6 cases (27.3–36.3) per 100 000 population. This represents about 3% of the total burden of tuberculosis in the world. During 2016, the absolute number of incident TB cases in the WHO European Region fell by 13 000 compared to the previous year. About 83% of the estimated TB cases in the Region occur in the 18 high-priority countries, where estimated TB incidence was 60.4 cases per 100 000 population¹², which is about five times higher than the EU/EEA average. The five countries with the largest absolute number of incident TB cases were Russia (94 000), Ukraine (39 000), Uzbekistan (24 000), Romania (15 000) and Kazakhstan (12 000). The number relative to population (incidence rate) was highest in Kyrgyzstan (145 per 100 000 population), followed by Moldova (101 per 100 000 population) Georgia (92 per 100 000 population), Ukraine (87 per 100 000 population) and Tajikistan (85 per 100 000 population) (Table 1).

Since 2000, the estimated number of TB cases in the Region has been consistently decreasing. The average annual decline in the TB incidence rate was 4.3% during the period 2007–2016, with 4.6% between 2015 and 2016, which is notably higher than the global rate of decline for TB incidence (1.9%). Yet, despite this being the fastest decline in the world compared to other regions¹³, it will still need to be accelerated to achieve the milestone of reducing TB incidence as part of the End TB strategy. It should, nevertheless, be pointed out that all the high-priority countries in the Region have experienced a decline in the TB incidence rate. Those countries with the highest annual rate of decline during the period 2007–2016 were Kazakhstan (-9.4%), Estonia (-8.6%) and Tajikistan (-7.4%) (Table 1).

In 2016, there were an estimated 26 000 TB deaths among HIV-negative people in the European Region, which is equivalent to 2.8 deaths per 100 000 population (range 2.8–2.9). There was considerable variation across the Region, ranging from less than one TB death per 100 000 population in western European countries to more than nine deaths per 100 000 in high-priority countries. The TB mortality rate was highest in Ukraine (9.5 deaths per 100 000), followed by Russia (8.2 deaths per 100 000), Turkmenistan (7.6 per 100 000) and Kyrgyzstan (7.2 deaths

per 100 000 in each). Together, the 18 high-priority countries account for over 90% of TB deaths in the Region (Table 1).

At Regional level, the TB mortality rate fell by 57%, from 6.5 to 2.8 deaths per 100 000 population between 2007 and 2016 (Table 1), which on average is a decline of 8.9% per year. Over the last five years, this decline has accelerated to 10.5% annually, which is notably higher than the global rate of decline for TB mortality (3.4% between 2015 and 2016).

In 2016, 12.0% (range 8.6–15.0%) of incident TB cases were estimated to be co-infected with HIV, 5.9% (5.4–6.3) in the EU/EEA group of countries and 13.1% (11.7–13.8) in the non-EU/EEA group of countries (Table 2). The proportion of TB cases co-infected with HIV was highest in Ukraine (21%) and Russia (19%), followed by Portugal and France (14% each). Although Malta and Luxemburg also showed high prevalence of HIV among TB cases (26% and 15% respectively), this represented only a few cases in absolute numbers. The top five countries with the highest number of TB/HIV co-infections were Russia (18 000), Ukraine (8 100), Uzbekistan (1 200), France (670), Kazakhstan (580) and the UK (560).

Nine out of 30 countries with the highest MDR TB burden in the world are in the WHO European Region¹⁴. In 2016, there were an estimated 122 000 (range, 110 000–134 000) incident cases of rifampicin-resistant and multidrug-resistant tuberculosis (RR/MDR TB) in the WHO European Region, with MDR TB accounting for 95% of the total. An estimated 19% (95% CI: 12–26%) of new cases and 55% (95% CI: 43–67%) of previously treated cases had RR/MDR TB. If all notified pulmonary tuberculosis patients were tested for drug resistance to rifampicin and isoniazid, it is estimated that around 71 000 (range 71 000–72 000) would be detected (Table 2).

TB notification and trends

In 2016, a total of 297 132 TB cases were reported from 52 countries¹⁵ in the WHO European Region, 253 096 of which were new, relapses or had an unknown previous treatment history (Table 5). This represents 85.2% of all TB cases notified in 2016.

The notification rate of new and relapse cases varies widely among countries, from none (San-Marino) to 118 (Kyrgyzstan) per 100 000 population (Map 1 and Table 4).

In 2016, there were 34 countries with low notification of new and relapse cases (less than 20 cases per 100 000), all located in the western and central part of the Region and the majority of them were high-income countries. Seven

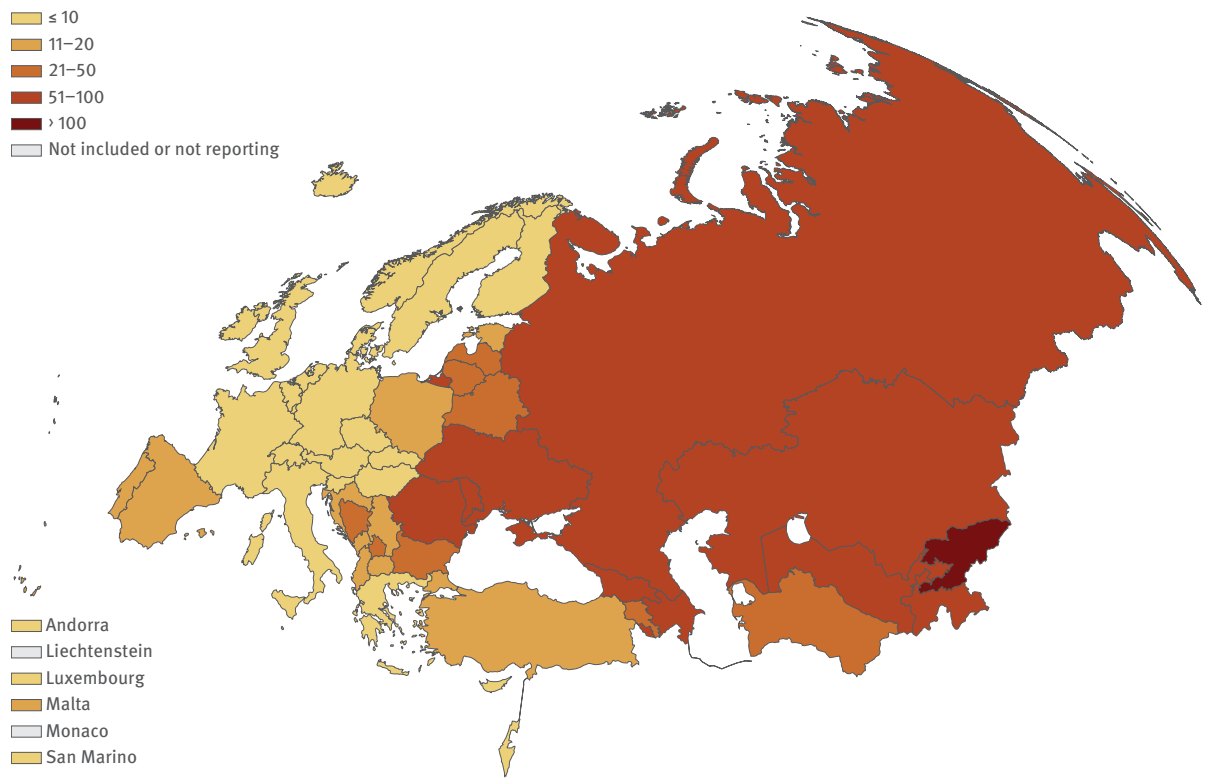
¹² The 18 high-priority countries are: Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Romania, Russia, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

¹³ World Health Organization. Global tuberculosis report 2017. Geneva: World Health Organization; 2017. Available from: <http://apps.who.int/iris/bitstream/10665/259366/1/9789241565516-eng.pdf>

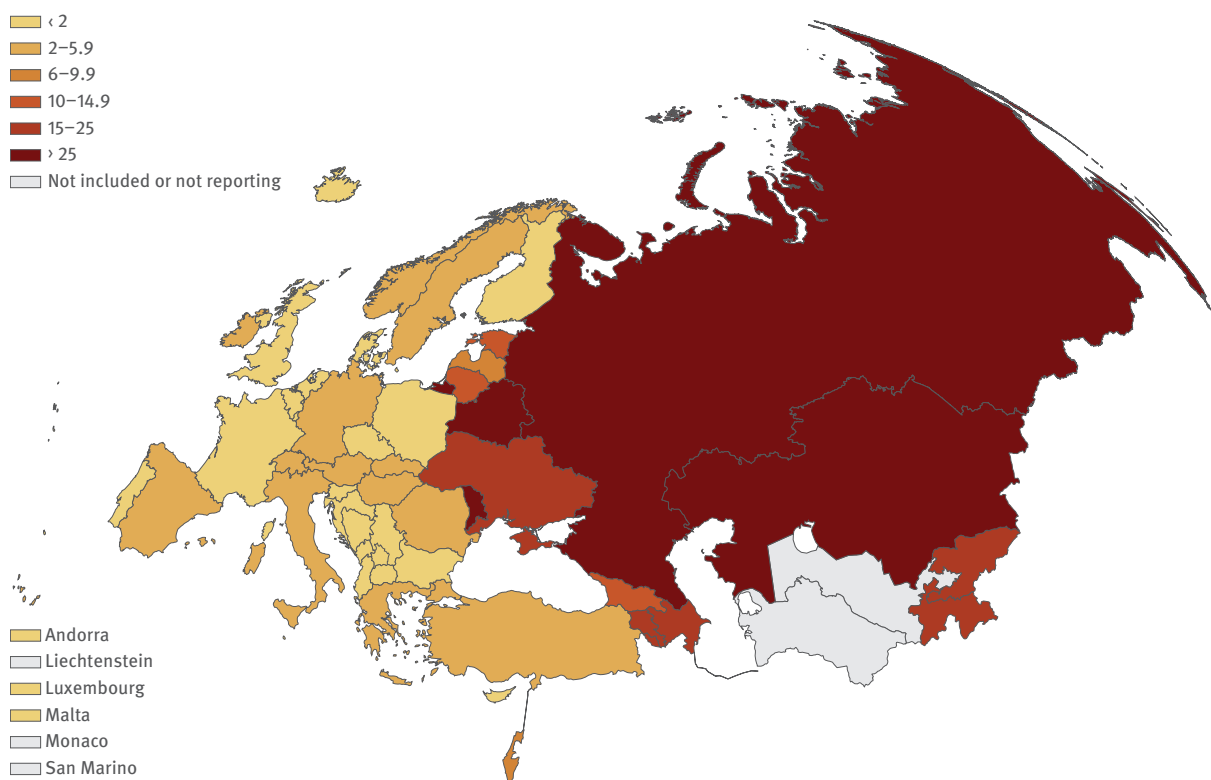
¹⁴ Top 10 countries with the highest global MDR TB burden (in alphabetical order): Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Somalia, Tajikistan, Ukraine, Uzbekistan according to WHO Global tuberculosis report, 2017.

¹⁵ Monaco was the only non-reporting country in 2017.

Map 1: TB notification rates of new TB cases and relapses per 100 000 population, European Region, 2016



Map 2: Percentage of notified TB cases with multidrug resistance among new pulmonary laboratory confirmed TB cases, European Region, 2016



countries reported new or relapse case rates of between 20 and 50 per 100 000 population. Nine reported between 50 and 100 cases per 100 000 population: Moldova (88), Georgia (76), Kazakhstan (69), Tajikistan (68), Romania (65), Ukraine (65), Russia (64), Azerbaijan (53) and Uzbekistan (51). The 18 high-priority countries with new and relapse case notifications account for about 83% of the Regional burden. Around 36% of new and relapse cases come from Russia, even though Russia only accounts for 16% of the Region's population.

During the period 2012–2016, an overall downward trend of 16.6% was observed in the notification of incident TB cases, from 33.5 to 28.0 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 throughout the Region's 18 high-priority countries from 64.7 to 53.5 per 100 000 population. The notification rate of new and relapse cases in the 18 high-priority countries is almost twice as high as for the Region overall (53.5 cases per 100 000 compared to 28.0 for the Region) and about five times higher than the rate in the EU/EEA (10.9 cases per 100 000 population).

Previous treatment history

In 2016, previously treated cases represented 10.5% and 30.3% in the EU/EEA and non-EU/EEA respectively. The average in the 18 high-priority countries was 30.0%, impacting the pan-European average of 26.4%. There were 16 countries in which previously treated cases accounted for 15% or more of all TB cases: Azerbaijan (43.4%), Russia (35.5%), Ukraine (31.6%), Moldova (31.2%), Kyrgyzstan (28.7%), Belarus (26.3%), Georgia (26.0%), Kazakhstan (25.9%), Armenia (24.3%), Uzbekistan (21.7%), Romania (21.1%), Lithuania (20.2%), Turkmenistan (17.8%), Montenegro (16.1%), Tajikistan (16.0%) and Latvia (15.2%) (Table 5). Reasons for the high percentage of previously-treated cases include clinical failure or poor treatment adherence and mismanagement in previous treatment episodes and possible re-infection during the current treatment episode.

Disease localisation

In 2016, pulmonary localisation was notified in about 72% of the overall TB cases in the Region (Table 6). The proportion of patients with pulmonary localisation in the EU/EEA was higher than in non-EU/EEA countries. Extra-pulmonary TB was notified on average for 14.2% of all TB cases in the Region. Eight countries reported more than 30% of their tuberculosis cases having extra-pulmonary localisation: Belgium, Ireland, Italy, Netherlands, Norway, Sweden, Turkey and United Kingdom.

Bacteriological confirmation

Bacteriological confirmation of TB diagnosis was reported for 135 472 (64.2%) of all 211 018 new and relapse pulmonary cases in the Region (Table 7). Confirmation of TB diagnosis among pulmonary TB cases by culture, smear and/or nucleic acid amplification tests (such as WHO-recommended rapid diagnostics Xpert MTB/RIF) was much lower in non-EU/EEA countries (60.1%) than in EU/EEA countries

(80.3%). Confirmation also varied considerably among countries - from 45% in Uzbekistan to 93% in Slovenia. In five countries bacteriological confirmation of new and relapse pulmonary cases was below 60%, underlining the need to strengthen diagnostics: Uzbekistan (45.3%), Armenia (52.8%), Hungary (54.4%), Russia (50.8%) and Kyrgyzstan (57.7%). In 34 countries bacteriological confirmation of new and relapse pulmonary cases was 75% and above.

Age and sex

There is a wide variation in the distribution of age- and sex-specific notification rates across countries. 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 high-priority countries, 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 especially challenging in young children.

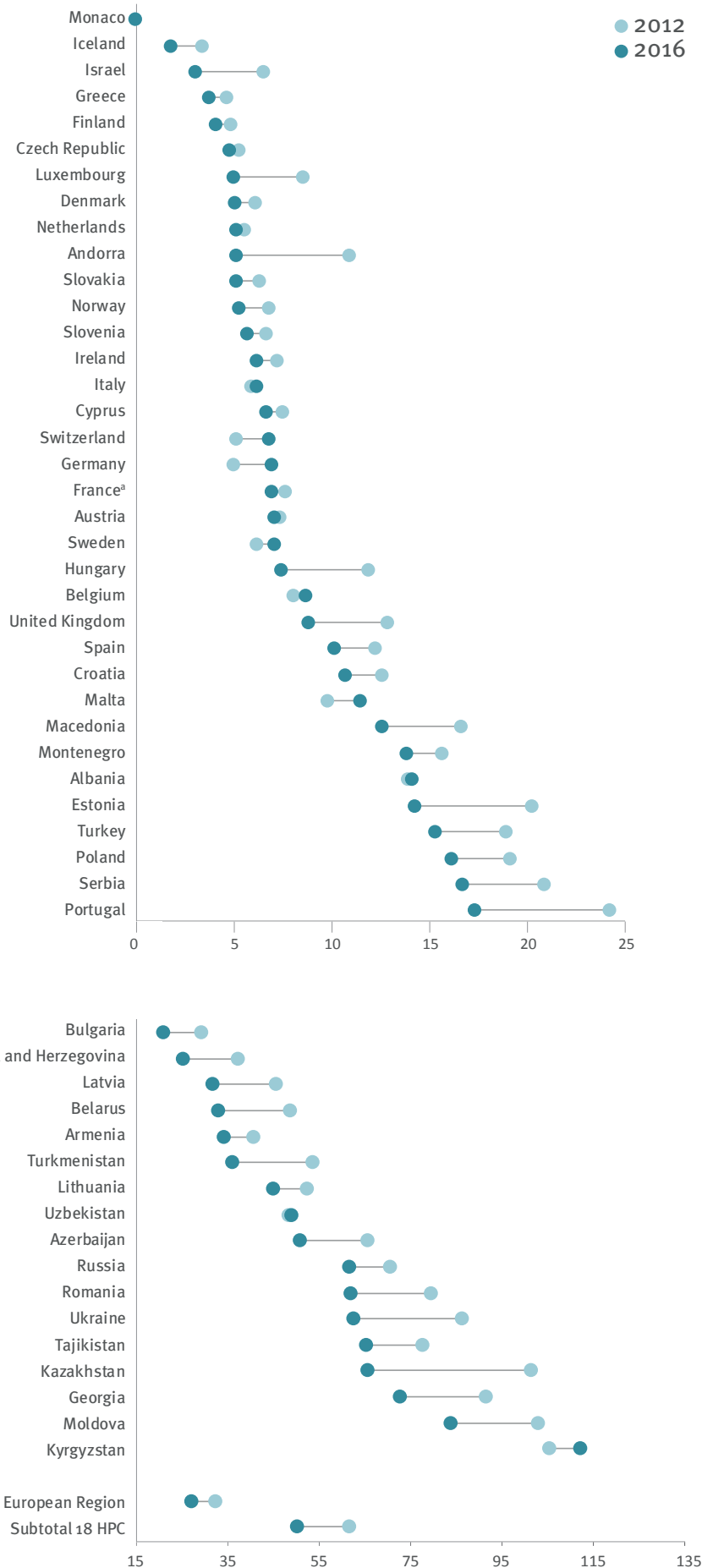
In countries with at least 100 new and relapse TB cases the proportion of TB cases notified in children (0–14 years) varied at country level from below one percent (Turkmenistan, Belarus, Hungary) to 21.4% (Slovakia) of all new cases and relapses. The difference in proportions of childhood TB cases across the countries may reflect differences in case-finding practice (e.g. 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 4.0% (Table 9).

There were twice as many males as females reported among all TB cases (Table 9), however a 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 and Luxembourg. 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 likely reflects the overrepresentation of males in the various TB risk groups, notably the homeless, prisoners, seasonal migrant workers, people living with HIV (PLHIV), men who have sex with men (MSM) and people who inject drugs (PWID).

Drug resistance

In 2016, 50 countries in the Region reported on first-line anti-TB drug susceptibility test (DST) results. The percentage of confirmed MDR TB cases among 86 797 new pulmonary TB cases tested for first-line DST in the Region was 17.7%, which is slightly lower than the rate observed in 2015 (18.3%) (Fig 3.1.2). One possible reason for the low percentage of MDR TB at Regional level is the unusually low number of MDR TB cases reported from Kazakhstan and Uzbekistan compared to previous years. While 13 countries reported no MDR TB or less than 1%

Figure 3.1.1. Trend in TB notification rate per 100 000 between 2012 and 2016 in countries with under 20 cases per 100 000 (upper panel) and 20 cases and over per 100 000 (lower panel) in the WHO European Region



among new TB cases, eight countries reported a rate over 20% (Table 12). With the exception of the Baltic States, where MDR TB among new cases varied from 7.6% in Latvia to 13.3% in Lithuania, the prevalence was 4.1% or lower in all EU/EEA countries, with an average of 2.4% (Fig 3.1.3). In the non-EU/EEA area, three countries had an MDR TB prevalence ranging from 10–19% among new cases tested for first-line DST: Armenia (15.4%), Azerbaijan (15.4%) and Georgia (10.2%). Six countries had 20–29% MDR TB among new cases: Kazakhstan (25.5%), Kyrgyzstan (21.9%), Moldova (25.6%), Russia (27.3%), Tajikistan (20.8%) and Ukraine (22.0%). Belarus and Uzbekistan reported MDR prevalence above 30% (38.6%).

The percentage of confirmed MDR TB cases among 46 272 previously-treated TB cases whose isolates were tested for first-line DST was 51.9%, which is higher than the 2015 rate (46.3%) (Fig 3.1.2). The reason for such an increase at Regional level is the notable increase in the absolute number of previously treated cases with DST results in the Russian Federation as a result of the introduction of a country-wide electronic surveillance system. In 2016, the Russian Federation reported twice as many MDR TB cases as in previous years. The new surveillance system in Russia facilitated an accurate estimate of the number of previously treated MDR TB patients. This had not been possible before and consequently regional data had been under-estimated.

Eighteen countries had between 15% and 49% MDR TB among previously-treated TB cases tested for first line DST. In six countries this rate was even higher: Albania (50.0%), Kyrgyzstan (56.3%), Moldova (57.4%), Armenia (57.7%), Belarus (71.6%) and Russia (65.2%) (Table 12). However, it should be noted that in Albania this involved only four cases in absolute numbers.

In 2016, the per capita rate of MDR TB notification among new TB cases at Regional level was 1.7 per 100 000. This represents an average annual increase of 0.8% between 2012 and 2016 (Table V).

Trends in the MDR percentage among new TB cases and trends in the per capita notification rate of MDR TB among new cases have differed significantly by country in recent years (Table V). The proportion of MDR among new pulmonary TB cases tested for drug resistance decreased slightly in the EU/EEA sub-region over the last five years, from 2.7 to 2.4%, and the per capita rate of notified MDR TB cases remained stable at around 0.1 per 100 000 population. Meanwhile, in the non-EU/EEA countries the MDR percentages among new cases increased from 18.4% in 2012 to 22.8% in 2016. At the same time, despite an impressive decline in incident TB cases per capita, the notification rate for MDR TB increased from 3.4 to 3.7 per 100 000 population, suggesting that the replacement of susceptible TB strains with resistant strains is becoming more common in the non-EU/EEA subregion. The Regional trend is influenced by an increase in the MDR notification rate experienced mainly by Russia and Ukraine, as well as by Azerbaijan and Tajikistan. In a few settings (Armenia, Belarus, Georgia, Lithuania, Moldova) the MDR rate has levelled off, while Estonia and Latvia serve as clear examples of countries that

have reversed the trend in rising epidemics of MDR TB. In central Asian countries the prevalence and rate of MDR TB fluctuates widely from year to year, indicating weaknesses in routine drug-resistance surveillance.

In 2016, a total of 50 countries reported on second-line DST data. Data on second-line DST was available from about 96% of all notified MDR TB cases (compared to 29% in 2015), which is an exceptional achievement for data coverage in the history of drug resistance surveillance for the European Region. Of the 37 663 MDR TB cases subjected to second-line DST, 4 917 (13.1%) were XDR TB (Table 14). This is notably lower than the previous year's result (21.9%). Such rapid change at Regional level is related to the fact that Russia, which accounts for around 67% of MDR TB cases in the Region, began reporting second-line drug (SLD) data to the global TB database for the first time. In EU/EEA countries, where 74.4% of MDR TB cases were tested for second-line drugs, the prevalence of XDR among MDR cases was 20.1%, which is comparable to the result for 2015. Among the countries reporting at least 30 MDR cases with second-line DST results, five countries reported over 20% XDR prevalence among MDR TB cases: Belarus (45.9%), Latvia (37.5%), Lithuania (23.8%), Romania (30.0%) and Poland (20.5%).

There is no clear trend in the XDR TB percentage for countries with a long history of SLD DST surveillance. Thus, in Belarus the alarming rate of increase for XDR continued in 2016, reaching a prevalence of 45.6%. An increasing trend in XDR-TB was also observed in Estonia, Latvia and Romania, while in Lithuania, Armenia, Azerbaijan, Georgia and Tajikistan XDR prevalence among MDR TB cases has levelled off (Table VIII).

Of the 51 752 RR/MDR TB patients notified, 49 446 (95.5%) were enrolled into MDR TB treatment programmes. Five high-priority countries reported a gap of over 5% between the number of patients enrolled and the number diagnosed: Turkey (82.4%), Azerbaijan (86.3%), Belarus (87.2%), Georgia (87.5%), and Russia (94.0%) (Table 15).

Access to XDR TB treatment at regional level was only 76.6% in 2016, which is notably lower than the 98.6% treatment coverage reported for the previous year. This trend is influenced by Russia where XDR TB treatment coverage is only 52%, whereas in the rest of the high-priority countries, except for Tajikistan, XDR-TB treatment coverage is above 90%.

TB/HIV co-infection

A total of 40 countries provided surveillance data on TB/HIV co-infection (Table 16). In the reporting countries, of the 224 282 new and relapse TB patients notified, 193 128 were screened for HIV (86.1%). Nine high-priority countries achieved a testing level above 90%: Armenia, Azerbaijan, Belarus, Georgia, Estonia, Moldova, Tajikistan and Ukraine and Uzbekistan. A total of 25 844 TB cases were detected with HIV-positive status, 13.4 % of those tested versus 9.0% recorded in 2015. The sudden change in TB/HIV cases is related to improvement of the TB/HIV surveillance system in Russia following the introduction of a

Figure 3.1.2. Percentages of MDR among laboratory-confirmed pulmonary TB cases, European Region, 2012 – 2016

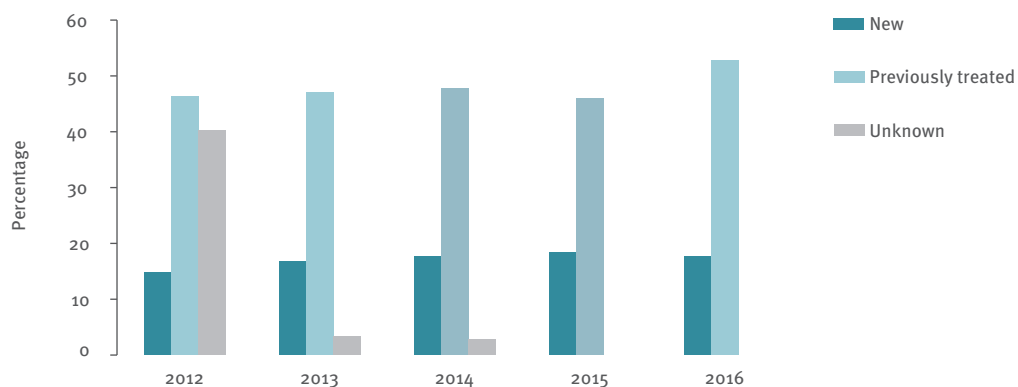


Figure 3.1.3. Percentages of MDR among laboratory-confirmed pulmonary TB cases, EU/EEA, 2012 – 2016

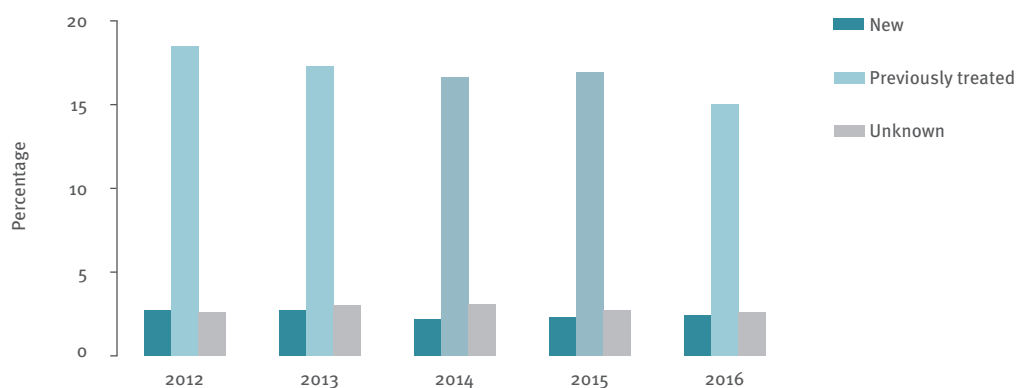
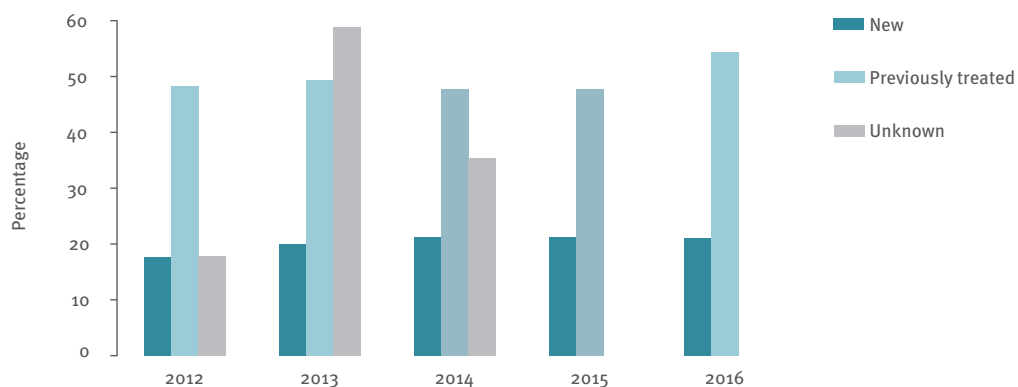


Figure 3.1.4. Percentages of MDR among laboratory-confirmed pulmonary TB cases, 18 high-priority countries, 2012 – 2016



case-based, country-wide electronic surveillance system. Until 2016 Russia only reported TB/HIV data from among the TB cases newly diagnosed with HIV in the civilian population. Improvement of electronic surveillance has indicated that the burden of TB/HIV infection is much higher than was estimated. This has also resulted in a substantial revision of regional estimates.

Among those countries reporting representative HIV testing (above 50% HIV testing coverage), six have documented a significant overlap of the HIV and TB epidemics by exceeding 10% HIV prevalence among new and relapse TB cases (Table 16): Russia, Ukraine (20.7% each), Malta (17.4%), Portugal (13.9%), Estonia (11.7%) and Latvia (11.0%). Six countries with representative routine surveillance had 5–10% HIV prevalence among TB patients: Belarus, Moldova (8.7% each), Spain (7.3%), Israel (7.2%), Armenia (5.6%) and Kazakhstan (5.4%). In 2016, 32 countries in the Region provided information on anti-retroviral therapy (ART) enrolment among TB cases with HIV-positive status. Of 25 844 HIV-positive tuberculosis cases, 16 829 (65.1%) had received ART. This is somewhat higher than in 2015 (62.4%), but far below the WHO target of universal ART coverage. Among the high-priority countries there were only eight that achieved coverage of over 75%: Armenia, Belarus, Estonia, Georgia, Kazakhstan, Romania, Tajikistan and Turkey.

Origin of cases

TB cases of foreign origin represent 8.2% of all TB cases notified Region-wide, 32.7% in EU/EEA countries and only 2.0% in non-EU/EEA countries (Table 10). In many countries TB cases of foreign-origin represent a large majority: Malta (96.0%), Sweden (89.8%), Norway (88.6%), Israel (80.8%), Cyprus (93.3%), Switzerland (79.8%), Netherlands (75.3%) and Luxemburg (75.9%).

TB in prisons

During 2016, 36 countries in the Region provided information on TB case detection and treatment in prisons (Table 17). Overall, 12 298 (6.0%) of the new and relapse TB cases in the Region were reported from prisons, 11 863 (97%) of which were in the high-priority countries. In EU/EEA countries the proportion of TB cases in prisons represented only 1.7% of the country total; in non-EU countries the proportion was 7.1%. In the non-EU/EEA countries, the notification rate in prisons was 1144 new TB cases per 100 000 detainees, which is about seven times higher than in the EU/EEA sub-region (164 per 100 000). The overall notification rate for new TB cases in prisons in the WHO European Region was 862 per 100 000 detainees. In five countries the TB notification rate exceeded 1000 cases per 100 000 detainees: Azerbaijan, Kyrgyzstan, Moldova, Russia and Ukraine. The highest TB risks in prison relative to the risk in the general population are calculated to be in Slovakia (41), Moldova (25), Azerbaijan, Latvia and Russia (23 each). Six countries (Andorra, Ireland, Luxemburg, Malta, and San-Marino and Slovenia) did not report any cases of TB from their penitentiary systems.

Treatment outcome

The treatment success rate among 218 028 new TB cases and relapses having started treatment in 2015 was 77.2% (Table 19). This is slightly higher than the 76.2% treatment success rate reported in the previous year (Table X). The average rate for the 18 high-priority countries was 78.5% cured and treatment completed. The treatment success rate was slightly lower in the EU/EEA countries than in non-EU/EEA countries (74.1% versus 78.0%). Only 17 countries achieved an 85% treatment success rate in this treatment cohort. Another eight countries were close to the target, with success rates of 80–85%. Six countries had treatment success rates below 60%, where no treatment follow-up data were inversely correlated (Croatia (10.4%), Cyprus (55.6%), Poland (53.1%), Ireland (57.0%), Finland (36.2%) and Denmark (50.0%).

In the 2015 cohort of all clinically-diagnosed and bacteriologically-confirmed new TB and relapse cases, a total of 17 403 (8.0%) cases were reported to have died, 4.6% to have been lost to follow-up and 4.2% 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 5.1% in non-EU/EEA countries (Table 19). Countries reporting fatal outcomes in excess of 10% were Czech Republic (19.0%), Slovenia (16.3%), Estonia (14.5%), Hungary (11.9%), Moldova (11.3%), Lithuania (11.1%), Russia and Ukraine (10.0% each). Countries reporting the highest failure rates were Ukraine (8.2%) and Russia (7.0%).

For 2015, the treatment success rate among the 7 215 child TB cases was 91.9% (Table 20). The treatment success rate in EU/EEA countries was somewhat lower than that for the non-EU/EEA countries (86.7% vs. 93.5%). Among child TB cases in the Region 1.0% died, another 0.8% failed and 1.4% were lost to follow-up.

Of 7 177 TB/HIV co-infected patients who started treatment throughout the Region in 2015, only 4 461 (62.2%) had a successful treatment outcome (Table 21). This is notably higher than the 41.4% treatment success rate reported in the previous year. The reason for such a sharp change year to year was most probably the weakness of data quality and coverage. Treatment outcome data is available for only 30% of notified TB/HIV cases. Given that within recent years there has been no indication of a sharp increase in ART and CPT coverage, the observed improvement in the TB/HIV co-infection treatment success rate would appear to be the result of selection bias.

In 2016, the treatment outcome was notified for 44 703 laboratory-confirmed RR/MDR TB cases reported by 41 countries (Table 22). For the whole Region the treatment success rate was 54.7%, which is somewhat higher than the 51.5% treatment success rate reported for the 2013 RR/MDR TB treatment cohort (Table XII). The treatment success rate for RR/MDR TB patients was higher in the non-EU/EEA countries than in the EU/EEA countries (55.2% versus 39.4%). The countries that performed best were the Hungary (100%), Sweden (88.2%) and Netherlands (85.7%). In the Region

as a whole 15.3% of RR/MDR TB cases died, 12.4% failed and 10.9% were lost to follow-up.

Conclusion

The year 2016 was the first year in which the Roadmap to implement the TB Action Plan for the WHO European Region 2016–2020 was activated. The TB Action Plan incorporates the lessons learned in implementing Regional Committee resolution EUR/RC61/15 on The Consolidated Action Plan to Prevent and Combat Multidrug- and Extensively Drug-Resistant Tuberculosis in the WHO European Region 2011–2015, and is in-line with WHO's new European health policy framework, Health 2020. The new TB Action Plan sets a Regional goal of ending the spread of drug-susceptible and drug-resistant TB by achieving universal access to prevention, diagnosis and treatment in all Member States of the Region. This, in turn, will contribute to ending the TB epidemic, which is the main aim of the End TB Strategy. Under the TB Action Plan, targets to be achieved by 2020 are: a 35% reduction in TB deaths, a 25% reduction in TB incidence rates and a 75% treatment success rate among MDR TB patients.

TB continues to be a major public health challenge in the WHO European Region. According to the latest estimates, about 290 000 incident TB cases and 26 000 deaths were reported in the Region in 2016, mostly from eastern and central European countries. In the last 10 years, new cases of TB have been falling at an average rate of 4.3% per year. The rate of decline has been accelerated in recent years. If this trend continues then the Regional target of a 25% reduction in the incidence rate compared to 2015 will be achieved.

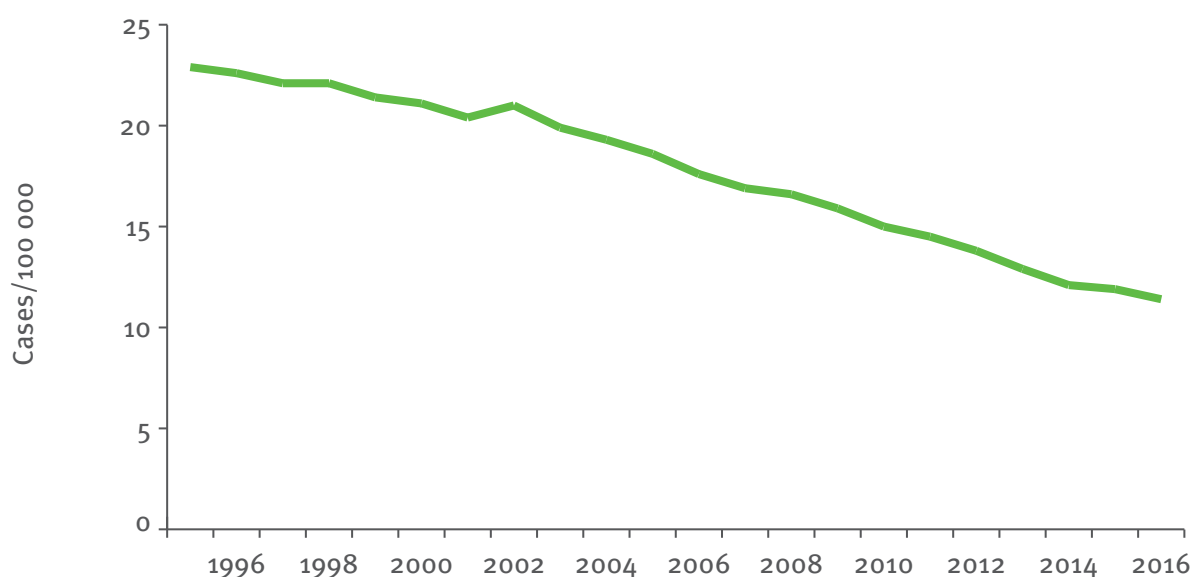
The WHO European Region is the most affected area for MDR TB in the entire world. Of the 30 countries in the world with the highest MDR TB burden, nine are in the Region (Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Ukraine and Uzbekistan). In 2016, estimated percentages of MDR among new and previously treated TB cases in the Region were 19% and 55% respectively, while reported percentages were 17.7% and 51.9%.

Around 122 000 people in the Region are estimated to become infected with RR/MDR TB every year. It is important to note that over the last six years (2011–2016) the capacity of countries' health systems for early detection of RR/MDR TB has increased substantially. In 2016, 73% of RR/MDR TB were detected out of an estimated 71 000 of all notified TB cases. Progress in detections could be attributed to the early-detection diagnosis coverage of the WHO-recommended rapid diagnostics and countries' efficient diagnostic algorithms.

TB is a major cause of death among people living with HIV, and this deadly combination is increasing in the Region. Rapid detection and appropriate treatment are therefore vital. In 2016, only 25 844 (76.0%) of an estimated 34 000 HIV patients co-infected with TB were detected and only 65% of them were offered antiretroviral treatment. The percentage of HIV among TB cases increased from 3.4% in 2008 to 13.4% in 2016.

TB cases of foreign origin represent 8.2% of all TB cases notified Region wide, 32.7% in EU/EEA countries and only 2.0% in non-EU/EEA countries.

Figure 3.2.1. TB notification rates per 100 000 population by year of reporting, EU/EEA, 1995–2016^a



^a Missing data from Liechtenstein (except 2007)

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

A total of 6.0% (12 298 cases) of the new and relapse TB cases in the Region were reported from prisons, 11 863 (96.5%) of which were in the 18 high-priority countries. The overall notification rate for new TB cases in prisons in the WHO European Region was 862 per 100 000 detainees. A Regional average of related risks for emerging TB in prisons was 25 times higher than in society as a whole.

In 2016, treatment success rates increased to 77.2% in the new and relapse cohort and 54.7% in the RR/MDR TB cohort respectively. It is reassuring that the trend towards a decline in treatment success rates, seen in the Region since the beginning of the new millennium, has reversed. This is the fourth consecutive year in which the treatment success rate has been improving, both among the new and relapse and the RR/MDR TB cohorts. A possible contributing factor to the improvement of treatment efficiency is the increase in diagnostic capacity in countries (reflected by improved DST coverage, including SLD). This means that countries are able to detect and treat more rapidly with the right regimen, in line with the individual resistance pattern. However, Regional progress is not rapid enough to meet the 2020 target of a 75% treatment success rate for MDR TB cases and additional efforts are required to improve the treatment success rate by introducing and expanding access to short treatment regimens, new TB drugs and patient-centred care.

On 16–17 November 2017, the WHO Global Ministerial Conference ‘Ending TB in the Sustainable Development Era: A Multisectoral Response’ was held in Moscow, Russia. The Conference aimed to accelerate the implementation of the WHO End TB Strategy – with immediate action to address gaps in access to care and the MDR TB crisis – in order to reach the End TB targets set by the World Health Assembly and the United Nations (UN) Sustainable Development Goals (SDGs) through national and global commitments, deliverables and accountability.

At the Conference a Ministerial Declaration was signed, containing bold commitments by countries to accelerate action to end TB and meet the milestones on the path towards the 2030 SDGs. The Moscow Declaration to End TB is a promise to increase multi-sectoral action as well as track progress, and build accountability. It will also inform the first UN General Assembly High-Level Meeting on TB in 2018, which will seek further commitments from heads of state.

3.2 European Union and European Economic Area countries

Data completeness

For 2016, TB notification data were reported by 30 countries (none from Liechtenstein). As with TB cases notified from 2011 to 2015, the reporting of non-mandatory variables in 2016 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 76.8% of cases, which was lower than in previous years (84.3% and

87.7% for 2015 and 2014 data, respectively) and masked substantial differences across countries. For example, previous treatment history was only available for 3.4% from Luxembourg and 5.7% of cases from France.

Reporting completeness for the results of culture (82.2%) in 2016 was similar to 2015 (82.5%), with only five countries remaining below 75% (Croatia, France, Greece, Portugal and the United Kingdom). Reporting completeness for microscopy (72.5%) was lower than in 2015 data (76.9%), continuing the declining trend observed in recent years. In 2016, drug susceptibility reporting completeness for first-line TB drugs was 87.4%, which was less than in 2015 (91.3%), continuing the decrease observed since 2014. Second-line DST reporting completeness decreased from 76.7% of MDR TB cases in 2015 to 74.4% in 2016, after having increased from 64.9% in 2013. Of particular note was the fact that four countries (Croatia, Iceland, Malta, and Slovenia) reported no MDR TB cases, and two countries (Greece and Luxembourg) did not report any results for second-line DST.

HIV status was available for 33.9% of all reported cases in 2016, which was lower than in 2015 (34.4%). As for 2015 data, HIV status is still missing for TB cases from Austria, Croatia, Finland, France, Germany, Italy, Poland, Sweden and the United Kingdom. Greece reported HIV status too late for these data to be included in the report. Denmark reported HIV status for the first time.

In 2016, treatment outcome at 12 months, 24 months and 36 months was available for 70.6% of all reported cases, 78.5% of MDR TB and 80.1% of XDR TB cases, respectively. Compared to the 2012–2015 period, completeness was lower for all cases in 2016. Treatment outcome was not reported by France, Greece, Italy, Luxembourg, Malta or Spain. Treatment outcome for MDR TB cases was missing from Finland.

Time and place

In 2016, 58 994 cases of TB were reported in 30 EU/EEA countries (Table 3). As in previous years, three countries (Poland, Romania and the United Kingdom) accounted for nearly 45% of all reported cases, with Romania alone accounting for 23.1% of all cases.

The EU/EEA notification rate in 2016 was 11.4 per 100 000 population, continuing the downward trend observed since the launch of European enhanced TB surveillance in 1996 (Figure 3.2.1). During the period 2012–2016, the average annual decline in the notification rate was 4.5%.

As in 2015, country-specific notification rates differed considerably in 2016, ranging from 1.8 in Iceland to 68.9 per 100 000 in Romania. Rates were below 10 per 100 000 in 20 countries and below 20 per 100 000 in 26 countries. In the majority of countries, the notification rates have fallen steadily during the period 2012–2016 (Table 3). The downward trend was particularly pronounced in Hungary, Iceland and Luxembourg where the average annual rate of decrease exceeded 10%. Among the five WHO high priority countries which are Member States of

the EU/EEA, Latvia and Estonia saw substantial decreases, with rates declining by more than 8% per year. The decline was more moderate in several low-incidence countries, and increasing rates were observed in four countries (Belgium, Germany, Malta and Sweden) during the period 2012–2016. Between 2015 and 2016, notification rates in Malta and Ireland increased by 54.4% and 10.1%, respectively.

Previous treatment, laboratory confirmation and TB site

In 2016, the distribution of cases by previous treatment history was similar to that in recent years: 41 531 (70.4%) of 58 994 TB cases reported in 2016 were newly diagnosed; 6 207 (10.5%) had been previously treated for TB and 11 256 (19.1%) 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. Of 11 256 TB cases with unknown previous treatment status, 5 249 (46.6%) were reported by Germany, representing 88.7% of all German cases reported in 2016. The proportion of previously treated cases was above 20% in two countries (Lithuania and Romania) and more than 10% in another seven countries (Bulgaria, Denmark, Estonia, Hungary, Latvia, Poland and Slovakia).

Laboratory confirmation was reported for 41 868 (71.0%) of 58 994 cases overall (Table 8). Country-specific proportions of laboratory-confirmed cases ranged from 39.5% in Slovakia to 92.4% in Slovenia. Of the five high-priority countries, the three Baltic States (Estonia, Latvia, and Lithuania) had proportions of confirmed cases above 80%. Overall, the proportion of laboratory-confirmed cases has almost doubled since 1996 and reached its highest level in 2016¹⁶.

Of all 58 994 TB cases reported in 2016, 38 102 (64.6%) were diagnosed with pulmonary TB, 13 450 (22.8%) with extrapulmonary TB, 6 922 (11.7%) with a combination of both and 520 (0.9%) with no TB site reported (Table 6). The proportion of extrapulmonary TB was highest in the Netherlands (46.0%), the United Kingdom (45.3%), and Norway (37.1%) and lowest in Iceland (0%) and Hungary (3.7%).

Of 42 720 new and relapse pulmonary TB cases reported in 2016, 34 304 (80.3%) were confirmed by culture, smear and/or nucleic acid amplification test (Table 7). Hungary reported the lowest proportion of new, culture-confirmed pulmonary cases (54.4%).

According to the EU case definition, 41 867 (71.0%) of 58 994 TB cases reported in 2016 would be classified as confirmed, 3 890 (6.6%) as probable and 13 237 (22.4%) as possible (Table 8). The percentage of clinically diagnosed cases was highest in Hungary (45.8%) and Bulgaria (44.7%). It is unclear if the low proportion of laboratory-confirmed cases and the reliance on clinical diagnosis reflects a potential risk that TB is being over-diagnosed in these countries,

or if it is related to under-reporting of laboratory results to the national surveillance systems.

Age and sex

Of 55 718 new TB cases and relapses with known age, 36 049 (64.7%) were aged between 25 and 64 years (Table 9). The highest notification rate was observed in the age group 25–44 years (13.8 per 100 000). On average, adults over 64 years accounted for less than 20% of all cases, but more than one third of all cases reported by Croatia, Finland and Slovenia were in this age group.

In 2016, children under 15 years accounted for 2 424 (4.4%) of 55 718 new TB cases and relapses reported with information on age (Table 9). The notification rate for all TB cases in children under 15 years was 3.0 per 100 000 (Table III). Three countries (Bulgaria, Lithuania, and Romania) reported age-specific notification rates per 100 000 in children over 10 years.

In 2016, the male-to-female ratio in new TB cases and relapses was 1.5, similar to 2016 (Table 9). Males were over-represented in all EU/EEA Member States. There was no sex imbalance in children under 15 years.

Origin of cases

Of the 58 994 TB cases notified in 2016, 39 099 (64.3%) were born in or citizens of the reporting country (referred to as 'native'), 19 312 (32.7%) were of foreign origin and 1 773 (3.0%) were of unknown origin (Table 10). Over the past five years, the annual number and proportion of native TB cases declined whereas the annual number and proportion of TB cases of foreign origin decreased only between 2012 and 2014, before increasing again thereafter (Table IV). Of the 19 312 cases of foreign origin in 2016, 8 494 (44.0%) were reported by Germany and the United Kingdom. Country-specific proportions of foreign-origin TB cases ranged from below 1% in Bulgaria, Croatia, Lithuania and Romania to above 90% in Cyprus and Malta.

Drug resistance

Annex 5 displays participation and performance in an external quality assessment (EQA) scheme for drug susceptibility testing (DST) by Member State.

Of 41 273 laboratory-confirmed TB cases notified in 2016, 36 071 (87.4%) underwent isoniazid and rifampicin susceptibility testing (Table 13). Resistance to at least one anti-TB drug was reported for 3 216 (9.9%) of the cases tested overall and for 26–32% of cases tested in Estonia, Latvia, and Lithuania. MDR TB was reported for 1 322 (3.7%) of 36 071 cases with DST results overall and for 10–20% of the cases tested in Estonia, Latvia and Lithuania. The rate of notified MDR TB cases has remained unchanged over the past four years at 0.3 per 100 000 population (Table VII). Overall, XDR TB was reported for 198 (20.1%) of 984 MDR TB cases that underwent second-line DST (Table 14). The proportion of XDR TB cases among MDR TB cases that underwent second-line DST increased from 13.9% in 2012 to 20.6% in 2016 (Table VIII).

¹⁶ European Centre for Disease Prevention and Control. ECDC Surveillance Atlas of Infectious Diseases. Available at: <http://www.ecdc.europa.eu/en/data-tools/atlas/Pages/atlas.aspx>

Of 21 915 new confirmed pulmonary TB cases with DST results, 524 (2.4%) were resistant to isoniazid and rifampicin (Table 12). Of 4 022 previously treated confirmed pulmonary TB cases with DST results, 602 (15.0%) were resistant to isoniazid and rifampicin. Compared to new cases, previously treated confirmed pulmonary TB cases were over seven times more likely to be resistant to isoniazid and rifampicin (odds ratio [OR] 7.2, 95% confidence interval [CI] 6.3–8.1).

HIV co-infection

HIV status was reported for 19 988 (69.0%) of 28 971 TB cases from 20 countries (Table 16a). Of these 19 988 cases with known HIV status, 895 (4.5%) were reported as HIV-positive. Among countries with at least 50% reporting completeness for HIV status, the proportion of co-infected cases was highest in Malta, Portugal and Estonia at 17.4%, 13.9%, and 12.0%, respectively. Since 2012, the proportion of HIV-co-infected TB cases has been decreasing (Table IX).

TB in prisons

For 2016, 18 EU/EEA countries reported 671 new and relapse TB cases in prisons, resulting in a notification rate of 163.8 per 100 000 inmates and a relative risk of 11.1 compared to the general population (Table 17). TB cases in prisons accounted for 1.7% of all new and relapse cases notified; however, this proportion was above 4% in Estonia, Latvia, and Slovakia.

Treatment outcome

Of the 46 870 TB cases notified in 2015 with a treatment outcome reported in 2016, 33 519 (71.5%) were treated successfully, 3 709 (7.9%) died, 583 (1.2%) experienced treatment failure, 2 442 (5.2%) were lost to follow-up, 2 011 (4.3%) were still on treatment in 2016 and 4 606 (9.8%) had not been evaluated (Table 18). France, Greece, Italy, Luxembourg, Malta and Spain did not report treatment outcome. Among 43 695 new TB cases and relapses notified in 2015, 32 376 (74.1%) were treated successfully (Table 19). In countries where at least 75% of new confirmed TB cases and relapses had a known outcome, treatment success ranged from 64.9% in Germany to 100.0% in Iceland. The proportion of successfully treated cases among new TB cases and relapses decreased from an average of 77% in cases notified during the period 2011–2013, to an average of 74% in cases notified during 2014 and 2015 (Table X). More than 16% of TB cases notified by the Czech Republic and Slovenia died, a remarkably high proportion for these countries where it is rare for cases not to be evaluated.

Of 1 214 MDR TB cases notified in 2014 with a treatment outcome reported in 2016, 455 (37.5%) were treated successfully, 202 (16.6%) died, 168 (13.8%) experienced treatment failure, 154 (12.7%) were lost to follow-up, 167 (13.8%) were still on treatment in 2016 and 68 (5.6%) were not evaluated (Table 23). In addition to the countries that did not report treatment outcome data, Cyprus, Iceland and Slovenia did not report any MDR TB cases for 2014, and Finland and Spain did not report treatment outcome after 24 months. Overall, the 24-month MDR TB treatment success rate remains low, although it has improved over the past five

years: from an average of 34% for cases initially reported in 2010–2012, to an average of 41% for cases reported in 2013–2014 (Table XII).

Of 151 XDR TB cases notified by 14 countries in 2013 with a treatment outcome reported in 2016, 51 (33.8%) were treated successfully, 33 (21.9%) died, 37 (24.5%) experienced treatment failure, 27 (17.9%) were lost to follow-up, and three (2.0%) were not evaluated (Table 25). Overall, the 36-month XDR TB treatment success rate remains low and trends over time are unreliable due to the small number of cases (Table XIV).

Of 664 HIV-positive TB cases notified in 2015 with a treatment outcome reported in 2016, 413 (62.2%) were treated successfully, 95 (14.3%) died, five (0.8%) experienced treatment failure, 66 (9.9%) were lost to follow-up, 64 (9.6%) were still on treatment in 2016 and 21 (3.2%) were not evaluated (Table 21).

Conclusions for the EU/EEA

In 2016, the overall TB notification rate in the EU/EEA continued the decline observed since 2002. As in previous years, a few countries reported large numbers of cases, including Romania, which still accounts for 23% of all reported cases. The decreasing notification rates observed in most countries are reassuring, but annual rates of decline are still insufficient to achieve the WHO target of TB elimination by 2050 in European low-incidence countries [5]. To achieve annual decreases of over 10% in notification rates, further efforts would be required to address the most vulnerable and hard-to-reach groups, such as migrants or prison inmates.

In contrast to native TB cases, the number and proportion of TB cases of foreign origin has increased since 2014. TB incidence rates among foreign-born patients remain several times higher than those among natives and may reflect the incidence in their country of origin, as suggested by a study looking at pre-entry screening [8]. Foreign-born patients may have been exposed to TB prior to their immigration to the EU/EEA or when travelling back to their country of origin. Thus, the most frequently reported foreign countries of origin were in regions known for high TB incidence [8]. Asylum seekers are probably at greater risk of TB infection due to the disruption of screening and control programmes in their countries of origin after years of conflict or due to exposure to infection during their journey or in crowded migrant centres. As with any other vulnerable group, it is essential to ensure good access to healthcare services for migrants and TB cases of foreign origin.

In 2016, overall notification rates of MDR TB remained stable at a relatively low level and showed markedly decreasing trends in two of the three Baltic countries where MDR TB is particularly prevalent.

Data on HIV co-infection remained very incomplete, and the number of countries reporting HIV status was similar to 2015. Since 2012, the proportion of HIV co-infected TB cases has been decreasing slightly. HIV co-infection has been found to be more likely in TB cases originating

from Africa [9]. Since HIV co-infection is associated with low TB treatment success, special attention should be given to these cases, with strict adherence to international guidelines for prevention and treatment of TB in HIV-infected adults [9].

Data on TB in prisons remain scarce for the EU/EEA and only 18 countries provided such data for 2016. This situation has not changed over the past few years, and the information available remains insufficient to accurately monitor TB in prisons at EU/EEA level. TB prevalence is substantially higher in the prison population, with higher proportions of drug-resistant TB than in the general population [10]. To efficiently control TB in prisons, it is important that all countries collect and report these data.

Finally, treatment success rates have decreased slightly over the past 10 years and are now at approximately 75%. The surveillance data also show that treatment success rates for both MDR and XDR TB are far below the targets set. Countries with a persistently high proportion of fatal cases (>10%) should further investigate the reasons for this and increase efforts to reduce case fatality.



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. The Action Plan is based on lessons learned implementing the seven areas of intervention in the Consolidated Action Plan to Prevent and Combat Multidrug- and Extensively Drug-Resistant Tuberculosis in the WHO European Region 2011–2015, and is in line with the global End TB Strategy and other health policy guidance, such as Health 2020: the European policy for health and wellbeing.

The Tuberculosis Action Plan for the WHO European Region 2016–2020 is supported by a monitoring and evaluation (M&E) framework that to monitor progress towards targets. The framework consists of 26 indicators that enable performance monitoring in the Action Plan's areas of intervention, as well as follow on from the Berlin Declaration on Tuberculosis 2007 'All Against Tuberculosis'. Nine are core indicators for monitoring and reporting to the WHO Regional Committee for Europe. In addition, the selection of indicators was harmonised with the End TB Strategy's recommended top 10 global indicators. The status of the core indicators, which is analysed on an annual basis, appears below.

Indicator 1.B.1 Percentage of newly notified TB patients diagnosed using WHO-recommended rapid tests (G9)

Given the large burden caused by MDR TB in the Region, the early detection and diagnosis of drug-resistant tuberculosis using rapid molecular tests is a priority. The Action Plan acknowledged that the uptake of new rapid diagnostic technologies is slow in many settings. The long duration of the diagnostic process for TB (lasting several days) may discourage many vulnerable patients from returning for results and possible treatment.

In the Action Plan, introduction and roll-out of rapid tests followed by the adoption of a diagnostic algorithm for difficult-to-diagnose paediatric TB and extrapulmonary TB, particularly among hard-to-reach and vulnerable populations, was also seen as an opportunity to rapidly identify and control drug-resistant TB. Faster detection of drug-resistant strains means that patients can be initiated onto appropriate treatment regimens more quickly, thereby minimising the window of transmission.

A total of 44 countries reported data on the proportion of newly-notified patients diagnosed using WHO-recommended rapid tests in 2016. There was no data available as a baseline for this indicator and the Action

Plan target was set at 40%. As shown in Figure 4.1.2, the target was over-achieved at regional level, with 57% of new and relapse cases diagnosed using rapid tests. For the 18 high-priority countries this figure was even higher, reaching 63%. Nine of the high-priority countries met the target, seven did not meet it and two (Ukraine and Turkey) did not provide information. In the EU/EEA region, only 25% of cases were diagnosed using rapid tests.

Indicator 1.B.2. First-line DST coverage (%) among all bacteriologically confirmed TB cases (G1)

The Action Plan aims to ensure provision of DST for all bacteriologically confirmed tuberculosis cases. In 2016, a total of 49 countries reported on DST routine surveillance data. Coverage of DST among all notified TB cases confirmed by culture was 87%, which is lower than the 91% level recorded at the baseline. In all, eight of 16 high-priority countries had DST coverage above 90% (Figure 4.1.2). Turkmenistan did not report complete routine drug-resistance surveillance data.

Indicator 1.B.3. MDR TB case detection rate (%) (G3)

From 2016, WHO began generating RR TB estimates instead of MDR TB as, 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 GeneXpert MTB/RIF results only. In addition RR TB is 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 by the total number of estimated RR/MDR TB cases among notified pulmonary TB patients (Figure 4.1.3).

If all notified TB patients with pulmonary TB in the Region had been tested in 2016 for drug resistance to rifampicin and isoniazid, an estimated 71 000 cases of RR/MDR TB would have been found by national tuberculosis control programmes. In 2016, a total of 51 752 RR/MDR TB cases were detected among notified tuberculosis patients in the WHO European Region. This is 73% of all estimated cases, indicating notable progress in RR/MDR case detection compared to the baseline (62%) documented in 2014. Six of 16 high-priority countries achieved targeted 85% RR/MDR case-detection rate (Figure 4.1.3).

Indicator 1.B.4 TB notification rate per 100 000 population (E1)

The Regional Action Plan aims to reduce the TB incidence rate by 25% against 2015 before 2020. To enhance this the countries should have annual reduction of at least 5.5% in notification of new and relapse TB cases.

Figure 4.1.1. Percentage of new and relapse TB patients notified in 2016 that were diagnosed using WHO recommended rapid tests in 18 high-priority countries and WHO European Region, 2016

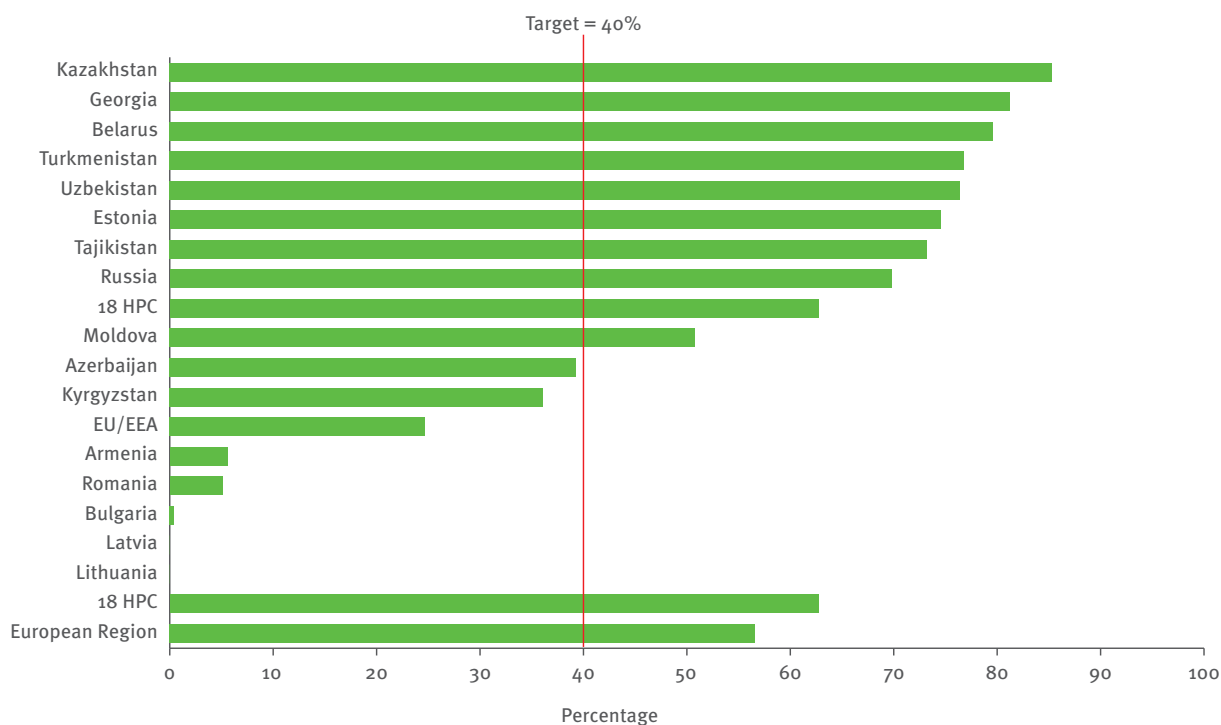
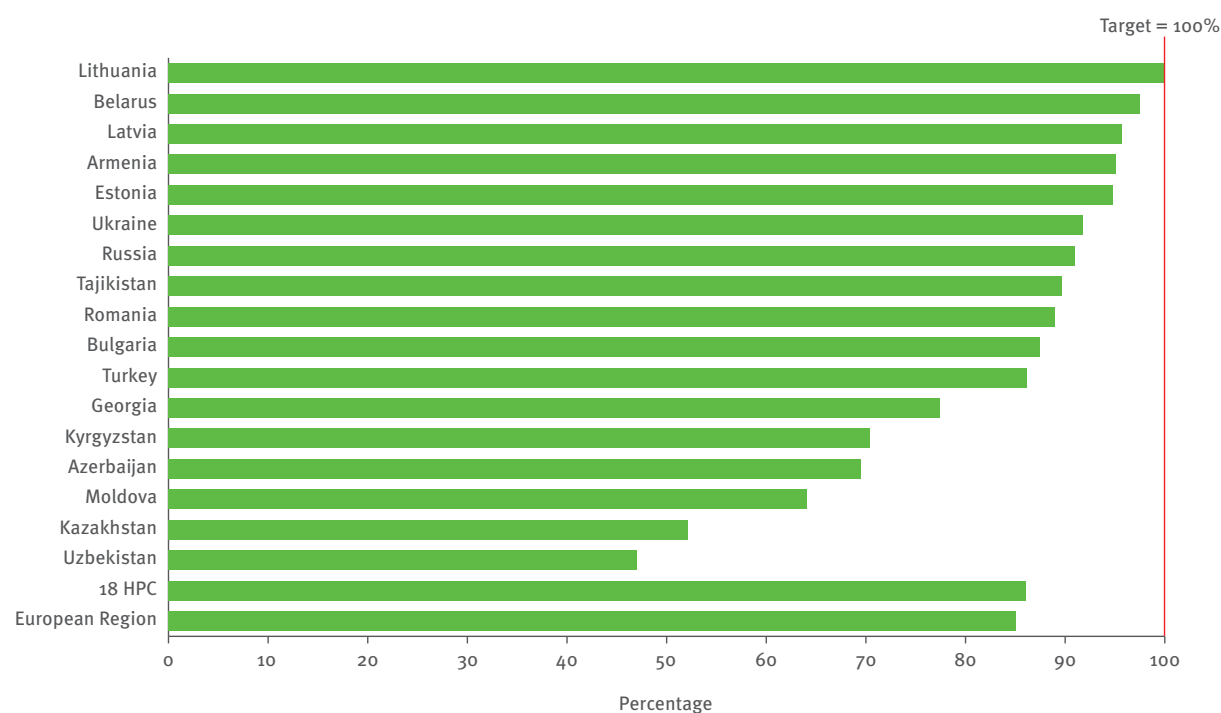


Figure 4.1.2. First-line DST coverage (%) among all bacteriologically confirmed TB cases (G1) by 18 high-priority countries and WHO European Region, 2016



The total average annual decline of TB notification in 2016 compared to 2015 was 5.2%, which is quite close to the targeted annual decline of 5.5%. If this trend continues, the Regional target of a 25% decline in notification by 2020 compared to 2015 will be achieved. Of 51 Member States, 43 have seen a decline in the TB notification rate in the last five years. Kyrgyzstan was the only one of the high-priority countries not on track to reduce TB notification. It should also be noted that notification data reported by Turkmenistan and Kazakhstan vary significantly from year to year, indicating weakness of surveillance data (Figure 4.1.4).

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

In 2016, a total of 253 096 incident TB cases were notified in 52 countries across the WHO European Region compared to an estimate of 290 000 cases. This represents a case detection rate of 87.2%, which is slightly higher than the 84.1% baseline measured in 2014. In all, 15 of the 18 high-priority countries have case detection rates above 75% (Figure 4.1.5). Detection of TB cases in the Region is therefore improving and most countries are on track in their efforts to increase TB case detection.

Indicator 1.B.6 Percentage of RR/MDR TB among new TB patients (E₂)

Percentage of MDR TB among new TB patients (E₂)

The Regional Action Plan aims to reduce MDR prevalence among new TB cases. At Regional level MDR TB prevalence among 85 851 new pulmonary TB cases tested for first-line DST was 17.7%, which is slightly lower than the rate observed in 2015 (18.3%). In seven of the 18 high-priority countries reporting routine DST data, the MDR prevalence among new pulmonary TB cases was higher than or comparable to 2015 data. In contrast, the MDR percentage in Bulgaria, Estonia, Latvia, Romania and Turkey has been declining over the past five years. Meanwhile in Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan significant variation from year to year and missing data indicate that routine drug-resistance surveillance in these countries is challenging and additional efforts are required to produce quality data (Figure 4.1.6).

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

A number of studies have demonstrated that acquired drug-resistance can be prevented by appropriate infection control measures, application of home-based care and efficient treatment of drug-sensitive tuberculosis cases. Nevertheless, high prevalence of MDR TB is still a challenge for many countries in the WHO European Region. In 2016, the percentage of confirmed MDR TB cases among previously-treated TB cases tested for first-line DST was 51.9%, which is higher than the 2015 rate (46.3%). The reason for such a rapid change at Regional level is the significant increase in the absolute number of previously treated cases with DST results in the Russian Federation, as a result of the introduction of a country-wide, case-based electronic surveillance system. In 2016, the Russian Federation reported twice as many MDR TB cases as in

previous years. A new surveillance system in Russia facilitated the accurate estimation of previously treated MDR TB patients. In the past, these patients had not been accounted for, which meant that MDR TB cases in the Region were under-estimated. In the rest of the high-priority countries there is no clear trend in MDR: in nine countries the MDR percentage among previously treated cases declined in 2016 against 2015, and in another six countries it increased or remained comparable with the previous year. The very significant variation in data from year to year in Kazakhstan and Uzbekistan and the lack of data from Turkmenistan raise concerns about the capacity of these countries to accurately measure routine data.

Indicator 1.C.1. Percentage of hospitalisation of new TB patients (E₃)

The practice in some countries of hospitalising patients unnecessarily has been shown to contribute to the spread of drug-resistant forms of TB. Ambulatory services and home-based treatment were not fully functional in many countries. In the absence of adequate airborne infection control, hospitalisation can lead to nosocomial transmission and superinfection with M/XDR TB strains among patients and healthcare workers. On the other hand, studies showed no difference in treatment outcomes between patients treated in ambulatory and hospital settings. Therefore, WHO recommends minimising unnecessary hospitalisation and using ambulatory rather than hospital-based models of care for TB treatment.

In 2016, a total of 31 countries provided information on the hospitalization percentage for TB patients enrolled in first and second-line treatment. Hospitalisation rates for first-line TB treatment ranged from 25 (Georgia) to 100% (Belarus), with an average of 74%. The proportion of patients hospitalised for second-line treatment was even higher, ranging from 68 (Tajikistan) to 100%. This data suggests that hospitalisation rates remain very high in most of the countries in the Region and additional efforts are required to change the model of care.

Indicator 1.C.2. Percentage of detected RR/MDR TB patients enrolled in treatment (G₃)

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

The number of cases starting MDR TB treatment in 2016 was equivalent to 95.5% of the 51 752 RR/MDR TB patients notified in 2016 across the European Region. Access to MDR treatment in the Region increased significantly from 2010 onwards. Over the past five years many of the high-priority countries have consistently reported higher numbers of cases enrolled than cases detected. There are numerous reasons for such discrepancies, including 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. It is noteworthy that in 2016 the gap between the number of RR/MDR TB

Figure 4.1.3. RR TB case detection rate (%) (G3) for 18 high-priority countries and WHO European Region, 2016

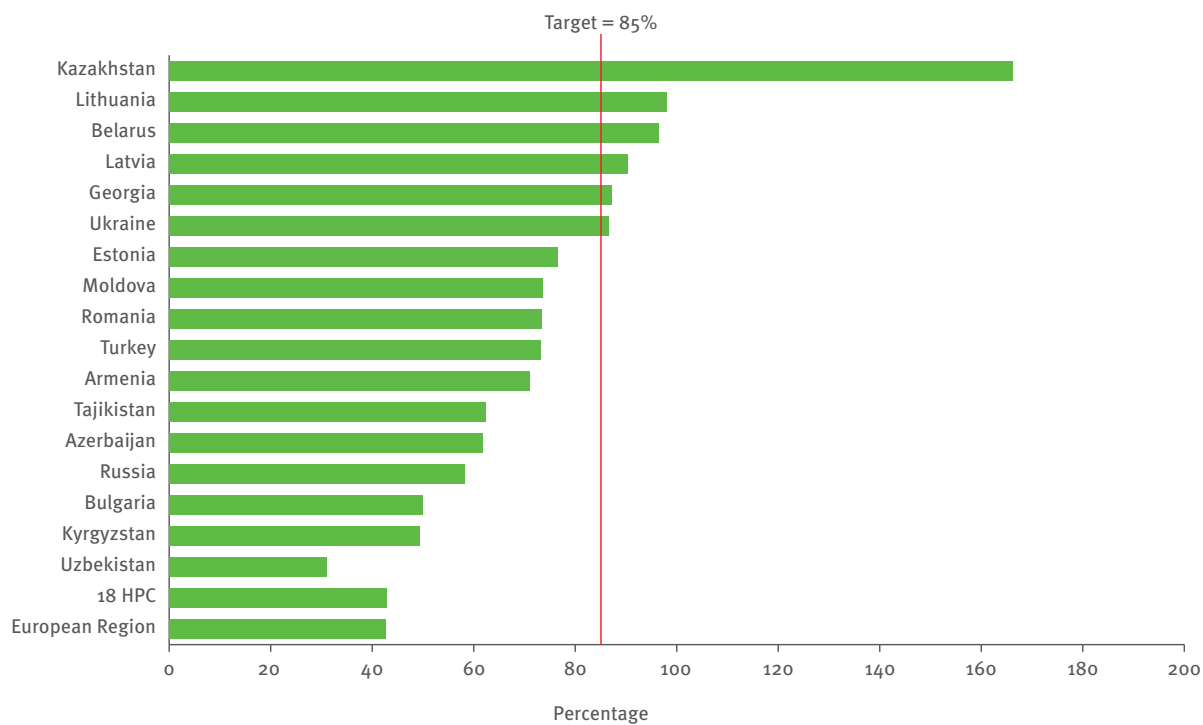
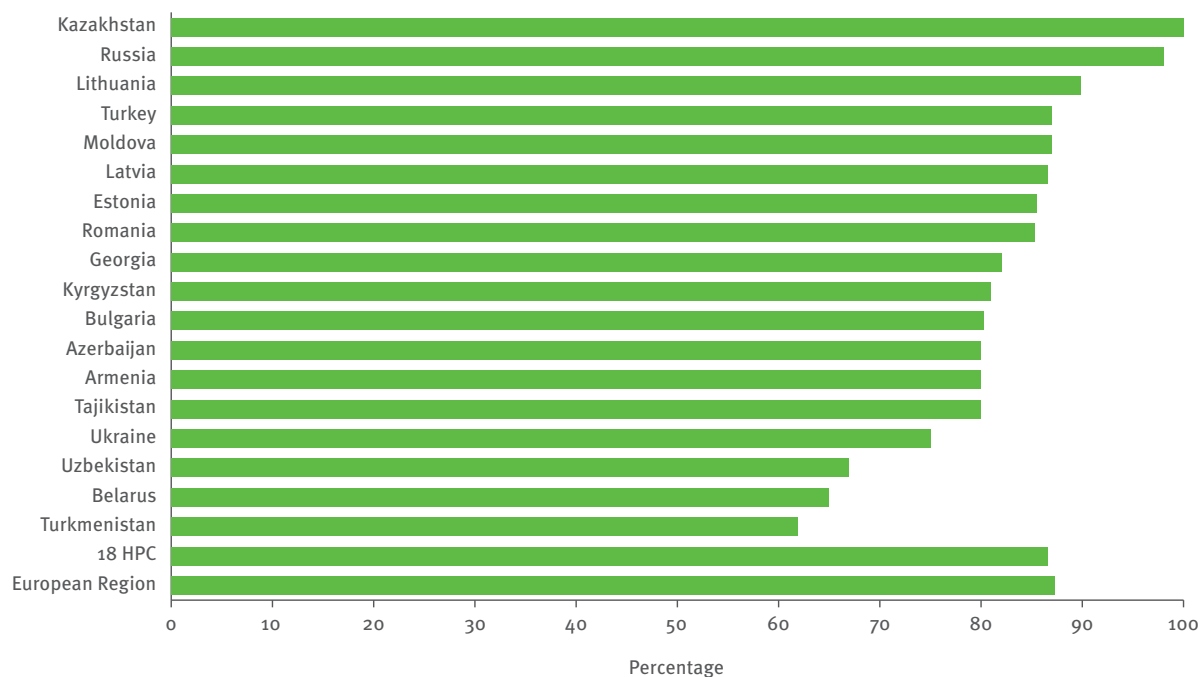


Figure 4.1.5. TB case detection rate (%) (G3) for 18 high-priority countries and WHO European Region, 2016



cases detected and enrolled narrowed considerably in most of the countries, suggesting improvement in the surveillance system. In five of the 18 high-priority countries the shortfall between the number of cases detected and the number enrolled into second-line TB treatment was over 5%, indicating an urgent need to improve second-line treatment coverage. Countries with an enrolment rate below 95% were Azerbaijan (86.3%), Belarus (87.2%), Bulgaria (86.4%) Georgia (87.5%), Russia (94.0%) and Turkey (82.4%).

Indicator 1.C.3. Treatment success rate (%) among all new and relapse TB patients (G4)

Effective TB treatment is essential to prevent death and cut transmission. Therefore, the treatment success rate serves as a key indicator for monitoring progress on the Sustainable Development Goals. According to the TB Action Plan, WHO European Region aims to increase the treatment success rate for new and relapse TB cases to at least 85%.

In 2015, the treatment success rate for new and relapse patients enrolled in treatment at Regional level was 78.5% against a baseline of 75.2%. Only seven of the 18 high-priority countries achieved the target level of an 85% treatment success rate. Eight of the 18 high-priority countries showed a trend towards improvement of treatment success, but for most countries the pace of improvement is very slow if the 85% treatment success rate target is to be achieved.

Indicator 1.C.4. Treatment success rate (%) among the MDR TB treatment cohort (G4) (E4)

Treatment success rate is an indicator of high quality TB care. Despite the treatment success rate having continuously improved from 46.1 to 54.8% in recent years, it remains far below the 75% target set by the TB Action Plan. Only two of the 18 high-priority countries (Estonia and Kazakhstan) have achieved the benchmark of at least 75% treatment success rate for RR/MDR TB patients (Figure 4.1.11). Overall, ten of the 18 high-priority countries are on track to increase their RR/MDR TB treatment success rate, however progress is not rapid enough to meet the 2020 target of 75% treatment success rate for MDR TB cases.

Indicator 1.C.5. TB mortality rate (ICD A15-19) (G10) (E6)

The TB Action Plan aims to reduce the number of TB deaths in 2020 by 35% against 2015. As seen in Figure 4.1.12, all high-priority countries except Azerbaijan have shown a rapid decline in TB mortality over the last six years. If the current trend continues, the Regional target will most probably be surpassed. Although decline is comparatively slow in Georgia and Uzbekistan, in three countries (Armenia, Belarus and Kazakhstan) the decline was so fast that the 2020 target of reducing the TB mortality rate by 35% has already been achieved.

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

In 2016, the number of TB/HIV co-infections detected was 83% of the estimated number of TB/HIV incident cases in the Region, which is comparable with the baseline data. It

should be noted that following the epidemiological review in February 2017 and the improvement of reporting completeness for this indicator – after introduction of case-based surveillance system in Russia – the Regional estimate was revised considerably. However, since both estimates and the reported number of TB/HIV cases increased proportionally, the overall Regional detection rate did not change significantly. Only three of the 18 high-priority countries achieved a detection rate of over 90%. In eight high-priority countries the detection rate was below 70%, indicating the need to invest more effort into improving detection.

Indicator 1.D.2 HIV testing coverage (G9) (E7)

The TB Action Plan sets a target of achieving close to 100% HIV testing coverage. In 2016, HIV testing coverage at Regional level was 86.1%, which is a notable improvement on the 67.6% testing coverage at baseline. Nine of the 18 high-priority countries reported over 90% HIV testing coverage.

Indicator 1.D.3 Percentage of HIV co-infection among all TB (new and relapse TB cases)

In 2016, 13.4% of new TB patients with known HIV status were HIV positive, compared to 9.0% in 2015. This rapid change is partially due to an improvement in the surveillance system in the Russian Federation, however, TB/HIV co-infections are increasing in the Region, on average by about 20% annually. An increase in TB/HIV co-infection has been recorded in eleven of the 18 high-priority countries. In 2016, Armenia, Georgia and Uzbekistan reported fewer TB/HIV cases than in 2015, however, there is no clear trend of reversion. Only Bulgaria and Latvia have seen a noticeable decline in the TB/HIV co-infection rate over the last five years. This rapid increase is an indication that HIV transmission continues apace in most eastern European and Central Asian countries and that efforts towards the early identification of people living with HIV (PLHIV) and preventive TB treatment are inadequate.

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

The TB Action Plan aims to achieve full coverage with antiretroviral therapy (ART) for all patients detected with TB/HIV co-infection, as per WHO recommendations. In 2016, 25 countries in the Region provided information on ART enrolment among TB cases with positive HIV status. All the reporting countries together accounted for 45% of notified TB cases. Among the reporting countries ART coverage was 65.1%. This represents some improvement against the baseline 53.8%. Six of the high-priority countries attained coverage of above 90% and eleven of the 18 high-priority countries demonstrated a trend towards increasing ART coverage over the last five years. However, for most countries the trends have been quite slow and are not stable – consequently more efforts are needed to further strengthen TB/HIV collaborative activities in the Region.

Figure 4.1.4. Trend in new and relapse TB notification rate per 100 000 population for 18 high-priority countries and WHO European Region, 2012–2016.



Horizontal black line shows target 25% reduction of notification rate by 2020 against 2015

Indicator 1.D.5 Latent TB infection treatment coverage among people living with HIV/AIDS (G5a)

Detection of latent TB infection (LTBI) offers an opportunity to treat and prevent reactivation of the latent infection that leads to active disease, especially in people with compromised immune systems. WHO recommends that people living with HIV (PLHIV) should be treated, even if they are infected but do not have active TB, due to the very high risk of progression to TB. The proportion of the population with latent TB infections varies from country to country, depending on the TB burden, but it is estimated that about 30% of the adult population in eastern Europe have LTBI. It is therefore probable that about 30% of PLHIV who are newly enrolled in HIV care might have LTBI and should be offered TB preventive treatment. In 2016, a total 12 countries in the Region provided information on LTBI treatment to the UNAIDS reporting system. Overall, of 36 086 PLHIV newly enrolled in HIV care 70% received LTBI treatment. In Russia and Uzbekistan over 90% of PLHIV received LTBI treatment, which is much higher than expected. Belarus and Moldova reported no access to LTBI treatment, while in Armenia and Georgia the coverage was below the target of 30%. Such large variation from country to country indicates a lack of standardised approach and a gap in adherence to WHO recommendations in countries.

Indicator 1.E.1 Contact investigation coverage (G2) (E7)

Contact tracing is a key component of TB prevention, especially in children. Contact investigation may result in earlier identification of cases, 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 17 countries in the Region reported contact-tracing data to the WHO Global TB Database, and 99.3% of all contacts with TB cases were investigated for TB/LTBI in 2016. The target of 90% was achieved by all seven reporting high-priority countries (Figure 4.1.18).

Indicator 1.E.2 LTBI treatment coverage of childhood TB contacts aged under five years (G5b) (E8)

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 2016, a total of 12 countries provided information on childhood contact investigations for the Global TB database. At Regional level LTBI treatment coverage of childhood TB contacts aged under 5 years was 75.3%. Azerbaijan was

the only country among the 18 high-priority countries that achieved the 90% target (Figure 4.1.19).

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

In 2016, 36 countries in the Region provided data on treatment outcome of prison TB cases. The overall treatment success rate at Regional level was 59.9%, which is much lower than the 78.5% treatment success rate in the general population, or the 63.2% baseline. The Regional indicator is influenced by the outcome for Russia, which accounts for over 75% of prison TB cases notified in the Region. However, it should be noted that seven of the 18 high-priority countries achieved the target 85% treatment success rate (Figure 4.1.20).

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 TB 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 first monitoring report applying these WHO indicators. A summary of findings by EU/EEA Member State and indicator is provided in Table 26, while indicator definitions and targets can be found in Annex 6.

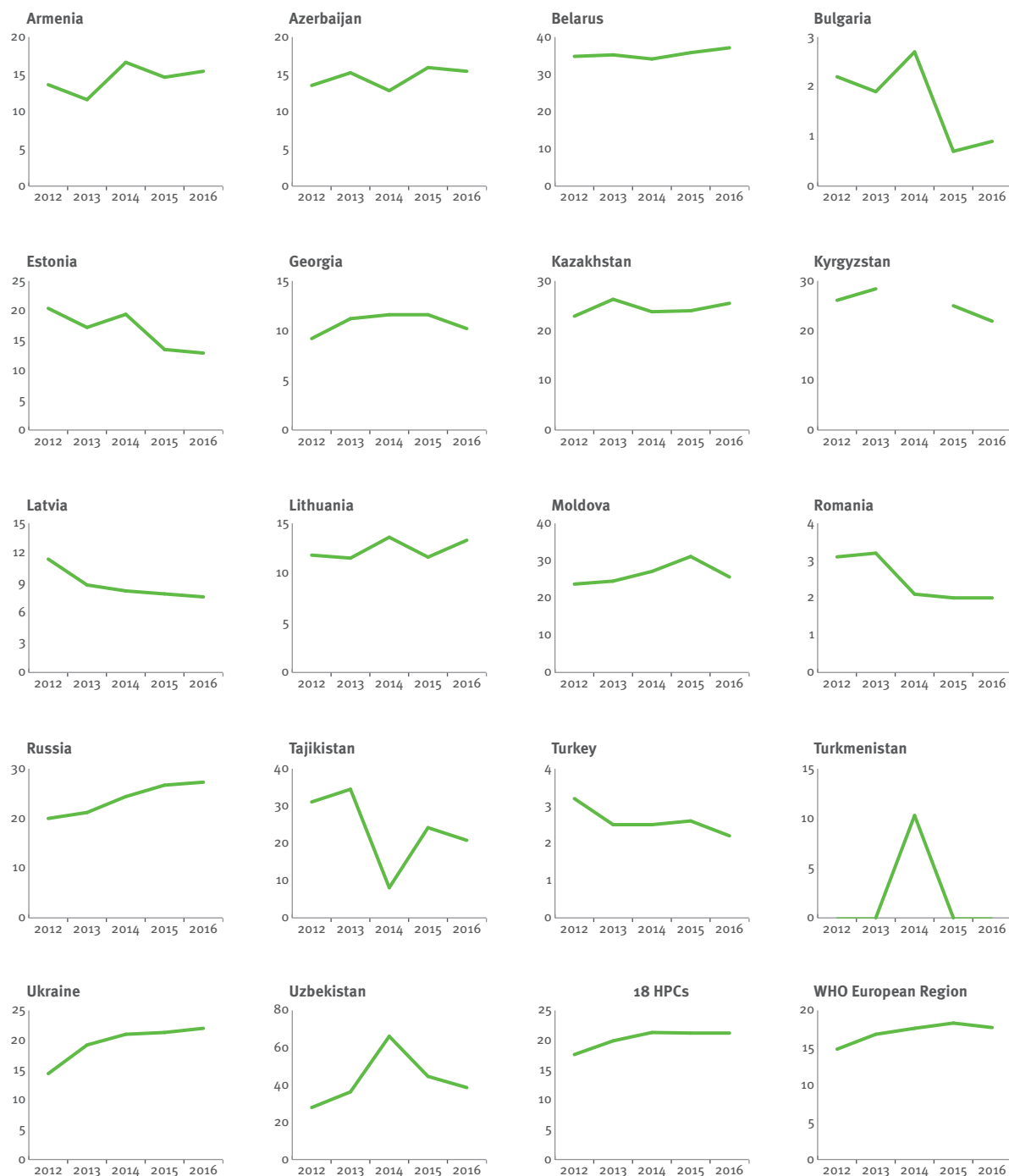
1. Integrated patient-centred care and prevention

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

Contact investigation (and potentially source-case investigation) should be promoted to contribute to the detection of active and latent cases of TB. 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 contact investigations in the community. Strategies for contact investigation, including source-case investigation among recently infected cases (young children) and outbreak management, should be developed and/or revised. Of the 30 countries reporting data, five also reported the TB contact investigation coverage for

Figure 4.1.6. Trend of MDR percentage among new pulmonary TB cases for 18 high-priority countries and WHO European Region, 2012–2016.



2016 and four countries (Bulgaria, Lithuania, Norway and Slovakia) reported a screening coverage of over 80% for all TB contacts (Figure 4.2.1).

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

Indicator 1.B.1 Percentage of newly notified TB patients diagnosed using WHO-recommended rapid tests (G9)

Twenty-five EU/EEA Member States reported on the proportion of patients newly notified in 2016 who were diagnosed using WHO-recommended rapid tests. There were no baseline data available and the target was first set to 30% and later updated to 40%. Overall, almost 25% of cases reported in the EU/EEA are diagnosed using WHO-recommended rapid tests. The target (40% of all new cases and relapses) has been met by nine Member States (Figure 4.2.2).

Indicator 1.B.2 First-line DST coverage among bacteriologically confirmed new and relapse pulmonary TB cases (G1)

In 2016, 33 383 incident TB cases were laboratory-confirmed in 30 EU/EEA Member States, and for 29 426 (88.1%) of them, DST results for rifampicin and isoniazid were provided. The target (100%) was achieved by seven countries (Figure 4.2.3).

Indicator 1.B.3 RR/MDR TB case detection rate (%) (G3)

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 MDR TB detection rate is therefore calculated by dividing the number of notified cases with RR/MDR TB by the estimated number of such cases. In 2016, seven EU/EEA countries achieved an RR detection rate of 85% or more (Figure 4.2.4). Six countries (Croatia, Cyprus, Iceland, Luxembourg, Malta and Slovenia) did not report any RR cases for 2016, and their detection rate could not be calculated.

Indicator 1.B.4 TB notification rate per 100 000 population (E1)

In 2016, country-specific notification rates in EU/EEA Member States differed considerably, ranging from 1.8 per 100 000 in Iceland to 68.9 in Romania. Rates were below the Regional target (24.6 per 100 000) in 27 countries. Only Latvia, Lithuania and Romania reported rates above the Regional target (Figure 4.2.5).

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

The case detection rate is calculated by dividing the number of notified new and relapse TB cases by the total number of TB cases estimated by WHO. The target was set to a minimum of 84% which, in 2016, was reached by all EU/EEA countries except Denmark, Greece and Bulgaria (Figure 4.2.6).

Indicator 1.B.6 Percentage of RR/MDR TB among new TB patients (E2)

In 2016, 30 EU/EEA countries reported on first-line anti-TB DST results. The prevalence of rifampicin-resistant (RR) TB among 21 915 new pulmonary TB cases with first-line DST results was 2.4%, which was slightly higher than in 2014 (2.2%). Croatia, Cyprus, Iceland Luxembourg, Malta and Slovenia did not report any new RR TB cases in 2016. The target of a decreasing percentage was met by 11 of the remaining 24 Member States. Twelve countries reported an increase in RR cases of up to 4%, and Sweden reported the same proportion of RR cases in 2016 and 2014 (Figure 4.2.7).

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

In 2016, the prevalence of RR/MDR TB among 4 022 previously treated pulmonary TB cases tested for first-line DST was 15%, which is slightly less than in 2014 (16.6%). Six EU/EEA Member States did not report any previously treated RR TB cases in 2016 and 2014 and were considered as having achieved the target. Among the remaining 24 countries, the target of a decreasing percentage was met by 14 countries, whereas 10 countries reported an increase of up to 27% compared with 2014. (Figure 4.2.8).

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

Indicator 1.C.1 Percentage of hospitalisation of new TB patients (E3)

In the EU/EEA, 18 Member States reported on hospitalisation of new TB patients in 2016. There were no baseline data available for 2014, so this target was not defined. In the 18 reporting EU/EEA Member States, 60.7% of new TB cases were hospitalised at the beginning of treatment (Figure 4.2.9).

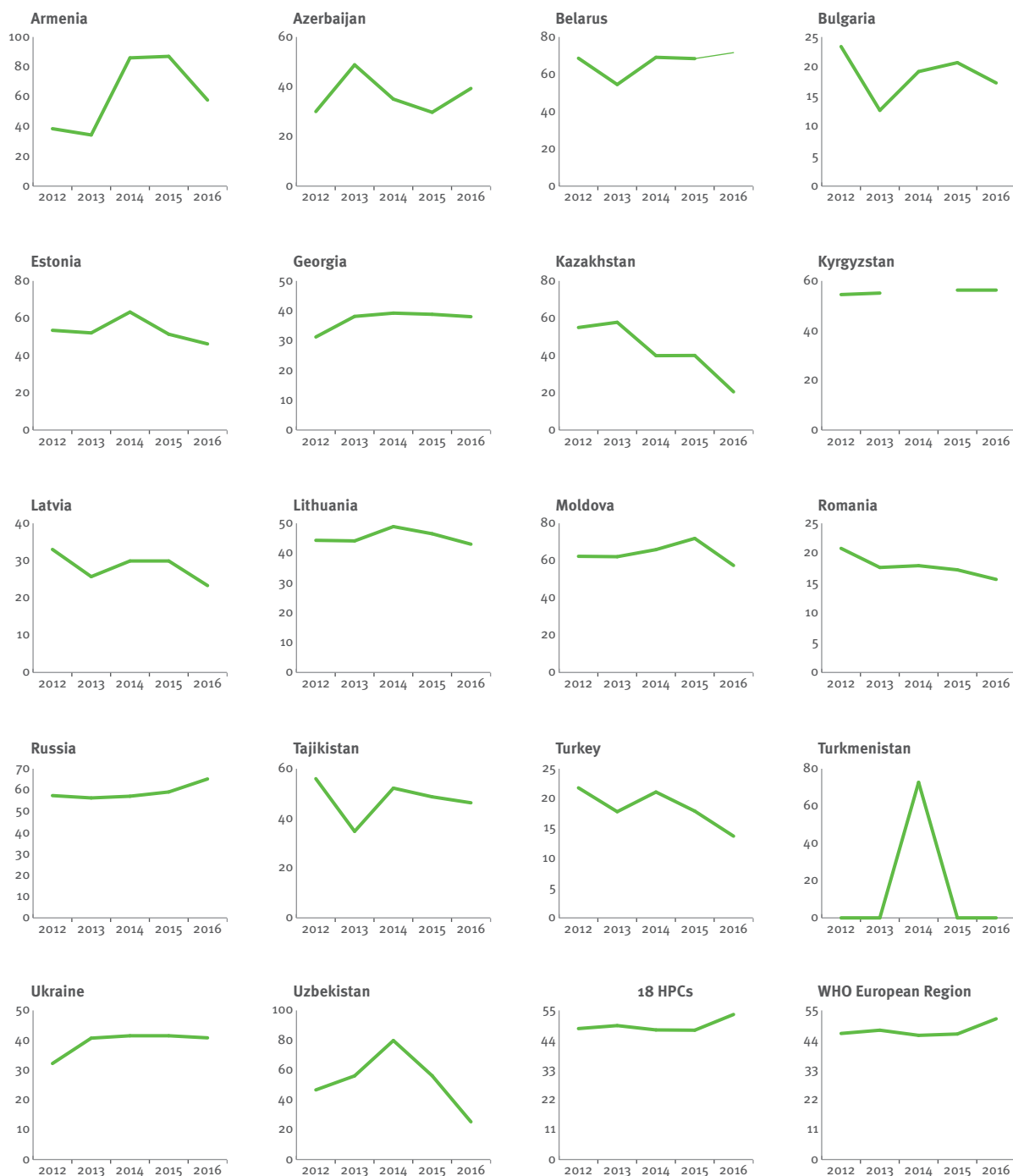
Indicator 1.C.2 Percentage of detected RR/MDR TB enrolled in treatment (G3) (E4)

Eighteen Member States reported on treatment enrolment of MDR TB patients in 2016. For other Member States 100% treatment enrolment for MDR TB cases was used as a proxy. Croatia, Iceland, Malta and Slovenia did not diagnose any MDR TB cases in 2016. The global target of 100% treatment enrolment was met by 22 Member States. Altogether, 99.5% of MDR TB cases reported in the EU/EEA started treatment with second-line anti-TB drugs in accordance with WHO guidelines, and all countries except the Czech Republic reported treatment of more than 95% of their MDR TB cases (Figure 4.2.10).

Indicator 1.C.3 TB treatment success rate (G2)

Of the 43 695 new and relapse TB cases notified in 2015 with a treatment outcome reported in 2016, 32 376 (74.1%) were treated successfully. France, Greece, Italy, Luxembourg, Malta and Spain did not report treatment outcome. In countries where at least 75% of new confirmed TB cases and relapses had a known outcome, treatment success ranged from 64.9% in Germany to 100% in Iceland. Only

Figure 4.1.7. Trend in MDR percentage among previously treated pulmonary TB cases for 18 high-priority countries and WHO European Region, 2012–2016.



six countries (Iceland, the Netherlands, Norway, Romania, Slovakia and Sweden) met the treatment success target of 85% (Figure 4.2.11).

Indicator 1.C.4 TB treatment success rate among the MDR TB cohort (G4), (E4)

Of the 1367 RR TB cases notified in 2014 with a treatment outcome reported in 2016, 539 (39.4%) were treated successfully. France, Greece, Italy, Luxembourg, Malta and Spain did not report treatment outcome, Cyprus, Iceland and Slovenia did not diagnose any RR TB cases in 2014. Among the remaining 20 Member States, treatment success ranged from 12.5% in Lithuania to 100% in Hungary. Only four countries (Hungary, the Netherlands, Norway and Sweden) met the treatment success target of 75% for RR TB cases (Figure 4.2.12).

Indicator 1.C.5 TB mortality rate (ICD A15-19) (G10) (E6)

For 2016, WHO estimated 4 270 TB deaths among HIV-negative people in the European Region. Estimated mortality in the EU/EEA was 0.8 deaths per 100 000 population, ranging from 0.2 in Denmark, Malta, Netherlands and Norway to more than five 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 4.2.13).

1.D. Collaborative TB/HIV activities, and management of relevant co-morbidities

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

In 2016, 16 EU/EEA Member States reported TB patients with HIV infection. The detection rate of TB/HIV co-infected cases is based on reporting data (numerator) and WHO estimates (denominator). The HIV detection rate was estimated as 70.9% and the target of 100% was reached only by Slovenia (Figure 4.2.14).

Indicator 1.D.2 HIV testing coverage (G9) (E7)

Twenty EU/EEA countries provided information on the HIV status of their TB cases and 69% of cases had a known HIV status. The target testing coverage of 100% was achieved by Iceland (Figure 4.2.15).

Indicator 1.D.3 Percentage of HIV co-infection among all TB (new and relapse TB cases)

In 2016, twenty EU/EEA Member States reported 826 new and relapse TB cases with HIV infection with an overall percentage of 4.4% TB/HIV co-infection. Country-specific proportions ranged from 0% in Bulgaria, Cyprus, Iceland and Slovakia to above 15% in Luxembourg and Malta. The target – a decrease compared to 2014 – was met by 10 Member States. In Iceland and Slovakia, there were no co-infected cases diagnosed in 2014 or 2016 (Figure 4.2.16).

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

Eight EU/EEA Member States reported ART enrolment to the WHO Global TB Database. Four countries did not report any HIV-positive TB cases among those tested. In 2016, 94.2% of HIV-coinfected TB cases had started ART. The target for enrolment coverage (close to 100%) was achieved by four Member States (Figure 4.2.17).

Indicator 1.D.5 Latent TB infection (LTBI) treatment coverage among people living with HIV/AIDS (PLHIV)(G5a)

No relevant data were available in the UNAIDS database for any EU/EEA Member State in 2016, therefore this indicator could not be monitored.

1.E. Management of latent tuberculosis infection and preventive treatment of persons at high risk, and vaccination against tuberculosis

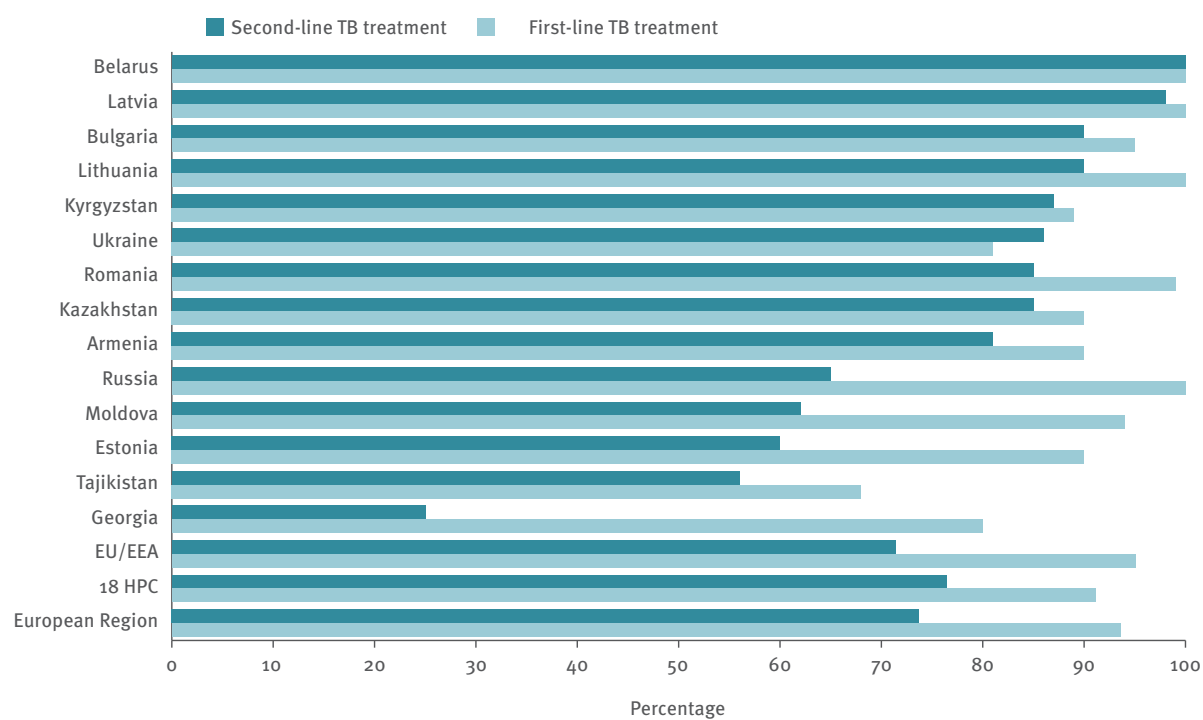
Indicator 1.E.1 Contact investigation coverage (G2)(E7)

Only four EU/EEA Member States reported contact-tracing data to the WHO Global TB Database, with 95.8% of all contacts with TB cases investigated for TB/LTBI in 2016. The target of 90% was achieved by all reporting Member States (Figure 4.2.18).

Indicator 1.E.2 LTBI treatment coverage of childhood TB contacts aged under five years (G5b) (E8)

Only three EU/EEA Member States reported LTBI treatment data for TB contacts among children under five years to the WHO Global TB Database, with 47.9% of these contacts reported to have started LTBI treatment in 2016. The target of 90% was achieved by Slovakia but not by Slovenia or Norway (Figure 4.2.19).

Figure 4.1.8. Proportion of TB patients hospitalised for first-line and second-line TB treatment (%) (E3) for 18 high-priority countries and WHO European Region, 2016



2. Bold policies and supportive system

2A 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 (E8)

Target: TB control/elimination performance publication published.

Data are not available for 2016.

2B Health systems strengthening in all functions, including well-aligned financing mechanisms for tuberculosis and human resources

Indicator 2.B.1 Percentage of TB patients and their households that experience catastrophic financial consequences due to TB (G8) (E9)

Target: Close to 0

Data are not available for 2016.

2C 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 2016.

2D 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: Not defined

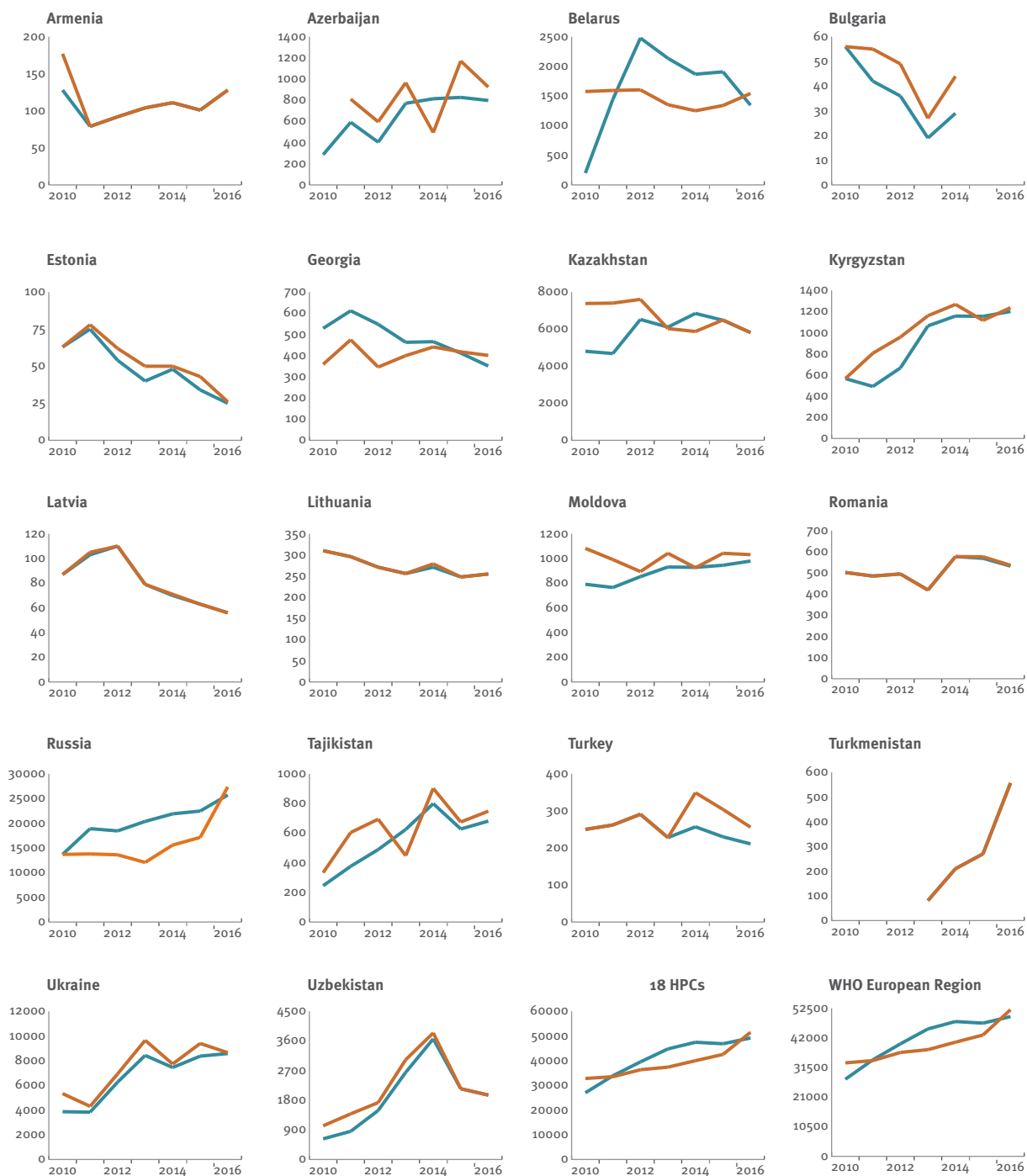
Data are not available for 2016.

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

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

Of the 544 TB cases notified in prisons across 13 EU/EEA Member States in 2015 for whom treatment outcome data are available, 372 (68.4%) were treated successfully. Ireland, Luxembourg, Malta and Slovenia reported no TB cases among prisoners. France, Greece, Italy, Luxembourg and Spain did not report treatment outcome. Among the 13 Member States reporting, treatment success ranged from 44.4% in Poland to 100% in Slovakia. Four countries (Bulgaria, Estonia, Romania and Slovakia) met the treatment success target of 85% for TB cases diagnosed in prisons (Figure 4.2.20).

Figure 4.1.9. Absolute number of RR/MDR TB cases detected (orange lines) compared with those reported to have been enrolled on second line treatment (blue lines) 2010–2016 in each of the 18 high-priority countries, and as a total for the 18 high-priority countries and WHO European Region, 2010–2016.



3. Intensified research and innovation

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

Indicator 3.A.1 European Tuberculosis Research Initiative established by mid-2016

Target: Established

The country-specific indicators are not defined for 2016.

Conclusions and monitoring recommendations

In 2016, only 14 of 26 WHO targets could be effectively monitored based on the data available from EU/EEA Member States. Almost all EU/EEA Member States met the four targets regarding estimated TB case detection (at least 84%), 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 countries also met or were close to the targets on first-line DST coverage among bacteriologically confirmed cases (100%) and the percentage of RR/MDR TB among previously treated TB patients (decrease against 2014). However, only a minority of the Member States reporting met the targets regarding use of WHO-recommended rapid tests for diagnosis (40% of new cases and relapses), the percentage of RR/MDR TB among new TB patients (decrease against 2014) and the percentage of HIV co-infection (decrease against 2014). Finally, a small minority, in some instances only a single Member State, met the targets regarding estimated RR/MDR TB case detection (at least 85%), TB and MDR TB treatment success (at least 85% and 75%, respectively), HIV testing coverage (100%) and the estimated detection of TB/HIV co-infection (100%).

Although, TB seems well under control in the vast majority of EU/EEA Member States, certain aspects – especially the trends in detection and prevalence of MDR TB, treatment success of TB and MDR TB, and HIV testing coverage and detection - leave much to be desired. Special efforts should also be made to improve the reporting of LTBI, HIV status and treatment outcome results.

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Table: Monitoring framework for follow up of the TB Action Plan for the WHO European Region, 2016–2020

Area of intervention	Indicator	Baseline for EU/EEA (2014) ²	Target	EU/EEA status 2016	Number of EU/EEA Member States reporting the data	Number of EU/EEA Member States having reached the target
1. INTEGRATED, PATIENT-CENTRED 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 ³	N/A	80%	85.6%	5	4
1.B.	Early diagnosis of all forms of tuberculosis and universal access to drug-susceptibility testing, including the use of rapid tests					
1.B.	1 Percentage of newly notified TB patients diagnosed using WHO-recommended rapid tests (G9)	N/A	40%	24.7%	26	9
1.B.	2 First line DST coverage among all bacteriologically confirmed TB cases (G7)	90.0%	100%	88.1%	30	7
1.B.	3 RR/MDR TB case detection rate	85.4%	85%	66.9%	24	9
1.B.	4 TB notification rate per 100 000 population for new and relapse cases (E1)	12.2	24.6	10.9	30	27
1.B.	5 TB case detection rate (%)	82.4%	increase	89.0%	30	26
1.B.	6 Percentage of RR/MDR TB among new TB patients (E2)	2.4%	decrease	2.4%	24	11
1.B.	7 Percentage of RR/MDR TB among previously treated TB patients	17.7%	decrease	15.0%	22	17
1.C.	Equitable access to quality treatment and continuum of care for all people with tuberculosis, including drug-resistant tuberculosis; and patient support to facilitate treatment adherence					
1.C.	1 Percentage of hospitalisation of new TB patients (E3)	N/A	decrease	60.7%	19	–
1.C.	2 Percentage of detected RR/MDR TB enrolled in treatment (G3) (E4)	93.3%	100%	99.5%	26	21
1.C.	3 TB treatment success rate (G2)	73.0%	85%	74.1%	24	6
1.C.	4 RR/MDR TB treatment success rate (G2) (E5)	40.7%	75%	34.2%	20	4
1.C.	5 TB mortality rate (ICD A15-19) (G10) (E6)	4.1	2.7	0.8	30	28
1.D.	Collaborative tuberculosis/HIV activities, and management of relevant comorbidities					
1.D.	1 Percentage of detected out of incidence TB/HIV estimated	63.1%	90%	59.3%	17	1
1.D.	2 HIV testing coverage (G9) (E7)	64.6%	100%	68.7%	20	1
1.D.	3 Percentage of HIV among all TB	4.9%	decrease	4.4%	16	8
1.D.	4 Percentage of TB/HIV patients enrolled in ART	80.7%	100%	94.2%	8	4
1.D.	5 LTBI treatment coverage among PLHIV (G5a)	5%	30%	–	–	–
1.E.	Management of latent tuberculosis infection and preventive treatment of persons at high risk, and vaccination against tuberculosis					
1.E.	1 Contact investigation coverage (G2) (E7)	N/A	90%	95.8%	4	3
1.E.	2 LTBI treatment coverage of childhood TB contacts aged under five years (G5b) (E8)	N/A	90%	47.9%	3	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 TB control/elimination performance publicly available (E8)	N/A	53	–	–	–
2.B.	Health systems strengthening in all functions, including well-aligned financing mechanisms for tuberculosis and human resources ⁴					
2.B.	1 Percentage of TB-affected households that experience catastrophic costs due to TB (G3) (E10)	N/A	Close to 0	–	–	–
2.C.	Regulatory frameworks for case-based surveillance, strengthening vital registration, quality and rational use of medicines, and pharmacovigilance ⁴					
2.C.	1 Treatment coverage with new TB drugs (G8) (E9)	N/A	30%	–	–	–
2.D.	Community systems and civil society engagement					
2.D.	1 Number of Member States with functioning multi-stakeholder coalitions advocating for TB care and resources ⁴	N/A	53	–	–	–
2.E.	Social protection, poverty alleviation and actions on other determinants of tuberculosis, such as migration and prisons					
2.E.	1 Treatment success rate (%) of new and relapse TB cases among prisoners	63.2%	85.0%	68.4%	13	4
3. INTENSIFIED RESEARCH AND INNOVATION						
3.A.	Discovery, development and rapid uptake of new tools, interventions and strategies ⁴					
3.A.	1 European Tuberculosis Research Initiative established by mid-2016	N/A	Established	N/A	–	–

¹ Some of data for 'desk review' assessment are collected through routine reporting at European level and analysed in this report.

² Baseline: as reported for or calculated from 2014 data

³ Currently analysed only for TB contacts.

⁴ Assessed against baseline (2014).

⁵ Data are not available or indicator defined for this report.

Figure 4.1.10. Trend in treatment success rate for new and relapsed TB cases enrolled into treatment 2012-2015 in each of the high-priority countries and totally for 18 high-priority countries and WHO European Region, 2012-2016



Horizontal black line shows target 25% reduction of notification rate by 2020 against 2015

Figure 4.1.11. Trend in treatment success rate among MDR TB cohort enrolled in treatment between 2010 and 2014 in each of the 18 high-priority countries, and as a total for the 18 high-priority countries and WHO European Region, 2010–2014



Horizontal black line shows target 25% reduction of notification rate by 2020 against 2015

Figure 4.1.12. Trend in TB mortality rate for the 18 high-priority countries and WHO European Region, 2010–2016



Horizontal black line shows target 25% reduction of notification rate by 2020 against 2015

Figure 4.1.13. Percentage of cases detected against the estimated number of incident TB/HIV co-infected cases for 18 high-priority countries and WHO European Region, 2016

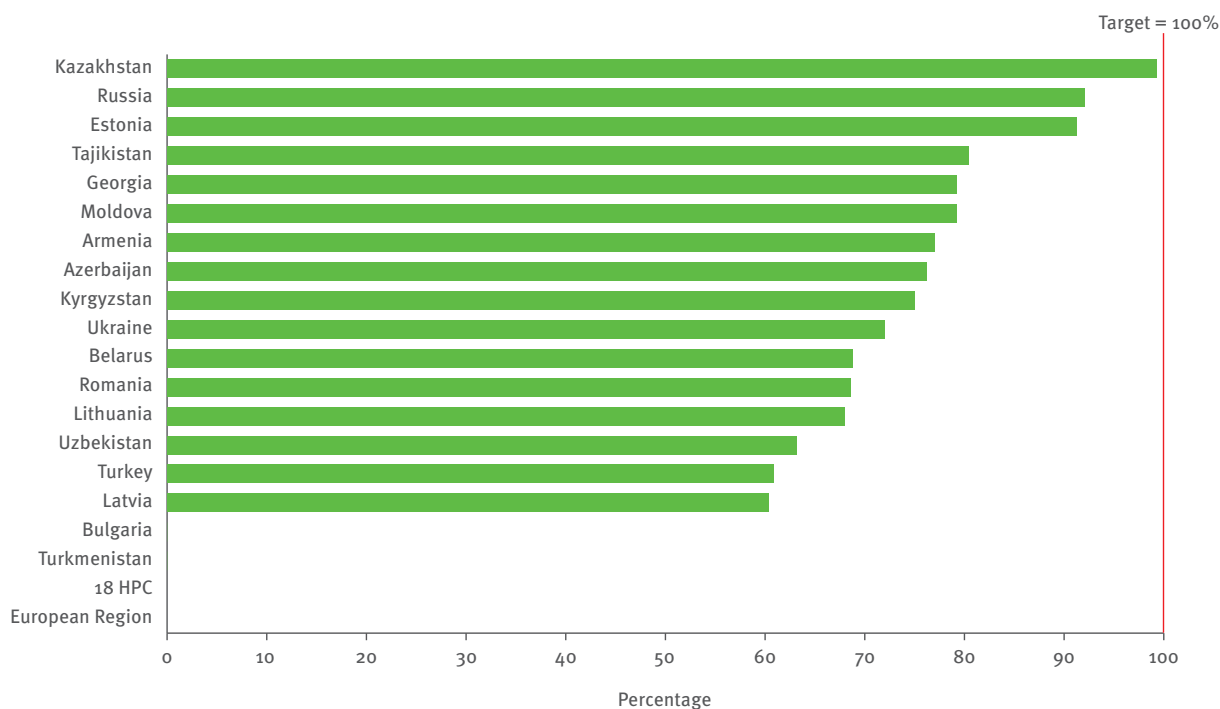


Figure 4.1.14. HIV testing coverage among new and relapse TB patients for the 18 high-priority countries and WHO European Region, 2016

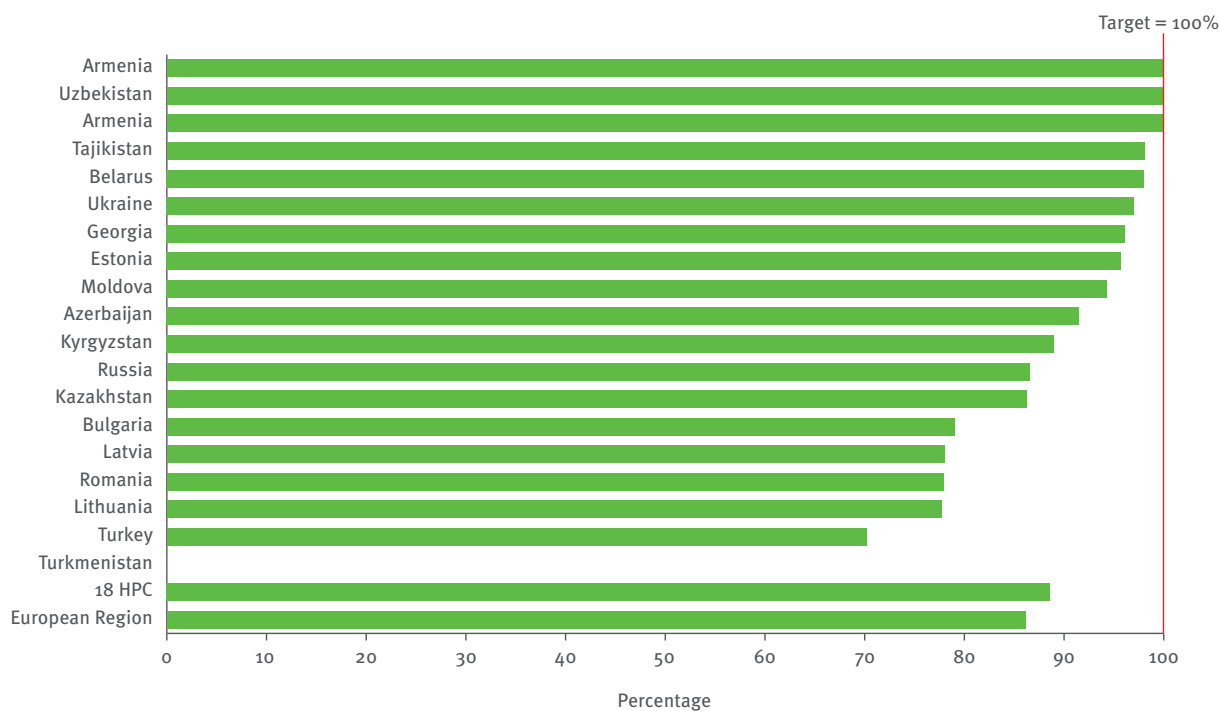


Figure 4.1.15. Percentage of HIV co-infection among new and relapse TB cases for the 18 high-priority countries and WHO European Region, 2012–2016

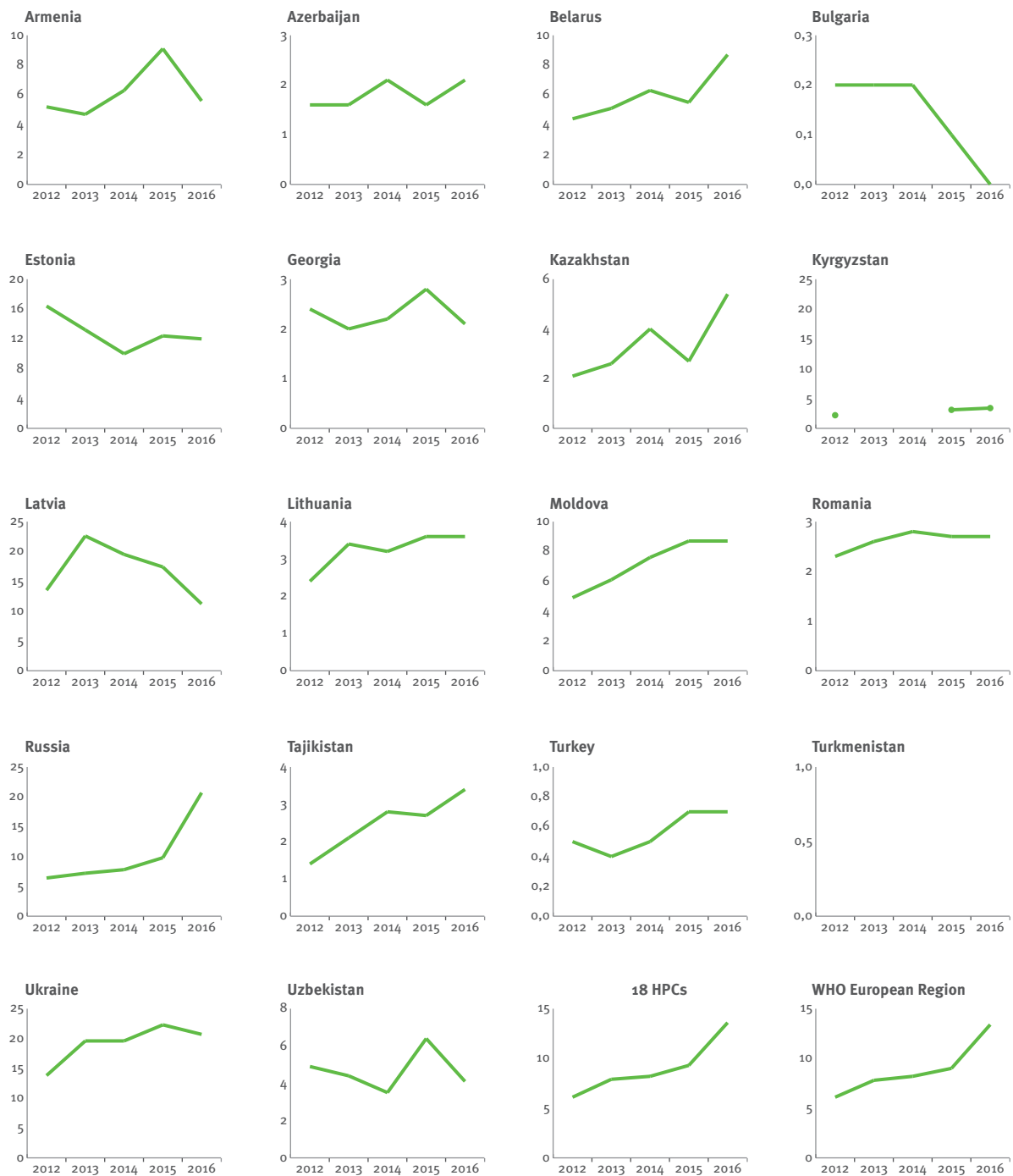


Figure 4.1.16. Number of HIV cases detected and number enrolled in ART for the 18 high-priority countries, 2011–2016

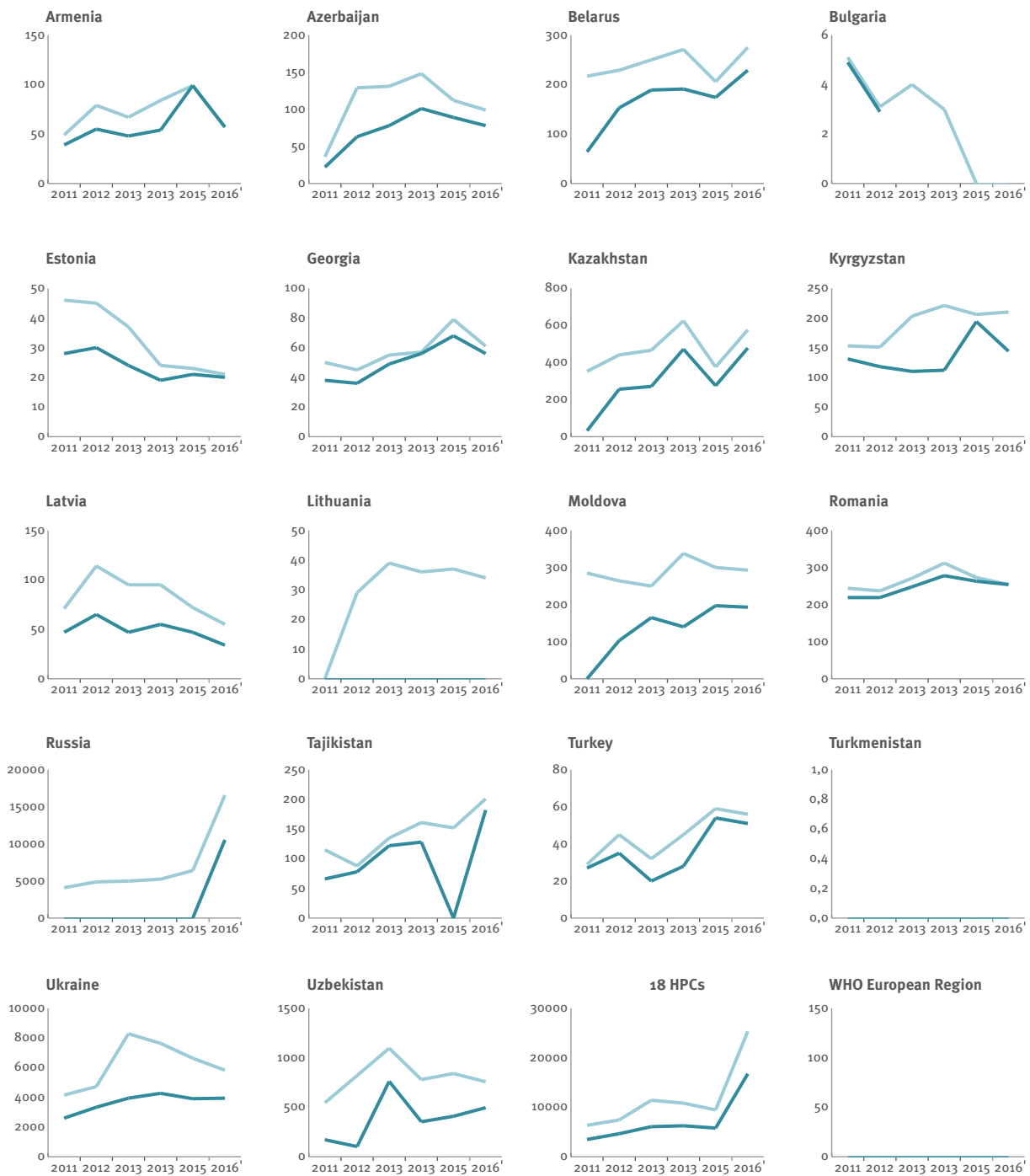


Figure 4.1.17. LTBI treatment coverage for the 18 high-priority countries and WHO European Region, 2016

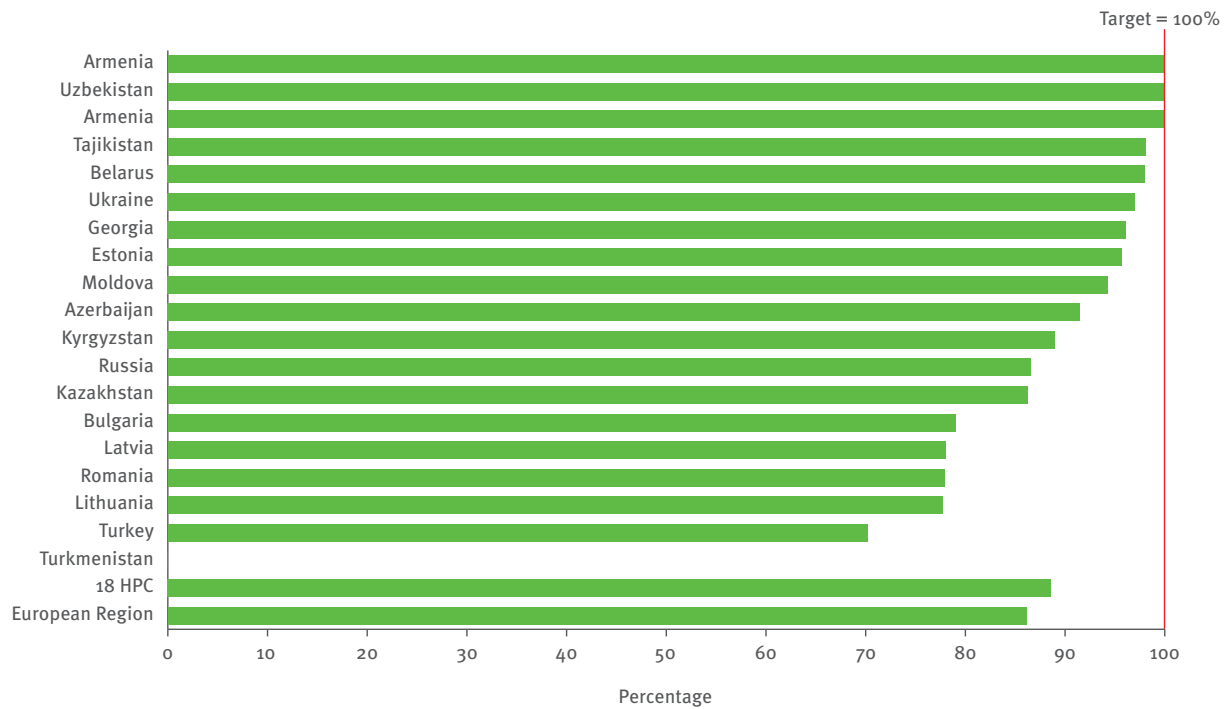


Figure 4.1.18. Contact investigation coverage for the 18 high-priority countries and WHO European Region, 2016

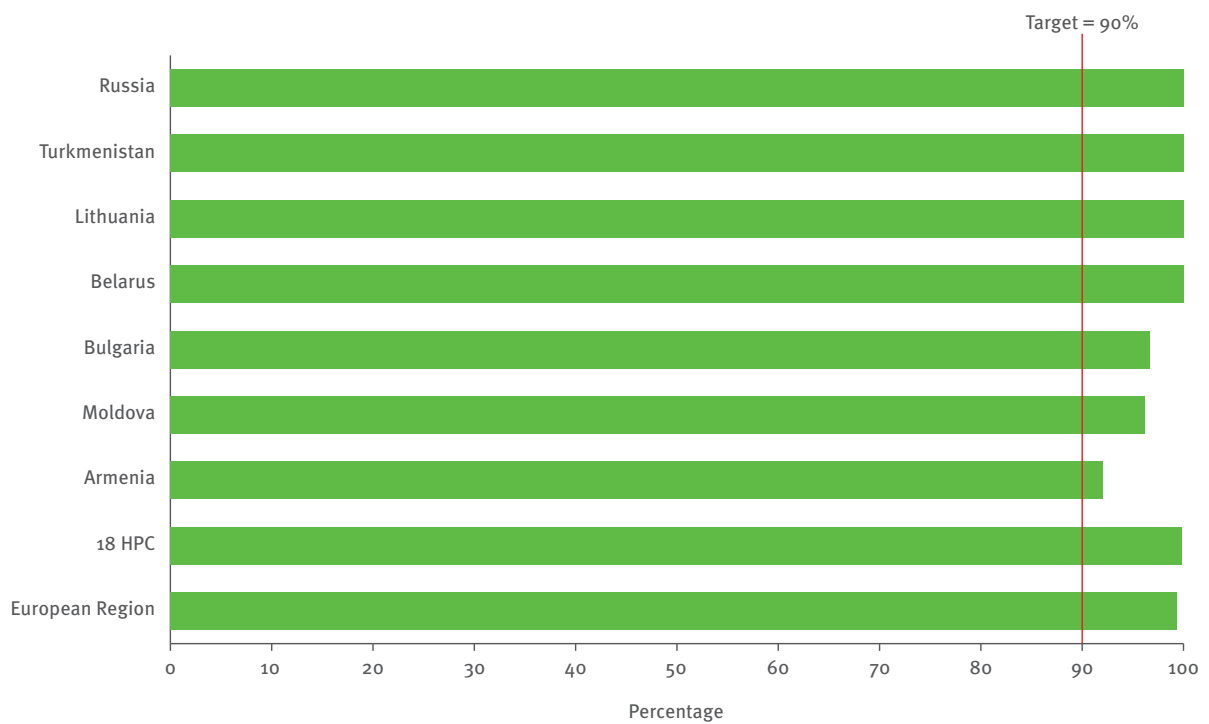


Figure 4.1.19. LTBI treatment coverage of childhood TB contacts aged under five years for the 18 high-priority countries and WHO European Region

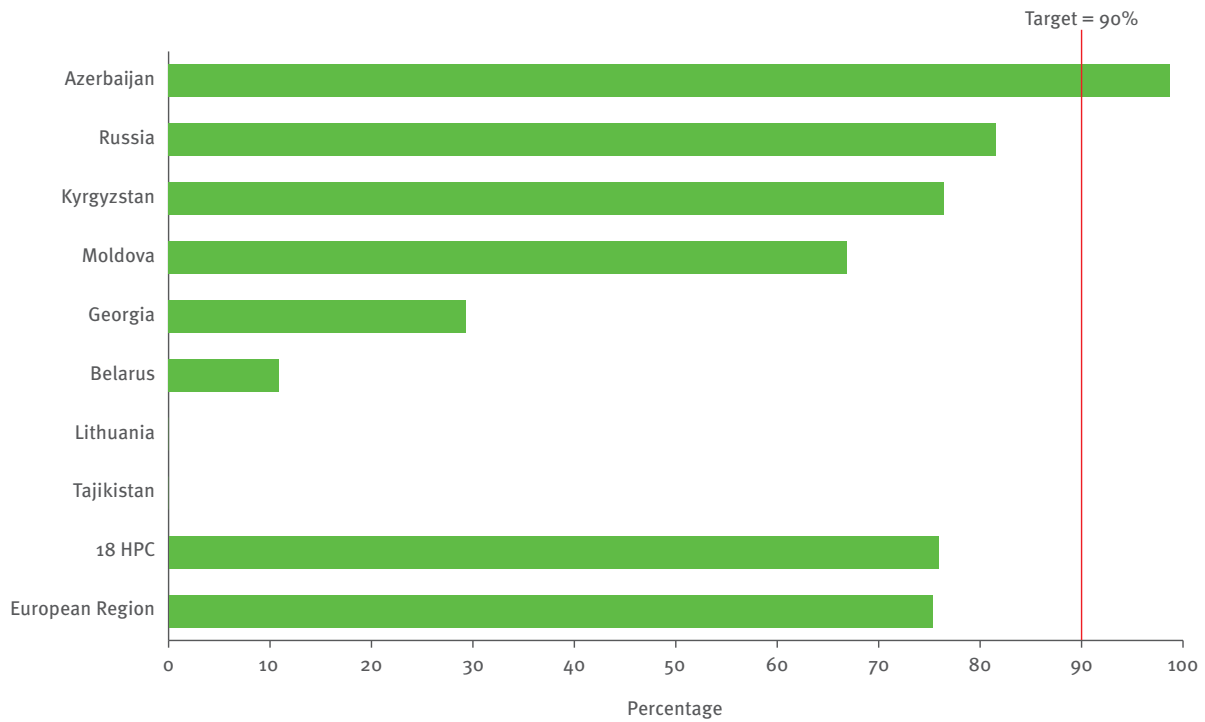


Figure 4.1.20. Treatment success (%) of new and relapse TB cases among prisoners for the 18 high-priority countries and WHO European Region, 2015

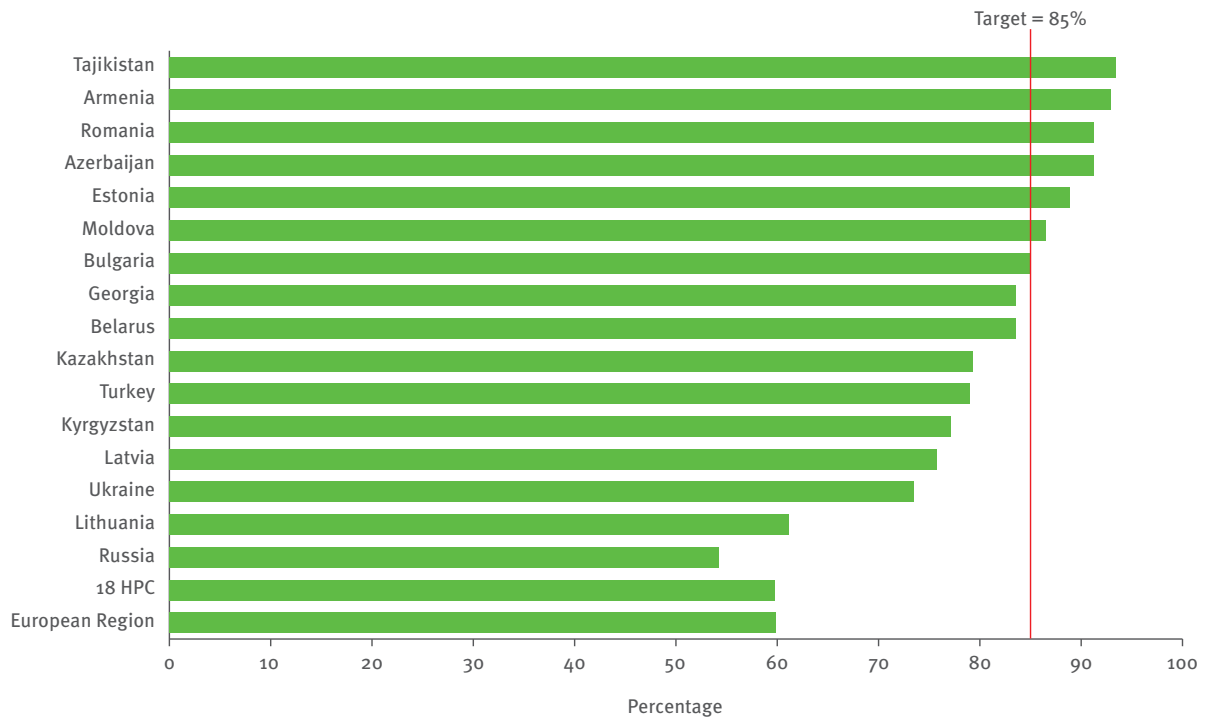


Figure 4.2.1. Indicator 1.A.1: Coverage of population at risk with systematic screening for active TB and LTBI (only TB contacts evaluated), 2016

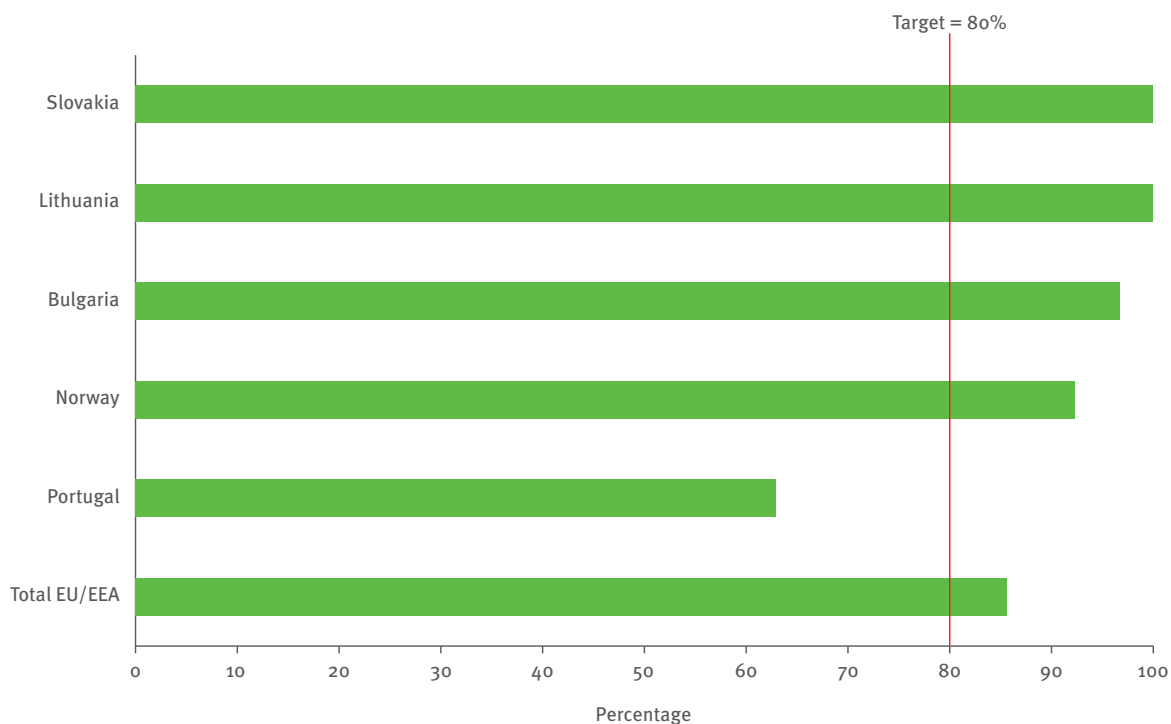


Figure 4.2.2. Indicator 1.B.1: Percentage of TB patients diagnosed using WHO-recommended rapid tests, 2016

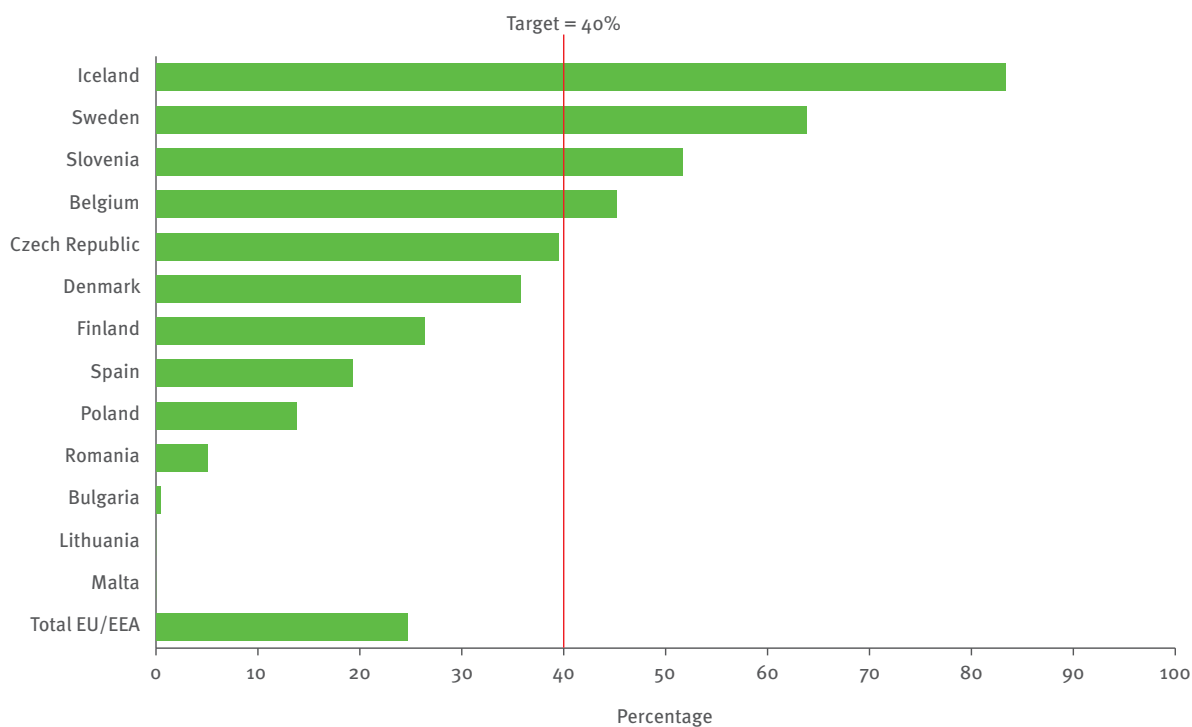


Figure 4.2.3. Indicator 1.B.2: First-line DST coverage among all bacteriologically confirmed TB patients, 2016

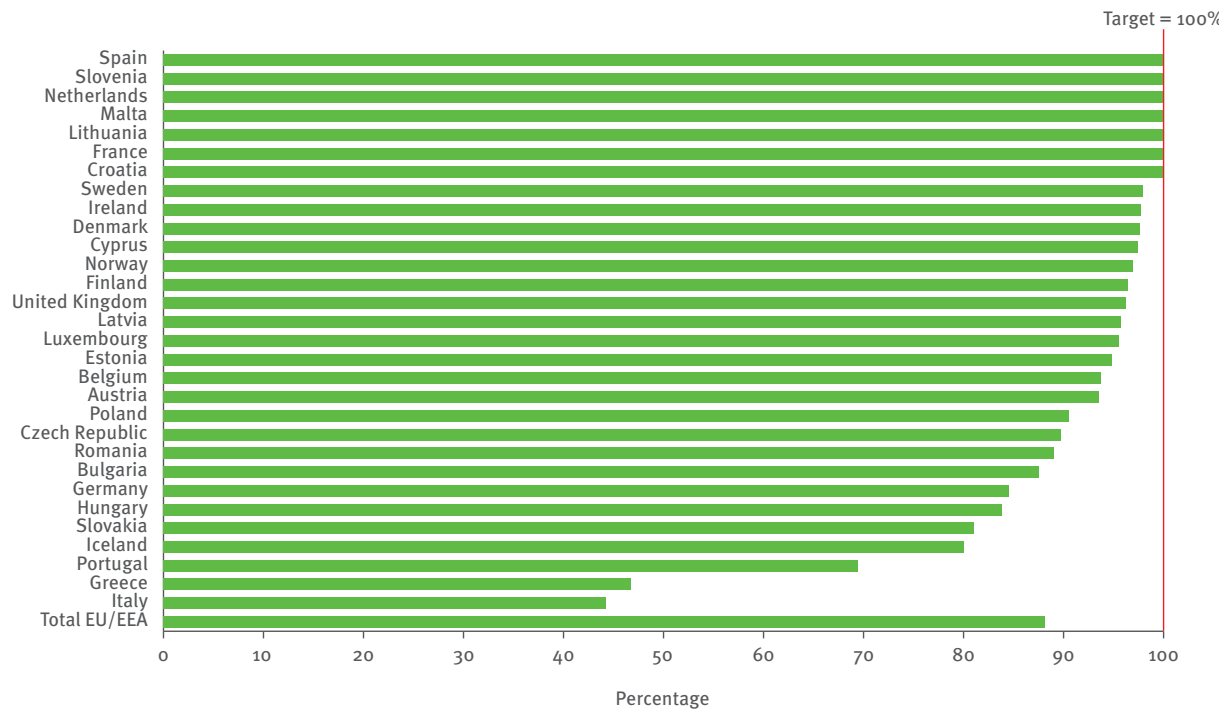


Figure 4.2.4. Indicator 1.B.3. RR/MDR TB case detection rate (%), 2016

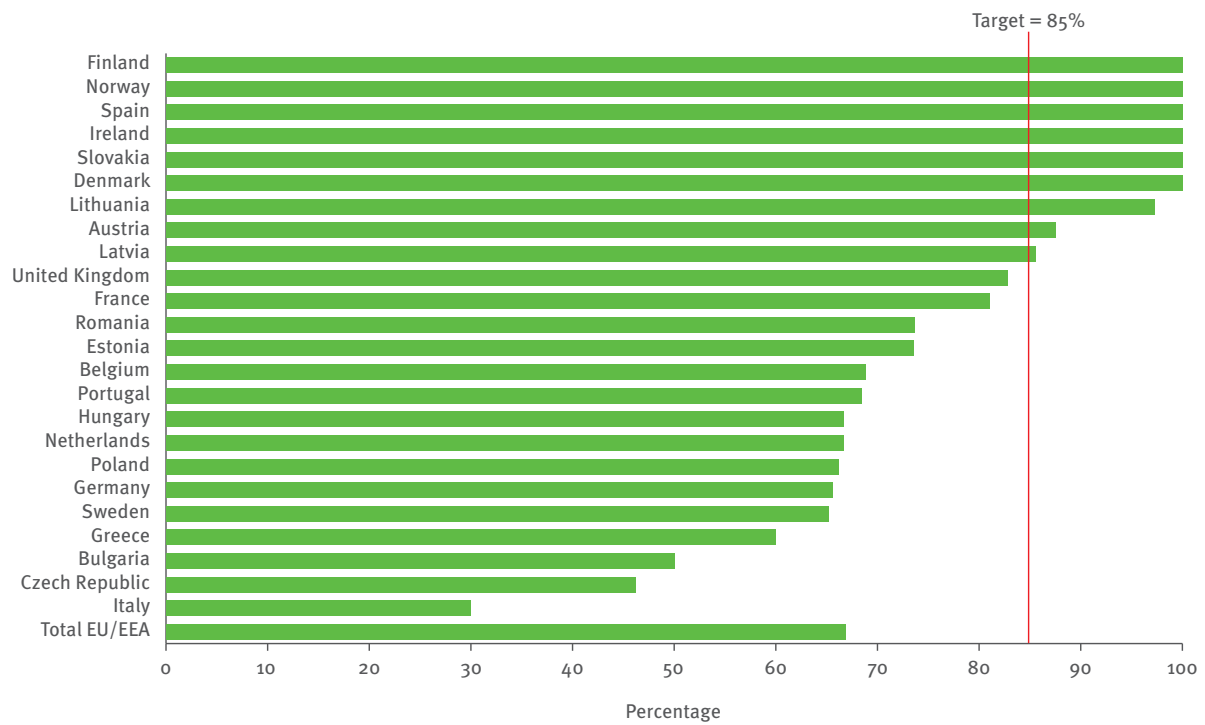


Figure 4.2.5. Indicator 1.B.4. TB notification rate per 100 000 population (E1), 2016

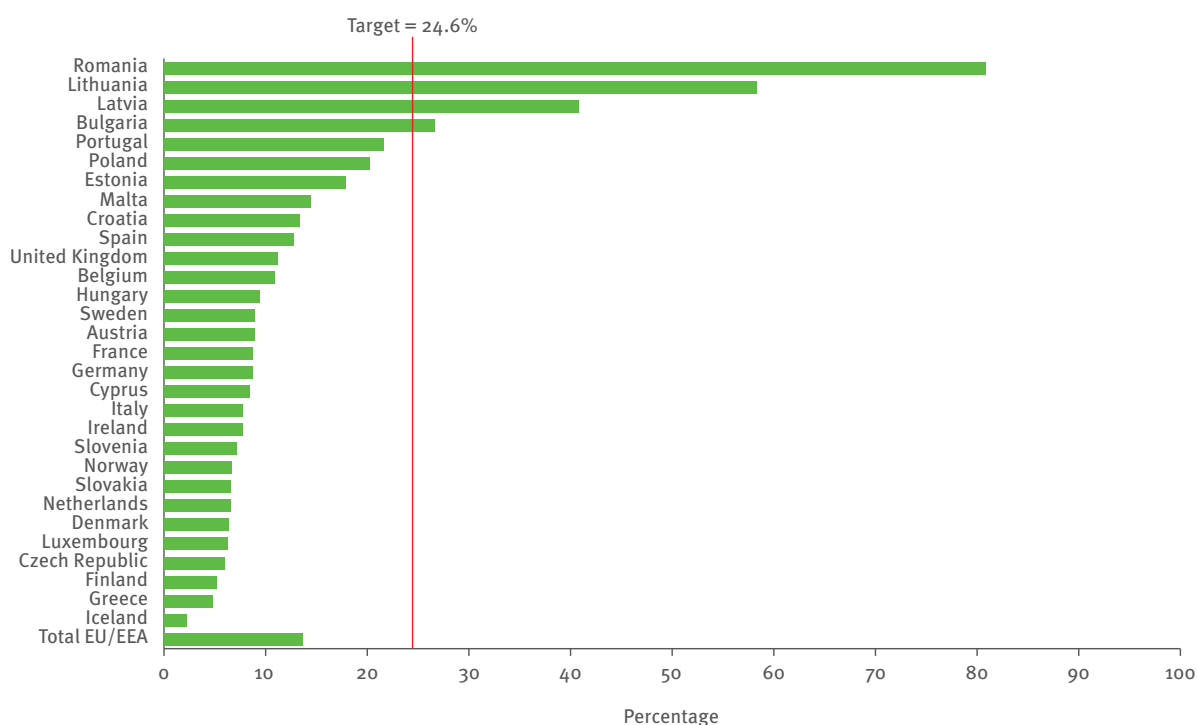


Figure 4.2.6. Indicator 1.B.5. TB case detection rate (%), 2016

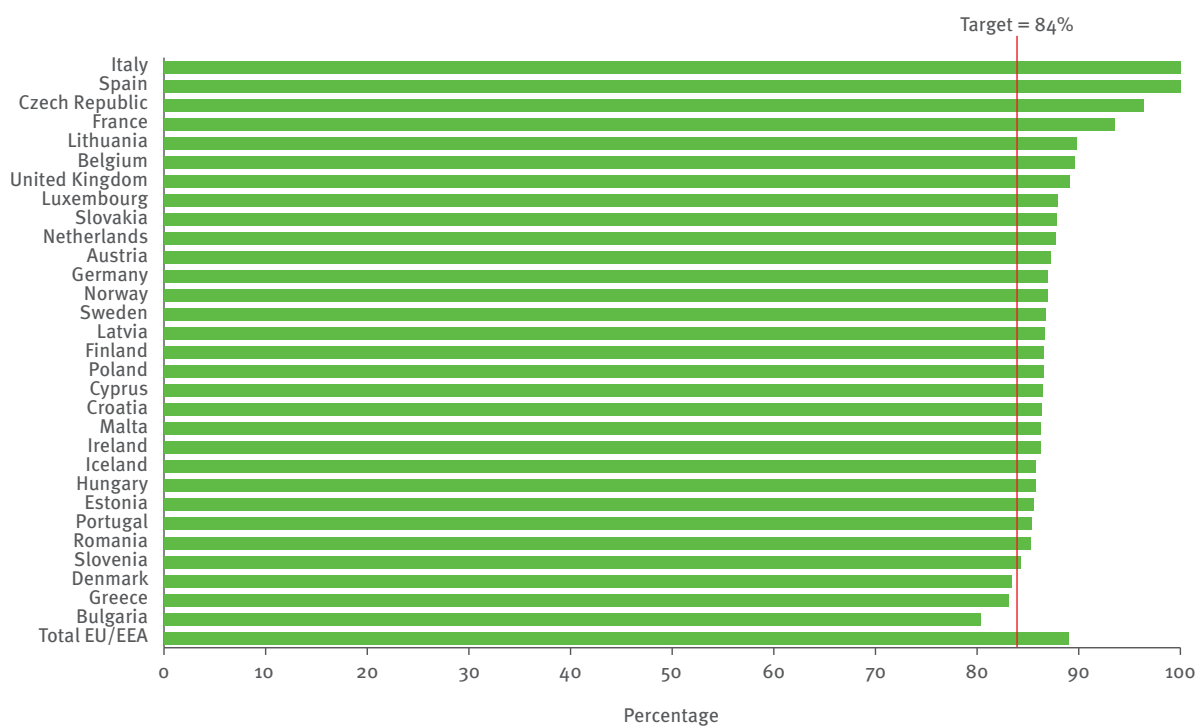


Figure 4.2.7. Indicator 1.B.6 Percentage of RR/MDR TB among new TB patients (E2), 2014 and 2016

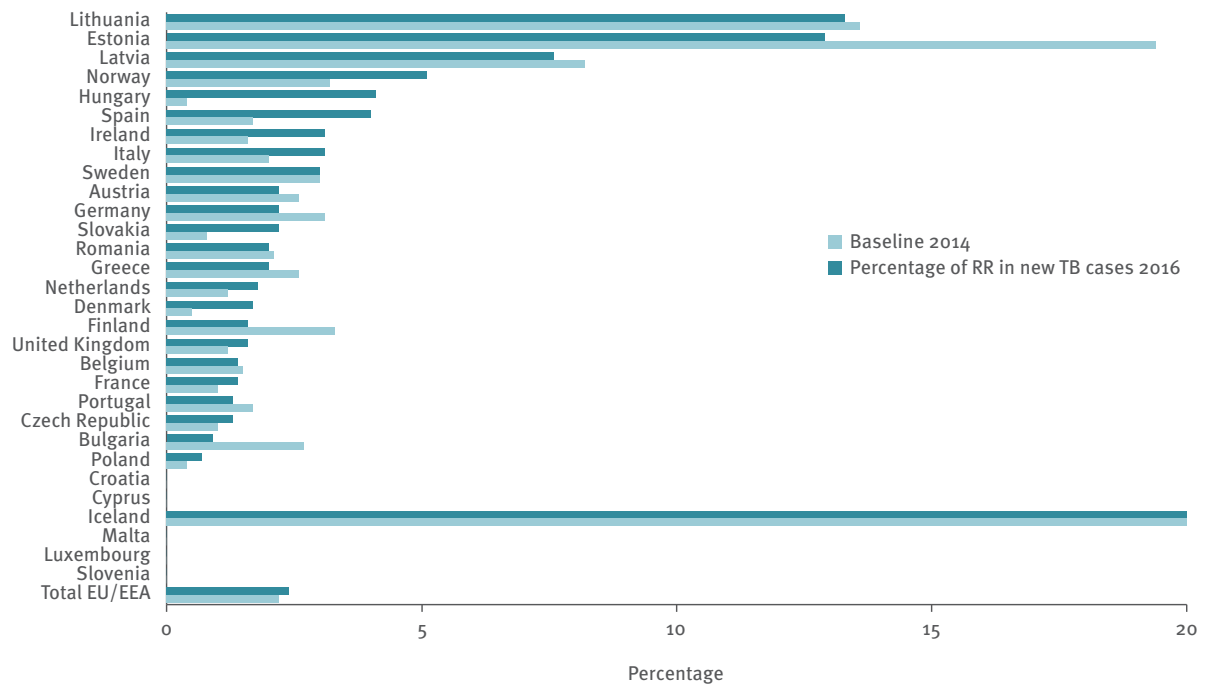


Figure 4.2.8. Indicator 1.B.7 Percentage of RR/MDR TB among previously treated TB patients, 2016

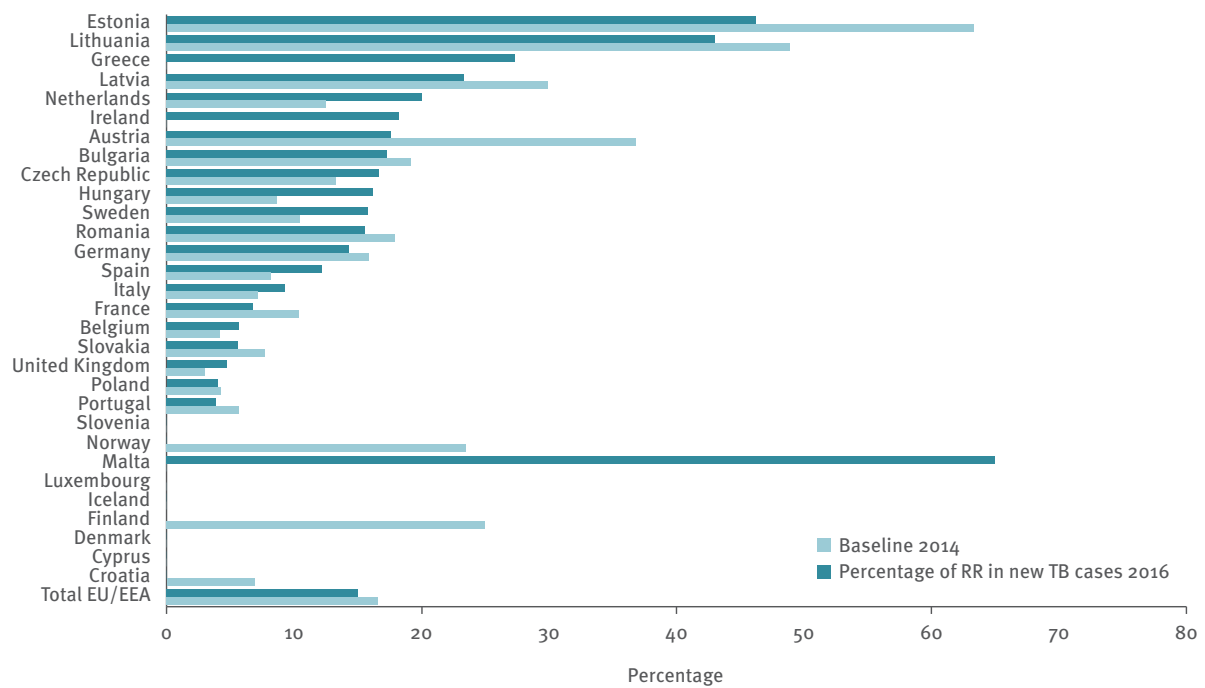


Figure 4.2.9. Indicator 1.C.1 Percentage of hospitalisation for new TB patients, 2016 (E3)

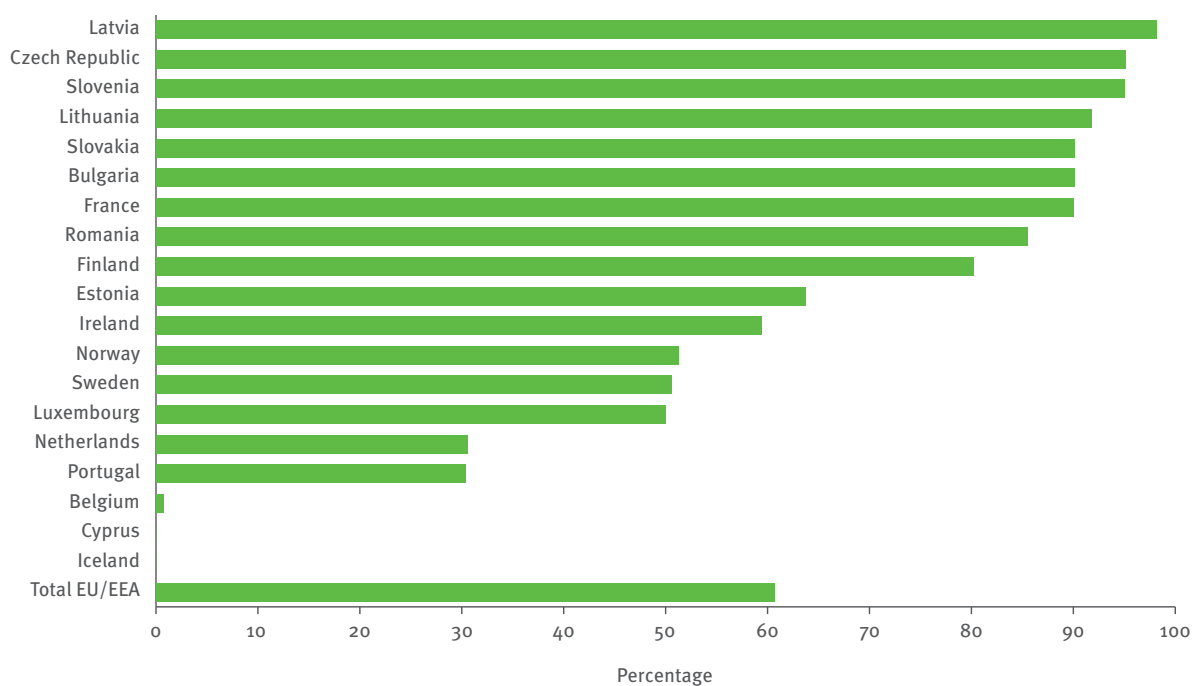


Figure 4.2.10. Indicator 1.C.2 Percentage of detected RR/MDR TB enrolled in treatment, 2016 (G3) (E4)

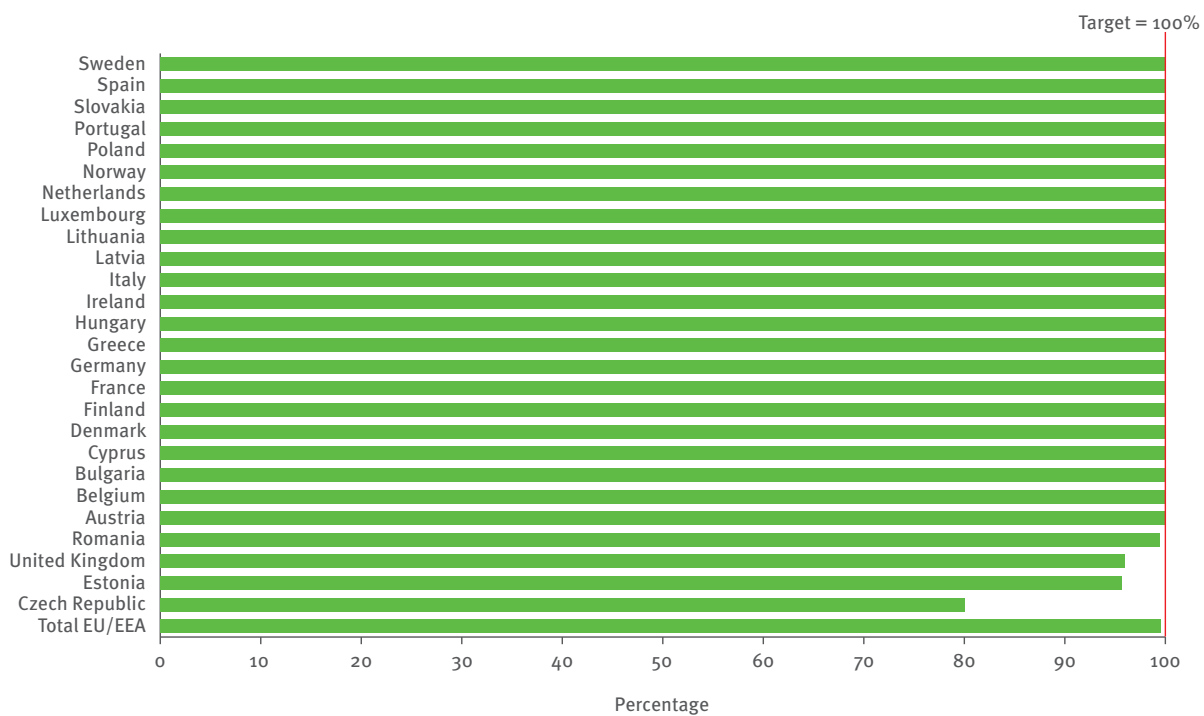


Figure 4.2.11. Indicator 1.C.3 TB treatment success, 2016 (G2)

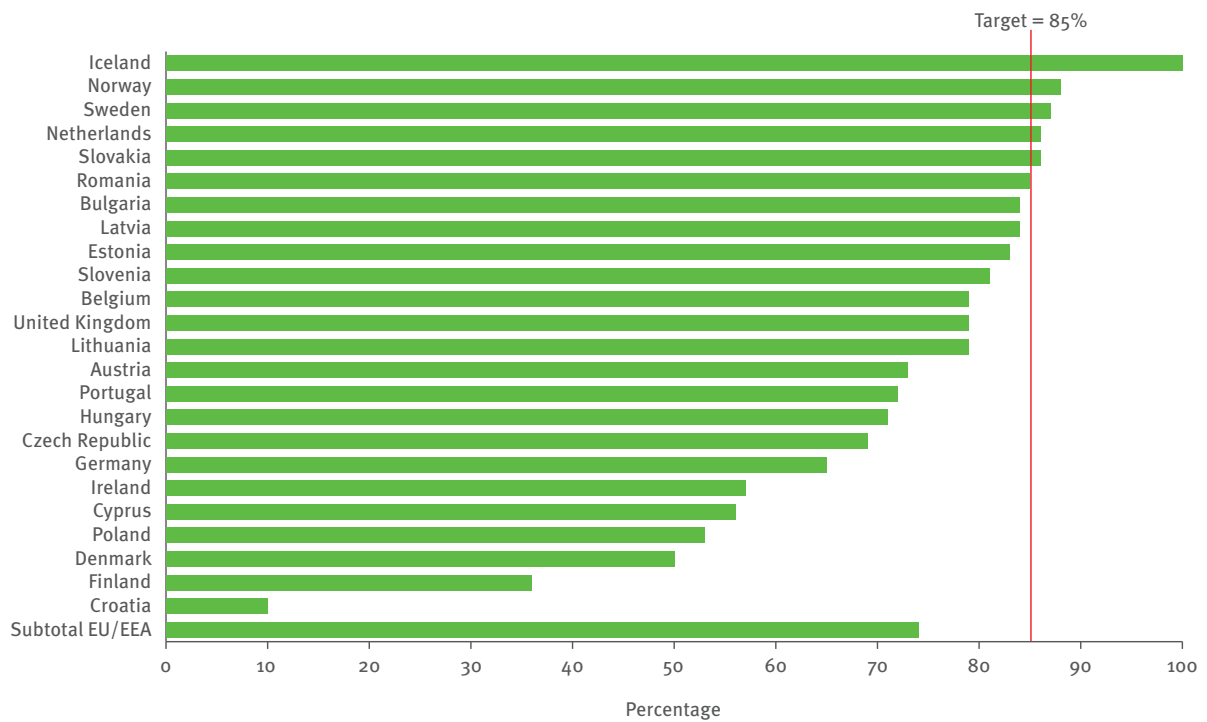


Figure 4.2.12. Indicator 1.C.4 TB treatment success rate among the RR/MDR TB cohort, 2016 (G4), (E4)

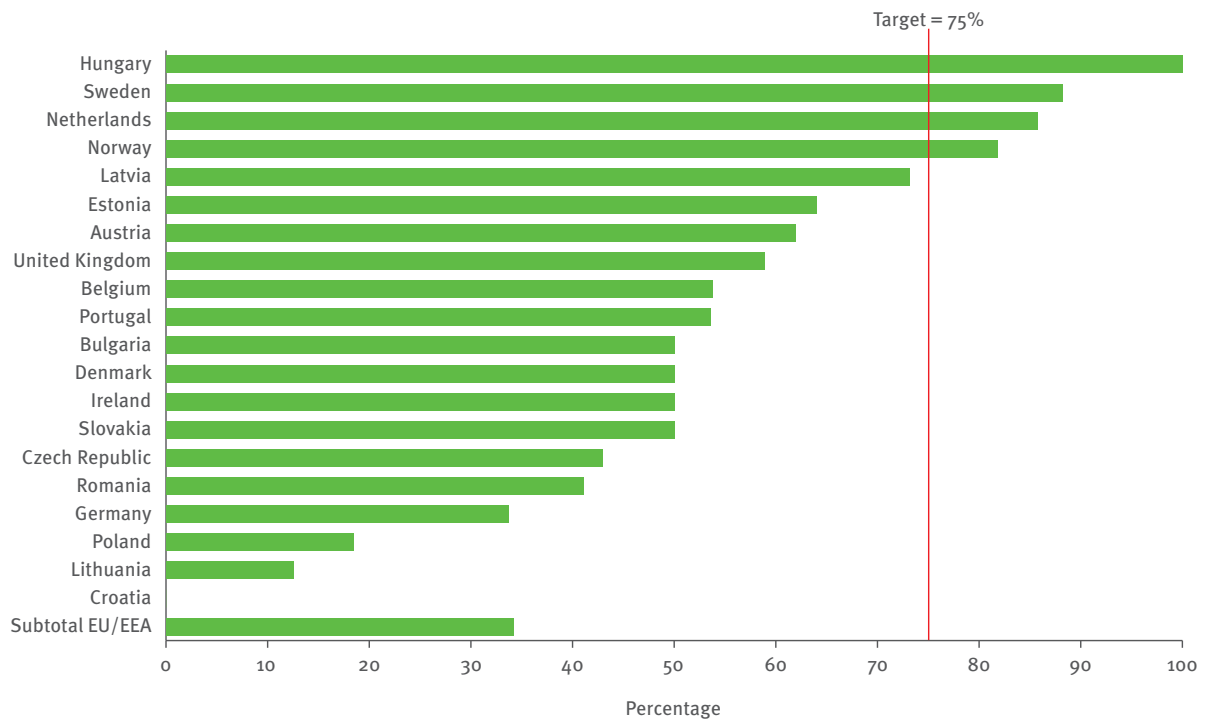


Figure 4.2.13. Indicator 1.C.5 TB mortality rate, 2016 (ICD A15-19)

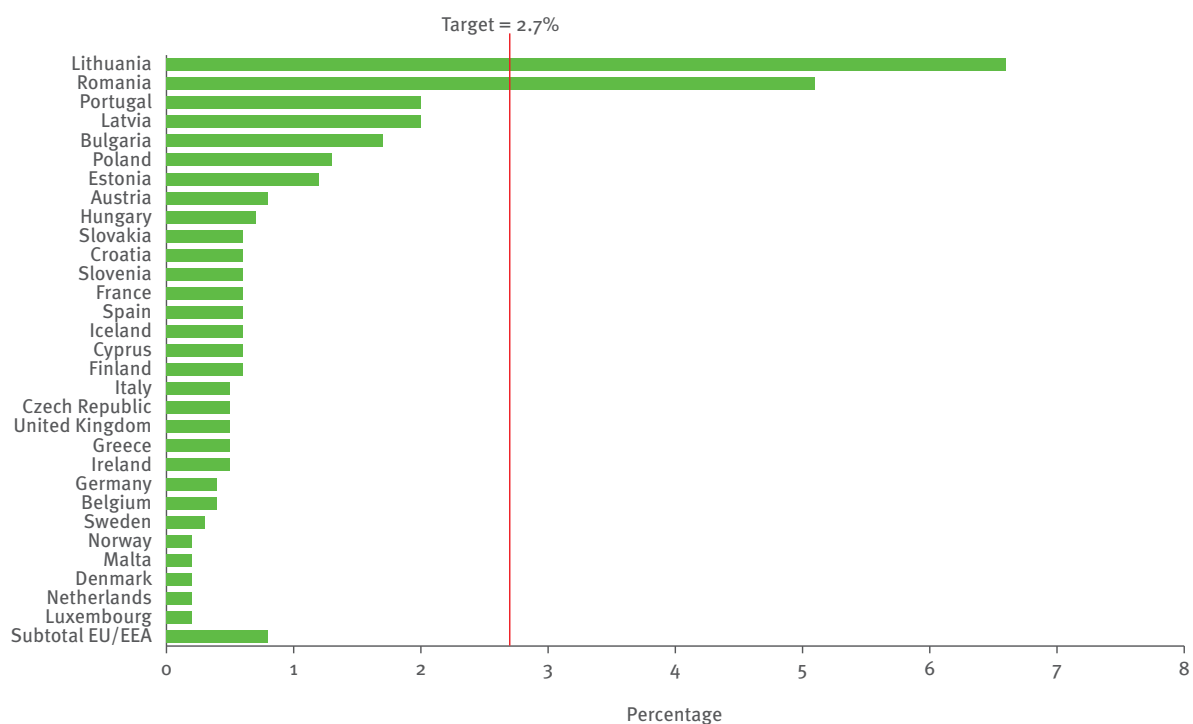


Figure 4.2.14. Indicator 1.D.1 Percentage of detected cases out of estimated incident TB/HIV co-infected cases, 2016

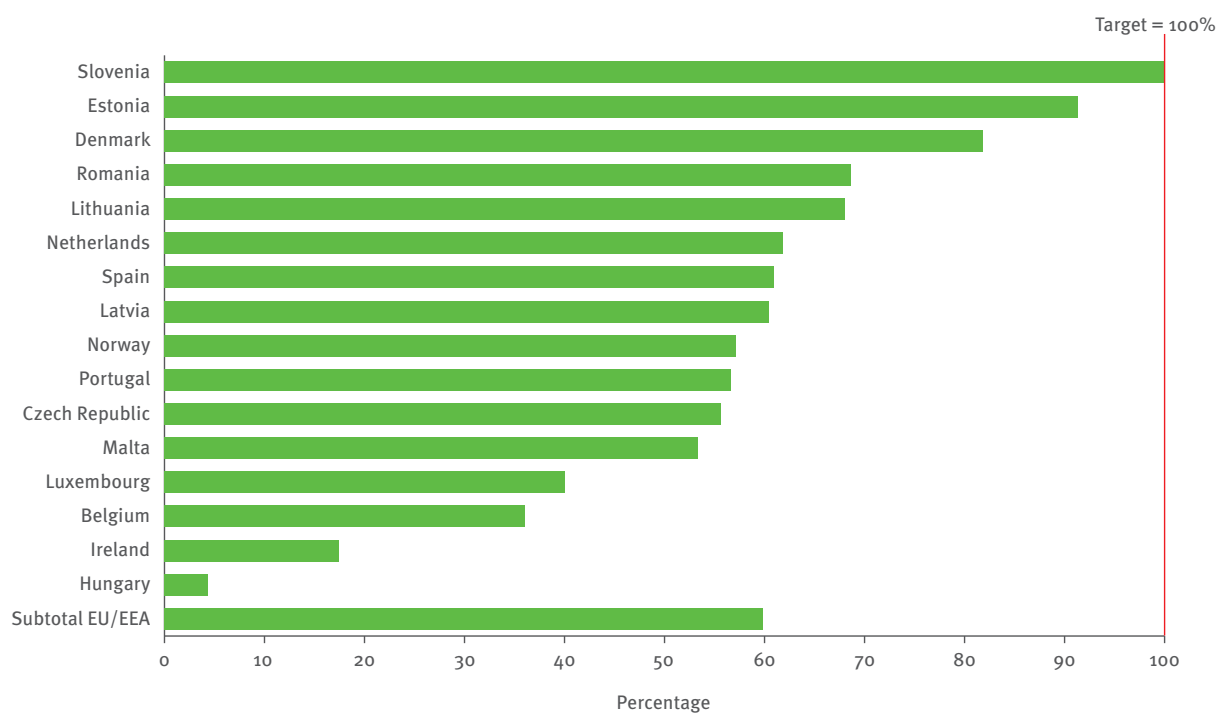


Figure 4.2.15. Indicator 1.D.2 HIV testing coverage, 2016 (G9) (E7)

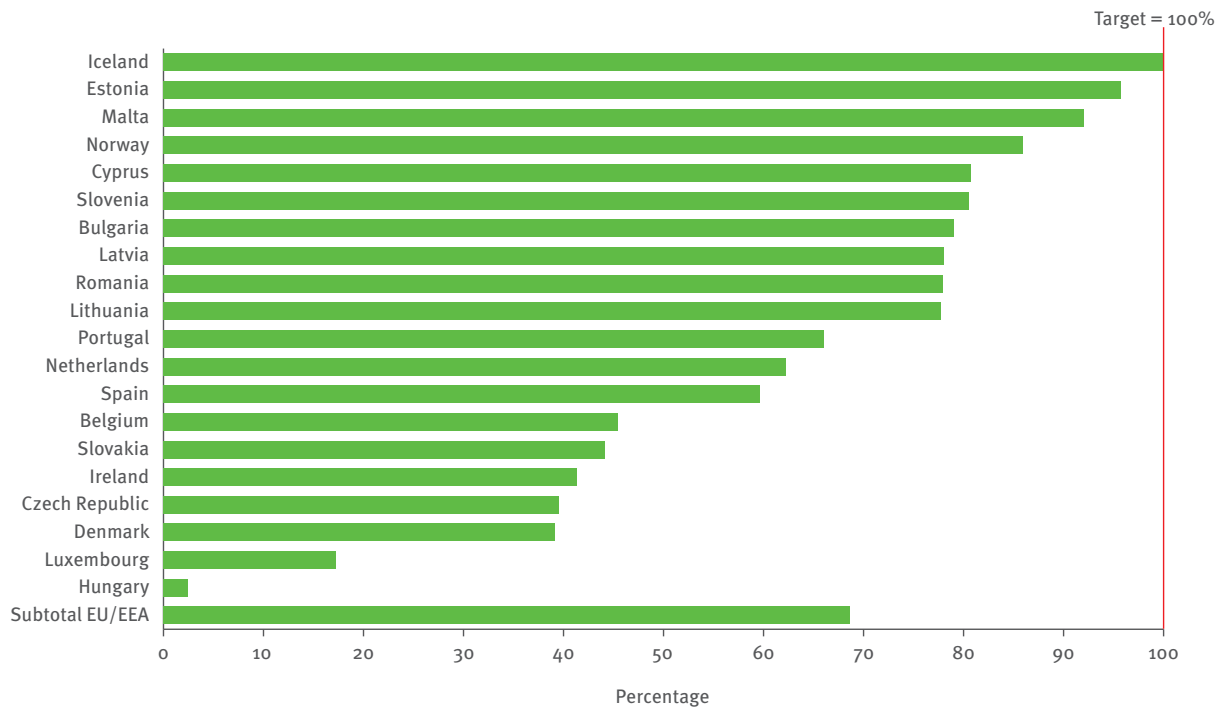


Figure 4.2.16. Indicator 1.D.3 Percentage of HIV among all TB cases, 2016

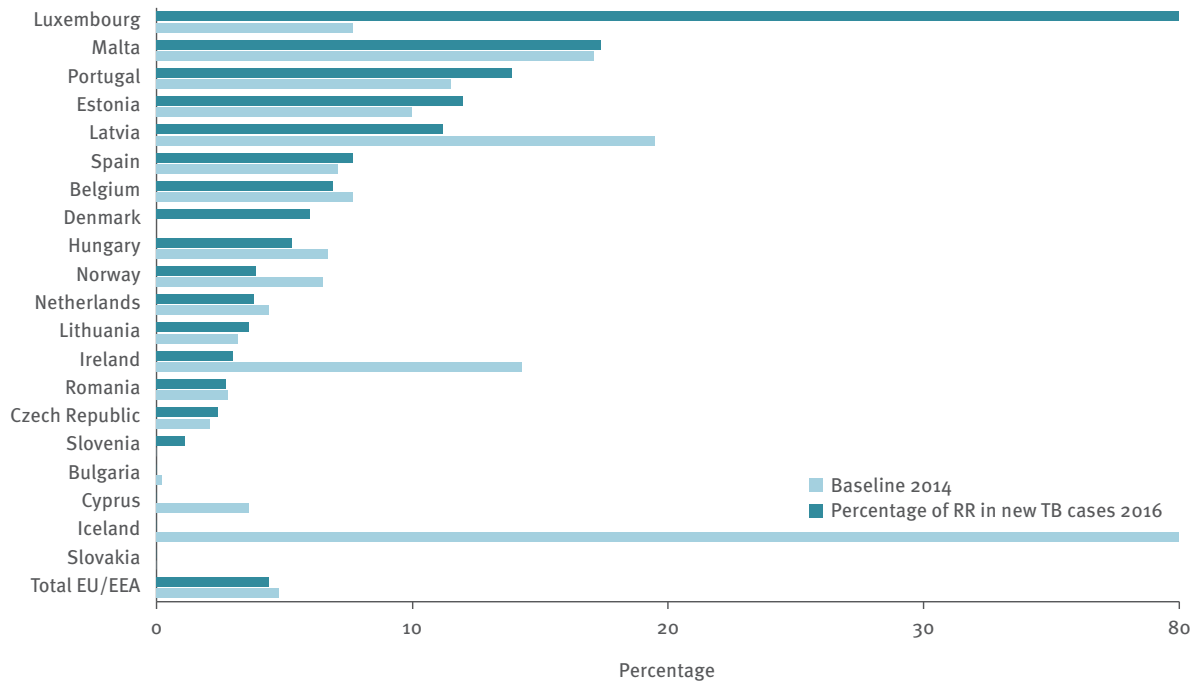


Figure 4.2.17. Indicator 1.D.4 Percentage of TB/HIV patients enrolled in ART, 2016

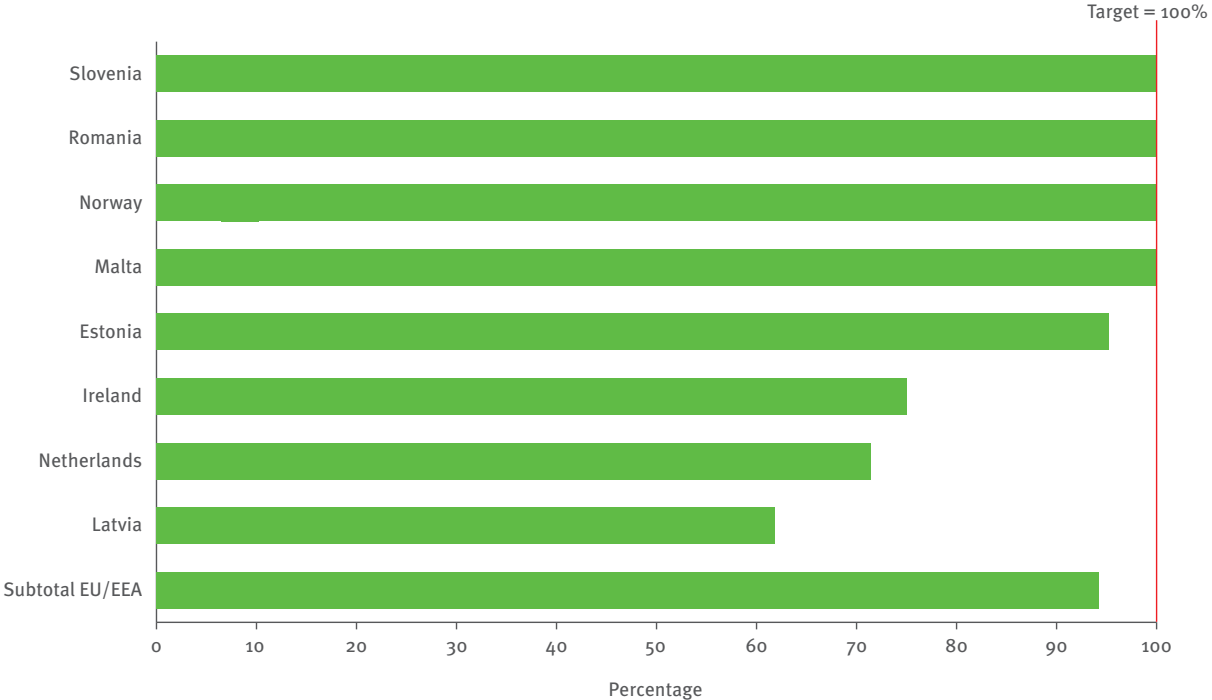


Figure 4.2.18. Indicator 1.E.1 Contact investigation coverage (%) (G2) (E7)

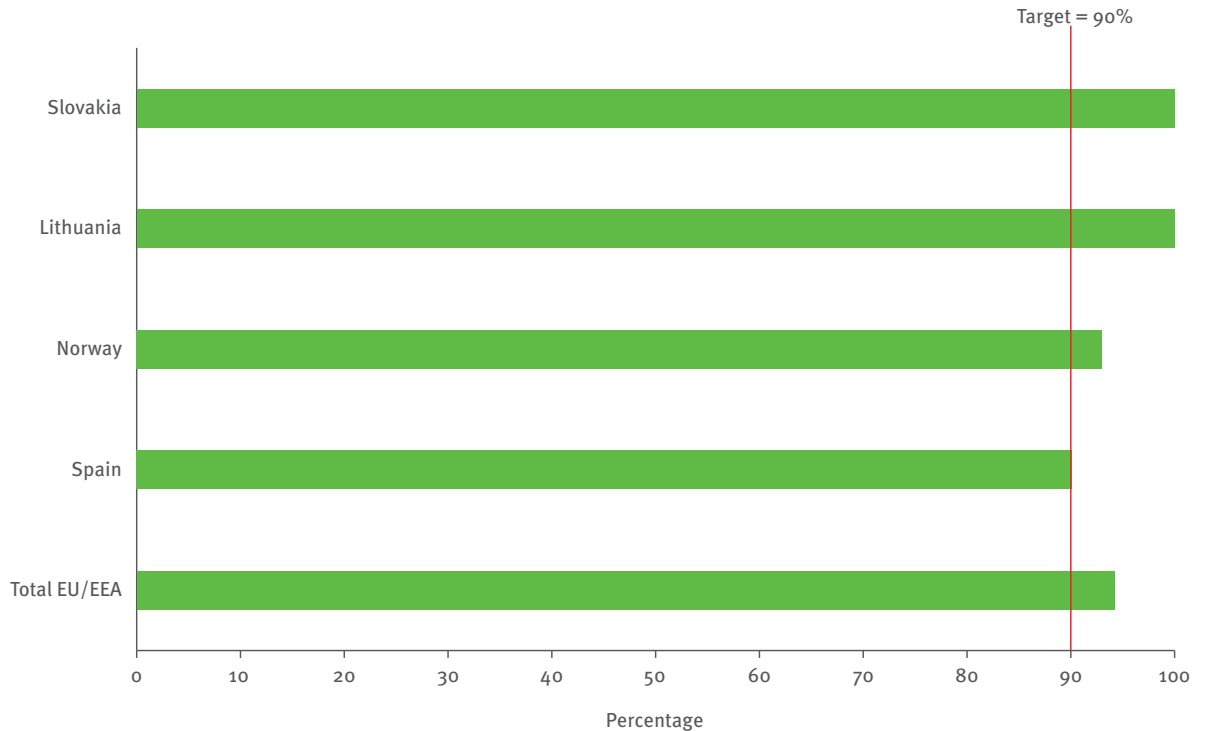


Figure 4.2.19. Indicator 1.E.2 Contact-tracing coverage for children under five years (%) (G2) (E7)

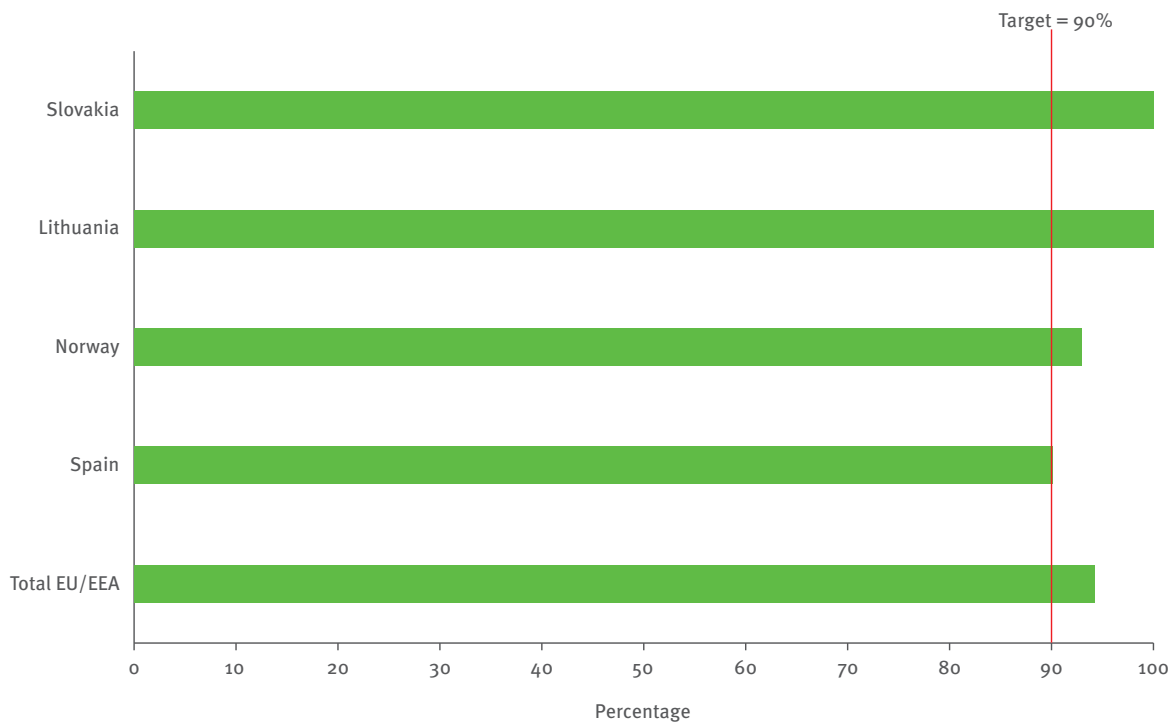
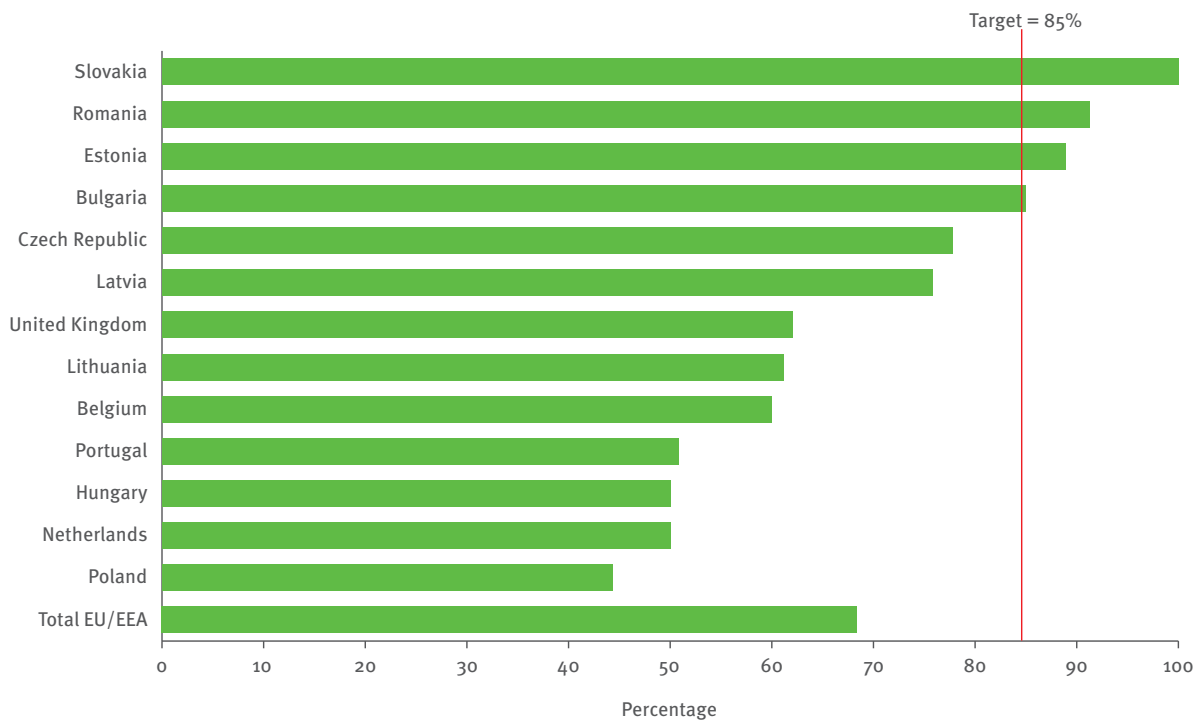


Figure 4.2.20. Treatment success (%) of new and relapse TB cases among prisoners





5. Annexes

Annex 1: Tuberculosis surveillance system overview, 2016

Country	Data source	Legal character ^a	Comprehensiveness ^b	Type ^c	National coverage ^d	Data available:		
						EuroTB aggregated data	EuroTB case-based data ^e	TESSy case-based data ^f
Austria	AT-TUBERKULOSEGESETZ	Cp	Co	C	Y	–	–	1995–2016
Belgium	BE-TUBERCULOSIS	Cp	Co	C	Y	–	1995–2004	2005–2016
Bulgaria	BG-MOH	Cp	Co	C	-	1995–2006	–	2007–2016
Croatia ^g	HR-CNIPH	Cp	Co	C	Y	1995–2007	–	2012–2016
Cyprus	CY-NOTIFIED_DISEASES	Cp	Co	C	Y	1995–2001	2002–2004	2005–2016
Czech Republic	CZ-TUBERCULOSIS	Cp	Co	C	Y	–	1995–2004	2005–2016
Denmark	DK-MIS	Cp	Co	C	Y	–	1995–2004	2005–2016
Estonia	EE-TBC	Cp	Co	C	Y	–	1995–2004	2005–2016
Finland	FI-NIDR	Cp	Co	C	Y	–	–	1995–2016
France ^h	FR-MANDATORY_INFECTIOUS_DISEASES	Cp	Co	C	Y	2016	1995–1999	2000–2015
Germany	DE-SURVNET@RKI-7.1/6	Cp	Co	C	Y	1995–2000	2001–2004	2005–2016
Greece	EL-NOTIFIABLE_DISEASES	Cp	Co	C	Y	1995–2001	2002–2004	2006–2016
Hungary	HU-TUBERCULOSIS	Cp	Co	C	Y	1995–1998	1999–2004	2005–2016
Iceland	IS-TUBERCULOSIS	Cp	Co	C	Y	–	1995–2004	2005–2016
Ireland	IE-CIDR	Cp	Co	C	Y	1995–1997	1998–2004	2005–2016
Italy	IT-NRS	Cp	Co	C	-	–	1995–2004	2005–2016
Latvia	LV-TB	Cp	Co	C	Y	1995–2000	2001–2004	2005–2016
Liechtenstein	–	Cp	Co	C	-	–	–	2007
Lithuania	LT-TB_REGISTER	Cp	Co	C	Y	1995–2002	2003, 2004	2005–2016
Luxembourg	LU-SYSTEM1	Cp	Co	C	Y	–	1995–2006	2007–2016
Malta	MT-DISEASE_SURVEILLANCE	Cp	Co	C	Y	–	1995–2004	2005–2016
Netherlands	NL-NTR	Cp	Co	C	Y	–	1995–2004	2005–2016
Norway	NO-MSIS_A	Cp	Co	C	Y	–	1995–2005	2006–2016
Poland	PL_CR	Cp	Co	C	Y	1995–1999	2000–2003	2004–2016
Portugal	PT-TUBERCULOSIS	Cp	Co	C	Y	1995–1999	2000–2004	2005–2016
Romania	RO-NTBSy	Cp	Co	C	Y	–	1995–2004	2005–2016
Slovakia	SK-NRT	Cp	Co	C	Y	1995	1996–2004	2005–2016
Slovenia	SI-TUBERCULOSIS	Cp	Co	C	Y	–	1995–2004	2005–2016
Spain	ES-STATUTORY_DISEASES	Cp	Co	C	Y	1995–2006	–	2007–2016
Sweden	SE-SweTBReg	Cp	Co	C	Y	–	1995–2006	2007–2016
United Kingdom	UK-TUBERCULOSIS	Cp	Co	C	Y	1995–1997	–	1998–2016

^a Legal: compulsory reporting – Cp.

^b Comprehensiveness: comprehensive – Co.

^c Type: case based – C.

^d Coverage: national – Y. Not specified in TESSy – ‘-’.

^e Data uploaded to TESSy in 2010, not updated later.

^f WHO TB Monitoring and Evaluation data (TME) for DST analysis of France, Spain and Italy.

^g Data reported since 2012 to TESSy, historical data extracted from WHO Global TB monitoring and evaluation data (TME).

^h Data reported to TESSy until 2015, 2016 data extracted from WHO Global TB monitoring and evaluation data (TME).

Annex 2: List of variables for 2017 TB 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 ^b	Place of the first notification of the case to a regional authority
9 PlaceOfResidence ^b	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
15 Classification	Case classification according to EU case definition
16 LaboratoryResult	Laboratory criteria used to classify a case as confirmed or probable
Disease-specific variables	
17 BornReportingCountry	The patient was born in the country of report
18 CountryOfBirth	Country of birth of patient
19 CountryOfNationality	Country of nationality of patient
20 NationalityReportingCountry	Origin of the patient (based on citizenship)
21 MajorSiteOfTB	Major site of the disease
22 MinorSiteOfTB	Minor site of the disease
23 PrevDiagnosis	Previous diagnosis of tuberculosis in the past
24 PrevDiagnosisYear	Year of previous diagnosis
25 PrevTreatment	Previous anti-TB drug treatment (at least one month of drug combination)
26 PrevTreatmentCompletion	Completion of the previous anti-tuberculosis drug treatment
27 DiagnosedAnteMortem	Vital status of the patient at the time of diagnosis
28 EnrolledToTreatment	Patient started appropriate TB treatment according to international recommendations
29 Outcome12Months	Patient first outcome at 12 months from the start of the treatment
30 Outcome24Months	The first outcome observed 13 to 24 months from the start of treatment
31 Outcome36Months	The first outcome observed 25 to 36 months from the start of treatment
32 ResultCulture	The result of the culture test for <i>Mycobacterium tuberculosis</i> complex
33 ResultMicroscopy	The result of the microscopy test performed
34 ResultOtherTest	Additional lab test results
35 Pathogen	Species and gene (<i>M. tuberculosis</i> complex) of the pathogen which is the cause of the reported disease
36 HIVStatus	Result of the last HIV test
37 SIR_AMK	Susceptibility to Amikacin (without Intermediate)
38 SIR_BDQ	Susceptibility to Bedaquiline
39 SIR_CAP	Susceptibility to Capreomycin (without Intermediate)
40 SIR_CIP	Susceptibility to Ciprofloxacin (without Intermediate)
41 SIR_DLM	Susceptibility to Delamanid
42 SIR_ETH	Susceptibility to Ethambutol
43 SIR_GAT	Susceptibility to Gatifloxacin
44 SIR_INH	Susceptibility to Isoniazid
45 SIR_KAN	Susceptibility to Kanamycin
46 SIR_LVX	Susceptibility to Levofloxacin
47 SIR_MFX	Susceptibility to Moxifloxacin
48 SIR_OFX	Susceptibility to Ofloxacin
49 SIR_RIF	Susceptibility to Rifampicin
50 SIR_STR	Susceptibility to Streptomycin
51 IsolateID	Unique identifier for each isolate within the data source / lab system related to the case
52 ECDCIsolateID	Identifier for each isolate record that is guaranteed to be unique across countries/labs/pathogens and not contain additional encoded information
53 SpoligoCode	Spoligo pattern code
54 RflpCode	National cluster code based on IS6110 RFLP
55 MiruCode	MIRU pattern code
56 BeijingGenotype	Beijing genotype identification

Note: Variables 51–56 are optional, complementary for TB molecular surveillance.

^a Notification of TB cases for 2016, treatment outcome data updated for cohort 2015 and MDR TB treatment outcome data updated for cohort 2014 and XDR TB treatment outcome data for cohort 2013.

^b Optional for TB reporting.

Annex 3: Reporting completeness of main variables used for the report^a

Country	Age	Gender	Origin ^b	CountryOfOrigin	Site	Previous treatment history ^c	Diagnosed ante mortem	Result Culture	Result Microscopy	Result Other test	DST FLD ^d	DST SLD ^e	HIV Status ^f	Enrolled in treatment	Outcome12Months ^g	Outcome24Months ^h	Outcome36Months ⁱ
Austria	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(76.2)	(100.0)	(91.8)	(84.2)	(83.1)	(96.7)	(100.0)	(0.0)	(0.0)	(88.9)	(75.0)	(100.0)
Belgium	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(78.1)	(100.0)	(95.4)	(96.5)	(59.8)	(96.0)	(100.0)	(45.7)	(98.5)	(96.9)	(90.6)	-
Bulgaria	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(85.9)	(86.8)	(5.5)	(87.7)	(100.0)	(78.6)	(100.0)	(99.2)	(100.0)	(100.0)
Croatia	(100.0)	(100.0)	(35.7)	(100.0)	(74.1)	(68.0)	(0.0)	(57.0)	(0.0)	(0.0)	(100.0)	-	(0.0)	(83.7)	(20.0)	(50.0)	-
Cyprus	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(90.0)	(81.7)	(13.3)	(97.6)	(100.0)	(80.0)	(100.0)	(69.8)	-	-
Czech Republic	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(98.3)	(88.6)	(58.3)	(93.6)	(83.3)	(39.7)	(100.0)	(99.0)	(60.0)	-
Denmark	(100.0)	(100.0)	(100.0)	(99.1)	(98.8)	(100.0)	(100.0)	(95.8)	(97.3)	(69.4)	(97.7)	(100.0)	(45.5)	(100.0)	(58.8)	(50.0)	(100.0)
Estonia	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(98.4)	(98.4)	(79.7)	(97.4)	(100.0)	(95.8)	(100.0)	(96.0)	(96.0)	(100.0)
Finland	(100.0)	(100.0)	(96.6)	(95.3)	(100.0)	(97.9)	(100.0)	(78.8)	(78.4)	(39.8)	(98.4)	(100.0)	(0.0)	(89.8)	(41.5)	(0.0)	-
France	(94.3)	(94.3)	(55.6)	(0.0)	(94.3)	(5.7)	(0.0)	(53.1)	(0.0)	(0.0)	(100.0)	(97.2)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Germany	(100.0)	(99.8)	(93.9)	(94.9)	(100.0)	(11.3)	(98.6)	(83.1)	(55.2)	(75.3)	(90.2)	(63.4)	(0.0)	(99.6)	(82.5)	(58.7)	(0.0)
Greece	(98.9)	(100.0)	(100.0)	(96.6)	(97.1)	(95.0)	(0.0)	(48.5)	(81.5)	(39.3)	(50.4)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	-
Hungary	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(92.0)	(91.1)	(0.0)	(84.2)	(83.3)	(2.4)	(100.0)	(96.5)	(100.0)	(100.0)
Iceland	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(80.0)	-	(100.0)	(100.0)	(100.0)	-	-
Ireland	(100.0)	(100.0)	(96.2)	(96.2)	(96.9)	(75.8)	(100.0)	(83.6)	(53.5)	(47.2)	(97.1)	(83.3)	(41.5)	(100.0)	(61.8)	(50.0)	(100.0)
Italy	(91.7)	(98.6)	(91.5)	(84.9)	(100.0)	(79.3)	(0.0)	(80.9)	(63.9)	(0.0)	(100.0)	(78.6)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)
Larvia	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(95.8)	(93.6)	(9.5)	(95.9)	(100.0)	(76.8)	(100.0)	(100.0)	(98.6)	(100.0)
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	(0.0)	-	-	-	-
Lithuania	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(1.6)	(100.0)	(100.0)	(78.9)	(100.0)	(100.0)	(98.2)	(100.0)
Luxembourg	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(3.4)	(100.0)	(100.0)	(100.0)	(0.0)	(96.2)	(0.0)	(17.2)	(100.0)	(0.0)	(0.0)	-
Malta	(100.0)	(100.0)	(100.0)	(98.0)	(100.0)	(100.0)	(100.0)	(84.0)	(68.0)	(34.0)	(100.0)	-	(92.0)	(100.0)	(0.0)	-	(0.0)
Netherlands	(100.0)	(100.0)	(99.3)	(99.3)	(99.7)	(99.4)	(100.0)	(79.3)	(71.9)	(16.0)	(100.0)	(100.0)	(62.3)	(100.0)	(97.4)	(85.7)	-
Norway	(100.0)	(100.0)	(100.0)	(100.0)	(99.7)	(92.6)	(100.0)	(89.3)	(85.6)	(84.6)	(99.1)	(100.0)	(86.0)	(99.3)	(100.0)	(90.9)	(0.0)
Poland	(100.0)	(100.0)	(100.0)	(99.9)	(100.0)	(100.0)	(100.0)	(89.1)	(87.7)	(14.1)	(91.7)	(84.8)	(0.0)	(0.1)	(74.1)	(57.1)	(100.0)
Portugal	(99.7)	(100.0)	(100.0)	(100.0)	(99.2)	(100.0)	(100.0)	(67.1)	(76.1)	(29.7)	(70.3)	(41.7)	(66.0)	(100.0)	(100.0)	(84.0)	(100.0)
Romania	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(94.6)	(95.6)	(11.1)	(88.7)	(45.4)	(78.1)	(100.0)	(99.9)	(100.0)	(100.0)
Slovakia	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(94.6)	(92.2)	(26.7)	(96.6)	(100.0)	(44.6)	(100.0)	(94.3)	(100.0)	-
Slovenia	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(86.4)	(86.4)	(93.2)	(100.0)	-	(80.5)	(100.0)	(100.0)	-	-
Spain	(100.0)	(100.0)	(87.7)	(78.1)	(100.0)	(61.5)	(0.0)	(82.9)	(86.1)	(26.1)	(26.6)	(92.9)	(60.0)	(0.0)	(0.0)	(0.0)	(0.0)
Sweden	(100.0)	(100.0)	(100.0)	(99.9)	(100.0)	(92.3)	(100.0)	(100.0)	(74.8)	(69.6)	(99.7)	(100.0)	(0.0)	(100.0)	(95.3)	(93.3)	(100.0)
United Kingdom	(100.0)	(100.0)	(97.7)	(93.6)	(99.6)	(94.9)	(100.0)	(63.1)	(64.7)	(14.5)	(97.0)	(89.3)	(0.0)	(98.5)	(98.1)	(94.6)	(100.0)
Total EU/EEA countries	(98.9)	(99.4)	(93.3)	(87.5)	(99.2)	(76.8)	(74.8)	(82.2)	(72.5)	(22.3)	(87.4)	(74.4)	(33.9)	(63.4)	(70.6)	(78.5)	(80.1)

^a Data in green obtained from WHO tuberculosis monitoring and evaluation database (TME).

^b For determining the origin two variables merged: BornReportingCountry and NationalityReportingCountry depending on Member State's preference.

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

^d FLD DST – drug susceptibility testing for first line TB drugs calculated for confirmed TB cases.

^e DST SLD – drug susceptibility testing for second line TB drugs, calculated only for MDR TB cases (Croatia, Iceland, Malta and Slovenia reported zero MDR TB cases for 2016).

^f Finland reported only positive HIV cases to WHO Global TB database; they are therefore not published in this report.

^g Data for 2015 cohort.

^h Data for MDR 2014 cohort (Cyprus, Iceland, Malta and Slovenia reported zero MDR TB cases in 2014).

ⁱ Data for XDR 2013 cohort (Belgium, Croatia, Cyprus, Finland, Luxembourg, Slovakia and Slovenia reported zero XDR TB cases in 2013).

Annex 4: Reporting completeness into Global TB database, 2016

Country	Identification (%) (17 fields)	Notification (%) (53 fields)	Anti-tuberculosis drug resistance surveillance (%) (40 fields)	Treatment outcome of TB cases by risk categories (%) (87 fields)	Implementing Stop TB strategy (%) (83 fields)	Budget and expenditure (%) (87 fields)
EU/EEA						
Austria	(82.4)	(83.0)	(75.0)	(43.7)	(7.2)	(4.6)
Belgium	(100.0)	(84.9)	(90.0)	(93.1)	(48.2)	(8.0)
<i>Bulgaria</i>	<i>(94.1)</i>	<i>(90.6)</i>	<i>(90.0)</i>	<i>(58.6)</i>	<i>(85.5)</i>	<i>(85.1)</i>
Croatia	(64.7)	(84.9)	(57.5)	(50.6)	(47.0)	(5.7)
Cyprus	(0.0)	(60.4)	(90.0)	(35.6)	(0.0)	(2.3)
Czech Republic	(70.6)	(92.5)	(90.0)	(93.1)	(61.4)	(12.6)
Denmark	(0.0)	(54.7)	(90.0)	(49.4)	(0.0)	(2.3)
<i>Estonia</i>	<i>(100.0)</i>	<i>(90.6)</i>	<i>(90.0)</i>	<i>(90.8)</i>	<i>(80.7)</i>	<i>(100.0)</i>
Finland	(58.8)	(84.9)	(75.0)	(29.9)	(49.4)	(12.6)
France	(82.4)	(77.4)	(42.5)	(1.1)	(44.6)	(11.5)
Germany	(88.2)	(62.3)	(75.0)	(43.7)	(37.3)	(5.7)
Greece	(41.2)	(60.4)	(57.5)	(0.0)	(0.0)	(2.3)
Hungary	(100.0)	(79.2)	(90.0)	(59.8)	(59.0)	(10.3)
Iceland	(0.0)	(60.4)	(72.5)	(35.6)	(0.0)	(2.3)
Ireland	(88.2)	(86.8)	(90.0)	(72.4)	(66.3)	(9.2)
Italy	(29.4)	(15.1)	(90.0)	(0.0)	(38.6)	(4.6)
<i>Latvia</i>	<i>(100.0)</i>	<i>(92.5)</i>	<i>(90.0)</i>	<i>(100.0)</i>	<i>(78.3)</i>	<i>(49.4)</i>
Liechtenstein	-	-	-	-	-	-
<i>Lithuania</i>	<i>(58.8)</i>	<i>(94.3)</i>	<i>(90.0)</i>	<i>(100.0)</i>	<i>(80.7)</i>	<i>(29.9)</i>
Luxembourg	(88.2)	(84.9)	(72.5)	(23.0)	(51.8)	(6.9)
Malta	(64.7)	(96.2)	(72.5)	(23.0)	(42.2)	(6.9)
Netherlands	(88.2)	(92.5)	(90.0)	(78.2)	(54.2)	(11.5)
Norway	(58.8)	(75.5)	(90.0)	(50.6)	(59.0)	(12.6)
Poland	(94.1)	(81.1)	(75.0)	(58.6)	(45.8)	(4.6)
Portugal	(76.5)	(88.7)	(90.0)	(100.0)	(69.9)	(27.6)
<i>Romania</i>	<i>(100.0)</i>	<i>(90.6)</i>	<i>(90.0)</i>	<i>(100.0)</i>	<i>(90.4)</i>	<i>(100.0)</i>
Slovakia	(70.6)	(92.5)	(90.0)	(93.1)	(77.1)	(14.9)
Slovenia	(88.2)	(92.5)	(72.5)	(79.3)	(79.5)	(12.6)
Spain	(0.0)	(60.4)	(80.0)	(0.0)	(0.0)	(2.3)
Sweden	(58.8)	(86.8)	(75.0)	(49.4)	(39.8)	(11.5)
United Kingdom	(94.1)	(81.1)	(75.0)	(63.2)	(54.2)	(5.7)
Subtotal EU/EEA	(65.8)	(76.7)	(78.0)	(52.0)	(46.7)	(18.6)
Non-EU/EEA						
Albania	(88.2)	(94.3)	(72.5)	(86.2)	(92.8)	(27.6)
Andorra	(70.6)	(92.5)	(100.0)	(100.0)	(54.2)	(12.6)
<i>Armenia</i>	<i>(100.0)</i>	<i>(98.1)</i>	<i>(100.0)</i>	<i>(79.3)</i>	<i>(73.5)</i>	<i>(92.0)</i>
<i>Azerbaijan</i>	<i>(88.2)</i>	<i>(94.3)</i>	<i>(82.5)</i>	<i>(79.3)</i>	<i>(71.1)</i>	<i>(21.8)</i>
<i>Belarus</i>	<i>(88.2)</i>	<i>(98.1)</i>	<i>(100.0)</i>	<i>(100.0)</i>	<i>(90.4)</i>	<i>(80.5)</i>
Bosnia and Herzegovina	(100.0)	(92.5)	(100.0)	(72.4)	(74.7)	(94.3)
former Yugoslav Republic of Macedonia, the	(88.2)	(94.3)	(100.0)	(100.0)	(100.0)	(34.5)
<i>Georgia</i>	<i>(100.0)</i>	<i>(98.1)</i>	<i>(85.0)</i>	<i>(93.1)</i>	<i>(91.6)</i>	<i>(98.9)</i>
Israel	(88.2)	(86.8)	(90.0)	(79.3)	(38.6)	(5.7)
<i>Kazakhstan</i>	<i>(100.0)</i>	<i>(94.3)</i>	<i>(27.5)</i>	<i>(65.5)</i>	<i>(71.1)</i>	<i>(98.9)</i>
<i>Kyrgyzstan</i>	<i>(100.0)</i>	<i>(96.2)</i>	<i>(70.0)</i>	<i>(65.5)</i>	<i>(81.9)</i>	<i>(98.9)</i>
<i>Moldova</i>	<i>(100.0)</i>	<i>(100.0)</i>	<i>(100.0)</i>	<i>(79.3)</i>	<i>(89.2)</i>	<i>(98.9)</i>
Monaco	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(2.3)
Montenegro	(88.2)	(94.3)	(70.0)	(100.0)	(73.5)	(73.6)
<i>Russia</i>	<i>(70.6)</i>	<i>(90.6)</i>	<i>(22.5)</i>	<i>(67.8)</i>	<i>(68.7)</i>	<i>(100.0)</i>
San Marino	(88.2)	(90.6)	(100.0)	(100.0)	(65.1)	(14.9)
Serbia	(100.0)	(90.6)	(87.5)	(65.5)	(90.4)	(100.0)
Serbia excluding UN Administered Province of Kosovo ^a	(100.0)	(90.6)	(87.5)	(76.0)	(90.4)	(100.0)
UN Administered Province of Kosovo ^a	(88.2)	(81.1)	(80.0)	(78.2)	65.1	(48.3)
Switzerland	(82.4)	(73.6)	(80.0)	(14.9)	(44.6)	(14.9)
<i>Tajikistan</i>	<i>(100.0)</i>	<i>(100.0)</i>	<i>(100.0)</i>	<i>(86.2)</i>	<i>(100.0)</i>	<i>(98.9)</i>
<i>Turkey</i>	<i>(100.0)</i>	<i>(88.7)</i>	<i>(100.0)</i>	<i>(82.8)</i>	<i>(78.3)</i>	<i>(31.0)</i>
<i>Turkmenistan</i>	<i>(82.4)</i>	<i>(62.3)</i>	<i>(15.0)</i>	<i>(23.0)</i>	<i>(49.4)</i>	<i>(33.3)</i>
<i>Ukraine</i>	<i>(100.0)</i>	<i>(96.2)</i>	<i>(55.0)</i>	<i>(100.0)</i>	<i>(91.6)</i>	<i>(97.7)</i>
<i>Uzbekistan</i>	<i>(76.5)</i>	<i>(96.2)</i>	<i>(27.5)</i>	<i>(21.8)</i>	<i>(34.9)</i>	<i>(21.8)</i>
Subtotal non-EU/EEA	(90.8)	(91.5)	(76.7)	(76.1)	(70.7)	(60.9)
Total European Region	(76.5)	(83.0)	(77.5)	(63.5)	(56.9)	(36.6)
Subtotal 18 HPC	(92.2)	(92.9)	(74.2)	(77.4)	(78.2)	(74.3)

^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, 2016^a

Country	Country laboratory network										International proficiency testing of national reference laboratory		
	Microscopy		Culture	DST for Isoniazid and Rifampicin		Line Probe Assay	Xpert MTB/Rif (N)	Year	Percentage agreement of results for:		Acceptable performance ^c		
	No of laboratories performing	EQA passed ^b	No of laboratories performing	No of laboratories performing	EQA passed ^b				Isoniazid	Rifampicin			
EU/EEA													
Austria	–	–	–	–	–	–	–	–	–	–	–	–	
Belgium	103	0	114	14	14	–	20	2016	100	100	Y		
Bulgaria	33	33	30	33	33	1	4	2015	100	100	Y		
Croatia	15	1	5	5	5	0	1	2016	–	–	–		
Cyprus	–	–	–	–	–	–	–	–	–	–	–		
Czech Republic	39	39	39	18	18	8	5	2016	100	100	Y		
Denmark	–	–	–	–	–	–	–	–	–	–	–		
Estonia	6	6	2	0	0	0	4	2016	100	100	Y		
Finland	9	9	9	0	0	2	5	2016	100	100	Y		
France	150	150	150	58	0	0	60	2016	100	100	Y		
Germany	255	255	191	0	0	0	71	2016	100	100	Y		
Greece	–	–	–	–	–	–	–	–	–	–	–		
Hungary	11	10	11	7	4	2	3	2016	100	100	Y		
Iceland	–	–	–	–	–	–	–	–	–	–	–		
Ireland	10	9	10	2	2	0	6	2016	100	100	Y		
Italy	42	0	42	42	35	12	32	2016	99	99	Y		
Latvia	12	12	5	1	1	1	2	2016	100	100	Y		
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–		
Lithuania	11	9	6	6	5	1	5	2016	–	–	–		
Luxembourg	1	1	1	1	1	–	0	2016	100	100	Y		
Malta	1	1	1	0	0	0	1	0	–	–	–		
Netherlands	–	–	30	7	–	–	–	2016	100	100	Y		
Norway	15	15	9	3	3	0	4	2016	100	100	Y		
Poland	54	1	54	30	1	1	10	2016	100	100	Y		
Portugal	–	–	–	–	–	–	–	–	–	–	–		
Romania	96	73	87	40	2	0	19	2016	100	100	Y		
Slovakia	4	4	4	2	2	1	1	2016	100	100	Y		
Slovenia	2	2	2	1	1	1	2	2016	100	100	Y		
Spain	–	–	–	–	–	–	–	–	–	–	–		
Sweden	5	5	5	0	–	–	–	2016	100	100	Y		
United Kingdom	77	77	68	1	1	–	–	2016	100	100	Y		
Subtotal EU/EEA	951	712	875	271	128	30	255	2015–2016	100	100	20		
Non-EU/EEA													
Albania	12	1	1	1	1	0	0	2016	100	100	Y		
Andorra	8	0	8	8	0	0	0	–	–	–	N		
Armenia	26	26	1	0	0	1	2	2016	100	100	Y		
Azerbaijan	67	23	7	3	3	2	10	2016	–	–	N		
Belarus	151	94	28	0	0	0	28	2016	100	100	Y		
Bosnia and Herzegovina	9	9	13	7	3	2	0	2016	100	100	Y		
former Yugoslav Republic of Macedonia, the	7	7	3	1	0	0	1	2015	100	100	Y		
Georgia	11	11	2	1	1	2	13	2015	100	100	Y		
Israel	19	0	19	2	2	1	0	2016	100	100	Y		
Kazakhstan	332	332	50	22	16	9	22	2015	100	100	Y		
Kyrgyzstan	131	129	5	0	0	2	13	2016	100	100	Y		
Moldova	58	58	4	0	0	0	58	2016	95	95	N		
Monaco	–	–	–	–	–	–	–	–	–	–	–		
Montenegro	1	1	1	1	1	0	1	2016	100	100	Y		
Russia	6076	635	397	303	96	12	189	–	–	–	N		
San Marino	1	1	1	0	0	0	1	–	–	–	N		
Serbia	40	10	32	6	6	1	4	2016	100	100	Y		
Serbia excluding UN Administered Province of Kosovo ^d	31	1	29	4	4	1	2	2016	100	100	Y		
UN Administered Province of Kosovo ^d	9	9	3	2	2	0	2	0	100	100	Y		
Switzerland	34	34	21	11	11	5	33	2016	–	–	N		
Tajikistan	84	81	6	1	1	3	15	2016	100	100	Y		
Turkey	307	119	126	66	0	5	25	2016	100	100	Y		
Turkmenistan	61	61	5	4	1	1	6	–	–	–	N		
Ukraine	883	666	94	35	25	3	53	–	–	–	N		
Uzbekistan	294	2	6	2	2	6	20	–	–	–	N		
Subtotal non-EU/EEA	8612	2300	830	474	169	55	494	2016	99.7	99.7	14		
Total European Region	9563	3012	1705	745	297	85	749	2015–2016	97.1	97.1	34		
Subtotal 18 HPC	8578	2309	856	513	185	48	478	2015–2016	91.9	91.9	13		

^a 'European Region' comprises the 53 high-priority 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 ¹	Input-impact level
1. INTEGRATED, PATIENT-CENTRED 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 latent TB infection (LTBI) ³	N/A	80%	Annually	National TB Programme	Desk review/ routine reporting	Numerator: total number of people screened for TB and/or LTBI in a defined period. Denominator: total number of people at risk according to the national guidelines in the same period.	Output
1.B. Early diagnosis of all forms of tuberculosis and universal access to drug-susceptibility testing, including the use of rapid tests								
1.B. 1	Percentage of newly notified TB patients diagnosed using WHO-recommended rapid tests (G9) ⁴	N/A	40%	Annually	National TB Programme	Desk review/ routine reporting	Numerator: total number of newly notified TB patients diagnosed with WHO-recommended rapid tests, divided by the total number of newly notified TB patients. Denominator: total number of newly notified TB patients WHO-HQ indicator 4. Percentage of newly notified TB patients diagnosed using WHO-recommended rapid tests: number of newly notified TB patients diagnosed with WHO-recommended rapid tests, divided by the total number of newly notified TB patient.	Outcome
1.B. 2	First line DST coverage among all bacteriologically confirmed TB cases (G7)	92%	100%	Annually	WHO Global TB database	Routine reporting	Numerator: total number of TB patients with FLD DST results (includes results from molecular (e.g. Xpert MTB/RIF) as well as conventional phenotypic DST results) Denominator: total number of bacteriologically confirmed TB patients notified. WHO-HQ indicator 7 DST coverage for TB patients: 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.	Outcome
1.B. 3	RR/MDR TB case detection rate ⁵	47%	85%	Annually	WHO Global TB database	Routine reporting/ WHO estimate	Numerator: total number of notified TB cases Denominator: total number of estimated TB cases	Outcome
1.B. 4	TB notification rate per 100 000 population (E1)	32.8	24.6	Annually	WHO Global TB database	Routine reporting	Numerator: total number of new and relapse TB cases notified Denominator: population number/100000	Impact
1.B. 5	TB case detection rate (%)	84%	Increase	Annually	WHO Global TB database	Routine reporting/ WHO estimate	Numerator: total number of notified TB cases Denominator: total number of estimated TB cases	Outcome
1.B. 6	Percentage of RR/MDR TB among new TB patients (E2)	17%	Decrease	Annually	WHO Global TB database	Routine reporting	Numerator: total number of laboratory confirmed new MDR TB cases Denominator: total number of new TB cases with DST results	Impact
1.B. 7	Percentage of RR/MDR TB among previously treated TB patients	48%	Decrease	Annually	WHO Global TB database	Routine reporting	Numerator: total number of laboratory confirmed previously treated MDR TB cases Denominator: total number of previously treated TB cases with DST results	Impact
1.C. Equitable access to quality treatment and continuum of care for all people with tuberculosis, including drug-resistant tuberculosis, and patient support to facilitate treatment adherence								
1.C. 1	Percentage of hospitalisation of new TB patients (E3)	N/A	Decrease	2016 and 2020	National TB Programme	Desk review/ routine reporting	Numerator: total number of new TB cases hospitalized in a specified period Denominator: total number of new TB cases registered in the same period	Outcome
1.C. 2	Percentage of detected RR/MDR TB enrolled in treatment (G3) (E4)	62%	100%	Annually	WHO Global TB database	Routine reporting	Numerator: total number of laboratory confirmed RR/MDR TB cases enrolled into SLD treatment inline with WHO recommendations Denominator: total number of laboratory confirmed RR/MDR TB cases notified WHO-HQ indicator 1 TB treatment coverage: number of new and relapse cases that were notified and treated, divided by the estimated number of incident TB cases in the same year, expressed as a percentage	Output
1.C. 3	TB treatment success rate (G2)	75%	85%	Annually	WHO Global TB database	Routine reporting	Numerator: new and relapse TB cases registered in a specified period that were successfully treated Denominator: total number of new and relapse TB cases registered in the same period WHO-HQ indicator 2 TB treatment success rate: percentage of notified TB patients who were successfully treated. The target is for drug-susceptible and drug-resistant TB combined, although outcomes should also be reported separately.	Outcome

¹ Some of data for 'desk review' assessment are collected through routine reporting at European level and analysed in this report.

² Two indicators of 'MDR TB' in the 'Roadmap to implement the tuberculosis action plan for the WHO European Region 2016-2020' were updated to 'RR/MDR TB' in the follow-up process.

³ In this report analysed only for TB contacts (check the indicator 1.E.1).

⁴ End TB Strategy global indicators marked with (G) and WHO European Region indicators with (E).

⁵ Updated to RR/MDR TB compared to the original document (MDR TB); Roadmap to implement the tuberculosis action plan for the WHO European Region 2016-2020.

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

Area of intervention	Indicator	Baseline for WHO European Region (2014)	Target	Frequency of assessment	Data source	Monitoring mechanism	Indicator definition	Input-impact level
1.C. 4	RR/MDR TB treatment success rate (G2) (E5)	49%	75%	Annually	WHO Global TB database	Routine reporting	Numerator: number of confirmed RR/MDR TB cases during the specified period that were successfully treated Denominator: number of confirmed RR/MDR TB cases that started on a prescribed MDR TB treatment regimen during the specified period. WHO-HQ indicator 2b	Outcome
1.C. 5	TB mortality rate (ICD A15–19) (G10) (E6)	4.1	2.7	Annually	WHO Global TB database	Routine reporting	TB treatment success rate: percentage of notified TB patients who were successfully treated. The target is for drug-susceptible and drug-resistant TB combined, although outcomes should also be reported separately. Numerator: estimated number of TB deaths (from VRS) Denominator: total population/100 000 WHO-HQ indicator 10. Case fatality ratio (CFR): number of TB deaths (from a national VR system) divided by estimated number of incident cases in the same year, expressed as a percentage	Impact
1.D Collaborative tuberculosis/HIV activities, and management of relevant comorbidities								
1.D. 1	Percentage of detected out of estimated incident TB/HIV co-infected cases	85%	90%	Annually	WHO Global TB database	Routine reporting/ WHO estimation	Numerator: total number of registered HIV co-infected TB patients in a specified period Denominator: total number of estimated TB/HIV co-infected patients	Outcome
1.D. 2	HIV testing coverage (G9) (E7)	68%	100%	Annually	WHO Global TB database	Routine reporting	Numerator: total number of registered TB patients in a specified period with reported HIV status Denominator: total number of registered TB patients in the same period WHO-HQ indicator 9. Documentation of HIV status among TB patients: 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	Process
1.D. 3	Percentage of HIV among all TB	8%	Decrease	Annually	WHO Global TB database	Routine reporting	Numerator: total number of registered TB patients in a specified period who are HIV positive Denominator: total number of registered TB patients in the same period with documented HIV test results	Impact
1.D. 4	Percentage of TB/HIV patients enrolled in ART	54%	100%	Annually	WHO Global TB database	Routine reporting	Numerator: total number of registered TB/HIV patients in a specified period who are enrolled in antiretroviral therapy (ART) Denominator: total number of registered TB patients in the same period who are HIV positive	Output
1.D. 5	LTBI treatment coverage among PLHIV (G5a)	5%	30%	Annually	WHO Global TB database	Routine reporting	Numerator: total number of new HIV cases enrolled in LTBI treatment in a specified period Denominator: total number of new HIV cases eligible for LTBI treatment in the same period WHO-HQ indicator 5a (composed) LTBI treatment coverage: number of people living with HIV newly enrolled in HIV care started on LTBI treatment, divided by the number eligible for treatment, expressed as percentage	Output
1.E Management of latent tuberculosis infection and preventive treatment of persons at high risk and vaccination against tuberculosis								
1.E. 1	Contact investigation coverage (G2) (E7)	N/A	90%	2016 and 2020	National TB Programme	Desk review/ routine reporting	Numerator: number of contacts of people with bacteriologically-confirmed TB who were investigated for TB/LTBI in a defined period Denominator: the number of contacts eligible for contact investigation in the same period WHO-HQ indicator 6 Contact investigation coverage: number of contacts of people with bacteriologically-confirmed TB who were investigated for TB divided by the number eligible, expressed as a percentage	Output
1.E. 2	LTBI treatment coverage of childhood TB contacts aged under 5 years (G5b) (E8)	N/A	90%	2016 and 2020		Desk review/ routine reporting	Numerator: total number of child TB contacts age 5 years enrolled in LTBI treatment in a defined period Denominator: number of child TB contact cases eligible for LTBI treatment in the same period WHO-HQ indicator 5b (composed) LTBI treatment coverage: number of children who are contacts of cases started on LTBI treatment, divided by the number eligible for treatment, expressed as percentage	Output

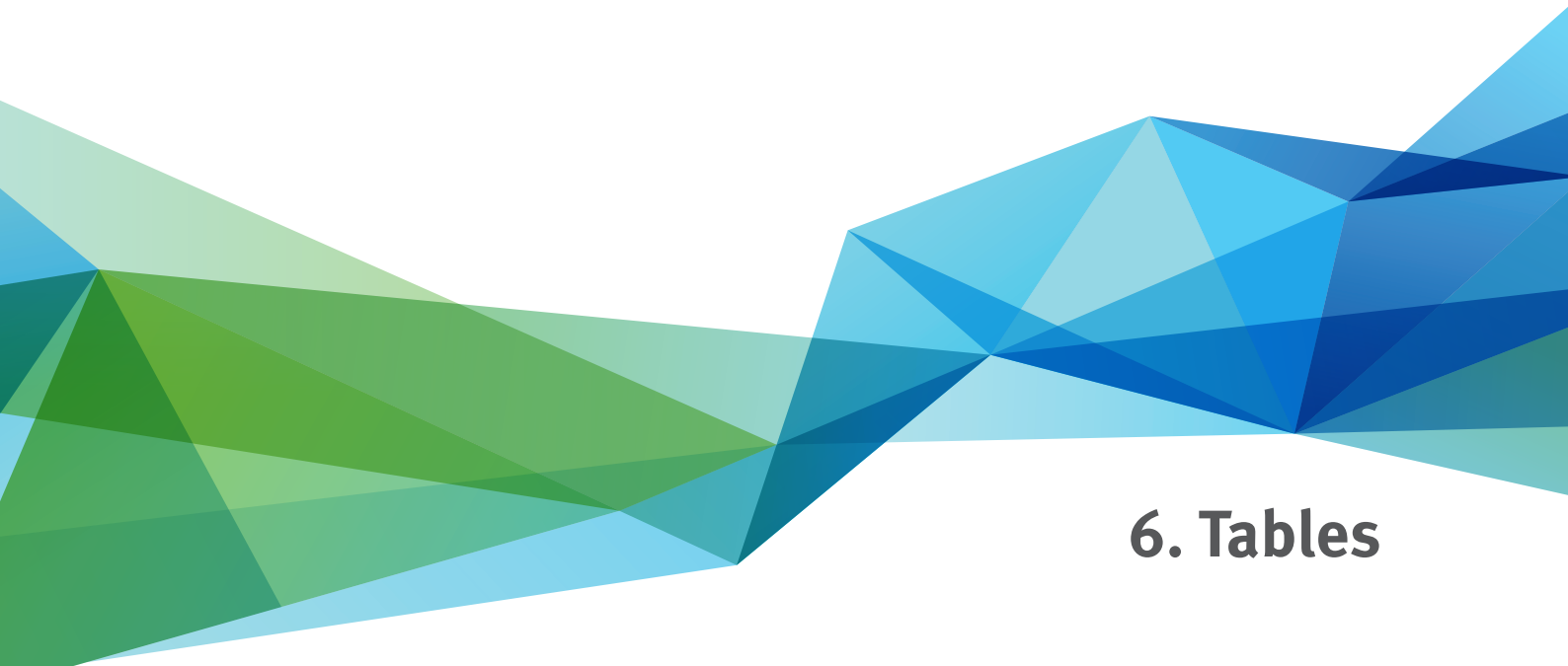
* Some of data for 'desk review' assessment are collected through routine reporting at European level and analysed in this report.

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

Area of intervention	Indicator	Baseline for WHO European Region (2014)	Target	Frequency of assessment	Data source	Monitoring mechanism ¹	Indicator definition	Input-impact level
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 TB control/elimination performance publicly available (E8)	N/A	53	cumulative 2016–2020	National TB Programme	Desk review	Not assessed for this publication	Output
2.B. Health systems strengthening in all functions, including well-aligned financing mechanisms for tuberculosis and human resources²								
2.B. 1	Percentage of TB-affected households that experience catastrophic costs due to TB (G3) (E9)	N/A	Close to 0	annually	National TB Programme	Desk review	Percentage of TB-affected households that experience catastrophic costs due to TB: 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	Impact
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 (G8) (E9) ³	N/A	30%	cumulative 2016–2020	National TB Programme	Desk review	Numerator: number of TB patients treated with regimens including new drugs Denominator: number of notified patients eligible for treatment with new TB drugs WHO-HQ indicator 3 Treatment coverage, new TB drugs 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	Process
2.D. Regulatory frameworks for case-based surveillance, strengthening vital registration, quality and rational use of medicines, and pharmacovigilance								
2.D. 1	Number of Member States with functioning multi-stakeholder coalitions advocating for TB care and resources	N/A	53	cumulative 2016–2020	National TB Programme	Desk review	Not defined yet	Output
2.E. Social protection, poverty alleviation and actions on other determinants of tuberculosis, such as migration and prisons								
2.E. 1	Treatment success rate (%) of new and relapsed TB cases among prisoners	63.2%	85.0%	annually	National TB Programme	Routine reporting	Numerator: new and relapse TB cases registered in a specified period that were successfully treated in prisons Denominator: total number of new and relapse TB cases registered in the same period in prisons	Impact
3. INTENSIFIED RESEARCH AND INNOVATION								
3.A. Social protection, poverty alleviation and actions on other determinants of tuberculosis, such as migration and prisons								
3.A. 1	European Tuberculosis Research Initiative established by mid 2016	N/A	Established	cumulative 2016–2020	National TB Programme	Desk review	Not defined yet	Output

¹ Some of data for 'desk review' assessment are collected through routine reporting at European level and analysed in this report.

² Data are not available for this report.



6. Tables

Summary table: Tuberculosis surveillance data by region, European Region, 2016

	Table showing data by country	Region							
		EU/EEA		Non-EU/EEA		Total		18 High-Priority Countries (HPC)	
		Number of reporting countries ^a		Number of reporting countries ^a		Number of reporting countries ^a		Number of reporting countries ^a	
Total population (millions)	-	30	515.8	23	402.5	53	916.3	18	400.9
Estimates of TB disease burden 2016^b									
Estimated TB mortality rate (excluding HIV-related deaths) per 100 000 population	1	30	0.8	23	5.5	53	2.8	18	5.7
Estimated TB incidence rate per 100 000 population	1	30	12.3	23	56.6	53	32.0	18	60.4
TB mortality rate per 100 000 population	1	30	0.8	23	5.5	53	2.8	18	5.7
Estimated RR TB among all notified pulmonary TB cases	1	30	1800	23	70 000	53	71 000	18	70 000
Estimated proportion of HIV-infection among incident TB cases (new and relapses)	2	30	5.9	23	13.1	53	12.0	18	12.5
Notifications of TB cases, 2016									
Total number of TB cases	3	30	58 994	22	238 138	52	297 132	17	251 625
All TB cases per 100 000 population	3	30	11.4	22	59.2	52	32.8	17	64.2
Mean annual % change of notification rate (2012-2016)	3	30	-4.5%	20	-6.1%	50	-5.3%	17	-5.6%
Number of new TB cases and relapses	4	30	56 062	21	197 034	51	253 096	17	209 554
New TB cases and relapses per 100 000 population	4	30	10.9	21	48.9	51	28.0	17	53.5
Mean annual % change of notification rate of new TB cases and relapses (2012-2016)	4	30	-4.3%	20	-5.1%	50	-4.4%	17	-4.7%
Percentage of new cases among all TB cases	5	30	70.4%	21	69.7%	50	69.8%	17	70.0%
Percentage of retreatment cases among all TB cases	5	30	10.5%	21	30.3%	51	26.4%	17	30.0%
Percentage of pulmonary TB among all TB cases	6	30	76.3%	21	70.7%	51	71.8%	17	71.5%
Percentage of bacteriologically-confirmed TB cases among all TB cases	8	29	71.0%	-	-	-	-	-	-
Male-to-female ratio of new TB cases and relapse	9	29	1.5	21	2.0	50	2.0	17	2.0
Percentage of foreign TB cases among all TB cases	10	30	32.7%	20	2.0%	50	8.2%	17	1.6%
TB case confirmation, multidrug resistance (MDR) and extensive drug resistance (XDR), 2016									
Percentage of laboratory-confirmed cases among new pulmonary TB cases ^c	12	30	79.0%	21	58.3%	51	62.0%	17	59.6%
Percentage of DST results reported among new bacteriologically confirmed pulmonary TB cases	12	30	92.7%	21	80.9%	51	83.6%	17	81.7%
Percentage of MDR TB among new pulmonary TB cases	12	30	2.4%	21	22.8%	51	17.7%	17	21.2%
Percentage of MDR TB among previously treated pulmonary TB cases	12	30	15.0%	21	55.4%	51	51.9%	17	53.5%
Percentage of DST results reported among all confirmed TB cases	13	30	87.4%	-	-	-	-	-	-
Percentage of MDR TB among all TB cases	13	30	3.7%	-	-	-	-	-	-
Percentage of XDR-TB among all MDR TB cases with DST for SLD ^d	14	30	20.1%	19	12.9%	49	13.1%	14	13.1%
TB-HIV coinfection, 2016									
Percentage of new TB cases and relapses with known HIV status	16	20	68.8%	20	88.5%	40	86.1%	17	88.6%
Percentage of HIV-positive cases among new TB cases and relapses with known HIV status	16	20	4.4%	20	14.4%	40	13.4%	17	13.6%
Percentage of HIV-positive started at ART	16	12	94.2%	18	65.9%	30	65.1%	14	66.1%
Percentage of all TB cases with known HIV status	16a	20	69.0%	-	-	-	-	-	-
Percentage of HIV-positive cases among all TB cases with known HIV status	16a	20	4.5%	-	-	-	-	-	-
Treatment outcome									
Treatment success of all TB cases reported in 2015	18	24	71.5%	21	76.3%	45	75.3%	18	76.4%
Treatment success of new TB cases and relapses notified in 2015	19	24	74.1%	21	78.0%	45	77.2%	18	78.5%
Treatment success of childhood TB cases notified in 2015	20	21	86.7%	17	93.5%	38	91.9%	15	93.6%
Treatment success of TB/HIV cases notified in 2015	21	15	62.2%	20	62.2%	35	62.2%	16	62.4%
Treatment success of RR/MDR TB cases enrolled in SLD treatment in 2014	22	20	39.4%	21	55.2%	41	54.7%	18	54.8%
Treatment success of all MDR TB cases notified in 2014	23	19	37.5%	-	-	-	-	-	-
Treatment success of all XDR TB cases notified in 2014	24	21	16.7%	19	29.9%	40	29.4%	16	29.4%

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

HPC: 18 'high priority' countries to STOP TB in the WHO European Region: Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Romania, Russia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan.

^b Number of countries with available data included in the statistics.

^c WHO estimates, as published in report: Global tuberculosis control 2016.

^d Laboratory-confirmed means confirmation according to EU case definition for EU/EEA countries and smear and/or culture confirmation for non-EU/EEA countries.

^e SLD: anti-TB treatment with second-line drugs.

Table 1: Estimates of the TB disease burden, European Region 2016

Country	Population ^a	Estimated number of deaths from TB (all forms, excluding HIV)						Estimated number of incident cases (all forms)					
		Number			per 100 000			Number			per 100 000		
		Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High
EU/EEA													
Austria	8 712 137	71	71	72	0.8	0.8	0.8	710	610	820	8.2	7.0	9.5
Belgium	11 358 379	42	41	43	0.4	0.4	0.4	1100	970	1300	10.0	8.5	12.0
<i>Bulgaria</i>	<i>7 131 494</i>	<i>120</i>	<i>120</i>	<i>130</i>	<i>1.7</i>	<i>1.7</i>	<i>1.8</i>	<i>1900</i>	<i>1500</i>	<i>2400</i>	<i>27.0</i>	<i>20.0</i>	<i>34.0</i>
Croatia	4 213 265	27	26	27	0.6	0.6	0.6	520	440	600	12.0	10.0	14.0
Cyprus	1 170 125	5	5	5	0.4	0.4	0.4	66	56	76	5.6	4.8	6.5
Czech Republic	10 610 947	57	56	57	0.5	0.5	0.5	530	450	610	5.0	4.3	5.8
Denmark	5 711 870	13	13	14	0.2	0.2	0.2	350	300	410	6.1	5.3	7.1
Estonia	1 312 442	16	16	16	1.2	1.2	1.2	220	180	250	16.0	14.0	19.0
Finland	5 503 132	31	30	31	0.6	0.5	0.6	260	220	300	4.7	4.0	5.4
France	64 720 690	410	390	430	0.6	0.6	0.7	5000	4400	5600	7.7	6.7	8.6
Germany	81 914 672	320	320	330	0.4	0.4	0.4	6600	5600	7600	8.1	6.9	9.3
Greece	11 183 716	55	53	57	0.5	0.5	0.5	490	420	570	4.4	3.7	5.1
Hungary	9 753 281	72	71	73	0.7	0.7	0.7	860	730	990	8.8	7.5	10.0
Iceland	332 474	2	2	2	0.6	0.6	0.6	7	6	8	2.1	1.8	2.4
Ireland	4 726 078	23	23	23	0.5	0.5	0.5	340	290	390	7.1	6.1	8.2
Italy	59 429 938	330	330	340	0.6	0.6	0.6	3700	3100	4200	6.1	5.3	7.1
Latvia	1 970 530	39	38	39	2.0	1.9	2.0	740	630	850	37.0	32.0	43.0
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	2 908 249	190	190	190	6.5	6.5	6.5	1500	1300	1800	53.0	46.0	62.0
Luxembourg	5 757 747	1	1	1	0.2	0.2	0.2	33	29	39	5.8	5.0	6.7
Malta	429 362	1	1	1	0.2	0.2	0.2	58	49	66	13.0	11.0	15.0
Netherlands	16 987 330	38	37	38	0.2	0.2	0.2	1000	860	1200	5.9	5.1	6.9
Norway	5 254 694	13	13	13	0.2	0.2	0.2	320	270	370	6.1	5.2	7.0
Poland	38 224 410	480	460	510	1.3	1.2	1.3	7100	6000	8200	18.0	16.0	21.0
Portugal	10 371 627	210	210	220	2.0	2.0	2.1	2100	1800	2400	20.0	17.0	23.0
Romania	19 778 083	1000	1000	1000	5.1	5.1	5.1	15000	13000	17000	74.0	64.0	86.0
Slovakia	5 444 218	35	34	35	0.6	0.6	0.6	320	280	370	5.9	5.1	6.9
Slovenia	2 077 862	13	13	13	0.6	0.6	0.6	140	120	160	6.5	5.6	7.5
Spain	46 347 576	280	280	290	0.6	0.6	0.6	4700	4000	5500	10.0	8.7	12.0
Sweden	9 837 533	25	25	25	0.3	0.3	0.3	810	690	930	8.2	7.0	9.5
United Kingdom	65 788 574	350	350	360	0.5	0.5	0.5	6500	5900	7200	9.9	8.9	11.0
Subtotal EU/EEA	513 780 435	4270	4220	4300	0.8	0.8	0.8	63000	60000	66000	12.3	11.7	12.8
Non-EU/EEA													
Albania	2 926 348	8	4	15	0.3	0.1	0.5	480	410	550	16	14	19
Andorra	77 281	0	0	0	0.0	0.0	0.0	5	4	5	6	5.1	6.9
Armenia	2 924 816	62	37	94	2.1	1.3	3.2	1300	980	1600	44.0	34.0	56.0
Azerbaijan	9 725 376	620	610	630	6.4	6.3	6.5	6400	4900	8200	66.0	51.0	84.0
Belarus	9 480 042	230	200	260	2.4	2.1	2.8	4900	3500	6500	52.0	37.0	69.0
Bosnia and Herzegovina	3 516 816	140	120	150	3.9	3.4	4.4	1100	870	1400	32	25	41
former Yugoslav Republic of Macedonia, the	2 081 206	20	20	21	1.0	1.0	1.0	330	250	420	16	12	20
Georgia	3 925 405	190	130	260	4.8	3.4	6.5	3600	3000	4300	92.0	77.0	109.0
Israel	8 191 828	15	15	16	0.2	0.2	0.2	290	250	330	4	3	4.1
Kazakhstan	17 987 736	440	400	480	2.4	2.2	2.7	12000	7700	17000	67.0	43.0	95.0
Kyrgyzstan	5 955 734	430	420	440	7.2	7.0	7.3	8700	7700	9600	145.0	130.0	162.0
Moldova	4 059 608	260	240	270	6.3	5.9	6.7	4100	3500	4700	101.0	87.0	117.0
Monaco	38 499	0	0	0	0.0	0.0	0.0	0	0	0	0	0	0
Montenegro	628 615	1	1	1	0.2	0.2	0.2	100	86	120	16	14	18
Russia	143 964 513	12 000	11 000	12 000	8.2	7.8	8.6	94 000	61 000	135 000	66.0	42.0	94.0
San Marino	33 203	0	0	0	0.0	0.0	0.0	0	0	0	0	0	0
Serbia	8 820 083	84	73	96	1.0	0.8	1.1	1700	1400	2000	19	16	22
Switzerland	8 401 739	20	20	21	0.2	0.2	0.3	660	560	760	8	6.7	9.1
Tajikistan	8 734 951	520	400	660	6.0	4.6	7.6	7500	5700	9400	85.0	65.0	108.0
Turkey	79 512 426	480	350	630	0.6	0.4	0.8	14 000	12 000	16 000	18.0	15.0	20.0
Turkmenistan	5 662 544	430	380	480	7.6	6.7	8.5	3400	2600	4300	60.0	46.0	76.0
Ukraine	44 438 625	4200	4200	4300	9.5	9.4	9.6	39 000	25 000	55 000	87.0	56.0	124.0
Uzbekistan	31 446 795	1900	1800	1900	5.9	5.9	5.9	24 000	17 000	32 000	76.0	53.0	103.0
Subtotal non-EU/EEA	402 534 189	22 000	21 000	23 000	5.5	5.2	5.7	228 000	188 000	268 000	56.6	46.7	66.6
Total European Region	916 314 624	26 000	25 000	27 000	2.8	2.8	2.9	290 000	251 000	333 000	32.0	27.3	36.3
Subtotal 18 HPC	400 919 369	23 000	22 000	24 000	5.7	5.5	6.0	242 000	202 000	282 000	60.4	50.4	70.3

^a 'European Region' comprises the 53 countries of the WHO European Region. WHO European Region 18 TB high-priority countries presented in italics.

^a Population estimate 2016 by UN Statistical Database for all countries.

	Estimated incidence of child TB cases						Estimated incidence of TB among females						Country	
	Number			per 100 000			Number			per 100 000				
	Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High		
														EU/EEA
	62	53	71	5.0	4.3	5.8	240	200	280	5.4	4.5	6.3		Austria
	100	89	120	5.2	4.6	6.2	380	320	440	6.6	5.5	7.6		Belgium
	190	140	240	18.9	13.9	23.9	630	470	790	17.2	12.8	21.6		Bulgaria
	49	41	56	7.9	6.6	9.0	180	150	210	8.2	6.9	9.6		Croatia
	5	5	6	2.5	2.5	3.0	21	18	25	3.6	3.1	4.3		Cyprus
	43	37	50	2.7	2.3	3.1	180	150	200	3.3	2.8	3.7		Czech Republic
	30	26	35	3.2	2.7	3.7	120	99	130	4.2	3.4	4.5		Denmark
	21	18	24	9.9	8.5	11.3	78	66	90	11.2	9.5	12.9		Estonia
	23	20	27	2.6	2.2	3.0	87	74	100	3.1	2.6	3.6		Finland
	460	400	520	3.9	3.4	4.4	2000	1700	2200	6.1	5.2	6.7		France
	510	440	590	4.8	4.1	5.5	2200	1800	2500	5.3	4.3	6.0		Germany
	37	31	42	2.3	1.9	2.6	160	140	190	2.8	2.5	3.3		Greece
	93	79	110	6.6	5.6	7.9	300	260	350	5.9	5.1	6.8		Hungary
	1	1	1	1.5	1.5	1.5	2	2	3	1.2	1.2	1.8		Iceland
	35	30	41	3.4	2.9	4.0	110	96	130	4.6	4.0	5.5		Ireland
	300	250	340	3.7	3.1	4.2	1300	1100	1500	4.3	3.6	4.9		Italy
	79	67	91	26.3	22.3	30.3	270	230	310	25.3	21.6	29.1		Latvia
	-	-	-	-	-	-	-	-	-	-	-	-		Liechtenstein
	170	140	190	39.8	32.8	44.5	480	400	550	30.6	25.5	35.1		Lithuania
	2	2	3	2.1	2.1	3.2	11	9	12	3.8	3.1	4.2		Luxembourg
	5	5	6	8.1	8.1	9.7	19	16	22	8.9	7.5	10.3		Malta
	83	71	96	2.9	2.5	3.4	330	280	380	3.9	3.3	4.5		Netherlands
	28	24	33	3.0	2.6	3.5	100	88	120	3.8	3.4	4.6		Norway
	690	590	800	12.2	10.4	14.1	2300	2000	2700	11.6	10.1	13.7		Poland
	190	160	220	13.2	11.1	15.3	730	620	840	13.4	11.4	15.4		Portugal
	1600	1400	1900	52.8	46.2	62.7	4800	4100	5500	47.1	40.2	54.0		Romania
	31	27	36	3.7	3.2	4.3	110	94	130	3.9	3.4	4.6		Slovakia
	12	10	14	3.9	3.2	4.5	45	38	52	4.3	3.6	5.0		Slovenia
	420	350	480	6.1	5.1	7.0	1800	1600	2100	7.6	6.8	8.9		Spain
	78	66	90	4.6	3.9	5.3	270	230	310	5.5	4.7	6.3		Sweden
	630	570	700	5.4	4.9	6.0	2700	2400	3000	8.1	7.2	9.0		United Kingdom
	5980	5670	6290	7.5	7.1	7.9	22000	21000	23000	8.4	8.0	8.8		Subtotal EU/EEA
														Non-EU/EEA
	46	39	53	8.9	7.5	10.2	160	130	180	0.0	9.0	12.4		Albania
	0	0	1	0.0	0.0	19.0	2	1	2	5.7	2.8	5.7		Andorra
	140	100	170	24.0	17.2	29.2	330	250	410	21.3	16.1	26.5		Armenia
	760	570	940	33.7	25.3	41.7	2200	1600	2700	45.1	32.8	55.3		Azerbaijan
	570	400	740	36.5	25.6	47.4	1500	1000	2000	29.6	19.7	39.5		Belarus
	89	67	110	17.8	13.4	22.0	380	280	470	21.2	15.6	26.2		Bosnia and Herzegovina
	33	25	41	9.4	7.2	11.7	110	82	140	10.6	7.9	13.5		former Yugoslav Republic of Macedonia, the
	450	370	520	60.5	49.7	69.9	1200	1000	1500	58.5	48.7	73.1		Georgia
	22	18	25	1.0	0.8	1.1	96	81	110	2.3	2.0	2.7		Israel
	1200	740	1700	24.3	15.0	34.5	4600	2800	6400	49.6	30.2	69.0		Kazakhstan
	1000	920	1100	53.3	49.0	58.6	3700	3300	4100	123.2	109.9	136.6		Kyrgyzstan
	400	340	460	62.7	53.3	72.1	1200	1000	1400	56.9	47.4	66.3		Moldova
	0	0	0	0.0	0.0	0.0	0	0	0	0.0	0.0	0.0		Monaco
	11	9	12	9.6	7.8	10.5	34	29	39	10.7	9.1	12.2		Montenegro
	10000	6100	14000	40.2	24.5	56.2	30000	18000	42000	38.9	23.4	54.5		Russia
	0	0	0	0.0	0.0	0.0	0	0	0	0.0	0.0	0.0		San Marino
	150	130	180	10.3	8.9	12.3	740	630	850	16.4	14.0	18.8		Serbia
	59	50	68	4.7	4.0	5.5	220	190	250	5.2	4.5	5.9		Switzerland
	830	620	1000	27.0	20.2	32.6	3400	2500	4200	78.2	57.5	96.6		Tajikistan
	1500	1300	1700	7.5	6.5	8.5	6000	5100	6900	14.9	12.6	17.1		Turkey
	390	290	490	22.3	16.6	28.1	1200	880	1500	41.7	30.6	52.2		Turkmenistan
	4400	2700	6100	65.0	39.9	90.1	11000	6900	16000	46.0	28.9	67.0		Ukraine
	2600	1800	3500	29.6	20.5	39.8	10000	6800	14000	63.4	43.1	88.8		Uzbekistan
	25000	21000	29000	29.6	24.9	34.3	78000	65000	91000	37.2	31.0	43.4		Subtotal non-EU/EEA
	31000	22000	41000	18.9	13.4	25.0	102000	73000	132000	21.6	15.5	28.0		Total European Region
	26000	22000	30000	31.3	26.5	36.2	84000	71000	97000	40.1	33.9	46.3		Subtotal 18 HPC

Table 2: Estimates for TB/HIV co-infection and MDR TB, European Region, 2016

Country	Estimated HIV-infection among TB incidence (new and relapses)						Estimated percentage of RR TB cases among new TB patients		
	Number			%			Number		
	Best	Low	High	Best	Low	High	Best	Low	High
EU/EEA									
Austria	38	21	59	5.3	3.1	8.0	2.3	0.8	4.9
Belgium	89	73	110	7.8	7.0	8.7	1.6	0.7	3.3
<i>Bulgaria</i>	2	1	3	0.1	0.1	0.1	1.2	0.5	2.5
Croatia	3	2	5	0.7	0.4	1.0	0.0	0.0	1.4
Cyprus	2	1	4	3.6	2.0	5.5	0.0	0.0	10.0
Czech Republic	9	5	15	1.8	1.0	2.7	2.2	0.9	4.6
Denmark	11	8	13	3.0	2.4	3.6	1.9	0.5	4.9
<i>Estonia</i>	23	15	33	11.0	10.0	11.0	14.0	8.3	21.0
Finland	10	6	14	3.7	2.1	5.7	1.6	0.2	5.7
France	670	400	1000	14.0	8.3	20.0	1.0	0.7	1.5
Germany	350	200	540	5.3	3.1	8.1	2.2	0.8	4.8
Greece	39	22	60	7.9	4.7	12.0	1.5	0.0	8.0
Hungary	23	13	37	2.7	1.5	4.2	2.9	1.6	4.8
Iceland	0	0	0	0.1	0.1	0.1	0.0	0.0	60.0
Ireland	23	13	36	7.0	4.1	11.0	1.1	0.0	5.8
Italy	410	240	630	11.0	6.7	17.0	2.8	1.8	4.3
<i>Latvia</i>	91	77	110	12.0	12.0	13.0	7.6	5.2	11.0
Liechtenstein	–	–	–	–	–	–	–	–	–
<i>Lithuania</i>	50	42	59	3.2	3.0	3.5	12.0	10.0	15.0
Luxembourg	5	3	7	15.0	9.0	21.0	0.0	0.0	0.0
Malta	15	13	17	26.0	26.0	27.0	0.0	0.0	11.0
Netherlands	34	28	40	3.4	3.1	3.7	2.0	0.8	4.2
Norway	14	9	21	4.5	2.6	6.9	2.6	0.7	6.4
Poland	180	99	280	2.5	1.4	3.9	0.8	0.6	1.2
Portugal	290	240	340	14.0	13.0	15.0	1.0	0.5	1.7
<i>Romania</i>	370	310	430	2.5	2.3	2.7	2.8	2.4	3.3
Slovakia	0	0	0	0.1	0.1	0.1	0.0	0.0	2.6
Slovenia	1	1	2	0.8	0.7	0.9	0.0	0.0	3.9
Spain	340	290	410	7.3	6.7	8.0	4.2	2.9	5.8
Sweden	48	27	74	5.9	3.5	9.0	4.0	2.3	6.3
United Kingdom	560	330	850	8.5	5.1	13.0	1.4	1.0	2.0
Subtotal EU/EEA	3700	3220	4180	5.9	5.4	6.3	2.5	1.7	3.7
Non-EU/EEA									
Albania	6	4	9	1.2	0.7	1.8	2.3	0.6	5.8
Andorra	0	0	0	–	–	–	0.0	0.0	84.0
<i>Armenia</i>	74	48	110	5.7	5.5	6.0	11.0	8.0	14.0
<i>Azerbaijan</i>	130	83	180	2.0	1.8	2.2	13.0	10.0	16.0
<i>Belarus</i>	400	260	570	8.1	7.3	8.8	38.0	36.0	40.0
Bosnia and Herzegovina	2	1	3	0.2	0.1	0.3	0.0	0.0	0.7
former Yugoslav Republic of Macedonia, the	0	0	0	0.1	0.1	0.1	1.3	0.2	4.8
<i>Georgia</i>	77	64	91	2.1	2.0	2.3	11.0	9.3	12.0
Israel	21	13	30	7.2	7.0	7.4	7.4	3.5	14.0
<i>Kazakhstan</i>	580	370	820	4.7	4.5	4.8	26.0	25.0	28.0
<i>Kyrgyzstan</i>	280	250	320	3.3	3.1	3.5	27.0	25.0	29.0
<i>Moldova</i>	370	310	430	9.1	8.6	9.6	26.0	24.0	28.0
Monaco	0	0	0	–	–	–	2.4	1.6	3.2
Montenegro	0	0	0	0.2	0.1	0.2	0.0	0.0	7.1
<i>Russia</i>	18000	12000	26000	19.0	18.0	21.0	27.0	27.0	28.0
San Marino	0	0	0	–	–	–	2.4	1.6	3.2
Serbia	10	6	14	0.6	0.3	1.0	1.1	0.5	2.2
Switzerland	68	40	100	10.0	6.2	15.0	3.2	1.3	6.4
<i>Tajikistan</i>	250	160	350	3.3	3.1	3.5	22.0	21.0	24.0
<i>Turkey</i>	92	77	110	0.7	0.6	0.7	2.9	2.5	3.4
<i>Turkmenistan</i>	180	84	310	5.3	2.6	8.8	14.0	11.0	17.0
<i>Ukraine</i>	8100	5200	12000	21.0	19.0	22.0	27.0	26.0	27.0
<i>Uzbekistan</i>	1200	800	1700	5.0	4.3	5.7	24.0	18.0	30.0
Subtotal non-EU/EEA	29800	22000	37000	13.1	11.7	13.8	22.0	15.0	29.0
Total European Region	34000	26000	42000	12.0	8.6	15.0	19.0	12.0	26.0
Subtotal 18 HPC	30300	23000	38000	12.5	11.4	13.5	22.0	15.0	29.0

'European Region' comprises the 53 countries of the WHO European Region. WHO European Region 18 TB high-priority countries presented in italics.

	Estimated percentage of RR TB cases among retreated TB patient			Estimated RR TB cases among notified pulmonary TB patients			Country
	Number			Number			
	Best	Low	High	Best	Low	High	
EU/EEA							
	18.0	3.8	43.0	16	6	26	Austria
	8.8	1.9	24.0	16	6	26	Belgium
	19.0	11.0	29.0	44	27	61	Bulgaria
	0.0	0.0	37.0	0	0	0	Croatia
	0.0	0.0	0.0	0	0	0	Cyprus
	12.0	2.4	30.0	13	3	22	Czech Republic
	4.5	0.1	23.0	1	0	4	Denmark
	54.0	25.0	81.0	34	23	45	Estonia
	0.0	0.0	46.0	3	0	6	Finland
	10.0	7.1	15.0	63	47	79	France
	23.0	16.0	30.0	160	85	240	Germany
	9.1	0.2	41.0	10	0	23	Greece
	8.1	3.3	16.0	30	17	43	Hungary
	0.0	0.0	0.0	0	0	4	Iceland
	0.0	0.0	31.0	2	0	6	Ireland
	13.0	7.7	21.0	110	76	150	Italy
	23.0	15.0	33.0	62	47	78	Latvia
	-	-	-	-	-	-	Liechtenstein
	47.0	41.0	53.0	260	240	290	Lithuania
	0.0	0.0	0.0	0	0	0	Luxembourg
	0.0	0.0	0.0	0	0	4	Malta
	30.0	6.7	65.0	15	6	24	Netherlands
	5.9	0.2	29.0	6	1	10	Norway
	4.4	2.7	6.8	77	56	98	Poland
	6.9	2.8	14.0	19	10	27	Portugal
	17.0	16.0	19.0	730	670	790	Romania
	3.7	0.1	19.0	1	0	4	Slovakia
	0.0	0.0	71.0	0	0	0	Slovenia
	18.0	9.4	30.0	25	10	40	Spain
	16.0	3.4	40.0	23	13	32	Sweden
	3.4	1.1	7.9	58	39	78	United Kingdom
	14.0	9.8	21.3	1800	1680	1900	Subtotal EU/EEA
Non-EU/EEA							
	6.7	0.2	32.0	7	1	14	Albania
	0.0	0.0	0.0	0	0	3	Andorra
	47.0	40.0	55.0	180	160	210	Armenia
	39.0	37.0	42.0	1500	1400	1600	Azerbaijan
	72.0	68.0	75.0	1600	1500	1600	Belarus
	0.0	0.0	6.8	0	0	0	Bosnia and Herzegovina
	0.0	0.0	23.0	3	0	6	former Yugoslav Republic of Macedonia, the
	31.0	27.0	35.0	460	420	500	Georgia
	0.0	0.0	84.0	13	5	22	Israel
	44.0	42.0	46.0	3500	3400	3600	Kazakhstan
	60.0	57.0	63.0	2500	2400	2600	Kyrgyzstan
	56.0	51.0	60.0	1400	1300	1400	Moldova
	11.0	9.1	14.0	0	0	0	Monaco
	0.0	0.0	41.0	0	0	0	Montenegro
	65.0	65.0	66.0	47000	46000	47000	Russia
	11.0	9.1	14.0	0	0	0	San Marino
	4.7	1.3	11.0	19	8	29	Serbia
	26.0	9.1	51.0	22	11	34	Switzerland
	45.0	40.0	50.0	1200	1200	1300	Tajikistan
	16.0	13.0	19.0	350	300	390	Turkey
	38.0	28.0	49.0	450	390	520	Turkmenistan
	47.0	46.0	48.0	10000	10000	11000	Ukraine
	63.0	50.0	75.0	5800	4900	6600	Uzbekistan
	55.0	43.0	67.0	70000	69000	71000	Subtotal non-EU/EEA
	55.0	43.0	67.0	71000	71000	72000	Total European Region
	55.0	43.0	67.0	71000	69000	71000	Subtotal 18 HPC

Table 3: Tuberculosis cases, notification rates per 100 000 population and mean annual change in rates, European Region, 2012–2016

Country	2012		2013		2014		2015		2016		Mean annual % change in rate, 2012–2016
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	
EU/EEA											
Austria	646	7.7	653	7.7	586	6.9	583	6.8	634	7.3	-1.3%
Belgium	976	8.8	963	8.6	949	8.5	977	8.7	1047	9.3	1.2%
Bulgaria	2280	31.1	1932	26.5	1872	25.8	1660	23.0	1603	22.4	-7.9%
Croatia ^a	575	13.4	517	12.1	499	11.7	486	11.5	460	11.0	-4.9%
Cyprus	69	8.0	41	4.7	41	4.8	63	7.4	60	7.1	-3.0%
Czech Republic	597	5.7	497	4.7	511	4.9	517	4.9	516	4.9	-3.7%
Denmark	389	7.0	356	6.4	320	5.7	357	6.3	330	5.8	-4.6%
Estonia	289	21.8	290	22.0	248	18.8	217	16.5	192	14.6	-9.6%
Finland	274	5.1	273	5.0	263	4.8	272	5.0	236	4.3	-4.0%
France ^b	5003	7.7	4947	7.5	4888	7.4	4741	7.1	4958	7.4	-0.8%
Germany	4213	5.2	4340	5.4	4526	5.6	5852	7.2	5915	7.2	8.2%
Greece	558	5.0	540	4.9	519	4.7	482	4.4	443	4.1	-5.0%
Hungary	1223	12.3	1045	10.5	851	8.6	906	9.2	786	8.0	-10.2%
Iceland	11	3.4	11	3.4	9	2.8	7	2.1	6	1.8	-14.9%
Ireland	359	7.8	374	8.1	311	6.8	294	6.4	318	6.7	-3.7%
Italy	4252	7.2	3973	6.7	3916	6.4	3769	6.2	4032	6.6	-1.8%
Latvia	993	48.6	904	44.7	761	38.0	721	36.3	660	33.5	-8.9%
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–
Lithuania	1781	59.3	1705	57.4	1607	54.6	1507	51.6	1442	49.9	-4.2%
Luxembourg	45	8.6	38	7.1	24	4.4	30	5.3	29	5.0	-12.5%
Malta	42	10.1	50	11.9	46	10.8	32	7.5	50	11.5	3.4%
Netherlands	956	5.7	845	5.0	814	4.8	862	5.1	889	5.2	-2.2%
Norway	374	7.5	392	7.8	324	6.3	313	6.1	299	5.7	-6.5%
Poland	7542	19.8	7250	19.0	6698	17.6	6430	16.9	6444	17.0	-3.8%
Portugal	2606	24.7	2410	23.0	2278	21.8	2178	21.0	1836	17.8	-7.9%
Romania	18190	90.5	16689	83.4	15879	79.6	15183	76.4	13617	68.9	-6.6%
Slovakia	345	6.4	401	7.4	336	6.2	317	5.8	296	5.5	-3.9%
Slovenia	138	6.7	140	6.8	144	7.0	130	6.3	118	5.7	-3.9%
Spain	6070	13.0	5632	12.1	4914	10.6	4997	10.8	4877	10.5	-5.1%
Sweden	623	6.6	639	6.7	659	6.8	815	8.4	726	7.4	2.9%
United Kingdom	8711	13.7	7868	12.3	7049	11.0	6234	9.6	6175	9.4	-8.9%
Total EU/EEA countries	70130	13.8	65715	12.9	61842	12.1	60932	11.9	58994	11.4	-4.5%
Non-EU/EEA											
Albania	420	14.6	474	16.5	408	14.2	415	14.4	415	14.2	-0.6%
Andorra	9	10.9	5	6.3	6	7.9	4	5.5	4	5.2	-17.0%
Armenia	1518	51.1	1417	47.6	1342	44.9	1104	36.7	1080	36.9	-7.8%
Azerbaijan	8140	88.2	8597	91.8	7539	79.4	7501	77.9	6707	69.0	-6.0%
Belarus	5246	55.3	4859	51.2	4274	45.0	4177	44.0	3598	38.0	-9.0%
Bosnia and Herzegovina	1420	37.1	1261	32.9	1196	31.3	1095	28.7	907	25.8	-8.7%
former Yugoslav Republic of Macedonia, the	355	17.2	323	15.6	285	13.8	284	13.7	267	12.8	-7.0%
Georgia	4974	118.5	4319	104.4	3850	94.3	3611	89.5	3330	84.8	-8.0%
Israel	509	6.7	308	4.0	361	4.6	280	3.5	250	3.1	-17.9%
Kazakhstan	21523	130.0	19857	118.0	15718	91.9	14631	84.2	12658	70.4	-14.2%
Kyrgyzstan	6916	124.5	7209	127.6	7423	129.2	7833	134.0	7995	134.2	1.9%
Moldova	5341	131.0	5051	124.0	4636	113.8	4211	103.4	4134	101.8	-6.1%
Monaco	0	–	0	–	0	–	0	0.0	0	0.0	–
Montenegro	107	17.2	120	19.2	113	18.1	80	12.8	87	13.8	-5.3%
Russia	149921	104.7	142533	99.5	136168	95.0	130904	91.3	121046	84.1	-5.3%
San Marino	0	–	0	–	0	–	0	–	0	–	–
Serbia	1917	21.2	2127	23.7	1832	20.5	1658	18.6	1488	16.9	-5.6%
Serbia excluding UN Administered Province of Kosovo ^c	1215	16.9	1205	16.6	998	14.0	888	12.7	767	11.0	-10.1%
UN Administered Province of Kosovo ^c	702	38.7	922	50.2	834	44.8	770	41.8	721	38.8	0.1%
Switzerland	463	5.8	526	6.6	473	5.8	564	6.9	609	7.2	5.5%
Tajikistan	6929	89.4	6495	81.9	6260	77.2	6232	75.1	6241	71.4	-5.4%
Turkey	14691	20.0	13409	17.9	13378	17.6	12772	16.5	12417	15.6	-6.0%
Turkmenistan	3422	67.0	3675	71.0	2887	55.1	3309	62.3	2376	–	–
Ukraine	45569	100.2	48134	106.2	40302	89.2	35304	78.4	34088	76.7	-6.5%
Uzbekistan	16810	59.7	25168	88.0	22804	78.5	19055	64.7	18441	58.6	-0.4%
Subtotal non-EU/EEA	296200	76.1	295867	75.5	271255	69.2	255024	64.2	238138	59.2	-6.1%
Total European Region	366330	40.8	361582	40.4	333097	37.2	315956	34.8	297132	32.8	-5.3%
Subtotal 18 HPC	314533	80.8	312243	79.8	286948	72.9	269932	68.2	251625	64.2	-5.6%

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

WHO European Region 18 TB High Priority Countries are presented in *italics*.

Note 1: For TB cases and notification rates by country and year for the period 1995–2016, see <http://ecdc.europa.eu/en/data-tools/atlas/Pages/atlas.aspx>.

Note 2: 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 1 October 2017.

^a These data are subject to change as the national TB registry was under review when this report was being produced.

^b Provisional data for 2016 including overseas territories reported to WHO Global TB database.

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

Table 4: New TB cases and relapses, notification rates per 100 000 population and mean annual change in rates, European Region, 2012–2016

Country	2012		2013		2014		2015		2016		Mean annual % change in rate, 2012–2016
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	
EU/EEA											
Austria	623	7.4	628	7.4	567	6.7	564	6.6	619	7.1	-1.0%
Belgium	898	8.1	890	8.0	878	7.9	919	8.2	986	8.7	1.8%
Bulgaria	2212	30.2	1930	26.5	1825	25.2	1619	22.5	1525	21.3	-8.3%
Croatia ^a	539	12.6	511	12.0	498	11.7	484	11.5	449	10.7	-4.0%
Cyprus	65	7.5	41	4.7	39	4.5	63	7.4	57	6.7	-2.8%
Czech Republic	557	5.3	468	4.5	472	4.5	507	4.8	511	4.8	-2.2%
Denmark	342	6.1	330	5.9	293	5.2	320	5.7	292	5.1	-4.4%
Estonia	269	20.3	265	20.1	237	18.0	206	15.7	188	14.3	-8.4%
Finland	264	4.9	267	4.9	257	4.7	269	4.9	225	4.1	-4.3%
France ^b	5003	7.7	4947	7.5	4888	7.4	4447	6.7	4675	7.0	-2.2%
Germany	4038	5.0	4094	5.1	4352	5.4	5646	7.0	5737	7.0	8.6%
Greece	520	4.7	494	4.5	484	4.4	438	4.0	407	3.8	-5.3%
Hungary	1182	11.9	1040	10.5	799	8.1	858	8.7	737	7.5	-10.9%
Iceland	11	3.4	11	3.4	9	2.8	7	2.1	6	1.8	-14.9%
Ireland	333	7.3	350	7.6	290	6.3	266	5.7	293	6.2	-3.9%
Italy	3512	5.9	3435	5.8	3663	6.0	3476	5.7	3778	6.2	1.3%
Latvia	971	47.5	872	43.1	738	36.9	697	35.1	641	32.6	-9.0%
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–
Lithuania	1640	54.6	1573	52.9	1481	50.3	1395	47.8	1347	46.6	-3.9%
Luxembourg	45	8.6	38	7.1	24	4.4	30	5.3	29	5.0	-12.5%
Malta	41	9.8	50	11.9	45	10.6	32	7.5	50	11.5	4.1%
Netherlands	934	5.6	828	4.9	805	4.8	846	5.0	877	5.2	-1.9%
Norway	340	6.8	354	7.0	300	5.9	281	5.4	278	5.3	-6.0%
Poland	7285	19.1	7043	18.5	6539	17.2	6237	16.4	6143	16.2	-4.1%
Portugal	2558	24.3	2356	22.5	2223	21.3	2137	20.6	1794	17.3	-8.0%
Romania	16764	83.4	15505	77.4	14834	74.4	14215	71.5	12790	64.7	-6.1%
Slovakia	344	6.4	398	7.4	320	5.9	308	5.7	281	5.2	-5.0%
Slovenia	138	6.7	139	6.8	142	6.9	129	6.3	118	5.7	-3.9%
Spain	5738	12.3	5328	11.4	4686	10.1	4791	10.3	4734	10.2	-4.5%
Sweden	591	6.2	603	6.3	625	6.5	776	8.0	702	7.1	3.4%
United Kingdom	8171	12.9	7339	11.5	6587	10.2	5849	9.0	5793	8.9	-8.9%
Total EU/EEA countries	65928	12.9	62127	12.2	58900	11.5	57812	11.2	56062	10.9	-4.3%
Non-EU/EEA											
Albania	408	14.1	474	16.5	408	14.2	415	14.4	415	14.2	0.1%
Andorra	9	10.9	5	6.3	6	7.9	4	5.5	4	5.2	-17.0%
Armenia	1213	40.9	1397	46.9	1329	44.4	1090	36.3	1027	35.1	-3.7%
Azerbaijan	6363	69.0	5860	62.6	5788	60.9	5456	56.7	5159	53.0	-6.3%
Belarus	4783	50.4	4470	47.1	3858	40.6	3765	39.6	3211	33.9	-9.5%
Bosnia and Herzegovina	1409	36.8	1261	32.9	1196	31.3	1092	28.6	907	25.8	-8.5%
former Yugoslav Republic of Macedonia, the	346	16.7	318	15.4	284	13.7	282	13.6	263	12.6	-6.8%
Georgia	3940	93.9	3434	83.0	3200	78.4	3152	78.1	2983	76.0	-5.1%
Israel	506	6.7	308	4.0	361	4.6	280	3.5	250	3.1	-17.8%
Kazakhstan	18006	108.8	18958	112.7	15244	89.1	14006	80.6	12322	68.5	-10.9%
Kyrgyzstan	6195	111.5	7075	125.3	6390	111.2	7027	120.3	7026	118.0	1.4%
Moldova	4409	108.1	4485	110.1	4058	99.6	3608	88.6	3571	88.0	-5.0%
Monaco	0	–	0	–	0	–	0	0.0	–	–	–
Montenegro	98	15.7	119	19.1	113	18.1	80	12.8	87	13.8	-3.2%
Russia	105753	73.8	106053	74.0	102340	71.4	99590	69.4	92407	64.2	-3.4%
San Marino	0	–	0	–	0	–	0	–	0	–	–
Serbia	1872	20.7	2106	23.4	1818	20.3	1649	18.5	1472	16.7	-5.3%
Serbia excluding UN Administered Province of Kosovo ^c	1168	16.2	1161	16.2	984	13.8	879	12.5	755	10.8	-9.5%
UN Administered Province of Kosovo ^c	702	38.7	992	54.0	834	44.8	770	41.8	717	38.6	-0.1%
Switzerland	416	5.2	466	5.8	423	5.2	531	6.5	573	6.8	6.8%
Tajikistan	6508	83.9	5576	70.3	5807	71.6	5894	71.0	5965	68.3	-5.0%
Turkey	14139	19.2	13170	17.6	13108	17.2	12550	16.2	12186	15.3	-5.5%
Turkmenistan	2937	57.5	3046	58.9	2570	49.0	3028	57.1	2104	37.2	-10.3%
Ukraine	40990	90.1	36510	80.6	31701	70.2	30151	67.0	29052	65.4	-7.7%
Uzbekistan	14832	52.7	20812	72.8	18345	63.2	16315	55.4	16050	51.0	-0.8%
Subtotal non-EU/EEA	235132	60.4	235903	60.2	218347	55.7	209965	52.9	197034	48.9	-5.1%
Total European Region	301060	33.5	298030	33.3	277247	31.0	267777	29.5	253096	28.0	-4.4%
Subtotal 18 HPC	251924	64.7	250991	64.1	232853	59.2	223764	56.6	209554	53.5	-4.7%

^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.

Note: 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 1 October 2016.

^b These data are subject to change as the national TB registry was under review when this report was being produced.

^c Provisional data for 2016 including overseas territories.

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

Table 5: Tuberculosis cases by history of previous TB treatment, European Region, 2016

Country	New		Unknown previous TB history		Previously treated										All TB cases N	
	N	(%) ^a	N	(%) ^a	Previously treated total		Previous treatment completed		Previous treatment failed		Previous treatment defaulted		Other retreatment ^c			
	N	(%) ^a	N	(%) ^a	N	(%) ^a	N	(%) ^b	N	(%) ^b	N	(%) ^b	N	(%) ^b	N	(%) ^b
EU/EEA																
Austria	449	(70.8)	151	(23.8)	34	(5.4)	19	(55.9)	0	(0.0)	0	(0.0)	15	(44.1)	634	
Belgium ^c	757	(72.3)	229	(21.9)	61	(5.8)	–	–	–	–	–	–	61	(100.0)	1047	
Bulgaria	1416	(88.3)	0	(0.0)	187	(11.7)	109	(58.3)	23	(12.3)	24	(12.8)	31	(16.6)	1603	
Croatia ^d	293	(63.7)	147	(32.0)	20	(4.3)	9	(45.0)	0	(0.0)	0	(0.0)	11	(55.0)	460	
Cyprus	55	(91.7)	0	(0.0)	5	(8.3)	2	(40.0)	0	(0.0)	0	(0.0)	3	(60.0)	60	
Czech Republic	490	(95.0)	0	(0.0)	26	(5.0)	21	(80.8)	0	(0.0)	1	(3.8)	4	(15.4)	516	
Denmark ^c	292	(88.5)	0	(0.0)	38	(11.5)	–	–	–	–	–	–	38	(100.0)	330	
Estonia	167	(87.0)	0	(0.0)	25	(13.0)	21	(84.0)	1	(4.0)	3	(12.0)	0	(0.0)	192	
Finland	219	(92.8)	5	(2.1)	12	(5.1)	1	(8.3)	0	(0.0)	0	(0.0)	11	(91.7)	236	
France ^e	2441	(49.2)	2234	(45.1)	283	(5.7)	–	–	–	–	–	–	–	–	4958	
Germany	340	(5.7)	5249	(88.7)	326	(5.5)	148	(45.4)	1	(0.3)	54	(16.6)	123	(37.7)	5915	
Greece	385	(86.9)	22	(5.0)	36	(8.1)	0	(0.0)	0	(0.0)	0	(0.0)	36	(100.0)	443	
Hungary	677	(86.1)	0	(0.0)	109	(13.9)	60	(55.0)	0	(0.0)	31	(28.4)	18	(16.5)	786	
Iceland	6	(100.0)	0	(0.0)	0	(0.0)	0	–	0	–	0	–	0	–	6	
Ireland ^d	216	(67.9)	77	(24.2)	25	(7.9)	–	–	–	–	–	–	25	(100.0)	318	
Italy	2943	(73.0)	835	(20.7)	254	(6.3)	0	(0.0)	0	(0.0)	0	(0.0)	254	(100.0)	4032	
Latvia	560	(84.8)	0	(0.0)	100	(15.2)	81	(81.0)	0	(0.0)	19	(19.0)	0	(0.0)	660	
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Lithuania	1150	(79.8)	0	(0.0)	292	(20.2)	197	(67.5)	29	(9.9)	66	(22.6)	0	(0.0)	1442	
Luxembourg	1	(3.4)	28	(96.6)	0	(0.0)	0	–	0	–	0	–	0	–	29	
Malta	50	(100.0)	0	(0.0)	0	(0.0)	0	–	0	–	0	–	0	–	50	
Netherlands	857	(96.4)	5	(0.6)	27	(3.0)	15	(55.6)	0	(0.0)	4	(14.8)	8	(29.6)	889	
Norway ^c	256	(85.6)	22	(7.4)	21	(7.0)	–	–	–	–	–	–	21	(100.0)	299	
Poland	5713	(88.7)	0	(0.0)	731	(11.3)	430	(58.8)	0	(0.0)	0	(0.0)	301	(41.2)	6444	
Portugal	1715	(93.4)	0	(0.0)	121	(6.6)	79	(65.3)	1	(0.8)	13	(10.7)	28	(23.1)	1836	
Romania	10741	(78.9)	0	(0.0)	2876	(21.1)	2049	(71.2)	404	(14.0)	423	(14.7)	0	(0.0)	13617	
Slovakia	257	(86.8)	0	(0.0)	39	(13.2)	24	(61.5)	3	(7.7)	0	(0.0)	12	(30.8)	296	
Slovenia	113	(95.8)	0	(0.0)	5	(4.2)	5	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	118	
Spain	2855	(58.5)	1879	(38.5)	143	(2.9)	0	(0.0)	0	(0.0)	0	(0.0)	143	(100.0)	4877	
Sweden	641	(88.3)	56	(7.7)	29	(4.0)	5	(17.2)	0	(0.0)	1	(3.4)	23	(79.3)	726	
United Kingdom ^c	5476	(88.7)	317	(5.1)	382	(6.2)	–	–	–	–	–	–	382	(100.0)	6175	
Subtotal EU/EEA	41531	(70.4)	11256	(19.1)	6207	(10.5)	3275	(52.8)	462	(7.4)	639	(10.3)	1548	(24.9)	58994	
Non-EU/EEA																
Albania	405	(97.6)	–	–	10	(2.4)	10	(100.0)	–	–	–	–	–	–	415	
Andorra	4	(100.0)	–	–	0	(0.0)	0	(0.0)	–	–	–	–	–	–	4	
Armenia	818	(75.7)	–	–	262	(24.3)	209	(79.8)	–	–	–	–	–	–	1080	
Azerbaijan	3793	(56.6)	–	–	2914	(43.4)	1366	(46.9)	–	–	–	–	–	–	6707	
Belarus	2653	(73.7)	–	–	945	(26.3)	558	(59.0)	–	–	–	–	–	–	3598	
Bosnia and Herzegovina	829	(91.4)	–	–	78	(8.6)	78	(100.0)	–	–	–	–	–	–	907	
former Yugoslav Republic of Macedonia, the	243	(91.0)	–	–	24	(9.0)	20	(83.3)	–	–	–	–	–	–	267	
Georgia	2463	(74.0)	–	–	867	(26.0)	520	(60.0)	–	–	–	–	–	–	3330	
Israel	242	(96.8)	–	–	8	(3.2)	8	(100.0)	–	–	–	–	–	–	250	
Kazakhstan	9381	(74.1)	–	–	3277	(25.9)	2941	(89.7)	–	–	–	–	–	–	12658	
Kyrgyzstan	5702	(71.3)	–	–	2293	(28.7)	1324	(57.7)	–	–	–	–	–	–	7995	
Moldova	2846	(68.8)	–	–	1288	(31.2)	725	(56.3)	–	–	–	–	–	–	4134	
Monaco	–	–	–	–	0	(0.0)	0	(0.0)	–	–	–	–	–	–	0	
Montenegro	73	(83.9)	–	–	14	(16.1)	14	(100.0)	–	–	–	–	–	–	87	
Russia	78121	(64.5)	–	–	42925	(35.5)	14286	(33.3)	–	–	–	–	–	–	121046	
San Marino	–	–	–	–	0	(0.0)	0	(0.0)	–	–	–	–	–	–	0	
Serbia	1348	(90.6)	–	–	140	(9.4)	124	(88.6)	–	–	–	–	–	–	1488	
Serbia excluding UN Administered Province of Kosovo ^f	672	(87.6)	–	–	95	(12.4)	83	(87.4)	–	–	–	–	–	–	767	
UN Administered Province of Kosovo ^f	676	(93.8)	–	–	45	(6.2)	41	(91.1)	–	–	–	–	–	–	721	
Switzerland	573	(94.1)	–	–	36	(5.9)	0	(0.0)	–	–	–	–	–	–	609	
Tajikistan	5241	(84.0)	–	–	1000	(16.0)	724	(72.4)	–	–	–	–	–	–	6241	
Turkey	11442	(92.1)	–	–	975	(7.9)	744	(76.3)	–	–	–	–	–	–	12417	
Turkmenistan	1952	(82.2)	–	–	424	(17.8)	152	(35.8)	–	–	–	–	–	–	2376	
Ukraine	23316	(68.4)	–	–	10772	(31.6)	5736	(53.2)	–	–	–	–	–	–	34088	
Uzbekistan	14436	(78.3)	–	–	4005	(21.7)	1614	(40.3)	–	–	–	–	–	–	18441	
Subtotal non-EU/EEA	165881	(69.7)	–	–	72257	(30.3)	31153	(43.1)	–	–	–	–	–	–	238138	
Total European Region	207412	(69.8)	11256	(3.8)	78464	(26.4)	34428	(43.9)	–	–	–	–	–	–	297132	
Subtotal 18 HPC	176198	(70.0)	–	–	75427	(30.0)	33356	(44.2)	–	–	–	–	–	–	251625	

^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.

^b Percentage among all TB cases.

^c Percentage among previously treated TB cases.

^d Distribution by previous diagnosis.

^e These data are subject to change as the national TB registry was under review when this report was being produced.

^f Provisional data for 2016 including overseas territories.

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

Table 6: Tuberculosis cases by site of disease, European Region, 2016

Country	Pulmonary						Extrapulmonary		No site reported		Total
	Pulmonary only		Pulmonary + extrapulmonary		Total pulmonary		N	(%)	N	(%)	
	N	(%)	N	(%)	N	(%)					
EU/EEA											
Austria	425	(67.0)	57	(9.0)	482	(76.0)	152	(24.0)	0	(0.0)	634
Belgium	586	(56.0)	129	(12.3)	715	(68.3)	332	(31.7)	0	(0.0)	1047
Bulgaria	1129	(70.4)	57	(3.6)	1186	(74.0)	417	(26.0)	0	(0.0)	1603
Croatia ^a	293	(63.7)	14	(3.0)	307	(66.7)	34	(7.4)	119	(25.9)	460
Cyprus	50	(83.3)	1	(1.7)	51	(85.0)	9	(15.0)	0	(0.0)	60
Czech Republic	420	(81.4)	26	(5.0)	446	(86.4)	70	(13.6)	0	(0.0)	516
Denmark	242	(73.3)	20	(6.1)	262	(79.4)	64	(19.4)	4	(1.2)	330
Estonia	146	(76.0)	31	(16.1)	177	(92.2)	15	(7.8)	0	(0.0)	192
Finland	175	(74.2)	0	(0.0)	175	(74.2)	61	(25.8)	0	(0.0)	236
France ^b	–	–	3319	(66.9)	3319	(71.0)	1356	(27.3)	283	(5.7)	4958
Germany	3784	(64.0)	613	(10.4)	4397	(74.3)	1468	(24.8)	50	(0.8)	5915
Greece	341	(77.0)	53	(12.0)	394	(88.9)	36	(8.1)	13	(2.9)	443
Hungary	742	(94.4)	15	(1.9)	757	(96.3)	29	(3.7)	0	(0.0)	786
Iceland	4	(66.7)	2	(33.3)	6	(100.0)	0	(0.0)	0	(0.0)	6
Ireland	177	(55.7)	34	(10.7)	211	(66.4)	97	(30.5)	10	(3.1)	318
Italy	2757	(68.4)	63	(1.6)	2820	(69.9)	1212	(30.1)	0	(0.0)	4032
Latvia	574	(87.0)	45	(6.8)	619	(93.8)	41	(6.2)	0	(0.0)	660
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–
Lithuania	1327	(92.0)	0	(0.0)	1327	(92.0)	115	(8.0)	0	(0.0)	1442
Luxembourg	24	(82.8)	0	(0.0)	24	(82.8)	5	(17.2)	0	(0.0)	29
Malta	22	(44.0)	15	(30.0)	37	(74.0)	13	(26.0)	0	(0.0)	50
Netherlands	365	(41.1)	112	(12.6)	477	(53.7)	409	(46.0)	3	(0.3)	889
Norway	140	(46.8)	47	(15.7)	187	(62.5)	111	(37.1)	1	(0.3)	299
Poland	6085	(94.4)	31	(0.5)	6116	(94.9)	328	(5.1)	0	(0.0)	6444
Portugal	1145	(62.4)	157	(8.6)	1302	(70.9)	519	(28.3)	15	(0.8)	1836
Romania	10747	(78.9)	776	(5.7)	11523	(84.6)	2094	(15.4)	0	(0.0)	13617
Slovakia	202	(68.2)	51	(17.2)	253	(85.5)	43	(14.5)	0	(0.0)	296
Slovenia	80	(67.8)	23	(19.5)	103	(87.3)	15	(12.7)	0	(0.0)	118
Spain	3192	(65.5)	323	(6.6)	3515	(72.1)	1362	(27.9)	0	(0.0)	4877
Sweden	389	(53.6)	93	(12.8)	482	(66.4)	244	(33.6)	0	(0.0)	726
United Kingdom	2539	(41.1)	815	(13.2)	3354	(54.3)	2799	(45.3)	22	(0.4)	6175
Subtotal EU/EEA	38102	(64.6)	6922	(11.7)	45024	(76.3)	13450	(22.8)	520	(0.9)	58994
Non-EU/EEA											
Albania	–	–	–	–	301	(72.5)	114	(27.5)	0	(0.0)	415
Andorra	–	–	–	–	3	(75.0)	1	(25.0)	0	(0.0)	4
Armenia	–	–	–	–	829	(76.8)	198	(18.3)	53	(4.9)	1080
Azerbaijan	–	–	–	–	4122	(61.5)	1037	(15.5)	1548	(23.1)	6707
Belarus	–	–	–	–	2964	(82.4)	247	(6.9)	387	(10.8)	3598
Bosnia and Herzegovina	–	–	–	–	792	(87.3)	115	(12.7)	0	(0.0)	907
former Yugoslav Republic of Macedonia, the	–	–	–	–	211	(79.0)	52	(19.5)	4	(1.5)	267
Georgia	–	–	–	–	2371	(71.2)	612	(18.4)	347	(10.4)	3330
Israel	–	–	–	–	184	(73.6)	66	(26.4)	0	(0.0)	250
Kazakhstan	–	–	–	–	10927	(86.3)	1395	(11.0)	336	(2.7)	12658
Kyrgyzstan	–	–	–	–	5514	(69.0)	1512	(18.9)	969	(12.1)	7995
Moldova	–	–	–	–	3235	(78.3)	336	(8.1)	563	(13.6)	4134
Monaco	–	–	–	–	–	–	–	–	0	–	0
Montenegro	–	–	–	–	77	(88.5)	10	(11.5)	0	(0.0)	87
Russia	–	–	–	–	84066	(69.4)	8341	(6.9)	28639	(23.7)	121046
San Marino	–	–	–	–	–	–	–	–	–	–	0
Serbia	–	–	–	–	1206	(81.0)	266	(17.9)	16	(1.1)	1488
Serbia excluding UN Administered Province of Kosovo ^c	–	–	–	–	673	(87.7)	82	(10.7)	12	(1.6)	767
UN Administered Province of Kosovo ^c	–	–	–	–	533	(73.9)	184	(25.5)	4	(0.6)	721
Switzerland	–	–	–	–	402	(66.0)	171	(28.1)	36	(5.9)	609
Tajikistan	–	–	–	–	4368	(70.0)	1597	(25.6)	276	(4.4)	6241
Turkey	–	–	–	–	8044	(64.8)	4142	(33.4)	231	(1.9)	12417
Turkmenistan	–	–	–	–	1616	(68.0)	488	(20.5)	272	(11.4)	2376
Ukraine	–	–	–	–	26357	(77.3)	2695	(7.9)	5036	(14.8)	34088
Uzbekistan	–	–	–	–	10709	(58.1)	5341	(29.0)	2391	(13.0)	18441
Subtotal non-EU/EEA	–	–	–	–	168298	(70.7)	28736	(12.1)	41104	(17.3)	238138
Total European Region	–	–	–	–	213322	(71.8)	42186	(14.2)	41624	(14.0)	297132
Subtotal 18 HPC	–	–	–	–	179954	(71.5)	30623	(12.2)	41048	(16.3)	251625

^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.

^b These data are subject to change as the national TB registry was under review when this report was being produced.

^c Provisional data on new and relapse cases including overseas territories reported to WHO Global TB database.

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

Table 7: New and relapse pulmonary tuberculosis cases by diagnostic method, European Region, 2016

Country	New ^a and relapse pulmonary tuberculosis cases								Clinically diagnosed cases		All pulmonary TB cases	
	N	(%) ^b	Confirmed by culture, smear and/or nucleic acid amplification test ^b				Confirmed by other bacteriological test					
			N	(%) ^c	Confirmed cases by WHO-recommended rapid diagnostics such as Xpert MTB/RIF ^d							
	N	(%) ^e			N	(%) ^e	N	(%) ^e	N	(%) ^f		
EU/EEA												
Austria	470	(97.5)	401	(85.3)	15	(3.7)	386	(96.3)	69	(14.7)	482	(76.0)
Belgium	666	(93.1)	577	(86.6)	13	(2.3)	564	(97.7)	89	(13.4)	715	(88.3)
Bulgaria	1113	(93.8)	758	(68.1)	1	(0.1)	757	(99.9)	355	(31.9)	1186	(74.0)
Croatia ^g	297	(96.7)	188	(63.3)	0	(0.0)	188	(100.0)	109	(36.7)	307	(66.7)
Cyprus	48	(94.1)	37	(77.1)	0	(0.0)	37	(100.0)	11	(22.9)	51	(85.0)
Czech Republic	441	(98.9)	368	(83.4)	18	(4.9)	350	(95.1)	73	(16.6)	446	(86.4)
Denmark	232	(88.5)	187	(80.6)	0	(0.0)	187	(100.0)	45	(19.4)	262	(79.4)
Estonia	174	(98.3)	150	(86.2)	4	(2.7)	146	(97.3)	24	(13.8)	177	(92.2)
Finland	168	(96.0)	135	(80.4)	3	(2.2)	132	(97.8)	33	(19.6)	175	(74.2)
France ^h	3319	(100.0)	2338	(70.4)	–	–	–	–	981	(29.6)	3319	(100.0)
Germany	4248	(96.6)	3450	(81.2)	220	(6.4)	3230	(93.6)	798	(18.8)	4397	(74.3)
Greece	360	(91.4)	308	(85.6)	18	(5.8)	290	(94.2)	52	(14.4)	394	(88.9)
Hungary	708	(93.5)	385	(54.4)	0	(0.0)	385	(100.0)	323	(45.6)	757	(96.3)
Iceland	6	(100.0)	5	(83.3)	0	(0.0)	5	(100.0)	1	(16.7)	6	(100.0)
Ireland	193	(91.5)	163	(84.5)	0	(0.0)	163	(100.0)	30	(15.5)	211	(66.4)
Italy	2610	(92.6)	2387	(91.5)	0	(0.0)	2387	(100.0)	223	(8.5)	2820	(69.9)
Latvia	600	(96.9)	517	(86.2)	0	(0.0)	517	(100.0)	83	(13.8)	619	(93.8)
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	1232	(92.8)	1076	(87.3)	0	(0.0)	1076	(100.0)	156	(12.7)	1327	(92.0)
Luxembourg	24	(100.0)	22	(91.7)	0	(0.0)	22	(100.0)	2	(8.3)	24	(82.8)
Malta	37	(100.0)	33	(89.2)	0	(0.0)	33	(100.0)	4	(10.8)	37	(74.0)
Netherlands	470	(98.5)	356	(75.7)	0	(0.0)	356	(100.0)	114	(24.3)	477	(53.7)
Norway	173	(92.5)	150	(86.7)	2	(1.3)	148	(98.7)	23	(13.3)	187	(62.5)
Poland	5820	(95.2)	4369	(75.1)	72	(1.6)	4297	(98.4)	1451	(24.9)	6116	(94.9)
Portugal	1269	(97.5)	1113	(87.7)	30	(2.7)	1083	(97.3)	156	(12.3)	1302	(70.9)
Romania	10706	(92.9)	8791	(82.1)	35	(0.4)	8756	(99.6)	1915	(17.9)	11523	(84.6)
Slovakia	238	(94.1)	143	(60.1)	22	(15.4)	121	(84.6)	95	(39.9)	253	(85.5)
Slovenia	103	(100.0)	96	(93.2)	0	(0.0)	96	(100.0)	7	(6.8)	103	(87.3)
Spain	3399	(96.7)	2918	(85.8)	106	(3.6)	2812	(96.4)	481	(14.2)	3515	(72.1)
Sweden	463	(96.1)	411	(88.8)	8	(1.9)	403	(98.1)	52	(11.2)	482	(66.4)
United Kingdom	3133	(93.4)	2472	(78.9)	10	(0.4)	2462	(99.6)	661	(21.1)	3354	(54.3)
Subtotal EU/EEA	42720	(94.9)	34304	(80.3)	577	(1.7)	31389	(91.5)	8416	(18.7)	45024	(80.3)
Non-EU/EEA												
Albania	301	–	207	(68.8)	–	–	–	–	94	(31.2)	–	–
Andorra	3	–	2	(66.7)	–	–	–	–	1	(33.3)	–	–
Armenia	829	–	438	(52.8)	–	–	–	–	391	(47.2)	–	–
Azerbaijan	4122	–	2529	(61.4)	–	–	–	–	1593	(38.6)	–	–
Belarus	2964	–	2350	(79.3)	–	–	–	–	614	(20.7)	–	–
Bosnia and Herzegovina	792	–	597	(75.4)	–	–	–	–	195	(24.6)	–	–
former Yugoslav Republic of Macedonia, the	211	–	178	(84.4)	–	–	–	–	33	(15.6)	–	–
Georgia	2371	–	1998	(84.3)	–	–	–	–	373	(15.7)	–	–
Israel	184	–	132	(71.7)	–	–	–	–	52	(28.3)	–	–
Kazakhstan	10927	–	9679	(88.6)	–	–	–	–	1248	(11.4)	–	–
Kyrgyzstan	5514	–	3183	(57.7)	–	–	–	–	2331	(42.3)	–	–
Moldova	3235	–	2019	(62.4)	–	–	–	–	1216	(37.6)	–	–
Monaco	–	–	–	–	–	–	–	–	0	–	–	–
Montenegro	77	–	58	(75.3)	–	–	–	–	19	(24.7)	–	–
Russia	84066	–	42681	(50.8)	–	–	–	–	41385	(49.2)	–	–
San Marino	–	–	–	–	–	–	–	–	0	–	–	–
Serbia	1206	–	815	(67.6)	–	–	–	–	391	(32.4)	–	–
Serbia excluding UN Administered Province of Kosovo ⁱ	673	–	541	(80.4)	–	–	–	–	132	(19.6)	–	–
UN Administered Province of Kosovo ⁱ	533	–	274	(51.4)	–	–	–	–	259	(48.6)	–	–
Switzerland	402	–	362	(90.0)	–	–	–	–	40	(10.0)	–	–
Tajikistan	4368	–	3011	(68.9)	–	–	–	–	1357	(31.1)	–	–
Turkey	8044	–	6334	(78.7)	–	–	–	–	1710	(21.3)	–	–
Turkmenistan	1616	–	1616	(100.0)	–	–	–	–	0	(0.0)	–	–
Ukraine	26357	–	18125	(68.8)	–	–	–	–	8232	(31.2)	–	–
Uzbekistan	10709	–	4854	(45.3)	–	–	–	–	5855	(54.7)	–	–
Subtotal non-EU/EEA	168298	–	101168	(60.1)	–	–	–	–	67130	(39.9)	–	–
Total European Region	211018	–	135472	(64.2)	577	–	31389	–	75546	(35.8)	45024	–
Subtotal 18 HPC	178947	–	110109	(61.5)	40	–	11252	–	68838	(38.5)	14832	–

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

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

^d Microscopy results from any specimen are included for EU/EEA countries.

^e Percentage among pulmonary TB cases.

^f All nucleic acid amplification tests are counted as 'confirmed by WHO-recommended rapid diagnostics' for EU/EEA member states.

^g Percentage among confirmed new and relapse pulmonary TB cases.

^h Percentage among all TB cases.

ⁱ These data are subject to change as the national TB registry was under review when this report was being produced.

^j Provisional data on new and relapse cases including overseas territories reported to WHO Global TB database.

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

Table 7a: New and relapse tuberculosis cases by diagnostic method, European Region, 2016

Country	New ^a and relapse pulmonary tuberculosis cases								Clinically diagnosed cases		All pulmonary TB cases
	N	(%) ^b	Confirmed by culture, smear and/or nucleic acid amplification test				Confirmed by other bacteriological test				
			N	(%) ^c	Confirmed cases by WHO-recommended rapid diagnostics such as Xpert MTB/RIF ^d						
	N	(%) ^e			N	(%) ^e	N	(%) ^e			
EU/EEA											
Austria	619	(97.6)	525	(82.8)	319	(50.3)	206	(32.5)	94	(14.8)	634
Belgium	986	(94.2)	808	(77.2)	473	(45.2)	335	(32.0)	178	(17.0)	1047
<i>Bulgaria</i>	1525	(95.1)	781	(48.7)	6	(0.4)	775	(48.3)	744	(46.4)	1603
Croatia ^f	449	(97.6)	256	(55.7)	0	–	256	(55.7)	193	(42.0)	460
Cyprus	57	(95.0)	40	(66.7)	4	(6.7)	36	(60.0)	17	(28.3)	60
Czech Republic	511	(99.0)	419	(81.2)	204	(39.5)	215	(41.7)	92	(17.8)	516
Denmark	292	(88.5)	235	(71.2)	118	(35.8)	117	(35.5)	57	(17.3)	330
<i>Estonia</i>	188	(97.9)	156	(81.3)	143	(74.5)	13	(6.8)	32	(16.7)	192
Finland	225	(95.3)	187	(79.2)	62	(26.3)	125	(53.0)	38	(16.1)	236
France ^g	–	–	–	–	–	–	–	–	–	–	–
Germany	5737	(97.0)	4545	(76.8)	3161	(53.4)	1384	(23.4)	1192	(20.2)	5915
Greece	407	(91.9)	333	(75.2)	163	(36.8)	170	(38.4)	74	(16.7)	443
Hungary	737	(93.8)	393	(50.0)	0	–	393	(50.0)	344	(43.8)	786
Iceland	6	(100.0)	5	(83.3)	5	(83.3)	0	(0.0)	1	(16.7)	6
Ireland	293	(92.1)	227	(71.4)	112	(35.2)	115	(36.2)	66	(20.8)	318
Italy	–	–	–	–	–	–	–	–	–	–	–
<i>Latvia</i>	641	(97.1)	541	(82.0)	0	(0.0)	541	(82.0)	100	(15.2)	660
Liechtenstein	–	–	–	–	–	–	–	–	0	–	–
<i>Lithuania</i>	1347	(93.4)	1106	(76.7)	0	(0.0)	1106	(76.7)	241	(16.7)	1442
Luxembourg	29	(100.0)	26	(89.7)	0	(0.0)	26	(89.7)	3	(10.3)	29
Malta	50	(100.0)	42	(84.0)	17	(0.0)	25	(50.0)	8	(16.0)	50
Netherlands	877	(98.7)	589	(66.3)	0	(0.0)	589	(66.3)	288	(32.4)	889
Norway	278	(93.0)	225	(75.3)	132	(44.1)	93	(31.1)	53	(17.7)	299
Poland	6143	(95.3)	4528	(70.3)	888	(13.8)	3640	(56.5)	1615	(25.1)	6444
Portugal	1794	(97.7)	1312	(71.5)	284	(15.5)	1028	(56.0)	482	(26.3)	1836
<i>Romania</i>	12790	(93.9)	9143	(67.1)	689	(5.1)	8454	(62.1)	3647	(26.8)	13617
Slovakia	281	(94.9)	147	(49.7)	58	(19.6)	89	(30.1)	134	(45.3)	296
Slovenia	118	(100.0)	109	(92.4)	61	(51.7)	48	(40.7)	9	(7.6)	118
Spain	4734	(97.1)	3723	(76.3)	941	(19.3)	2782	(57.0)	1011	(20.7)	4877
Sweden	702	(96.7)	591	(81.4)	463	(63.8)	128	(17.6)	111	(15.3)	726
United Kingdom	5793	(93.8)	3874	(62.7)	298	(4.8)	3576	(57.9)	1919	(31.1)	6175
Subtotal EU/EEA	47 609	(95.2)	34 866	(73.2)	8 601	(24.7)	26 265	(75.3)	12 743	(25.5)	50 004
Non-EU/EEA											
Albania	415	(100.0)	207	(49.9)	–	–	–	–	94	(22.7)	415
Andorra	4	(100.0)	2	(50.0)	–	–	–	–	1	(25.0)	4
Armenia	1027	(95.1)	438	(40.6)	–	–	–	–	391	(36.2)	1080
<i>Azerbaijan</i>	5159	(76.9)	2529	(37.7)	–	–	–	–	1593	(23.8)	6707
Belarus	3211	(89.2)	2350	(65.3)	–	–	–	–	614	(17.1)	3598
Bosnia and Herzegovina	907	(100.0)	597	(65.8)	–	–	–	–	195	(21.5)	907
former Yugoslav Republic of Macedonia, the	263	(98.5)	178	(66.7)	–	–	–	–	33	(12.4)	267
<i>Georgia</i>	2983	(89.6)	1998	(60.0)	–	–	–	–	373	(11.2)	3330
Israel	250	(100.0)	132	(52.8)	–	–	–	–	52	(20.8)	250
<i>Kazakhstan</i>	12322	(97.3)	9679	(76.5)	–	–	–	–	1248	(9.9)	12658
<i>Kyrgyzstan</i>	7026	(87.9)	3183	(39.8)	–	–	–	–	2331	(29.2)	7995
<i>Moldova</i>	3571	(86.4)	2019	(48.8)	–	–	–	–	1216	(29.4)	4134
Monaco	–	–	–	–	–	–	–	–	–	–	0
Montenegro	87	(100.0)	58	(66.7)	–	–	–	–	19	(21.8)	87
<i>Russia</i>	92407	(76.3)	42 681	(35.3)	–	–	–	–	41 385	(34.2)	121 046
San Marino	–	(0.0)	0	(0.0)	–	–	–	–	0	(0.0)	0
Serbia	1472	(98.9)	815	(54.8)	–	–	–	–	391	(26.3)	1488
Serbia excluding UN Administered Province of Kosovo ^h	755	(98.4)	541	(70.5)	–	–	–	–	132	(17.2)	767
UN Administered Province of Kosovo ^h	717	(99.4)	274	(38.0)	–	–	–	–	259	(35.9)	721
Switzerland	573	(94.1)	362	(59.4)	–	–	–	–	40	(6.6)	609
<i>Tajikistan</i>	5965	(95.6)	3011	(48.2)	–	–	–	–	1357	(21.7)	6241
<i>Turkey</i>	12186	(98.1)	6334	(51.0)	–	–	–	–	1710	(13.8)	12417
<i>Turkmenistan</i>	2104	(88.6)	1616	(68.0)	–	–	–	–	0	(0.0)	2376
<i>Ukraine</i>	29052	(85.2)	18125	(53.2)	–	–	–	–	8232	(24.1)	34 088
<i>Uzbekistan</i>	16050	(87.0)	4854	(26.3)	–	–	–	–	5855	(31.7)	18441
Subtotal non-EU/EEA	197 034	(82.7)	101 168	(51.3)	–	–	–	–	67 130	(28.2)	238 138
Total European Region	244 643	(84.9)	136 034	(55.6)	8 601	–	26 265	–	79 873	(27.7)	288 142
Subtotal 18 HPC	209 554	(83.3)	110 544	(52.8)	838	–	10 889	–	71 069	(28.2)	251 625

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

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

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

^d Microscopy results from any specimen are included for EU/EEA countries.

^e Percentage among pulmonary TB cases.

^d All nucleic acid amplification tests are counted as 'confirmed by WHO-recommended rapid diagnostics' for EU/EEA member states.

^e Percentage among confirmed new and relapse pulmonary TB cases.

^f These data are subject to change as the national TB registry was under review when this report was being produced.

^g Provisional data on new and relapse cases including overseas territories reported to WHO Global TB database.

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

Table 8: Tuberculosis cases according to EU case definition, EU/EEA, 2016

Country	All laboratory-confirmed cases ^a						Confirmed cases ^b		Probable cases		Possible cases		All tuberculosis cases (N)
	Sputum smear-positive and nucleic-acid-test-positive only		Culture-positive only		Meeting both criteria								
	N	(%) ^c	N	(%) ^c	N	(%) ^c	N	(%) ^d	N	(%) ^d	N	(%) ^d	
Austria	15	(3.1)	344	(70.3)	130	(26.6)	489	(77.1)	56	(8.8)	89	(14.0)	634
Belgium	6	(0.7)	551	(68.8)	244	(30.5)	801	(76.5)	111	(10.6)	135	(12.9)	1047
<i>Bulgaria</i>	0	(0.0)	764	(100.0)	0	(0.0)	764	(47.7)	123	(7.7)	716	(44.7)	1603
Croatia ^e	0	(0.0)	262	(100.0)	0	(0.0)	262	(57.0)	0	(0.0)	198	(43.0)	460
Cyprus	1	(2.4)	40	(95.2)	1	(2.4)	42	(70.0)	3	(5.0)	15	(25.0)	60
Czech Republic	3	(0.8)	288	(73.5)	101	(25.8)	392	(76.0)	56	(10.9)	68	(13.2)	516
Denmark	2	(0.8)	161	(62.4)	95	(36.8)	258	(78.2)	2	(0.6)	70	(21.2)	330
<i>Estonia</i>	2	(1.3)	68	(43.6)	86	(55.1)	156	(81.3)	11	(5.7)	25	(13.0)	192
Finland	0	(0.0)	168	(90.3)	18	(9.7)	186	(78.8)	20	(8.5)	30	(12.7)	236
France ^g	–	–	–	–	–	–	4197	(84.7)	–	–	761	(15.3)	4958
Germany	65	(1.6)	3013	(72.4)	1086	(26.1)	4164	(70.4)	514	(8.7)	1237	(20.9)	5915
Greece	41	(16.7)	149	(60.6)	56	(22.8)	246	(55.5)	107	(24.2)	90	(20.3)	443
Hungary	0	(0.0)	404	(100.0)	0	(0.0)	404	(51.4)	22	(2.8)	360	(45.8)	786
Iceland	0	(0.0)	0	(0.0)	5	(100.0)	5	(83.3)	1	(16.7)	0	(0.0)	6
Ireland	0	(0.0)	191	(80.3)	47	(19.7)	238	(74.8)	26	(7.5)	55	(17.6)	318
Italy ^f	0	(0.0)	3261	(100.0)	0	(0.0)	3261	(80.9)	141	(3.5)	630	(15.6)	4032
<i>Latvia</i>	0	(0.0)	559	(100.0)	0	(0.0)	559	(84.7)	32	(4.8)	69	(10.5)	660
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–
<i>Lithuania</i>	0	(0.0)	1201	(100.0)	0	(0.0)	1201	(83.3)	6	(0.4)	235	(16.3)	1442
Luxembourg	0	(0.0)	26	(100.0)	0	(0.0)	26	(89.7)	0	(0.0)	3	(10.3)	29
Malta	0	(0.0)	29	(69.0)	13	(31.0)	42	(84.0)	0	(0.0)	8	(16.0)	50
Netherlands	0	(0.0)	583	(100.0)	0	(0.0)	583	(65.6)	54	(6.1)	252	(28.3)	889
Norway	2	(0.9)	162	(70.1)	67	(29.0)	231	(77.3)	13	(4.3)	55	(18.4)	299
Poland	0	(0.0)	4057	(87.8)	562	(12.2)	4619	(71.7)	123	(1.9)	1702	(26.4)	6444
Portugal	20	(1.8)	989	(88.1)	114	(10.2)	1123	(61.2)	381	(20.8)	332	(18.1)	1836
<i>Romania</i>	7	(0.1)	8962	(94.2)	548	(5.8)	9517	(69.9)	896	(6.6)	3204	(23.5)	13617
Slovakia	4	(3.4)	94	(80.3)	19	(16.2)	117	(39.5)	52	(17.6)	127	(42.9)	296
Slovenia	0	(0.0)	62	(56.9)	47	(43.1)	109	(92.4)	5	(4.2)	4	(3.4)	118
Spain ^f	65	(1.9)	2903	(86.1)	404	(12.0)	3372	(69.1)	620	(12.7)	885	(18.1)	4877
Sweden	0	(0.0)	474	(79.4)	123	(20.6)	597	(82.2)	32	(4.4)	97	(13.4)	726
United Kingdom	9	(0.2)	3746	(95.9)	152	(3.9)	3907	(63.3)	483	(7.8)	1785	(28.9)	6175
Total EU/EEA	242	(0.6)	33511	(80.0)	3918	(9.4)	41868	(71.0)	3888	(6.6)	13237	(22.4)	58994

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein. EU/EEA countries designated as high-priority countries by WHO are presented in italics.

^b Laboratory-confirmed TB cases according to EU case definition.

^c Confirmed by microscopy and nucleic acid amplification or culture.

^d Percentage among all laboratory-confirmed TB cases.

^e Percentage among all TB cases.

^f These data are subject to change as the national TB registry was under review when this report was being produced.

^g Data reported to TESSy may differ from numbers reported to TME by French, Italian and Spanish National Reference Laboratories.

^h Provisional data for 2016 including overseas territories reported to WHO Global TB database.

Table 9: New TB cases and relapses by age group and male-to-female ratio, European Region, 2016^a

Country	0-4				5-14				15-24				25-44			
	N	(%)	Rate	M:F ratio	N	(%)	Rate	M:F ratio	N	(%)	Rate	M:F ratio	N	(%)	Rate	M:F ratio
EU/EEA																
Austria	19	(3.1)	4.6	1.4	12	(1.9)	1.4	3.0	138	(22.3)	13.6	3.3	186	(30.0)	8.0	1.7
Belgium	26	(2.6)	4.1	1.4	31	(3.1)	2.4	2.1	159	(16.1)	12.0	1.4	378	(38.3)	12.8	1.8
Bulgaria	30	(2.0)	9.0	1.1	94	(6.2)	14.2	0.9	101	(6.6)	14.7	1.1	477	(31.3)	23.5	2.1
Croatia ^b	0	(0.0)	0.0	–	6	(1.3)	1.5	0.5	20	(4.5)	4.2	0.4	96	(21.4)	8.6	2.4
Cyprus	0	(0.0)	0.0	–	0	(0.0)	0.0	–	7	(12.3)	6.0	0.8	36	(63.2)	14.0	1.4
Czech Republic	10	(2.0)	1.8	1.5	0	(0.0)	0.0	–	28	(5.5)	2.7	1.3	152	(29.7)	4.8	2.7
Denmark	6	(2.1)	2.0	5.0	12	(4.1)	1.8	0.3	37	(12.7)	5.0	2.1	117	(40.1)	8.2	1.9
Estonia	2	(1.1)	2.8	N/M	2	(1.1)	1.4	N/M	5	(2.7)	3.7	0.7	51	(27.1)	13.6	2.9
Finland	1	(0.4)	0.3	N/F	5	(2.2)	0.8	0.3	40	(17.8)	6.2	1.7	57	(25.3)	4.2	1.1
France ^c	127	(2.7)	3.2	1.4	142	(3.0)	1.7	1.2	618	(13.2)	7.9	2.1	1730	(37.0)	10.4	2.1
Germany	104	(1.8)	2.9	1.0	126	(2.2)	1.7	1.3	1456	(25.4)	16.6	3.5	2005	(34.9)	9.8	2.0
Greece	8	(2.0)	1.7	7.0	12	(2.9)	1.1	1.0	36	(8.8)	3.3	5.0	111	(27.3)	3.8	2.1
Hungary	3	(0.4)	0.7	N/F	3	(0.4)	0.3	N/F	39	(5.3)	3.5	1.3	151	(20.5)	5.3	1.1
Iceland	0	(0.0)	0.0	–	0	(0.0)	0.0	–	0	(0.0)	0.0	–	4	(66.7)	4.4	3.0
Ireland	4	(1.4)	1.1	0.3	12	(4.1)	1.8	1.0	28	(9.6)	5.3	1.2	120	(41.0)	8.5	2.0
Italy	73	(1.9)	2.8	1.5	77	(2.0)	1.3	1.1	702	(18.6)	11.9	3.7	1326	(35.1)	8.5	1.8
Latvia	10	(1.6)	9.7	0.7	13	(2.0)	6.6	1.6	32	(5.0)	16.0	1.3	251	(39.2)	46.3	2.2
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	12	(0.9)	7.9	2.0	35	(2.6)	12.9	1.3	85	(6.3)	23.7	1.1	446	(33.1)	60.1	2.4
Luxembourg	0	(0.0)	0.0	–	1	(3.4)	1.6	N/F	3	(10.3)	4.4	N/F	11	(37.9)	6.3	4.5
Malta	0	(0.0)	0.0	–	0	(0.0)	0.0	–	11	(22.0)	20.8	2.7	35	(70.0)	28.1	2.9
Netherlands	18	(2.1)	2.1	1.3	31	(3.5)	1.6	0.6	167	(19.0)	8.0	1.5	340	(38.8)	8.1	1.5
Norway	4	(1.4)	1.3	1.0	10	(3.6)	1.6	1.5	67	(24.1)	10.0	2.4	126	(45.3)	8.8	0.9
Poland	30	(0.5)	1.6	0.9	73	(1.2)	1.9	1.0	250	(4.1)	5.7	1.2	1555	(25.3)	13.4	2.1
Portugal	20	(1.1)	4.6	0.8	13	(0.7)	1.3	0.6	154	(8.6)	13.9	1.1	520	(29.0)	18.8	1.4
Romania	180	(1.4)	18.9	1.2	416	(3.3)	19.7	1.0	1515	(11.8)	70.1	1.2	4378	(34.2)	76.6	2.0
Slovakia	44	(15.7)	15.4	0.9	16	(5.7)	2.9	0.6	8	(2.8)	1.3	7.0	56	(19.9)	3.3	1.8
Slovenia	2	(1.7)	1.9	1.0	1	(0.8)	0.5	N/M	6	(5.1)	3.0	1.0	21	(17.8)	3.6	2.5
Spain	135	(2.9)	6.1	1.0	132	(2.8)	2.7	0.9	389	(8.2)	8.7	1.4	1605	(33.9)	11.9	1.4
Sweden	11	(1.6)	1.9	0.8	46	(6.6)	4.1	1.6	236	(33.6)	20.0	5.1	248	(35.3)	9.7	1.6
United Kingdom	98	(1.7)	2.4	1.1	126	(2.2)	1.7	0.8	702	(12.1)	8.7	1.4	2524	(43.6)	14.6	1.5
Subtotal EU/EEA	977	(1.7)	3.7	1.1	1447	(2.6)	2.7	1.0	7039	(12.6)	12.3	1.9	19113	(34.1)	13.8	1.8
Non-EU/EEA																
Albania	3	(0.7)	1.7	0.0	10	(2.4)	2.9	1.0	86	(20.7)	18.2	2.4	122	(29.4)	15.4	2.1
Andorra	0	(0.0)	0.0	–	0	(0.0)	0.0	–	0	(0.0)	0.0	–	1	(25.0)	10.1	N/F
Armenia	6	(0.6)	3.0	0.2	15	(1.5)	3.9	2.0	149	(14.5)	37.2	2.5	342	(33.3)	38.5	2.6
Azerbaijan	32	(0.8)	3.6	1.9	143	(3.8)	10.5	1.8	989	(26.1)	63.8	1.9	1411	(37.2)	45.2	2.1
Belarus	3	(0.1)	0.5	2.0	10	(0.3)	1.0	0.7	176	(5.5)	17.2	1.6	1314	(40.9)	46.0	2.4
Bosnia and Herzegovina	3	(0.3)	1.9	2.0	7	(0.8)	2.0	0.8	88	(9.7)	19.1	1.3	183	(20.2)	18.7	1.3
former Yugoslav Republic of Macedonia, the	11	(4.2)	9.3	1.2	14	(5.3)	6.1	0.8	33	(12.5)	11.9	0.7	84	(31.9)	13.3	2.0
Georgia	34	(1.1)	12.5	1.8	89	(3.0)	18.8	1.4	364	(12.2)	73.6	0.9	1190	(39.9)	109.5	1.9
Israel	11	(4.4)	1.3	4.5	2	(0.8)	0.1	N/F	12	(4.8)	1.0	2.0	125	(50.0)	5.7	1.7
Kazakhstan	84	(0.7)	4.2	1.0	242	(2.0)	8.3	0.8	2073	(16.8)	82.1	1.1	5529	(44.9)	100.1	1.7
Kyrgyzstan	77	(1.1)	10.1	0.9	330	(4.7)	29.6	1.3	1637	(23.3)	156.6	1.2	2581	(36.7)	148.4	1.3
Moldova	35	(1.0)	16.1	1.1	68	(1.9)	16.2	1.4	302	(8.5)	56.0	1.4	1616	(45.3)	117.4	2.6
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	0	(0.0)	0.0	–	0	(0.0)	0.0	–	8	(9.2)	9.5	–	22	(25.3)	12.6	–
Russia	1094	(1.2)	11.4	1.0	1782	(1.9)	11.6	1.0	6296	(6.8)	43.6	1.3	50841	(55.0)	112.4	2.4
San Marino	0	(0.0)	0.0	–	0	(0.0)	0.0	–	0	(0.0)	0.0	–	0	(0.0)	0.0	–
Serbia	3	(0.2)	0.6	0.0	14	(1.0)	1.4	1.0	201	(13.7)	18.3	0.9	378	(25.7)	15.6	1.4
Serbia excluding UN Administered Province of Kosovo ^d	0	(0.0)	0.0	–	0	(0.0)	0.0	–	62	(8.2)	8.1	–	177	(23.4)	9.5	–
UN Administered Province of Kosovo ^d	3	(0.4)	1.9	0.0	14	(2.0)	4.2	1.0	139	(19.4)	41.3	0.9	201	(28.0)	35.4	1.1
Switzerland	13	(2.3)	3.0	0.6	17	(3.0)	2.1	1.8	159	(27.7)	16.9	2.9	220	(38.4)	9.5	1.7
Tajikistan	107	(1.8)	9.0	1.2	282	(4.7)	14.9	1.0	1536	(25.8)	90.2	1.3	2294	(38.5)	93.9	1.3
Turkey	208	(1.7)	3.1	1.4	420	(3.4)	3.1	0.8	1908	(15.7)	14.5	1.1	3767	(30.9)	15.5	1.2
Turkmenistan	0	(0.0)	0.0	–	0	(0.0)	0.0	–	387	(18.6)	38.8	–	970	(46.7)	56.2	–
Ukraine	262	(0.9)	11.2	1.1	309	(1.1)	7.0	1.0	2000	(6.9)	43.5	1.4	15599	(53.7)	113.7	2.7
Uzbekistan	393	(2.4)	12.3	1.4	1617	(10.1)	28.8	1.4	1793	(11.2)	30.5	1.2	5444	(33.9)	54.8	1.4
Subtotal non-EU/EEA	2379	(1.2)	7.7	1.1	5371	(2.7)	10.0	1.1	20197	(10.3)	38.2	1.3	94033	(48.1)	76.2	2.1
Total European Region	3356	(1.3)	5.9	1.1	6818	(2.7)	6.4	1.1	27236	(10.8)	25.0	1.4	113146	(45.0)	43.6	2.1
Subtotal 18 HPC	2569	(1.2)	8.5	1.1	5867	(2.8)	11.1	1.1	21348	(10.3)	41.2	1.3	98501	(47.3)	79.9	2.1

^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.

N/F: no female in subgroup.

N/M: no male in subgroup.

^b Cases with missing information on previous history of TB treatment are included among new cases.

^c These data are subject to change as the national TB registry was under review when this report was being produced.

^d Provisional data on new and relapse cases including overseas territories reported to WHO Global TB database.

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

	45-64				> 64				Unknown			Total		Country
	N	(%)	Rate	M:F ratio	N	(%)	Rate	M:F ratio	N	(%)	M:F ratio	N	M:F ratio	
														EU/EEA
	152	(24.6)	6.1	2.1	112	(18.1)	7.0	1.4	0	(0.0)	-	619	2.0	Austria
	233	(23.6)	7.6	2.1	159	(16.1)	7.7	1.7	0	(0.0)	-	986	1.8	Belgium
	522	(34.2)	26.4	3.0	301	(19.7)	20.6	1.8	0	(0.0)	-	1525	2.0	Bulgaria
	170	(37.9)	14.4	2.5	157	(35.0)	19.5	0.9	0	(0.0)	-	449	1.5	Croatia ^b
	12	(21.1)	5.8	1.0	2	(3.5)	1.6	N/M	0	(0.0)	-	57	1.1	Cyprus
	188	(36.8)	6.8	3.5	133	(26.0)	6.9	1.2	0	(0.0)	-	511	2.2	Czech Republic
	89	(30.5)	5.9	2.0	31	(10.6)	2.9	1.1	0	(0.0)	-	292	1.7	Denmark
	81	(43.1)	23.5	5.2	47	(25.0)	18.8	1.0	0	(0.0)	-	188	2.4	Estonia
	40	(17.8)	2.7	1.7	82	(36.4)	7.3	1.2	0	(0.0)	-	225	1.3	Finland
	1084	(23.2)	6.3	2.3	974	(20.8)	7.8	1.9	0	(0.0)	-	4 675	2.0	France ^c
	1109	(19.3)	4.5	2.2	936	(16.3)	5.4	1.3	1	(0.0)	-	5 737	2.1	Germany
	115	(28.3)	3.9	3.0	121	(29.7)	5.3	2.1	4	(1.0)	-	407	2.4	Greece
	375	(50.9)	14.1	2.6	166	(22.5)	9.2	1.0	0	(0.0)	-	737	1.7	Hungary
	1	(16.7)	1.2	-	1	(16.7)	2.2	N/M	0	(0.0)	-	6	2.0	Iceland
	77	(26.3)	6.8	1.3	51	(17.4)	8.2	1.2	1	(0.3)	-	293	1.5	Ireland
	713	(18.9)	4.1	2.0	554	(14.7)	4.1	1.3	333	(8.8)	-	3 778	1.9	Italy
	261	(40.7)	48.3	3.9	74	(11.5)	19.1	1.0	0	(0.0)	-	641	2.3	Latvia
	-	-	-	-	-	-	-	-	-	-	-	-	-	Liechtenstein
	593	(44.0)	72.7	3.5	176	(13.1)	32.1	1.5	0	(0.0)	-	1 347	2.4	Lithuania
	11	(37.9)	7.1	N/F	3	(10.3)	3.7	0.5	0	-	-	29	4.8	Luxembourg
	2	(4.0)	1.8	1.0	2	(4.0)	2.4	N/F	0	(0.0)	-	50	2.8	Malta
	190	(21.7)	4.0	1.4	131	(14.9)	4.2	1.2	0	(0.0)	-	877	1.4	Netherlands
	46	(16.5)	3.5	1.6	25	(9.0)	2.9	1.5	0	(0.0)	-	278	1.3	Norway
	2 668	(43.4)	26.2	3.5	1 567	(25.5)	25.9	1.3	0	(0.0)	-	6 143	2.2	Poland
	640	(35.7)	22.3	3.0	443	(24.7)	20.7	1.9	4	(0.2)	-	1 794	1.9	Portugal
	4 503	(35.2)	83.7	4.2	1 798	(14.1)	52.3	1.4	0	(0.0)	-	12 790	2.2	Romania
	84	(29.9)	5.8	1.7	73	(26.0)	9.3	1.4	0	(0.0)	-	281	1.4	Slovakia
	39	(33.1)	6.5	2.5	49	(41.5)	12.9	0.8	0	(0.0)	-	118	1.4	Slovenia
	1 376	(29.1)	10.7	2.3	1 096	(23.2)	12.6	1.7	1	(0.0)	-	4 734	1.6	Spain
	99	(14.1)	4.0	1.5	62	(8.8)	3.2	0.9	0	(0.0)	-	702	2.0	Sweden
	1 463	(25.3)	8.7	1.6	880	(15.2)	7.5	1.2	0	(0.0)	-	5 793	1.4	United Kingdom
	16 936	(30.2)	12.0	2.9	10 206	(18.2)	10.3	1.4	344	(0.6)	-	56 062	1.5	Subtotal EU/EEA
														Non-EU/EEA
	95	(22.9)	12.4	2.7	99	(23.9)	26.4	2.5	0	(0.0)	-	415	2.3	Albania
	1	(25.0)	10.2	N/F	2	(50.0)	35.3	-	0	(0.0)	-	4	-	Andorra
	404	(39.3)	55.4	4.8	111	(10.8)	34.3	3.0	0	(0.0)	-	1 027	3.2	Armenia
	1 036	(27.3)	46.4	2.6	182	(4.8)	32.0	1.5	0	(0.0)	-	3 793	2.1	Azerbaijan
	1 288	(40.1)	48.4	4.5	420	(13.1)	30.4	0.9	0	(0.0)	-	3 211	2.5	Belarus
	278	(30.7)	27.6	2.4	348	(38.4)	61.3	0.7	0	(0.0)	-	907	1.3	Bosnia and Herzegovina
	77	(29.3)	13.9	3.1	44	(16.7)	16.4	1.8	0	(0.0)	-	263	1.8	former Yugoslav Republic of Macedonia, the
	951	(31.9)	93.0	3.8	355	(11.9)	61.4	1.7	0	(0.0)	-	2 983	2.0	Georgia
	60	(24.0)	3.8	1.3	40	(16.0)	4.3	0.4	0	(0.0)	-	250	1.3	Israel
	3 319	(26.9)	87.8	2.6	1 075	(8.7)	87.4	1.0	0	(0.0)	-	12 322	1.6	Kazakhstan
	1 747	(24.9)	168.8	1.8	654	(9.3)	252.1	1.2	0	(0.0)	-	7 026	1.3	Kyrgyzstan
	1 288	(36.1)	118.6	3.7	262	(7.3)	62.5	1.6	0	(0.0)	-	3 571	2.6	Moldova
	-	-	-	-	-	-	-	-	-	-	-	-	-	Monaco
	39	(44.8)	23.6	-	18	(20.7)	20.0	-	0	(0.0)	-	87	-	Montenegro
	26 152	(28.3)	66.2	3.2	5 845	(6.3)	29.4	1.2	397	(0.4)	-	92 407	2.3	Russia
	0	(0.0)	0.0	-	0	(0.0)	0.0	-	0	(0.0)	-	0	-	San Marino
	483	(32.8)	20.6	2.0	393	(26.7)	26.5	0.9	0	(0.0)	-	1 472	1.3	Serbia
	288	(38.1)	14.3	-	228	(30.2)	16.8	-	0	(0.0)	-	755	-	Serbia excluding UN Administered Province of Kosovo ^d
	195	(27.2)	57.8	1.4	165	(23.0)	128.0	0.8	0	(0.0)	-	717	1.0	UN Administered Province of Kosovo ^d
	85	(14.8)	3.6	1.7	79	(13.8)	5.2	1.0	0	(0.0)	-	573	1.8	Switzerland
	1 273	(21.3)	104.2	1.2	473	(7.9)	160.0	0.8	0	(0.0)	-	5 965	1.2	Tajikistan
	3 680	(30.2)	23.4	1.8	2 203	(18.1)	34.8	1.2	0	(0.0)	-	12 186	1.3	Turkey
	557	(26.8)	58.1	-	128	(6.2)	54.4	-	36	(1.7)	-	2 078	-	Turkmenistan
	8 586	(29.6)	70.5	4.3	2 296	(7.9)	32.0	1.2	0	(0.0)	-	29 052	2.7	Ukraine
	4 694	(29.2)	85.6	1.4	2 109	(13.1)	154.9	1.0	0	(0.0)	-	16 050	1.3	Uzbekistan
	56 093	(28.7)	58.2	2.8	17 136	(8.8)	37.8	1.2	433	(0.2)	-	195 642	2.0	Subtotal non-EU/EEA
	73 029	(29.0)	30.6	2.8	27 342	(10.9)	18.8	1.2	777	(0.3)	-	251 704	2.0	Total European Region
	60 935	(29.3)	63.0	2.9	18 509	(8.9)	40.1	1.2	433	(0.2)	-	208 162	2.0	Subtotal \geq8 HPC

Table 10: Tuberculosis cases by origin, European Region, 2016

Country	Origin criterion	Native		Foreign		Unknown origin		All TB cases
		N	(%)	N	(%)	N	(%)	N
EU/EEA								
Austria	citizenship	210	(33.1)	424	(66.9)	0	(0.0)	634
Belgium	citizenship	500	(47.8)	547	(52.2)	0	(0.0)	1047
Bulgaria	birthplace	1599	(99.8)	4	(0.2)	0	(0.0)	1603
Croatia ^a	birthplace	161	(35.0)	3	(0.7)	296	(64.3)	460
Cyprus	birthplace	4	(6.7)	56	(93.3)	0	(0.0)	60
Czech Republic	birthplace	365	(70.7)	151	(29.3)	0	(0.0)	516
Denmark ^b	birthplace	109	(33.0)	221	(67.0)	0	(0.0)	330
Estonia	birthplace	150	(78.1)	42	(21.9)	0	(0.0)	192
Finland	birthplace	117	(49.6)	111	(47.0)	8	(3.4)	236
France ^c	birthplace	2200	(44.4)	2758	(55.6)	-	-	4958
Germany	birthplace	1427	(24.1)	4125	(69.7)	363	(6.1)	5915
Greece	citizenship	254	(57.3)	189	(42.7)	0	(0.0)	443
Hungary	citizenship	756	(96.2)	30	(3.8)	0	(0.0)	786
Iceland	birthplace	2	(33.3)	4	(66.7)	0	(0.0)	6
Ireland	birthplace	145	(45.6)	160	(50.3)	13	(4.1)	318
Italy	birthplace	1180	(29.3)	2509	(62.2)	343	(8.5)	4032
Latvia	birthplace	617	(93.5)	43	(6.5)	0	(0.0)	660
Liechtenstein	-	-	-	-	-	-	-	-
Lithuania	birthplace	1429	(99.1)	13	(0.9)	0	(0.0)	1442
Luxembourg	birthplace	7	(24.1)	22	(75.9)	0	(0.0)	29
Malta	birthplace	2	(4.0)	48	(96.0)	0	(0.0)	50
Netherlands	birthplace	214	(24.1)	669	(75.3)	6	(0.7)	889
Norway	birthplace	34	(11.4)	265	(88.6)	0	(0.0)	299
Poland	citizenship	6352	(98.6)	92	(1.4)	0	(0.0)	6444
Portugal	birthplace	1500	(81.7)	336	(18.3)	0	(0.0)	1836
Romania	birthplace	13593	(99.8)	24	(0.2)	0	(0.0)	13617
Slovakia	birthplace	285	(96.3)	11	(3.7)	0	(0.0)	296
Slovenia	birthplace	75	(63.6)	43	(36.4)	0	(0.0)	118
Spain	birthplace	2886	(59.2)	1391	(28.5)	600	(12.3)	4877
Sweden	birthplace	74	(10.2)	652	(89.8)	0	(0.0)	726
United Kingdom	birthplace	1662	(26.9)	4369	(70.8)	144	(2.3)	6175
Subtotal EU/EEA		37909	(64.3)	19312	(32.7)	1773	(3.0)	58994
Non-EU/EEA								
Albania	citizenship	415	(100.0)	0	0	-	-	415
Andorra	citizenship	4	(100.0)	0	0	-	-	4
Armenia	citizenship	1080	(100.0)	0	0	-	-	1080
Azerbaijan	citizenship	6695	(99.8)	12	0	-	-	6707
Belarus	citizenship	3598	(100.0)	0	0	-	-	3598
Bosnia and Herzegovina	citizenship	907	(100.0)	0	0	-	-	907
former Yugoslav Republic of Macedonia, the	birthplace	259	(97.0)	8	3	-	-	267
Georgia	citizenship	-	-	-	-	-	-	-
Israel	birthplace	48	(19.2)	202	81	-	-	250
Kazakhstan	citizenship	12505	(98.8)	153	1	-	-	12658
Kyrgyzstan	birthplace	7995	(100.0)	0	0	-	-	7995
Moldova	citizenship	4095	(99.1)	39	1	-	-	4134
Monaco	birthplace	-	-	-	-	-	-	-
Montenegro	citizenship	85	(97.7)	2	2	-	-	87
Russia	citizenship	118249	(97.7)	2797	2	-	-	121046
San Marino	-	0	-	0	-	-	-	0
Serbia	-	1483	(99.7)	5	0	-	-	1488
Serbia excluding UN Administered Province of Kosovo ^d	citizenship	766	(99.9)	1	0	-	-	767
UN Administered Province of Kosovo ^d	birthplace	717	(99.4)	4	1	-	-	721
Switzerland	birthplace	123	(20.2)	486	80	-	-	609
Tajikistan	birthplace	6241	(100.0)	0	0	-	-	6241
Turkey	birthplace	11513	(92.7)	904	7	-	-	12417
Turkmenistan	citizenship	-	-	-	-	-	-	-
Ukraine	citizenship	34068	(99.9)	20	0	-	-	34088
Uzbekistan	birthplace	18441	(100.0)	0	0	-	-	18441
Subtotal non-EU/EEA		227804	(98.0)	4628	(2.0)	-	-	232432
Total European Region		265713	(91.2)	23940	(8.2)	1773	(0.6)	291426
Subtotal 18 HPC		241868	(98.4)	4051	(1.6)	0	(0.0)	245919

^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 These data are subject to change as the national TB registry was under review when this report was being produced.

^b By birthplace of parents for Danish-born cases under 26 years of age.

^c Provisional data on new and relapse cases including overseas territories reported to WHO Global TB database. Cases with unknown origin are included among natives.

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

Table 11: Drug resistance surveillance of pulmonary bacteriologically-confirmed^a tuberculosis cases, European Region, 2016

Country	Source of data	Coverage	Bacteriologically-confirmed cases ^a		Cases with DST results at least RIF and INH		Cases resistant to any anti-TB drug ^b		Multidrug-resistant TB cases		Reporting completeness ^c
			N	(%)	N	(%)	N	(%)	N	(%)	
EU/EEA											
Austria	TESSy	national	400	(83.0)	374	(93.5)	45	(3.7)	14	(12.0)	Y
Belgium	TESSy	national	606	(84.8)	568	(93.7)	34	(1.6)	9	(6.0)	Y
Bulgaria	TESSy	national	746	(62.9)	653	(87.5)	71	(2.9)	19	(10.9)	Y
Croatia ^d	TESSy	national	193	(62.9)	193	(100.0)	6	(0.0)	0	(3.1)	Y
Cyprus	TESSy	national	39	(76.5)	38	(97.4)	6	(0.0)	0	(15.8)	Y
Czech Republic	TESSy	national	368	(82.5)	330	(89.7)	22	(1.8)	6	(6.7)	Y
Denmark	TESSy	national	208	(79.4)	203	(97.6)	12	(1.5)	3	(5.9)	Y
Estonia	TESSy	national	153	(86.4)	145	(94.8)	48	(15.9)	23	(33.1)	Y
Finland	TESSy	national	139	(79.4)	134	(96.4)	12	(2.2)	3	(9.0)	Y
France ^e	NRL-TME ^f	sub-national	3120	(84.7)	3120	(100.0)	–	–	51	(4.1)	Y
Germany	TESSy	national	3501	(79.6)	2959	(84.5)	361	(3.0)	90	(12.2)	Y
Greece	TESSy	–	246	(62.4)	115	(46.7)	19	(4.3)	5	(16.5)	N
Hungary	TESSy	national	396	(52.3)	332	(83.8)	48	(5.4)	18	(14.5)	Y
Iceland	TESSy	national	5	(83.3)	4	(80.0)	0	(0.0)	0	(0.0)	Y
Ireland	TESSy	national	171	(81.0)	167	(97.7)	20	(3.6)	6	(12.0)	Y
Italy ^e	NRL-TME ^f	sub-national	1967	(69.8)	869	(44.2)	–	–	33	(3.8)	N
Latvia	TESSy	national	535	(86.4)	512	(95.7)	138	(10.4)	53	(27.0)	Y
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–
Lithuania	TESSy	national	1171	(88.2)	1171	(100.0)	382	(20.7)	242	(32.6)	Y
Luxembourg	TESSy	national	22	(91.7)	21	(95.5)	2	(4.8)	1	(9.5)	Y
Malta	TESSy	national	33	(89.2)	33	(100.0)	1	(0.0)	0	(3.0)	Y
Netherlands	TESSy	national	353	(74.0)	353	(100.0)	44	(2.3)	8	(12.5)	Y
Norway	TESSy	national	162	(86.6)	157	(96.9)	23	(5.1)	8	(14.6)	Y
Poland	TESSy	national	4548	(74.4)	4114	(90.5)	235	(1.1)	45	(5.7)	Y
Portugal	TESSy	national	975	(74.9)	677	(69.4)	64	(1.5)	10	(9.5)	N
Romania	TESSy	national	9222	(80.0)	8211	(89.0)	863	(5.6)	458	(10.5)	Y
Slovakia	TESSy	national	137	(54.2)	111	(81.0)	8	(2.7)	3	(7.2)	Y
Slovenia	TESSy	national	96	(93.2)	96	(100.0)	6	(0.0)	0	(6.3)	Y
Spain ^e	NRL-TME ^f	sub-national	896	(100.0)	896	(100.0)	–	(4.4)	39	(4.4)	N
Sweden	TESSy	national	427	(88.6)	418	(97.9)	50	(3.3)	14	(12.0)	Y
United Kingdom	TESSy	national	2548	(76.0)	2452	(96.2)	198	(1.8)	43	(8.1)	Y
Subtotal EU/EEA			33383	(80.0)	29426	(88.1)	2718	(9.8)	1204	(4.1)	
Non-EU/EEA											
Albania	NRL-TME	national	97	–	40	(41.2)	–	–	1	(2.5)	N
Andorra	NRL-TME	national	2	–	1	(50.0)	–	–	0	(0.0)	N
Armenia	NRL-TME	national	485	–	461	(95.1)	–	–	115	(24.9)	Y
Azerbaijan	NRL-TME	national	3759	–	2614	(69.5)	–	–	777	(29.7)	N
Belarus	NRL-TME	national	2621	–	2555	(97.5)	–	–	1222	(47.8)	Y
Bosnia and Herzegovina	NRL-TME	national	597	–	597	(100.0)	–	–	0	(0.0)	Y
former Yugoslav Republic of Macedonia, the	NRL-TME	national	178	–	143	(80.3)	–	–	2	(1.4)	Y
Georgia	NRL-TME	national	2313	–	1791	(77.4)	–	–	296	(16.5)	Y
Israel	NRL-TME	national	132	–	123	(93.2)	–	–	9	(7.3)	Y
Kazakhstan	NRL-TME	national	10015	–	5213	(52.1)	–	–	1231	(23.6)	N
Kyrgyzstan	NRL-TME	national	3753	–	2642	(70.4)	–	–	864	(32.7)	N
Moldova	NRL-TME	national	2454	–	1574	(64.1)	–	–	525	(33.4)	N
Monaco	–	–	–	–	–	–	–	–	–	–	Y
Montenegro	NRL-TME	national	57	–	57	(100.0)	–	–	0	(0.0)	Y
Russia	NRL-TME	national	63638	–	57910	(91.0)	–	–	25971	(44.8)	Y
San Marino	–	–	0	–	0	(0.0)	–	–	0	(0.0)	N
Serbia	–	national	815	–	668	(82.0)	–	–	8	(1.2)	Y
Serbia excluding UN Administered Province of Kosovo ^g	NRL-TME	national	541	–	398	(73.6)	–	–	6	(1.5)	N
UN Administered Province of Kosovo ^g	–	national	274	–	270	(98.5)	–	–	2	(0.7)	Y
Switzerland	NRL-TME	national	314	–	296	(94.3)	–	–	13	(4.4)	Y
Tajikistan	NRL-TME	sub-national	3011	–	2702	(89.7)	–	–	646	(23.9)	Y
Turkey	NRL-TME	national	6514	–	5612	(86.2)	–	–	190	(3.4)	Y
Turkmenistan	NRL-TME	–	–	–	–	–	–	–	–	–	N
Ukraine	NRL-TME	national	21957	–	20147	(91.8)	–	–	5756	(28.6)	Y
Uzbekistan	NRL-TME	sub-national	2309	–	1086	(47.0)	–	–	603	(55.5)	N
Subtotal non-EU/EEA			125021	(0.0)	106232	(85.0)	–	–	38226	(36.0)	
Total European Region			158404	(0.0)	135658	(85.6)	2718	(9.8)	39433	(29.1)	
Subtotal 18 HPC			134656	(0.0)	114999	(85.4)	1502	(1.3)	38991	(33.9)	

^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.

^b Bacteriologically confirmed cases – cases with positive identification for *Mycobacterium tuberculosis* complex confirmed by culture and/or line probe assay for all countries.

^c 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.

^d Data considered complete when national coverage 100% or culture results available for 90% of all cases, and 50% of all cases culture-positive, and 75% of them with DST results, and EQA results accurate in 95% of samples of reported year.

^e These data are subject to change as the national TB registry was under review when this report was being produced.

^f Data from France, Italy and Spain reported by NRL may differ from data shown elsewhere in this report. Spain reported the DST results only for pulmonary TB cases.

^g NRL: National reference laboratory; TME: WHO Tuberculosis Monitoring and Evaluation Database.

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

Table 12: Drug resistance surveillance of bacteriologically-confirmed^a pulmonary tuberculosis cases by previous TB treatment history^b, European Region, 2016

Country	New...								Previously treated...							
	Cases with DST results		MDR-TB		bacteriologically confirmed pulmonary TB cases		... pulmonary TB cases		Cases with DST results		MDR-TB		bacteriologically confirmed pulmonary TB cases		... pulmonary TB cases	
	N	(%) ^d	N	(%) ^e	N	(%) ^f	N	(%)	N	(%) ^d	N	(%) ^e	N	(%) ^f	N	(%)
EU/EEA																
Austria		(97.8)	6	(2.2)	273	(80.3)	340	(92.4)	17	(94.4)	3	(17.6)	18	(64.3)	28	(7.6)
Belgium	429	(97.1)	6	(1.4)	442	(83.7)	528	(91.5)	35	(87.5)	2	(5.7)	40	(81.6)	49	(8.5)
Bulgaria	572	(87.7)	5	(0.9)	652	(63.8)	1022	(86.2)	81	(87.1)	14	(17.3)	93	(56.7)	164	(13.8)
Croatia ^h	168	(100.0)	0	(0.0)	168	(64.1)	262	(93.2)	8	(100.0)	0	(0.0)	8	(42.1)	19	(6.8)
Cyprus	36	(97.3)	0	(0.0)	37	(78.7)	47	(92.2)	2	(100.0)	0	(0.0)	2	(50.0)	4	(7.8)
Czech Republic	318	(95.2)	4	(1.3)	334	(78.8)	424	(95.1)	12	(80.0)	2	(16.7)	15	(68.2)	22	(4.9)
Denmark	181	(0.0)	3	(1.7)	186	(0.0)	232	(88.5)	22	(100.0)	0	(0.0)	22	(73.3)	30	(11.5)
Estonia	132	(99.2)	17	(12.9)	133	(85.8)	155	(87.6)	13	(81.3)	6	(46.2)	16	(72.7)	22	(12.4)
Finland	125	(98.4)	2	(1.6)	127	(77.4)	164	(95.3)	6	(100.0)	0	(0.0)	6	(75.0)	8	(4.7)
France	2441	(100.0)	33	(1.4)	2441	(100.0)	2441	(68.1)	264	(100.0)	18	(6.8)	264	(100.0)	264	(7.4)
Germany	179	(93.7)	4	(2.2)	191	(72.9)	262	(49.3)	133	(89.3)	19	(14.3)	149	(55.4)	269	(50.7)
Greece	102	(49.3)	2	(2.0)	207	(60.0)	345	(91.0)	11	(84.6)	3	(27.3)	13	(38.2)	34	(9.0)
Hungary	295	(85.5)	12	(4.1)	345	(53.0)	651	(86.0)	37	(72.5)	6	(16.2)	51	(48.1)	106	(14.0)
Iceland	4	(80.0)	0	(0.0)	5	(83.3)	6	(100.0)	0	–	0	–	0	–	0	(0.0)
Ireland	127	(98.4)	4	(3.1)	129	(84.9)	152	(89.4)	11	(100.0)	2	(18.2)	11	(61.1)	18	(10.6)
Italy	772	(100.0)	24	(3.1)	772	(100.0)	772	(78.6)	97	(100.0)	9	(9.3)	97	(46.2)	210	(21.4)
Latvia	422	(95.5)	32	(7.6)	442	(84.8)	521	(84.2)	90	(96.8)	21	(23.3)	93	(94.9)	98	(15.8)
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	880	(100.0)	117	(13.3)	880	(84.9)	1036	(78.1)	291	(100.0)	125	(43.0)	291	(100.0)	291	(21.9)
Luxembourg	1	(100.0)	0	(0.0)	1	(100.0)	1	(100.0)	0	–	0	–	0	–	0	(0.0)
Malta	33	(100.0)	0	(0.0)	33	(89.2)	37	(100.0)	0	–	0	–	0	–	0	(0.0)
Netherlands	341	(100.0)	6	(1.8)	341	(74.1)	460	(97.0)	10	(100.0)	2	(20.0)	10	(71.4)	14	(3.0)
Norway	136	(99.3)	7	(5.1)	137	(86.2)	159	(91.9)	11	(91.7)	0	(0.0)	12	(85.7)	14	(8.1)
Poland	3660	(92.1)	27	(0.7)	3973	(73.5)	5407	(88.4)	454	(90.4)	18	(4.0)	502	(70.8)	709	(11.6)
Portugal	626	(70.9)	8	(1.3)	883	(72.8)	1213	(93.2)	51	(82.3)	2	(3.9)	62	(69.7)	89	(6.8)
Romania	6074	(88.7)	124	(2.0)	6844	(78.1)	8761	(76.0)	2137	(91.3)	334	(15.6)	2341	(84.8)	2762	(24.0)
Slovakia	93	(96.9)	2	(2.2)	96	(44.4)	216	(85.4)	18	(94.7)	1	(5.6)	19	(51.4)	37	(14.6)
Slovenia	93	(100.0)	0	(0.0)	93	(93.9)	99	(96.1)	3	(100.0)	0	(0.0)	3	(75.0)	4	(3.9)
Spain	855	(100.0)	34	(4.0)	855	(100.0)	855	(88.1)	41	(100.0)	5	(12.2)	41	(35.3)	116	(11.9)
Sweden	369	(99.7)	11	(3.0)	370	(87.3)	424	(94.9)	19	(100.0)	3	(15.8)	19	(82.6)	23	(5.1)
United Kingdom	2184	(96.7)	34	(1.6)	2258	(76.8)	2942	(93.0)	148	(97.4)	7	(4.7)	152	(68.8)	221	(7.0)
Subtotal EU/EEA	21915	(92.7)	524	(2.4)	23648	(79.0)	29934	(82.1)	4022	(92.5)	602	(15.0)	4350	(77.3)	5625	(15.4)
Non-EU/EEA																
Albania	38	(40.9)	0	(0.0)	93	(31.8)	292	–	2	(50.0)	1	(50.0)	4	–	–	–
Andorra	1	(50.0)	0	(0.0)	2	(66.7)	3	–	0	(0.0)	0	(0.0)	0	–	–	–
Armenia	357	(95.2)	55	(15.4)	375	(58.3)	643	–	104	(94.5)	60	(57.7)	110	–	–	–
Azerbaijan	1047	(63.1)	161	(15.4)	1660	(56.1)	2960	–	1567	(74.7)	616	(39.3)	2099	–	–	–
Belarus	1762	(97.7)	654	(37.1)	1804	(74.7)	2416	–	793	(97.1)	568	(71.6)	817	–	–	–
Bosnia and Herzegovina	545	(100.0)	0	(0.0)	545	(76.3)	714	–	52	(100.0)	0	(0.0)	52	–	–	–
former Yugoslav Republic of Macedonia, the	131	(81.4)	2	(1.5)	161	(83.4)	193	–	12	(70.6)	0	(0.0)	17	–	–	–
Georgia	1386	(84.7)	142	(10.2)	1636	(86.1)	1901	–	405	(59.8)	154	(38.0)	677	–	–	–
Israel	121	(93.1)	9	(7.4)	130	(73.0)	178	–	2	(100.0)	0	(0.0)	2	–	–	–
Kazakhstan	3264	(47.1)	832	(25.5)	6930	(84.7)	8178	–	1949	(63.2)	399	(20.5)	3085	–	–	–
Kyrgyzstan	1815	(71.8)	398	(21.9)	2527	(58.7)	4303	–	827	(67.5)	466	(56.3)	1226	–	–	–
Moldova	1189	(74.7)	304	(25.6)	1592	(62.7)	2539	–	385	(44.7)	221	(57.4)	862	–	–	–
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	50	(100.0)	0	(0.0)	50	(78.1)	64	–	7	(100.0)	0	(0.0)	7	–	–	–
Russia	31039	(88.4)	8463	(27.3)	35109	(49.8)	70436	–	26871	(94.2)	17508	(65.2)	28529	–	–	–
San Marino	0	–	0	–	0	–	0	(0.0)	0	–	0	–	0	–	–	–
Serbia	596	(81.5)	3	(0.5)	731	(67.2)	1088	–	72	(85.7)	5	(6.9)	84	–	–	–
Serbia excluding UN Administered Province of Kosovo ⁱ	358	(73.2)	3	(0.8)	489	(82.6)	592	–	40	(76.9)	3	(7.5)	52	–	–	–
UN Administered Province of Kosovo ⁱ	238	(98.3)	0	(0.0)	242	(48.8)	496	–	32	(100.0)	2	(6.3)	32	–	–	–
Switzerland	282	(94.6)	12	(4.3)	298	(74.1)	402	–	14	(87.5)	1	(7.1)	16	–	–	–
Tajikistan	2376	(91.6)	495	(20.8)	2593	(68.4)	3792	–	326	(78.0)	151	(46.3)	418	–	–	–
Turkey	5029	(86.0)	110	(2.2)	5845	(78.3)	7463	–	583	(87.1)	80	(13.7)	669	–	–	–
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ukraine	13097	(93.2)	2881	(22.0)	14049	(67.1)	20953	–	7050	(89.2)	2875	(40.8)	7908	–	–	–
Uzbekistan	757	(18.5)	292	(38.6)	4093	(45.0)	9100	–	1229	(80.2)	311	(25.3)	1533	–	–	–
Subtotal non-EU/EEA	64125	(80.9)	14813	(22.8)	80223	(58.3)	137618	–	42250	(87.8)	23416	(55.4)	48115	–	–	–
Total European Region	86797	(83.6)	15337	(17.7)	103871	(62.0)	167552	–	46272	(88.2)	24018	(51.9)	52465	–	–	–
Subtotal 18 HPC	71198	(81.7)	15085	(21.2)	87164	(59.6)	146179	–	44701	(88.1)	23909	(53.5)	50767	–	–	–

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

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

	Total ^c								Country
	Cases with DST results		MDR-TB		All bacteriologically confirmed pulmonary TB cases		All pulmonary TB cases		
	N	(%) ^d	N	(%) ^e	N	(%) ^f	N	(%) ^g	
									EU/EEA
	284	(97.6)	9	(3.2)	291	(79.1)	368	(76.2)	Austria
	464	(96.3)	8	(1.7)	482	(83.5)	577	(70.5)	Belgium
	653	(87.7)	19	(2.9)	745	(62.8)	1186	(74.0)	Bulgaria
	176	(100.0)	0	(0.0)	176	(62.6)	281	(89.8)	Croatia ^h
	38	(97.4)	0	(0.0)	39	(76.5)	51	(85.0)	Cyprus
	330	(94.6)	6	(1.8)	349	(78.3)	446	(86.4)	Czech Republic
	203	(97.6)	3	(1.5)	208	(79.4)	262	(689.5)	Denmark
	145	(97.3)	23	(15.9)	149	(84.2)	177	(92.2)	Estonia
	131	(98.5)	2	(1.5)	133	(77.3)	172	(74.5)	Finland
	2705	(100.0)	51	(1.9)	2705	(75.4)	3587	(76.7)	France
	312	(91.8)	23	(7.4)	340	(64.0)	531	(79.7)	Germany
	113	(51.4)	5	(4.4)	220	(58.0)	379	(90.0)	Greece
	332	(83.8)	18	(5.4)	396	(52.3)	757	(96.3)	Hungary
	4	(80.0)	0	(0.0)	5	(83.3)	6	(100.0)	Iceland
	138	(98.6)	6	(4.3)	140	(82.4)	170	(70.5)	Ireland
	869	(100.0)	33	(3.8)	869	(88.5)	982	(30.7)	Italy
	512	(95.7)	53	(10.4)	535	(86.4)	619	(93.8)	Latvia
	–	–	–	–	–	–	–	–	Liechtenstein
	1171	(100.0)	242	(20.7)	1171	(88.2)	1327	(92.0)	Lithuania
	1	(100.0)	0	(0.0)	1	(100.0)	1	(100.0)	Luxembourg
	33	(100.0)	0	(0.0)	33	(89.2)	37	(74.0)	Malta
	351	(100.0)	8	(2.3)	351	(74.1)	474	(53.6)	Netherlands
	147	(98.7)	7	(4.8)	149	(86.1)	173	(62.5)	Norway
	4114	(91.9)	45	(1.1)	4475	(73.2)	6116	(94.9)	Poland
	677	(71.6)	10	(1.5)	945	(72.6)	1302	(70.9)	Portugal
	8211	(89.4)	458	(5.6)	9185	(79.7)	11523	(84.6)	Romania
	111	(96.5)	3	(2.7)	115	(45.5)	253	(85.5)	Slovakia
	96	(100.0)	0	(0.0)	96	(93.2)	103	(87.3)	Slovenia
	896	(100.0)	39	(4.4)	896	(92.3)	971	(32.4)	Spain
	388	(99.7)	14	(3.6)	389	(87.0)	447	(66.7)	Sweden
	2332	(96.8)	41	(1.8)	2410	(76.2)	3163	(54.0)	United Kingdom
	25937	(92.6)	1126	(4.3)	27998	(76.8)	36441	(76.3)	Subtotal EU/EEA
									Non-EU/EEA
	40	(41.2)	1	(2.5)	97	–	–	–	Albania
	1	(50.0)	0	(0.0)	2	–	–	–	Andorra
	461	(95.1)	115	(24.9)	485	–	–	–	Armenia
	2614	(69.5)	777	(29.7)	3759	–	–	–	Azerbaijan
	2555	(97.5)	1222	(47.8)	2621	–	–	–	Belarus
	597	(100.0)	0	(0.0)	597	–	–	–	Bosnia and Herzegovina
	143	(80.3)	2	(1.4)	178	–	–	–	former Yugoslav Republic of Macedonia, the
	1791	(77.4)	296	(16.5)	2313	–	–	–	Georgia
	123	(93.2)	9	(7.3)	132	–	–	–	Israel
	5213	(52.1)	1231	(23.6)	10015	–	–	–	Kazakhstan
	2642	(70.4)	864	(32.7)	3753	–	–	–	Kyrgyzstan
	1574	(64.1)	525	(33.4)	2454	–	–	–	Moldova
	–	–	–	–	–	–	–	–	Monaco
	57	(100.0)	0	(0.0)	57	–	–	–	Montenegro
	57910	(91.0)	25971	(44.8)	63638	–	–	–	Russia
	0	(0.0)	0	(0.0)	0	–	–	–	San Marino
	668	(82.0)	8	(1.2)	815	–	–	–	Serbia
	398	(73.6)	6	(1.5)	541	–	–	–	Serbia excluding UN Administered Province of Kosovo ⁱ
	270	(98.5)	2	(0.7)	274	–	–	–	UN Administered Province of Kosovo ⁱ
	296	(94.3)	13	(4.4)	314	–	–	–	Switzerland
	2702	(89.7)	646	(23.9)	3011	–	–	–	Tajikistan
	5612	(86.2)	190	(3.4)	6514	–	–	–	Turkey
	–	–	–	–	–	–	–	–	Turkmenistan
	20147	(91.8)	5756	(28.6)	21957	–	–	–	Ukraine
	1986	(35.3)	603	(30.4)	5626	–	–	–	Uzbekistan
	107132	(83.5)	38229	(35.7)	128338	–	–	–	Subtotal non-EU/EEA
	133069	(85.1)	39355	(29.6)	156339	–	–	–	Total European Region
	115899	(84.0)	38991	(33.6)	137931	–	–	–	Subtotal 18 HPC

^b Cases classified according to previous TB treatment history. For Belgium, Denmark, Ireland, Norway and the United Kingdom previous diagnosis was used as a proxy for previous treatment.

^c Previous treatment unknown pulmonary TB cases are excluded.

^d Percentage among laboratory-confirmed pulmonary TB cases.

^e Percentage among laboratory-confirmed pulmonary TB cases with DST results.

^f Percentage among all pulmonary TB cases.

^g Percentage among all TB cases.

^h These data are subject to change as the national TB registry was under review when this report was being produced.

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

Table 13: Drug resistance in all laboratory-confirmed tuberculosis cases, EU/EEA, 2016

Country	Source of data	Coverage	Laboratory-confirmed TB cases ^a		Cases with DST results (at least Isoniazid and Rifampicin)		Cases resistant to any anti-TB drug ^b		MDR cases		Reporting completeness ^c
			N	(%)	N	(%)	N	(%)	N	(%)	
EU/EEA											
Austria	TESSy	national	489	(77.1)	473	(96.7)	60	(12.3)	16	(3.4)	Y
Belgium	TESSy	national	801	(76.5)	769	(96.0)	48	(6.0)	10	(1.3)	Y
<i>Bulgaria</i>	<i>TESSy</i>	<i>national</i>	<i>764</i>	<i>(47.7)</i>	<i>670</i>	<i>(87.7)</i>	<i>72</i>	<i>(9.4)</i>	<i>19</i>	<i>(2.8)</i>	<i>N</i>
Croatia ^d	TESSy	national	262	(57.0)	262	(100.0)	9	(3.4)	0	(0.0)	Y
Cyprus	TESSy	national	42	(70.0)	41	(97.6)	7	(16.7)	1	(2.4)	Y
Czech Republic	TESSy	national	392	(76.0)	367	(93.6)	23	(5.9)	6	(1.6)	Y
Denmark	TESSy	national	258	(78.2)	252	(97.7)	15	(5.8)	4	(1.6)	Y
<i>Estonia</i>	<i>TESSy</i>	<i>national</i>	<i>156</i>	<i>(81.3)</i>	<i>152</i>	<i>(97.4)</i>	<i>49</i>	<i>(31.4)</i>	<i>24</i>	<i>(15.8)</i>	<i>Y</i>
Finland	TESSy	national	186	(78.8)	183	(98.4)	17	(9.1)	6	(3.3)	Y
France ^e	NRL-TME ^f	sub-national	4197	(84.7)	4197	(100.0)	71	(1.7)	71	(1.7)	Y
Germany	TESSy	national	4164	(70.4)	3757	(90.2)	422	(10.1)	101	(2.7)	Y
Greece	TESSy	national	246	(55.5)	124	(50.4)	21	(8.5)	5	(4.0)	N
Hungary	TESSy	national	404	(51.4)	340	(84.2)	48	(11.9)	18	(5.3)	Y
Iceland	TESSy	national	5	(83.3)	4	(80.0)	0	(0.0)	0	(0.0)	Y
Ireland	TESSy	national	238	(74.8)	231	(97.1)	28	(11.8)	6	(2.6)	Y
Italy ^e	NRL-TME ^f	sub-national	2666	(66.1)	2666	(100.0)	85	(3.2)	70	(2.6)	Y
<i>Latvia</i>	<i>TESSy</i>	<i>national</i>	<i>559</i>	<i>(84.7)</i>	<i>536</i>	<i>(95.9)</i>	<i>144</i>	<i>(25.8)</i>	<i>56</i>	<i>(10.4)</i>	<i>Y</i>
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-
<i>Lithuania</i>	<i>TESSy</i>	<i>national</i>	<i>1201</i>	<i>(83.3)</i>	<i>1201</i>	<i>(100.0)</i>	<i>387</i>	<i>(32.2)</i>	<i>244</i>	<i>(20.3)</i>	<i>Y</i>
Luxembourg	TESSy	national	26	(89.7)	25	(96.2)	2	(7.7)	1	(4.0)	Y
Malta	TESSy	national	42	(84.0)	42	(100.0)	1	(2.4)	0	(0.0)	Y
Netherlands	TESSy	national	583	(65.6)	583	(100.0)	77	(13.2)	12	(2.1)	Y
Norway	TESSy	national	231	(77.3)	229	(99.1)	30	(13.0)	11	(4.8)	Y
Poland	TESSy	national	4619	(71.7)	4236	(91.7)	242	(5.2)	46	(1.1)	Y
Portugal	TESSy	national	1123	(61.2)	789	(70.3)	84	(7.5)	12	(1.5)	N
<i>Romania</i>	<i>TESSy</i>	<i>national</i>	<i>9517</i>	<i>(69.9)</i>	<i>8440</i>	<i>(88.7)</i>	<i>877</i>	<i>(9.2)</i>	<i>463</i>	<i>(5.5)</i>	<i>Y</i>
Slovakia	TESSy	national	117	(39.5)	113	(96.6)	8	(6.8)	3	(2.7)	N
Slovenia	TESSy	national	109	(92.4)	109	(100.0)	6	(5.5)	0	(0.0)	Y
Spain ^e	NRL-TME ^f	sub-national	3372	(69.1)	896	(26.6)	39	(1.2)	39	(4.4)	N
Sweden	TESSy	national	597	(82.2)	595	(99.7)	73	(12.2)	22	(3.7)	Y
United Kingdom	TESSy	national	3907	(63.3)	3789	(97.0)	271	(6.9)	56	(1.5)	Y
Total EU/EEA			41273	(76.4)	36071	(87.4)	3216	(9.9)	1322	(3.7)	

^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.

^b Includes only countries reporting first-line anti-TB drug susceptibility testing. Laboratory-confirmed cases consist of culture-positive and smear-positive/nucleic acid amplification test-positive cases.

^c Any resistance to isoniazid, rifampicin, ethambutol or streptomycin expressed as a percentage of cases with available DST results, at least for isoniazid and rifampicin. No routine testing for ethambutol and streptomycin in all countries.

^d Data considered complete when national coverage 100% or culture results available for 90% of all cases, 50% of all cases culture-positive, 75% of them with DST results, and EQA results accurate in 95% of samples for reported year.

^e These data are subject to change as the national TB registry was under review when this report was being produced.

^f Data from France, Italy and Spain reported from NRL may differ from data shown elsewhere in this report.

^g NRL: National reference laboratory; TME: WHO Tuberculosis Monitoring and Evaluation Database.

Table 14: XDR TB cases among all laboratory-confirmed MDR TB cases, European Region, 2016

Country	TB cases with first-line DST ^a	MDR TB among all TB cases		MDR TB with second-line DST ^{b,c}		XDR TB	
		N	%	N	%	N	%
EU/EEA							
Austria	473	16	(3.4)	16	(100.0)	2	(12.5)
Belgium	769	10	(1.3)	10	(100.0)	0	(0.0)
Bulgaria	670	19	(2.8)	19	(100.0)	0	(0.0)
Croatia ^d	262	0	(0.0)	0	–	0	–
Cyprus	41	1	(2.4)	1	(100.0)	0	(0.0)
Czech Republic	367	6	(1.6)	5	(83.3)	0	(0.0)
Denmark	252	4	(1.6)	4	(100.0)	0	(0.0)
Estonia	152	24	(15.8)	24	(100.0)	7	(29.2)
Finland	183	6	(3.3)	6	(100.0)	1	(16.7)
France	4 197	71	(1.7)	69	(97.2)	6	(8.7)
Germany	3 757	101	(2.7)	64	(63.4)	5	(7.8)
Greece	124	5	(4.0)	0	(0.0)	0	.
Hungary	340	18	(5.3)	15	(83.3)	7	(46.7)
Iceland	4	0	(0.0)	0	.	0	.
Ireland	231	6	(2.6)	5	(83.3)	0	(0.0)
Italy	2 666	70	(2.6)	55	(78.6)	7	(12.7)
Latvia	536	56	(10.4)	56	(100.0)	21	(37.5)
Liechtenstein	–	–	–	–	–	–	–
Lithuania	1 201	244	(20.3)	244	(100.0)	58	(23.8)
Luxembourg	25	1	(4.0)	0	(0.0)	0	.
Malta	42	0	(0.0)	0	.	0	.
Netherlands	583	12	(2.1)	12	(100.0)	0	(0.0)
Norway	229	11	(4.8)	11	(100.0)	0	(0.0)
Poland	4 236	46	(1.1)	39	(84.8)	8	(20.5)
Portugal	789	12	(1.5)	5	(41.7)	2	(40.0)
Romania	8 440	463	(5.5)	210	(45.4)	63	(30.0)
Slovakia	113	3	(2.7)	3	(100.0)	0	(0.0)
Slovenia	109	0	(0.0)	0	.	0	.
Spain	898	39	(4.7)	39	(92.9)	0	(0.0)
Sweden	595	22	(3.7)	22	(100.0)	4	(18.2)
United Kingdom	3 789	56	(1.5)	50	(89.3)	7	(14.0)
Subtotal EU/EEA	36 073	1 322	(3.7)	984	(74.4)	198	(20.1)
Non-EU/EEA							
Albania	–	–	–	–	–	–	–
Andorra	1	0	(0.0)	0	(0.0)	0	(0.0)
Armenia	461	115	(24.9)	53	(48.6)	6	(11.3)
Azerbaijan	2 614	777	(29.7)	535	(68.9)	71	(13.3)
Belarus	2 555	1 222	(47.8)	1 246	(102.0)	572	(45.9)
Bosnia and Herzegovina	597	0	(0.0)	0	(0.0)	0	(0.0)
former Yugoslav Republic of Macedonia, the	143	2	(1.4)	0	(0.0)	0	(0.0)
Georgia	1 791	296	(16.5)	296	(100.0)	52	(17.6)
Israel	123	9	(7.3)	9	(100.0)	2	(22.2)
Kazakhstan	–	–	–	–	–	–	–
Kyrgyzstan	2 642	864	(32.7)	407	(47.1)	72	(17.7)
Moldova	1 574	525	(33.4)	514	(97.9)	42	(8.2)
Monaco	–	–	–	–	–	–	–
Montenegro	57	0	(0.0)	0	–	0	–
Russia	57 910	25 971	(44.8)	25 258	(97.3)	3 402	(13.5)
San Marino	0	0	(0.0)	0	(0.0)	0	(0.0)
Serbia	668	8	(1.2)	14	(175.0)	1	(7.1)
Serbia excluding UN Administered Province of Kosovo ^e	398	6	(1.5)	14	(233.3)	1	(7.1)
UN Administered Province of Kosovo ^e	270	2	(0.7)	0	(0.0)	0	(0.0)
Switzerland	296	13	(4.4)	13	(100.0)	0	(0.0)
Tajikistan	2 702	646	(23.9)	646	(100.0)	59	(8.5)
Turkey	5 612	190	(3.4)	130	(68.4)	9	(6.9)
Turkmenistan	–	–	–	–	–	–	–
Ukraine	20 147	5 756	(28.6)	5 756	(100.0)	247	(3.3)
Uzbekistan	–	–	–	1 802	–	184	(10.2)
Subtotal non-EU/EEA	99 893	36 394	(36.4)	34 877	(95.8)	4 719	(12.9)
Total European Region	135 966	37 716	(27.7)	35 861	(95.1)	4 917	(13.1)
Subtotal 18 HPC	109 007	37 168	(34.1)	35 394	(95.2)	4 865	(13.1)

^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.

XDR TB – Extensively drug-resistant tuberculosis.

MDR TB – Multidrug-resistant tuberculosis.

^a First-line DST – drug susceptibility testing for at least 2 main first-line TB drugs: isoniazid and rifampicin.

^b Second-line DST – drug susceptibility testing for second-line TB drugs.

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

^d These data are subject to change as the national TB registry was under review when this report was being produced.

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

Table 15: MDR and XDR TB cases enrolled in treatment, European Region, 2016

Country	Total number of RR/MDR TB detected ^a	RR/MDR TB cases enrolled on treatment		Total number of XDR TB detected	XDR TB cases enrolled on treatment	
	N	N	%	N	N	%
EU/EEA						
Austria	14	14	(100.0)	1	1	(100.0)
Belgium	9	9	(100.0)	0	0	–
<i>Bulgaria</i>	15	15	(100.0)	0	0	–
Croatia ^b	0	0	–	0	0	–
Cyprus	1	1	(100.0)	0	0	–
Czech Republic	5	4	(80.0)	0	0	–
Denmark	4	4	(100.0)	0	0	–
<i>Estonia</i>	23	22	(95.7)	6	5	(83.3)
Finland	6	6	(100.0)	1	1	(100.0)
France	71	71	(100.0)	6	6	(100.0)
Germany	101	101	(100.0)	3	3	(100.0)
Greece	3	3	(100.0)	0	0	–
Hungary	15	15	(100.0)	6	6	–
Iceland	0	0	–	0	0	–
Ireland	5	5	(100.0)	0	0	–
Italy	70	70	(100.0)	7	7	(100.0)
<i>Latvia</i>	49	49	(100.0)	16	16	(100.0)
Liechtenstein	–	–	–	–	–	–
<i>Lithuania</i>	195	195	(100.0)	29	29	(100.0)
Luxembourg	1	1	(100.0)	0	0	–
Malta	0	0	–	0	0	–
Netherlands	12	12	(100.0)	0	0	–
Norway	11	11	(100.0)	0	0	–
Poland	44	44	(100.0)	8	8	(100.0)
Portugal	15	15	(100.0)	2	2	(100.0)
<i>Romania</i>	311	309	(99.4)	19	19	(100.0)
Slovakia	2	2	(100.0)	0	0	–
Slovenia	0	0	–	0	0	–
Spain	39	39	(100.0)	0	0	–
Sweden	22	22	(100.0)	3	3	(100.0)
United Kingdom	50	48	(96.0)	6	6	(100.0)
Subtotal EU/EEA	1093	1087	(99.5)	113	112	(99.1)
Non-EU/EEA						
Albania	4	1	(25.0)	0	0	(0.0)
Andorra	0	0	(0.0)	0	0	(0.0)
<i>Armenia</i>	128	128	(100.0)	29	29	(100.0)
<i>Azerbaijan</i>	925	798	(86.3)	77	0	(0.0)
<i>Belarus</i>	1543	1345	(87.2)	572	572	(100.0)
Bosnia and Herzegovina	0	0	(0.0)	0	0	(0.0)
former Yugoslav Republic of Macedonia, the	2	2	(100.0)	0	0	(0.0)
<i>Georgia</i>	401	351	(87.5)	56	51	(91.1)
Israel	11	11	(100.0)	2	2	(100.0)
<i>Kazakhstan</i>	5817	5817	(100.0)	386	435	(112.7)
<i>Kyrgyzstan</i>	1236	1200	(97.1)	73	67	(91.8)
<i>Moldova</i>	1031	979	(95.0)	72	65	(90.3)
Monaco	–	–	–	–	–	–
Montenegro	0	0	(0.0)	0	0	(0.0)
<i>Russia</i>	27363	25713	(94.0)	3402	1772	(52.1)
San Marino	0	0	(0.0)	0	0	(0.0)
Serbia	12	10	(83.3)	3	1	(33.3)
Serbia excluding UN Administered Province of Kosovo ^c	8	8	(100.0)	1	1	(100.0)
UN Administered Province of Kosovo ^c	4	2	(50.0)	2	0	(0.0)
Switzerland	18	18	(100.0)	0	0	(0.0)
<i>Tajikistan</i>	748	681	(91.0)	59	43	(72.9)
<i>Turkey</i>	256	211	(82.4)	9	9	(100.0)
<i>Turkmenistan</i>	557	557	(100.0)	–	–	–
<i>Ukraine</i>	8651	8581	(99.2)	1195	1429	(119.6)
<i>Uzbekistan</i>	1956	1956	(100.0)	184	184	(100.0)
Subtotal non-EU/EEA	50 659	48 359	(95.5)	6 119	4 659	(76.1)
Total European Region	51 752	49 446	(95.5)	6 232	4 771	(76.6)
Subtotal 18 HPC	51 205	48 907	(95.5)	6 184	4 725	(76.4)

^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.

RR-MDR TB – rifampicin-resistant and multidrug-resistant tuberculosis.

XDR TB – Extensively drug-resistant tuberculosis.

^b For countries that do not provide information on treatment start all reported cases were used as proxy.

^c These data are subject to change as the national TB registry was under review when this report was being produced.

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

Table 16: New and relapse tuberculosis cases with HIV infection, European Region, 2016

Country	New and relapse TB cases (N) ^a	Cases with known HIV-status		HIV-positive TB cases		HIV-positive cases started ART ^b	
		N	%	N	%	N	%
EU/EEA							
Austria	–	–	–	–	–	–	–
Belgium	986	448	(45.4)	32	(7.1)	–	–
<i>Bulgaria</i>	1525	1205	(79.0)	0	(0.0)	0	(0.0)
Croatia	–	–	–	–	–	–	–
Cyprus	57	46	(80.7)	0	(0.0)	0	–
Czech Republic	511	202	(39.5)	5	(2.5)	–	–
Denmark	292	134	(45.9)	9	(6.7)	–	–
<i>Estonia</i>	188	180	(95.7)	21	(11.7)	20	(95.2)
Finland ^c	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–
Germany	–	–	–	–	–	–	–
Greece	–	–	–	–	–	–	–
Hungary	737	18	(2.4)	1	(5.6)	–	–
Iceland	6	6	(100.0)	0	(0.0)	0	–
Ireland	293	121	(41.3)	4	(3.3)	3	(75.0)
Italy	–	–	–	–	–	–	–
<i>Latvia</i>	641	500	(78.0)	55	(11.0)	34	(61.8)
Liechtenstein	–	–	–	–	–	–	–
<i>Lithuania</i>	1347	1047	(77.7)	34	(3.2)	–	–
Luxembourg	29	5	(17.2)	2	(40.0)	–	–
Malta	50	46	(92.0)	8	(17.4)	8	(100.0)
Netherlands	877	546	(62.3)	21	(3.8)	15	(71.4)
Norway	278	239	(86.0)	8	(3.3)	8	(100.0)
Poland ^c	–	–	–	–	–	–	–
Portugal	1794	1184	(66.0)	164	(13.9)	–	–
<i>Romania</i>	12790	9968	(77.9)	254	(2.5)	254	(100.0)
Slovakia	281	124	(44.1)	0	(0.0)	0	–
Slovenia	118	95	(80.5)	1	(1.1)	1	(100.0)
Spain	4734	2823	(59.6)	207	(7.3)	–	–
Sweden	–	–	–	–	–	–	–
United Kingdom	–	–	–	–	–	–	–
Subtotal EU/EEA	27534	18937	(68.8)	826	(4.4)	343	(94.2)
Non-EU/EEA							
Albania	415	223	(53.7)	6	(2.7)	6	(100.0)
Andorra	4	0	(0.0)	0	(0.0)	0	(0.0)
<i>Armenia</i>	1027	1027	(100.0)	57	(5.6)	57	(100.0)
<i>Azerbaijan</i>	5159	4722	(91.5)	99	(2.1)	78	(78.8)
<i>Belarus</i>	3211	3148	(98.0)	275	(8.7)	229	(83.3)
Bosnia and Herzegovina	907	1	(0.1)	1	(100.0)	1	(100.0)
former Yugoslav Republic of Macedonia, the	263	207	(78.7)	0	(0.0)	0	(0.0)
<i>Georgia</i>	2983	2866	(96.1)	61	(2.1)	56	(91.8)
Israel	250	250	(100.0)	18	(7.2)	16	(88.9)
<i>Kazakhstan</i>	12322	10616	(86.2)	576	(5.4)	478	(83.0)
<i>Kyrgyzstan</i>	7026	6254	(89.0)	210	(3.4)	144	(68.6)
<i>Moldova</i>	3571	3366	(94.3)	293	(8.7)	193	(65.9)
Monaco	–	–	–	–	–	–	–
Montenegro	87	60	(69.0)	0	(0.0)	0	(0.0)
<i>Russia^e</i>	92407	79935	(86.5)	16570	(20.7)	10549	(63.7)
San Marino	0	0	(0.0)	0	(0.0)	0	(0.0)
Serbia	1472	482	(32.7)	5	(1.0)	5	(100.0)
Serbia excluding UN Administered Province of Kosovo ^d	755	84	(11.1)	5	(6.0)	5	(100.0)
UN Administered Province of Kosovo ^d	717	398	(55.5)	0	(0.0)	0	(0.0)
Switzerland	–	–	–	–	–	–	–
<i>Tajikistan</i>	5965	5850	(98.1)	201	(3.4)	182	(90.5)
<i>Turkey</i>	12186	8549	(70.2)	56	(0.7)	51	(91.1)
<i>Turkmenistan</i>	0	0	(0.0)	0	(0.0)	0	(0.0)
<i>Ukraine</i>	29052	28194	(97.0)	5832	(20.7)	3945	(67.6)
<i>Uzbekistan^e</i>	18441	18441	(100.0)	758	(4.1)	496	(65.4)
Subtotal non-EU/EEA	196748	174191	(88.5)	25018	(14.4)	16486	(65.9)
Total European Region	224282	193128	(86.1)	25844	(13.4)	16829	(65.1)
Subtotal 18 HPC	209841	185868	(88.6)	25352	(13.6)	16766	(66.1)

^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.

HIV – Human immunodeficiency virus.

ART – Antiretroviral therapy.

^b Countries were only included in this analysis if total number of cases tested for HIV and test results were provided.

^c Data from WHO Global TB database. Percentages calculated for countries which reported antiretroviral treatment (ART).

^d Finland reported HIV-positive cases, but not the number of cases tested for HIV, therefore excluded from this analysis.

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

^f Uzbekistan reported data among all TB cases.

Table 16a: All tuberculosis cases with HIV infection, EU/EEA, 2016

Country	All TB cases (N) ^a	Cases with known HIV-status		HIV-positive TB cases	
		N	%	N	%
EU/EEA					
Austria	-	-	-	-	-
Belgium	1047	479	(45.7)	33	(6.9)
<i>Bulgaria</i>	<i>1603</i>	<i>1260</i>	<i>(78.6)</i>	<i>0</i>	<i>(0.0)</i>
Croatia	-	-	-	-	-
Cyprus	60	48	(80.0)	0	(0.0)
Czech Republic	516	205	(39.7)	5	(2.4)
Denmark	330	150	(45.5)	9	(6.0)
<i>Estonia</i>	<i>192</i>	<i>184</i>	<i>(95.8)</i>	<i>22</i>	<i>(12.0)</i>
Finland ^b	-	-	-	-	-
France	-	-	-	-	-
Germany	-	-	-	-	-
Greece	-	-	-	-	-
Hungary	786	19	(2.4)	1	(5.3)
Iceland	6	6	(100.0)	0	(0.0)
Ireland	318	132	(41.5)	4	(3.0)
Italy	-	-	-	-	-
<i>Latvia</i>	<i>660</i>	<i>507</i>	<i>(76.8)</i>	<i>57</i>	<i>(11.2)</i>
Liechtenstein	-	-	-	-	-
<i>Lithuania</i>	<i>1442</i>	<i>1138</i>	<i>(78.9)</i>	<i>41</i>	<i>(3.6)</i>
Luxembourg	29	5	(17.2)	2	(40.0)
Malta	50	46	(92.0)	8	(17.4)
Netherlands	889	554	(62.3)	21	(3.8)
Norway	299	257	(86.0)	10	(3.9)
Poland	-	-	-	-	-
Portugal	1836	1212	(66.0)	168	(13.9)
<i>Romania</i>	<i>13 617</i>	<i>10 634</i>	<i>(78.1)</i>	<i>287</i>	<i>(2.7)</i>
Slovakia	296	132	(44.6)	0	(0.0)
Slovenia	118	95	(80.5)	1	(1.1)
Spain	4877	2925	(60.0)	226	(7.7)
Sweden	-	-	-	-	-
United Kingdom	-	-	-	-	-
Total EU/EEA	28 971	19 988	(69.0)	895	(4.5)

WHO European Region 18 TB high-priority countries presented in italics.
HIV – Human immunodeficiency virus.

^a Countries were only included in this analysis if total number of cases tested for HIV and test results were provided.

^b Finland reported HIV-positive cases, but not the number of cases tested for HIV, therefore excluded from this analysis.

Table 17: Tuberculosis in prisons, European Region, 2016^a

Country	Prison population (N)	New and relapsed TB cases (all forms) notified in prisons		Proportion of new and relapsed TB cases in prisons out of the country total (%)	TB relative risk in prisons (RR) ^b
		N	Rate		
EU/EEA					
Austria	-	-	-	-	-
Belgium	11769	19	161.4	(1.9)	18.4
Bulgaria	7921	22	277.7	(1.4)	13.1
Croatia	-	-	-	-	-
Cyprus	-	-	-	-	-
Czech Republic	22481	14	62.3	(2.7)	12.8
Denmark	-	-	-	-	-
Estonia	2841	8	281.6	(4.3)	19.7
Finland	-	-	-	-	-
France	66474	65	97.8	(1.4)	13.9
Germany	-	-	-	-	-
Greece	-	-	-	-	-
Hungary	19000	9	47.4	(1.2)	-
Iceland	-	-	-	-	-
Ireland	12579	0	0.0	(0.0)	0.0
Italy	-	-	-	-	-
Latvia	4243	32	754.2	(5.0)	23.4
Liechtenstein	-	-	-	-	-
Lithuania	6815	35	513.6	(2.6)	11.1
Luxembourg	700	0	0.0	(0.0)	0.0
Malta	569	0	0.0	(0.0)	0.0
Netherlands	37166	14	37.7	(1.6)	7.3
Norway	-	-	-	-	-
Poland	71456	216	302.3	(3.5)	18.7
Portugal	13779	36	261.3	(2.0)	15.1
Romania	27114	157	579.0	(1.2)	9.0
Slovakia	8023	17	211.9	(6.0)	40.9
Slovenia	3730	0	0.0	(0.0)	0.0
Spain	-	-	-	-	-
Sweden	-	-	-	-	-
United Kingdom	93097	27	29.0	(0.5)	3.2
Subtotal EU/EEA	409757	671	163.8	(1.7)	(11.1)
Non-EU/EEA					
Albania	6100	3	49.2	(0.7)	3.5
Andorra	41	0	0.0	(0.0)	0.0
Armenia	4873	9	184.7	(0.9)	5.3
Azerbaijan	20860	254	1217.6	(4.9)	23.0
Belarus	29776	121	406.4	(3.8)	12.0
Bosnia and Herzegovina	0	0	0.0	(0.0)	0.0
former Yugoslav Republic of Macedonia, the	2700	3	111.1	(1.1)	8.8
Georgia	9334	57	610.7	(1.9)	8.0
Israel	0	0	0.0	(0.0)	0.0
Kazakhstan	0	0	0.0	(0.0)	0.0
Kyrgyzstan	8300	216	2602.4	(3.1)	22.1
Moldova	7762	173	2228.8	(4.8)	25.3
Monaco	-	-	-	-	-
Montenegro	-	-	-	-	-
Russia	639042	9610	1503.8	(10.4)	23.4
San Marino	10	0	0.0	(0.0)	0.0
Serbia	11641	12	103.1	(0.8)	6.2
Serbia excluding UN Administered Province of Kosovo ^c	10069	11	109.2	(1.5)	10.1
UN Administered Province of Kosovo ^c	1572	1	63.6	(0.1)	1.6
Switzerland	-	-	-	-	-
Tajikistan	10000	99	990.0	(1.7)	14.5
Turkey	200600	151	75.3	(1.2)	4.9
Turkmenistan	-	-	-	-	-
Ukraine	65398	919	1405.2	(3.2)	21.5
Uzbekistan	-	-	-	-	-
Subtotal non-EU/EEA	1016437	11627	1143.9	(7.1)	22.7
Total European Region	1426194	12298	862.3	(6.0)	25.0
Subtotal 18 HPC	1044879	11863	1135.3	(6.6)	21.9

^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.

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

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

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

Table 18: Treatment outcome for all TB cases notified in 2014, European Region, 2016

Country	Cases notified in 2015	Success		Died		Failed		Lost to follow-up ^a		Still on treatment		Not evaluated ^b	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	583	417	(71.5)	37	(6.3)	0	(0.0)	12	(2.1)	52	(8.9)	65	(11.1)
Belgium	977	764	(78.2)	68	(7.0)	1	(0.1)	85	(8.7)	29	(3.0)	30	(3.1)
Bulgaria	1 660	1 385	(83.4)	139	(8.4)	23	(1.4)	90	(5.4)	8	(0.5)	15	(0.9)
Croatia ^c	486	50	(10.3)	43	(8.8)	0	(0.0)	0	(0.0)	2	(0.4)	391	(80.5)
Cyprus	63	35	(55.6)	3	(4.8)	0	(0.0)	3	(4.8)	2	(3.2)	20	(31.7)
Czech Republic	517	350	(67.7)	97	(18.8)	5	(1.0)	24	(4.6)	24	(4.6)	17	(3.3)
Denmark	357	171	(47.9)	10	(2.8)	10	(2.8)	1	(0.3)	14	(3.9)	151	(42.3)
Estonia	217	149	(68.7)	33	(15.2)	0	(0.0)	7	(3.2)	26	(12.0)	2	(0.9)
Finland ^d	272	95	(34.9)	15	(5.5)	0	(0.0)	1	(0.4)	2	(0.7)	159	(58.5)
France	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	5 852	3 728	(63.7)	382	(6.5)	6	(0.1)	160	(2.7)	307	(5.2)	1 269	(21.7)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	906	631	(69.6)	107	(11.8)	18	(2.0)	89	(9.8)	24	(2.6)	37	(4.1)
Iceland	7	7	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Ireland	283	157	(55.5)	10	(3.5)	0	(0.0)	1	(0.4)	1	(0.4)	114	(40.3)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	721	551	(76.4)	71	(9.8)	1	(0.1)	36	(5.0)	59	(8.2)	3	(0.4)
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	1 507	987	(65.5)	192	(12.7)	15	(1.0)	118	(7.8)	194	(12.9)	1	(0.1)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	862	733	(85.0)	38	(4.4)	0	(0.0)	23	(2.7)	22	(2.6)	46	(5.3)
Norway	313	268	(85.6)	7	(2.2)	3	(1.0)	9	(2.9)	11	(3.5)	15	(4.8)
Poland	6 430	3 387	(52.7)	632	(9.8)	4	(0.1)	391	(6.1)	12	(0.2)	2 004	(31.2)
Portugal	2 178	1 539	(70.7)	151	(6.9)	0	(0.0)	84	(3.9)	344	(15.8)	60	(2.8)
Romania	15 183	12 185	(80.3)	1 227	(8.1)	496	(3.3)	971	(6.4)	284	(1.9)	20	(0.1)
Slovakia	317	271	(85.5)	23	(7.3)	0	(0.0)	2	(0.6)	2	(0.6)	19	(6.0)
Slovenia	130	106	(81.5)	21	(16.2)	0	(0.0)	0	(0.0)	3	(2.3)	0	(0.0)
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	815	688	(84.4)	24	(2.9)	1	(0.1)	10	(1.2)	40	(4.9)	52	(6.4)
United Kingdom	6 234	4 865	(78.0)	379	(6.1)	0	(0.0)	325	(5.2)	549	(8.8)	116	(1.9)
Subtotal EU/EEA	46 870	33 519	(71.5)	3 709	(7.9)	583	(1.2)	2 442	(5.2)	2 011	(4.3)	4 606	(9.8)
Non-EU/EEA													
Albania	409	354	(86.6)	11	(2.7)	3	(0.7)	21	(5.1)	-	-	20	(4.9)
Andorra	4	4	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Armenia	923	731	(79.2)	47	(5.1)	11	(1.2)	134	(14.5)	-	-	0	(0.0)
Azerbaijan	4 213	3 230	(76.7)	216	(5.1)	146	(3.5)	488	(11.6)	-	-	133	(3.2)
Belarus	2 788	2 444	(87.7)	100	(3.6)	87	(3.1)	100	(3.6)	-	-	57	(2.0)
Bosnia and Herzegovina	1 095	707	(64.6)	84	(7.7)	19	(1.7)	2	(0.2)	-	-	283	(25.8)
former Yugoslav Republic of Macedonia, the	284	245	(86.3)	25	(8.8)	3	(1.1)	7	(2.5)	-	-	4	(1.4)
Georgia	3 144	2 582	(82.1)	135	(4.3)	70	(2.2)	293	(9.3)	-	-	64	(2.0)
Israel	263	218	(82.9)	19	(7.2)	1	(0.4)	8	(3.0)	-	-	17	(6.5)
Kazakhstan	14 631	13 172	(90.0)	751	(5.1)	476	(3.3)	232	(1.6)	-	-	0	(0.0)
Kyrgyzstan	6 686	5 423	(81.1)	418	(6.3)	159	(2.4)	674	(10.1)	-	-	12	(0.2)
Moldova	3 209	2 480	(77.3)	375	(11.7)	102	(3.2)	177	(5.5)	-	-	75	(2.3)
Monaco	-	-	-	-	-	-	-	0	-	-	-	-	-
Montenegro	80	74	(92.5)	3	(3.8)	0	(0.0)	3	(3.8)	-	-	0	(0.0)
Russia	88 718	61 238	(69.0)	9 174	(10.3)	6 861	(7.7)	4 986	(5.6)	-	-	6 459	(7.3)
San Marino	0	-	-	-	-	-	-	0	-	-	-	-	-
Serbia	1 669	1 484	(88.9)	83	(5.0)	13	(0.8)	65	(3.9)	-	-	24	(1.4)
Serbia excluding UN Administered Province of Kosovo ^e	897	739	(82.4)	67	(7.5)	12	(1.3)	56	(6.2)	-	-	23	(2.6)
UN Administered Province of Kosovo ^e	772	745	(96.5)	16	(2.1)	1	(0.1)	9	(1.2)	-	-	1	(0.1)
Switzerland	-	-	-	-	-	-	-	0	-	-	-	-	-
Tajikistan	5 584	4 964	(88.9)	265	(4.7)	116	(2.1)	194	(3.5)	-	-	45	(0.8)
Turkey	12 520	10 807	(86.3)	707	(5.6)	34	(0.3)	480	(3.8)	-	-	492	(3.9)
Turkmenistan	2 753	2 352	(85.4)	125	(4.5)	115	(4.2)	96	(3.5)	-	-	65	(2.4)
Ukraine	27 548	20 034	(72.7)	2 926	(10.6)	2 376	(8.6)	2 141	(7.8)	-	-	71	(0.3)
Uzbekistan	17 837	15 694	(88.0)	826	(4.6)	227	(1.3)	209	(1.2)	-	-	881	(4.9)
Subtotal non-EU/EEA	194 358	148 237	(76.3)	16 290	(8.4)	10 819	(5.6)	10 310	(5.3)	0	(0.0)	8 702	(4.5)
Total European Region	241 228	181 756	(75.3)	19 999	(8.3)	11 402	(4.7)	12 752	(5.3)	2 011	(0.8)	13 308	(5.5)
Subtotal 18 HPC	209 842	160 408	(76.4)	17 727	(8.4)	11 315	(5.4)	11 426	(4.7)	571	(0.2)	8 395	(3.5)

^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.

^b In previous reports defined as 'defaulted'.

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

^d These data are subject to change as the national TB registry was under review when this report was being produced.

^e Treatment outcome data collected consistently only for confirmed pulmonary cases.

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

Table 19: Treatment outcome of new tuberculosis cases and relapses notified in 2014, European Region, 2016

Country	New and relapsed TB cases started on treatment in 2014 ^a	Success		Died		Failed		Lost to follow-up ^b		Still on treatment		Not evaluated ^c	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	553	402	(72.7)	37	(6.7)	0	(0.0)	10	(1.8)	45	(8.1)	59	(10.7)
Belgium	905	719	(79.4)	62	(6.9)	1	(0.1)	79	(8.7)	15	(1.7)	29	(3.2)
Bulgaria	1598	1350	(84.5)	133	(8.3)	20	(1.3)	80	(5.0)	2	(0.1)	13	(0.8)
Croatia ^d	483	50	(10.4)	43	(8.9)	0	(0.0)	0	(0.0)	2	(0.4)	388	(80.3)
Cyprus	63	35	(55.6)	3	(4.8)	0	(0.0)	3	(4.8)	2	(3.2)	20	(31.7)
Czech Republic	499	343	(68.7)	95	(19.0)	5	(1.0)	23	(4.6)	17	(3.4)	16	(3.2)
Denmark	314	157	(50.0)	9	(2.9)	6	(1.9)	1	(0.3)	11	(3.5)	130	(41.4)
Estonia	172	142	(82.6)	25	(14.5)	0	(0.0)	3	(1.7)	0	(0.0)	2	(1.2)
Finland ^e	260	94	(36.2)	15	(5.8)	0	(0.0)	1	(0.4)	2	(0.8)	148	(56.9)
France	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	5543	3600	(64.9)	366	(6.6)	6	(0.1)	141	(2.5)	259	(4.7)	1171	(21.1)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	851	600	(70.5)	101	(11.9)	18	(2.1)	80	(9.4)	19	(2.2)	33	(3.9)
Iceland	7	7	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Ireland	265	151	(57.0)	8	(3.0)	0	(0.0)	1	(0.4)	0	(0.0)	105	(39.6)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	642	540	(84.1)	63	(9.8)	1	(0.2)	32	(5.0)	3	(0.5)	3	(0.5)
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	1219	962	(78.9)	135	(11.1)	14	(1.1)	79	(6.5)	28	(2.3)	1	(0.1)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	837	723	(86.4)	37	(4.4)	0	(0.0)	20	(2.4)	16	(1.9)	41	(4.9)
Norway	276	243	(88.0)	6	(2.2)	3	(1.1)	8	(2.9)	4	(1.4)	12	(4.3)
Poland	6196	3293	(53.1)	607	(9.8)	4	(0.1)	368	(5.9)	4	(0.1)	1920	(31.0)
Portugal	2114	1516	(71.7)	146	(6.9)	0	(0.0)	79	(3.7)	321	(15.2)	52	(2.5)
Romania	13908	11828	(85.0)	1070	(7.7)	234	(1.7)	732	(5.3)	24	(0.2)	20	(0.1)
Slovakia	305	263	(86.2)	22	(7.2)	0	(0.0)	2	(0.7)	0	(0.0)	18	(5.9)
Slovenia	129	105	(81.4)	21	(16.3)	0	(0.0)	0	(0.0)	3	(2.3)	0	(0.0)
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	754	659	(87.4)	23	(3.1)	1	(0.1)	9	(1.2)	17	(2.3)	45	(6.0)
United Kingdom	5802	4594	(79.2)	341	(5.9)	0	(0.0)	297	(5.1)	461	(7.9)	109	(1.9)
Subtotal EU/EEA	43 695	32 376	(74.1)	3 368	(7.7)	313	(0.7)	2 048	(4.7)	1 255	(2.9)	4 335	(9.9)
Non-EU/EEA													
Albania	409	354	(86.6)	11	(2.7)	3	(0.7)	21	(5.1)	-	-	20	(4.9)
Andorra	4	4	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Armenia	910	721	(79.2)	47	(5.2)	11	(1.2)	131	(14.4)	-	-	0	(0.0)
Azerbaijan	1475	1221	(82.8)	49	(3.3)	34	(2.3)	132	(8.9)	-	-	39	(2.6)
Belarus	2525	2243	(88.8)	76	(3.0)	72	(2.9)	77	(3.0)	-	-	57	(2.3)
Bosnia and Herzegovina	1092	707	(64.7)	84	(7.7)	19	(1.7)	2	(0.2)	-	-	280	(25.6)
former Yugoslav Republic of Macedonia, the	282	243	(86.2)	25	(8.9)	3	(1.1)	7	(2.5)	-	-	4	(1.4)
Georgia	2841	2386	(84.0)	110	(3.9)	60	(2.1)	225	(7.9)	-	-	60	(2.1)
Israel	263	218	(82.9)	19	(7.2)	1	(0.4)	8	(3.0)	-	-	17	(6.5)
Kazakhstan	14 006	12 691	(90.6)	674	(4.8)	440	(3.1)	201	(1.4)	-	-	0	(0.0)
Kyrgyzstan	6 139	5 063	(82.5)	364	(5.9)	138	(2.2)	564	(9.2)	-	-	10	(0.2)
Moldova	2 992	2 379	(79.5)	338	(11.3)	86	(2.9)	137	(4.6)	-	-	52	(1.7)
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	80	74	(92.5)	3	(3.8)	0	(0.0)	3	(3.8)	-	-	0	(0.0)
Russia	80 424	57 060	(70.9)	8 035	(10.0)	5 646	(7.0)	4 074	(5.1)	-	-	5 609	(7.0)
San Marino	0	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	1 647	1 471	(89.3)	82	(5.0)	12	(0.7)	60	(3.6)	-	-	22	(1.3)
Serbia excluding UN Administered Province of Kosovo ^f	882	733	(83.1)	66	(7.5)	11	(1.2)	51	(5.8)	-	-	21	(2.4)
UN Administered Province of Kosovo ^f	765	738	(96.5)	16	(2.1)	1	(0.1)	9	(1.2)	-	-	1	(0.1)
Switzerland	-	-	-	-	-	-	-	-	-	-	-	-	-
Tajikistan	5 298	4 734	(89.4)	237	(4.5)	111	(2.1)	172	(3.2)	-	-	44	(0.8)
Turkey	12 362	10 735	(86.8)	695	(5.6)	30	(0.2)	432	(3.5)	-	-	470	(3.8)
Turkmenistan	2 472	2 126	(86.0)	105	(4.2)	105	(4.2)	82	(3.3)	-	-	54	(2.2)
Ukraine	23 892	17 939	(75.1)	2 393	(10.0)	1 950	(8.2)	1 552	(6.5)	-	-	58	(0.2)
Uzbekistan	15 220	13 536	(88.9)	688	(4.5)	193	(1.3)	172	(1.1)	-	-	631	(4.1)
Subtotal non-EU/EEA	174 333	135 905	(78.0)	14 035	(8.1)	8 914	(5.1)	8 052	(4.6)	-	-	7 427	(4.3)
Total European Region	218 028	168 281	(77.2)	17 403	(8.0)	9 227	(4.2)	10 100	(4.6)	1 255	(0.6)	11 762	(5.4)
Subtotal 18 HPC	188 095	147 656	(78.5)	15 237	(8.1)	9 145	(4.9)	8 877	(4.7)	57	(0.0)	7 123	(3.8)

^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.

^b Patients started on second-line treatment are excluded.

^c in previous annual reports classified as 'defaulted'.

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

^e These data are subject to change as the national TB registry was under review when this report was being produced.

^f Treatment outcome collected consistently only for confirmed pulmonary cases.

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

Table 20: Treatment outcome of new and relapse tuberculosis cases in children (0–14 years) notified in 2015, European Region, 2016

Country	All TB cases reported in 2015 under 15 year of age ^a	Success		Died		Failed		Lost to follow-up ^b		Still on treatment		Not evaluated ^c	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	19	14	(73.7)	1	(5.3)	0	(0.0)	0	(0.0)	2	(10.5)	2	(10.5)
Belgium	69	67	(97.1)	1	(1.4)	0	(0.0)	0	(0.0)	1	(1.4)	0	(0.0)
Bulgaria	118	112	(94.9)	1	(0.8)	0	(0.0)	5	(4.2)	0	(0.0)	0	(0.0)
Croatia ^d	13	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	13	(100.0)
Cyprus	0	0	–	0	–	0	–	0	–	0	–	0	–
Czech Republic	5	5	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Denmark	14	2	(14.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	12	(85.7)
Estonia	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Finland ^e	11	3	(27.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	8	(72.7)
France	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	192	128	(66.7)	2	(1.0)	0	(0.0)	5	(2.6)	14	(7.3)	43	(22.4)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	9	8	(88.9)	0	(0.0)	0	(0.0)	1	(11.1)	0	(0.0)	0	(0.0)
Iceland	0	0	–	0	–	0	–	0	–	0	–	0	–
Ireland	14	11	(78.6)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	3	(21.4)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	25	25	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	34	31	(91.2)	1	(2.9)	0	(0.0)	1	(2.9)	1	(2.9)	0	(0.0)
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	42	39	(92.9)	0	(0.0)	0	(0.0)	0	(0.0)	1	(2.4)	2	(4.8)
Norway	18	18	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Poland	81	44	(54.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	37	(45.7)
Portugal	33	29	(87.9)	0	(0.0)	0	(0.0)	0	(0.0)	4	(12.1)	0	(0.0)
Romania	651	614	(94.3)	9	(1.4)	0	(0.0)	23	(3.5)	2	(0.3)	3	(0.5)
Slovakia	65	65	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Spain	–	–	–	–	–	–	–	–	–	–	–	–	–
Sweden	46	42	(91.3)	0	(0.0)	1	(2.2)	0	(0.0)	0	(0.0)	3	(6.5)
United Kingdom	224	202	(90.2)	1	(0.4)	0	(0.0)	5	(2.2)	14	(6.3)	2	(0.9)
Subtotal EU/EEA	1686	1462	(86.7)	16	(0.9)	1	(0.1)	40	(2.4)	39	(2.3)	128	(7.6)
Non-EU/EEA													
Albania	11	10	(90.9)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	1	(9.1)
Andorra	–	–	–	–	–	–	–	–	–	–	–	–	–
Armenia	23	19	(82.6)	0	(0.0)	0	(0.0)	4	(17.4)	–	–	0	(0.0)
Azerbaijan	–	–	–	–	–	–	–	–	–	–	–	–	–
Belarus	7	7	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Bosnia and Herzegovina	14	12	(85.7)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	2	(14.3)
former Yugoslav Republic of Macedonia, the	14	14	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Georgia	137	127	(92.7)	1	(0.7)	0	(0.0)	6	(4.4)	–	–	3	(2.2)
Israel	9	7	(77.8)	0	(0.0)	0	(0.0)	1	(11.1)	–	–	1	(11.1)
Kazakhstan	354	348	(98.3)	1	(0.3)	4	(1.1)	1	(0.3)	–	–	0	(0.0)
Kyrgyzstan	516	488	(94.6)	4	(0.8)	4	(0.8)	20	(3.9)	–	–	0	(0.0)
Moldova	101	96	(95.0)	1	(1.0)	1	(1.0)	2	(2.0)	–	–	1	(1.0)
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Russia	2906	2736	(94.2)	19	(0.7)	20	(0.7)	5	(0.2)	–	–	126	(4.3)
San Marino	0	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	28	27	(96.4)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	1	(3.6)
Serbia excluding UN Administered Province of Kosovo ^f	9	8	(88.9)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	1	(11.1)
UN Administered Province of Kosovo ^f	19	19	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	–	–	0	(0.0)
Switzerland	–	–	–	–	–	–	–	–	–	–	–	–	–
Tajikistan	316	296	(93.7)	7	(2.2)	2	(0.6)	9	(2.8)	–	–	2	(0.6)
Turkey	623	545	(87.5)	15	(2.4)	1	(0.2)	11	(1.8)	–	–	51	(8.2)
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Ukraine	469	434	(92.5)	7	(1.5)	23	(4.9)	4	(0.9)	–	–	1	(0.2)
Uzbekistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal non-EU/EEA	5529	5167	(93.5)	55	(1.0)	55	(1.0)	63	(1.1)	0	(0.0)	189	(3.4)
Total European Region	7215	6629	(91.9)	71	(1.0)	56	(0.8)	103	(1.4)	39	(0.5)	317	(4.4)
Subtotal 18 HPC	6282	5880	(93.6)	66	(1.1)	55	(0.9)	91	(1.4)	3	(0.0)	187	(3.0)

^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.

^b Patients started on second-line treatment are excluded.

^c In previous reports defined as 'defaulted'.

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

^e These data are subject to change as the national TB registry was under review when this report was being produced.

^f Treatment outcome collected consistently only for confirmed pulmonary cases.

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

Table 21: Treatment outcome of HIV positive new and relapse tuberculosis cases notified in 2015, European Region, 2016

Country	HIV positive TB cases notified in 2015 ^a	Success		Died		Failed		Lost to follow-up ^b		Still on treatment		Not evaluated ^c	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	–	–	–	–	–	–	–	–	–	–	–	–	–
Belgium	29	21	(72.4)	1	(3.4)	0	(0.0)	6	(20.7)	0	(0.0)	1	(3.4)
<i>Bulgaria</i>	1	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Croatia	–	–	–	–	–	–	–	–	–	–	–	–	–
Cyprus	–	–	–	–	–	–	–	–	–	–	–	–	–
Czech Republic	1	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Denmark	–	–	–	–	–	–	–	–	–	–	–	–	–
<i>Estonia</i>	16	13	(81.3)	3	(18.8)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Finland	–	–	–	–	–	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	–	–	–	–	–	–	–	–	–	–	–	–	–
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	0	0	–	0	–	0	–	0	–	0	–	0	–
Iceland	0	0	–	0	–	0	–	0	–	0	–	0	–
Ireland	7	3	(42.9)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	4	(57.1)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
<i>Latvia</i>	66	50	(75.8)	11	(16.7)	0	(0.0)	4	(6.1)	1	(1.5)	0	(0.0)
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–
<i>Lithuania</i>	26	17	(65.4)	4	(15.4)	1	(3.8)	2	(7.7)	2	(7.7)	0	(0.0)
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	34	29	(85.3)	3	(8.8)	0	(0.0)	0	(0.0)	2	(5.9)	0	(0.0)
Norway	5	4	(80.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(20.0)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	218	112	(51.4)	17	(7.8)	0	(0.0)	19	(8.7)	56	(25.7)	14	(6.4)
<i>Romania</i>	261	164	(62.8)	54	(20.7)	4	(1.5)	35	(13.4)	3	(1.1)	1	(0.4)
Slovakia	0	0	–	0	–	0	–	0	–	0	–	0	–
Slovenia	0	0	–	0	–	0	–	0	–	0	–	0	–
Spain	–	–	–	–	–	–	–	–	–	–	–	–	–
Sweden	–	–	–	–	–	–	–	–	–	–	–	–	–
United Kingdom	–	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal EU/EEA	664	413	(62.2)	95	(14.3)	5	(0.8)	66	(9.9)	64	(9.6)	21	(3.2)
Non-EU/EEA													
Albania	6	3	(50.0)	2	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)	1	(16.7)
Andorra	0	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Armenia	72	47	(65.3)	18	(25.0)	0	(0.0)	7	(9.7)	0	(0.0)	0	(0.0)
Azerbaijan	–	–	–	–	–	–	–	–	–	–	–	–	–
Belarus	113	89	(78.8)	11	(9.7)	0	(0.0)	1	(0.9)	0	(0.0)	12	(10.6)
Bosnia and Herzegovina	0	–	–	–	–	–	–	–	–	–	–	–	–
former Yugoslav Republic of Macedonia, the	0	–	–	–	–	–	–	–	–	–	–	–	–
Georgia	71	49	(69.0)	11	(15.5)	2	(2.8)	6	(8.5)	0	(0.0)	3	(4.2)
Israel	14	10	(71.4)	2	(14.3)	0	(0.0)	1	(7.1)	0	(0.0)	1	(7.1)
<i>Kazakhstan</i>	376	260	(69.1)	77	(20.5)	19	(5.1)	20	(5.3)	0	(0.0)	0	(0.0)
<i>Kyrgyzstan</i>	151	92	(60.9)	41	(27.2)	6	(4.0)	12	(7.9)	0	(0.0)	0	(0.0)
<i>Moldova</i>	227	125	(55.1)	71	(31.3)	15	(6.6)	11	(4.8)	0	(0.0)	5	(2.2)
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	0	–	–	–	–	–	–	–	–	–	–	–	–
Russia	694	351	(50.6)	206	(29.7)	36	(5.2)	61	(8.8)	0	(0.0)	40	(5.8)
San Marino	0	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Serbia	4	2	(50.0)	0	(0.0)	0	(0.0)	2	(50.0)	0	(0.0)	0	(0.0)
Serbia excluding UN Administered Province of Kosovo ^d	4	2	(50.0)	0	(0.0)	0	(0.0)	2	(50.0)	0	(0.0)	0	(0.0)
UN Administered Province of Kosovo ^d	0	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	0	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
<i>Tajikistan</i>	131	94	(71.8)	28	(21.4)	3	(2.3)	6	(4.6)	0	(0.0)	0	(0.0)
<i>Turkey</i>	57	33	(57.9)	7	(12.3)	0	(0.0)	6	(10.5)	0	(0.0)	11	(19.3)
<i>Turkmenistan</i>	0	–	–	–	–	–	–	–	–	–	–	–	–
<i>Ukraine</i>	4597	2893	(62.9)	973	(21.2)	370	(8.0)	355	(7.7)	0	(0.0)	6	(0.1)
<i>Uzbekistan</i>	–	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal non-EU/EEA	6513	4048	(62.2)	1447	(22.2)	451	(6.9)	488	(7.5)	0	(0.0)	79	(1.2)
Total European Region	7177	4461	(62.2)	1542	(21.5)	456	(6.4)	554	(7.7)	64	(0.9)	100	(1.4)
Subtotal 18 HPC	6859	4277	(62.4)	1516	(22.1)	456	(6.6)	526	(7.7)	6	(0.1)	78	(1.1)

^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.
HIV – human immunodeficiency virus.

^b Patients started on second-line treatment are excluded.

^c In previous reports defined as 'defaulted'.

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

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

Table 22: Treatment outcome after 24 months of RR TB/MDR TB cases started on second-line treatment in 2014, European Region, 2016

Country	RR/MDR TB cases started on second-line treatment in 2014 ^a	Success		Died		Failed		Lost to follow-up ^b		Still on treatment		Not evaluated ^c	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	21	13	(61.9)	0	(0.0)	0	(0.0)	1	(4.8)	1	(4.8)	6	(28.6)
Belgium	13	7	(53.8)	1	(7.7)	0	(0.0)	1	(7.7)	4	(30.8)	0	(0.0)
Bulgaria	44	22	(50.0)	13	(29.5)	0	(0.0)	7	(15.9)	0	(0.0)	2	(4.5)
Croatia ^d	2	0	(0.0)	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)
Cyprus	–	–	–	–	–	–	–	–	–	–	–	–	–
Czech Republic	7	3	(42.9)	0	(0.0)	0	(0.0)	2	(28.6)	0	(0.0)	2	(28.6)
Denmark	2	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)
Estonia	50	32	(64.0)	7	(14.0)	3	(6.0)	3	(6.0)	3	(6.0)	2	(4.0)
Finland	–	–	–	–	–	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	104	35	(33.7)	9	(8.7)	1	(1.0)	3	(2.9)	15	(14.4)	41	–
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	4	4	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Iceland	–	–	–	–	–	–	–	–	–	–	–	–	–
Ireland	2	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	71	52	(73.2)	5	(7.0)	1	(1.4)	12	(16.9)	0	(0.0)	1	(1.4)
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	279	35	(12.5)	61	(21.9)	7	(2.5)	40	(14.3)	131	(47.0)	5	(1.8)
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	7	6	(85.7)	0	(0.0)	0	(0.0)	0	(0.0)	1	(14.3)	0	(0.0)
Norway	11	9	(81.8)	0	(0.0)	0	(0.0)	1	(9.1)	0	(0.0)	1	(9.1)
Poland	49	9	(18.4)	14	(28.6)	0	(0.0)	5	(10.2)	0	(0.0)	21	(42.9)
Portugal	28	15	(53.6)	7	(25.0)	0	(0.0)	0	(0.0)	1	(3.6)	5	(17.9)
Romania	596	245	(41.1)	99	(16.6)	163	(27.3)	85	(14.3)	4	(0.7)	0	(0.0)
Slovakia	4	2	(50.0)	2	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	0	0	–	0	–	0	–	0	–	0	–	0	–
Spain	–	–	–	–	–	–	–	–	–	–	–	–	–
Sweden	17	15	(88.2)	1	(5.9)	0	(0.0)	0	(0.0)	0	(0.0)	1	(5.9)
United Kingdom	56	33	(58.9)	2	(3.6)	0	(0.0)	7	(12.5)	11	(19.6)	3	(5.4)
Subtotal EU/EEA	1367	539	(39.4)	222	(16.2)	175	(12.8)	167	(12.2)	171	(12.5)	93	(6.8)
Non-EU/EEA													
Albania	–	–	–	–	–	–	–	–	–	–	–	–	–
Andorra	0	–	–	–	–	–	–	–	–	–	–	–	–
Armenia	118	68	(57.6)	8	(6.8)	19	(16.1)	23	(19.5)	0	(0.0)	0	(0.0)
Azerbaijan	745	441	(59.2)	127	(17.0)	135	(18.1)	42	(5.6)	0	(0.0)	0	(0.0)
Belarus	1472	872	(59.2)	126	(8.6)	289	(19.6)	181	(12.3)	0	(0.0)	4	(0.3)
Bosnia and Herzegovina	3	2	(66.7)	1	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
former Yugoslav Republic of Macedonia, the	3	1	(33.3)	0	(0.0)	0	(0.0)	2	(66.7)	0	(0.0)	0	(0.0)
Georgia	411	201	(48.9)	32	(7.8)	27	(6.6)	118	(28.7)	0	(0.0)	33	(8.0)
Israel	16	12	(75.0)	2	(12.5)	0	(0.0)	1	(6.3)	0	(0.0)	1	(6.3)
Kazakhstan	6320	4813	(76.2)	604	(9.6)	371	(5.9)	468	(7.4)	0	(0.0)	64	(1.0)
Kyrgyzstan	1157	650	(56.2)	142	(12.3)	105	(9.1)	260	(22.5)	0	(0.0)	0	(0.0)
Moldova	919	457	(49.7)	129	(14.0)	142	(15.5)	188	(20.5)	0	(0.0)	3	(0.3)
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	2	0	(0.0)	1	(50.0)	0	(0.0)	1	(50.0)	0	(0.0)	0	(0.0)
Russia	20089	10170	(50.6)	3409	(17.0)	2655	(13.2)	1830	(9.1)	0	(0.0)	2025	(10.1)
San Marino	0	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	19	12	(63.2)	2	(10.5)	2	(10.5)	3	(15.8)	0	(0.0)	0	(0.0)
Serbia excluding UN Administered Province of Kosovo ^e	13	7	(53.8)	2	(15.4)	1	(7.7)	3	(23.1)	0	(0.0)	0	(0.0)
UN Administered Province of Kosovo ^e	6	5	(83.3)	0	(0.0)	1	(16.7)	0	(0.0)	0	(0.0)	0	(0.0)
Switzerland	12	9	(75.0)	0	(0.0)	1	(8.3)	0	(0.0)	0	(0.0)	2	(16.7)
Tajikistan	804	398	(49.5)	170	(21.1)	67	(8.3)	159	(19.8)	0	(0.0)	10	(1.2)
Turkey	257	163	(63.4)	27	(10.5)	15	(5.8)	30	(11.7)	0	(0.0)	22	(8.6)
Turkmenistan	213	143	(67.1)	24	(11.3)	32	(17.3)	14	(6.6)	0	(0.0)	0	(0.0)
Ukraine	7174	3297	(46.0)	1210	(16.9)	1284	(17.9)	1186	(16.5)	0	(0.0)	197	(2.7)
Uzbekistan	3602	2216	(61.5)	587	(16.3)	221	(6.1)	220	(6.1)	0	(0.0)	358	(9.9)
Subtotal non-EU/EEA	43336	23925	(55.2)	6601	(15.2)	5365	(12.4)	4726	(10.9)	0	(0.0)	2719	(6.3)
Total European Region	44703	24624	(54.7)	6823	(15.3)	5540	(12.4)	4893	(11.0)	171	(0.4)	2812	(6.3)
Subtotal 18 HPC	44321	24275	(54.8)	6780	(15.3)	5536	(12.5)	4866	(11.0)	138	(0.3)	2726	(6.2)

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein.
RR/MDR TB – rifampicin-resistant and multidrug-resistant tuberculosis.
WHO European Region 18 TB high-priority countries presented in italics.

^b For countries that do not provide information on treatment start, all reported cases were used as proxy.

^c In previous reports defined as 'defaulted'.

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

^e These data are subject to change as the national TB registry was under review when this report was being produced.

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

Table 23: Treatment outcome after 24 months of laboratory-confirmed MDR TB cases notified in 2014, EU/EEA, 2016

Country	All MDR TB cases notified in 2014	Success		Died		Failed		Lost to follow-up ^a		Still on treatment		Not evaluated ^b	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	20	13	(65.0)	0	(0.0)	0	(0.0)	1	(5.0)	1	(5.0)	5	(25.0)
Belgium	11	6	(54.5)	1	(9.1)	0	(0.0)	0	(0.0)	4	(36.4)	0	(0.0)
<i>Bulgaria</i>	37	18	(48.6)	12	(32.4)	0	(0.0)	5	(13.5)	0	(0.0)	2	(5.4)
Croatia ^c	2	0	(0.0)	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)
Cyprus	–	–	–	–	–	–	–	–	–	–	–	–	–
Czech Republic	5	2	(40.0)	0	(0.0)	0	(0.0)	1	(20.0)	0	(0.0)	2	(40.0)
Denmark	2	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)
<i>Estonia</i>	50	29	(58.0)	10	(20.0)	3	(6.0)	3	(6.0)	3	(6.0)	2	(4.0)
Finland	–	–	–	–	–	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	92	29	(31.5)	9	(9.8)	1	(1.1)	3	(3.3)	12	(13.0)	38	(41.3)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	3	3	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Iceland	–	–	–	–	–	–	–	–	–	–	–	–	–
Ireland	2	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
<i>Latvia</i>	70	52	(74.3)	5	(7.1)	1	(1.4)	11	(15.7)	0	(0.0)	1	(1.4)
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–
<i>Lithuania</i>	271	32	(11.8)	59	(21.8)	7	(2.6)	37	(13.7)	131	(48.3)	5	(1.8)
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	7	5	(71.4)	0	(0.0)	0	(0.0)	0	(0.0)	1	(14.3)	1	(14.3)
Norway	11	9	(81.8)	0	(0.0)	0	(0.0)	1	(9.1)	0	(0.0)	1	(9.1)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	25	13	(52.0)	7	(28.0)	0	(0.0)	0	(0.0)	1	(4.0)	4	(16.0)
<i>Romania</i>	532	199	(37.4)	93	(17.5)	156	(29.3)	80	(15.0)	4	(0.8)	0	(0.0)
Slovakia	3	1	(33.3)	2	(66.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	0	0	–	0	–	0	–	0	–	0	–	0	–
Spain	–	–	–	–	–	–	–	–	–	–	–	–	–
Sweden	15	13	(86.7)	1	(6.7)	0	(0.0)	0	(0.0)	0	(0.0)	1	(6.7)
United Kingdom	56	29	(51.8)	2	(3.6)	0	(0.0)	12	(21.4)	10	(17.9)	3	(5.4)
Total EU/EEA	1214	455	(37.5)	202	(16.6)	168	(13.8)	154	(12.7)	167	(13.8)	68	(5.6)

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

RR/MDR TB – Multidrug-resistant tuberculosis.

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

^a In previous reports defined as 'defaulted'.

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

^c These data are subject to change as the national TB registry was under review when this report was being produced.

Table 24: Treatment outcome after 24 months of XDR TB cases started on second-line treatment in 2014, European Region, 2016

Country	XDR TB cases started on second-line treatment in 2014 ^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	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Bulgaria	3	0	–	0	–	0	–	0	–	0	–	3	(100.0)
Croatia ^d	–	–	–	–	–	–	–	–	–	–	–	–	–
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	8	1	(12.5)	1	(12.5)	3	(37.5)	0	(0.0)	2	(25.0)	1	(12.5)
Finland	–	–	–	–	–	–	–	–	–	–	–	–	–
France ^e	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	11	2	(18.2)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	9	(81.8)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	0	0	–	0	–	0	–	0	–	0	–	0	–
Iceland	0	0	–	0	–	0	–	0	–	0	–	0	–
Ireland	0	0	–	0	–	0	–	0	–	0	–	0	–
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	13	10	(76.9)	2	(15.4)	1	(7.7)	0	(0.0)	0	(0.0)	0	(0.0)
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	61	0	(0.0)	16	(26.2)	3	(4.9)	4	(6.6)	36	(59.0)	2	(3.3)
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	0	0	–	0	–	0	–	0	–	0	–	0	–
Norway	–	–	–	–	–	–	–	–	–	–	–	–	–
Poland	5	1	(20.0)	1	(20.0)	0	(0.0)	0	(0.0)	0	(0.0)	3	(60.0)
Portugal	3	2	(66.7)	1	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Romania	57	9	(15.8)	15	(26.3)	28	(49.1)	5	(8.8)	0	(0.0)	0	(0.0)
Slovakia	0	0	–	0	–	0	–	0	–	0	–	0	–
Slovenia	0	0	–	0	–	0	–	0	–	0	–	0	–
Spain	–	–	–	–	–	–	–	–	–	–	–	–	–
Sweden	1	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
United Kingdom	3	1	(33.3)	0	(0.0)	0	(0.0)	1	(33.3)	1	(33.3)	0	(0.0)
Subtotal EU/EEA	168	28	(16.7)	37	(22.0)	35	(20.8)	10	(6.0)	40	(23.8)	18	(10.7)
Non-EU/EEA													
Albania	–	–	–	–	–	–	–	–	–	–	–	–	–
Andorra	0	–	–	–	–	–	–	–	–	–	–	–	–
Armenia	10	4	(40.0)	0	(0.0)	5	(50.0)	1	(10.0)	0	(0.0)	0	(0.0)
Azerbaijan	69	16	(23.2)	17	(24.6)	31	(44.9)	5	(7.2)	0	(0.0)	0	(0.0)
Belarus	431	157	(36.4)	58	(13.5)	174	(40.4)	34	(7.9)	0	(0.0)	8	(1.9)
Bosnia and Herzegovina	0	–	–	–	–	–	–	–	–	–	–	–	–
former Yugoslav Republic of Macedonia, the	0	–	–	–	–	–	–	–	–	–	–	–	–
Georgia	56	18	(32.1)	6	(10.7)	7	(12.5)	14	(25.0)	0	(0.0)	11	(19.6)
Israel	2	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)
Kazakhstan	318	98	(30.8)	79	(24.8)	96	(30.2)	25	(7.9)	0	(0.0)	20	(6.3)
Kyrgyzstan	32	5	(15.6)	16	(50.0)	6	(18.8)	5	(15.6)	0	(0.0)	0	(0.0)
Moldova	9	3	(33.3)	3	(33.3)	2	(22.2)	1	(11.1)	0	(0.0)	0	(0.0)
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	–
Montenegro	0	–	–	–	–	–	–	–	–	–	–	–	–
Russia	2209	687	(31.1)	507	(23.0)	502	(22.7)	157	(7.1)	0	(0.0)	356	(16.1)
San Marino	0	–	–	–	–	–	–	–	–	–	–	–	–
Serbia	0	–	–	–	–	–	–	–	–	–	–	–	–
Serbia excluding UN Administered Province of Kosovo ^f	0	–	–	–	–	–	–	–	–	–	–	–	–
UN Administered Province of Kosovo ^f	0	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	1	0	(0.0)	0	(0.0)	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)
Tajikistan	0	–	–	–	–	–	–	–	–	–	–	–	–
Turkey	2	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)	0	(0.0)	1	(50.0)
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Ukraine	1097	278	(25.3)	285	(26.0)	330	(30.1)	167	(15.2)	0	(0.0)	37	(3.4)
Uzbekistan	–	–	–	–	–	–	–	–	–	–	–	–	–
Subtotal non-EU/EEA	4236	1267	(29.9)	971	(22.9)	1153	(27.2)	411	(9.7)	0	(0.0)	434	(10.2)
Total European Region	4404	1295	(29.4)	1008	(22.9)	1188	(27.0)	421	(9.6)	40	(0.9)	452	(10.3)
Subtotal 18 HPC	4375	1286	(29.4)	1005	(23.0)	1188	(27.2)	419	(9.6)	38	(0.9)	439	(10.0)

^a 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein. XDR TB - Extensively drug-resistant tuberculosis.
WHO European Region 18 TB high-priority countries presented in italics.

^b For countries that do not provide information on treatment start, all reported cases were used as proxy.

^c In previous reports defined as 'defaulted'.

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

^e These data are subject to change as the national TB registry was under review when this report was being produced.

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

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

Table 25: Treatment outcome after 36 months of XDR TB notified in 2013, EU/EEA, 2016

Country	XDR TB notified in 2013 ^a	Success		Died		Failed		Lost to follow-up ^b		Not evaluated ^c	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA											
Austria	3	2	(66.7)	1	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)
Belgium	0	0	–	0	–	0	–	0	–	0	–
<i>Bulgaria</i>	4	0	(0.0)	2	(50.0)	1	(25.0)	1	(25.0)	0	(0.0)
Croatia	–	–	–	–	–	–	–	–	–	–	–
Cyprus	0	0	–	0	–	0	–	0	–	0	–
Czech Republic	0	0	–	0	–	0	–	0	–	0	–
Denmark	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
<i>Estonia</i>	10	5	(50.0)	1	(10.0)	2	(20.0)	2	(20.0)	0	(0.0)
Finland	–	–	–	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–
Germany	3	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	3	(100.0)
Greece	–	–	–	–	–	–	–	–	–	–	–
Hungary	1	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
Iceland	–	–	–	–	–	–	–	–	–	–	–
Ireland	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Italy	–	–	–	–	–	–	–	–	–	–	–
<i>Latvia</i>	15	11	(73.3)	3	(20.0)	0	(0.0)	1	(6.7)	0	(0.0)
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–
<i>Lithuania</i>	47	11	(23.4)	12	(25.5)	5	(10.6)	19	(40.4)	0	(0.0)
Luxembourg	–	–	–	–	–	–	–	–	–	–	–
Malta	–	–	–	–	–	–	–	–	–	–	–
Netherlands	0	0	–	0	–	0	–	0	–	0	–
Norway	–	–	–	–	–	–	–	–	–	–	–
Poland	1	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)
Portugal	4	4	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
<i>Romania</i>	56	11	(19.6)	12	(21.4)	29	(51.8)	4	(7.1)	0	(0.0)
Slovakia	0	0	–	0	–	0	–	0	–	0	–
Slovenia	0	0	–	0	–	0	–	0	–	0	–
Spain	–	–	–	–	–	–	–	–	–	–	–
Sweden	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
United Kingdom	3	3	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Total EU/EEA	151	51	(33.8)	33	(21.9)	37	(24.5)	27	(17.9)	3	(2.0)

XDR TB – Extensively drug-resistant tuberculosis.

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

^a For countries that do not provide information on treatment start, all reported cases were used as proxy.^b In previous reports defined as 'defaulted'.

Table 26: Monitoring the WHO Europe Roadmap to Implement the Tuberculosis Action Plan for the WHO European Region, 2016 – 2020

Country	1. INTEGRATED, PATIENT-CENTRED CARE AND PREVENTION												
	Systematic screening of contacts and high-risk groups ¹	Early diagnosis of all forms of tuberculosis and universal access to drug-susceptibility testing, including the use of rapid tests							Equitable access to quality treatment and continuum of care for all people with tuberculosis, including drug-resistant tuberculosis; and patient support to facilitate treatment adherence				
		1A.1 Coverage of population at risk with systematic screening for active TB and LTBI (TB contacts for 20.16 assessment). Target = 80%	1B.1 Percentage of TB patients diagnosed using WHO recommended rapid tests (G3). Target = 40%	1B.2 First-line DST coverage (%) among all bacteriologically confirmed TB cases (G3). Target = 100%	1B.3 RR/MDR-TB case detection rate (%) (G3). Target = 85%	1B.4 TB notification rate per 100 000 population (E3). Target = 24.6 ²	1B.5 TB case detection rate (%) Target: Increase	1B.6 Percentage of RR/MDR-TB among new TB patients. Target = Decrease	1B.7 Percentage of RR/MDR-TB among previously treated TB patients. Target = Decrease	1C.1 Percentage of hospitalization of new TB patients (E3). Target = Decrease	1C.2 Percentage of detected RR/MDR-TB enrolled in treatment (G3). Target = 100%	1C.3 Treatment success rate (%) among all new and relapsed TB patients (G4). Target = 85%	1C.4 Treatment success rate (%) among the MDR-TB treatment cohort (G4) (E4). Target = 75%
EU/EEA													
Austria	-	50.3%	93.5%	87.5%	7.1	87.2%	2.2%	17.6%	-	100.0%	72.7%	61.9%	0.8
Belgium	-	45.2%	93.7%	68.8%	8.7	89.6%	1.4%	5.7%	1%	100.0%	79.4%	53.8%	0.4
Bulgaria	96.7%	0.4%	87.5%	50.0%	21.3	80.3%	0.9%	17.3%	90%	100.0%	84.5%	50.0%	1.7
Croatia	-	-	100.0%	-	10.7	86.3%	0.0%	0.0%	-	-	10.4%	0.0%	0.6
Cyprus	-	6.7%	97.4%	-	6.7	86.4%	0.0%	0.0%	0%	100.0%	55.6%	-	0.4
Czech Republic	-	39.5%	89.7%	-	4.8	96.4%	1.3%	16.7%	95%	80.0%	68.7%	42.9%	0.5
Denmark	-	35.8%	97.6%	-	5.1	83.4%	1.7%	0.0%	-	100.0%	50.0%	50.0%	0.2
Estonia	-	74.5%	94.8%	73.5%	14.3	85.5%	12.9%	46.2%	64%	95.7%	82.6%	64.0%	1.2
Finland	-	26.3%	96.4%	100.0%	4.1	86.5%	1.6%	0.0%	80%	100.0%	36.2%	-	0.6
France ^c	-	-	100.0%	-	7.0	93.5%	1.4%	6.8%	90%	100.0%	-	-	0.6
Germany	-	53.4%	84.5%	65.6%	7.0	86.9%	2.2%	14.3%	-	100.0%	64.9%	33.7%	0.4
Greece	-	36.8%	46.7%	-	3.8	83.1%	2.0%	27.3%	-	100.0%	-	-	0.5
Hungary	-	-	83.8%	-	7.5	85.7%	4.1%	16.2%	-	100.0%	70.5%	100.0%	0.7
Iceland	-	83.3%	80.0%	-	1.8	85.7%	0.0%	0.0%	0%	-	100.0%	-	0.6
Ireland	-	35.2%	97.7%	300.0%	6.2	86.2%	3.1%	18.2%	59%	100.0%	57.0%	50.0%	0.5
Italy	-	-	81.6%	62.7%	6.2	102.1%	3.1%	9.3%	-	100.0%	-	-	0.6
Latvia	-	0.0%	95.7%	85.5%	32.6	86.6%	7.6%	23.3%	98%	100.0%	84.1%	73.2%	2.0
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	100.0%	0.0%	100.0%	97.3%	46.6	89.8%	13.3%	43.0%	92%	100.0%	78.9%	12.5%	6.5
Luxembourg	-	0.0%	95.5%	-	5.0	87.9%	0.0%	0.0%	50%	100.0%	-	-	0.2
Malta	-	0.0%	100.0%	-	11.5	86.2%	0.0%	0.0%	-	-	-	-	0.2
Netherlands	-	0.0%	100.0%	66.7%	5.2	87.7%	1.8%	20.0%	31%	100.0%	86.4%	85.7%	0.2
Norway	92.3%	44.1%	96.9%	133.3%	5.3	86.9%	5.1%	0.0%	51%	100.0%	88.0%	81.8%	0.2
Poland	-	13.8%	90.5%	66.2%	16.2	86.5%	0.7%	4.0%	-	100.0%	53.1%	18.4%	1.3
Portugal	62.9%	15.5%	69.4%	68.4%	17.3	85.4%	1.3%	3.9%	30%	100.0%	71.7%	53.6%	2.0
Romania	-	5.1%	89.0%	73.6%	64.7	85.3%	2.0%	15.6%	86%	99.4%	85.0%	41.1%	5.1
Slovakia	100.0%	19.6%	81.0%	300.0%	5.2	87.8%	2.2%	5.6%	90%	100.0%	86.2%	50.0%	0.6
Slovenia	-	51.7%	100.0%	-	5.7	84.3%	0.0%	0.0%	-	-	81.4%	-	0.6
Spain	-	19.3%	100.0%	-	10.2	100.7%	4.0%	12.2%	-	100.0%	-	-	0.6
Sweden	-	63.8%	97.9%	65.2%	7.1	86.7%	3.0%	15.8%	51%	100.0%	87.4%	88.2%	0.3
United Kingdom	-	4.8%	96.2%	82.8%	8.9	89.1%	1.6%	4.7%	-	96.0%	79.2%	58.9%	0.5
Subtotal EU/EEA	85.6%	24.7%	88.1%	74.3%	10.9	89.0%	2.4%	15.0%	55.7%	99.5%	74.1%	39.4%	0.8
Non-EU/EEA													
Albania	85.2%	-	41.2%	57.1%	14.2	87%	0.0%	50.0%	84%	25.0%	86.6%	-	0.29
Andorra	100.0%	100.0%	50.0%	-	5.2	87%	0.0%	0.0%	100%	-	100.0%	-	0
Armenia	92.0%	5.6%	95.1%	71.1%	35.1	80%	15.4%	57.7%	81%	100.0%	79.2%	57.6%	2.1
Azerbaijan	-	39.3%	69.5%	61.7%	53.0	80%	15.4%	39.3%	-	86.3%	82.8%	59.2%	6.4
Belarus	100.0%	79.6%	97.5%	96.4%	33.9	65%	37.1%	71.6%	100%	87.2%	88.8%	59.2%	2.4
Bosnia and Herzegovina	-	0.0%	100.0%	-	25.8	80%	0.0%	0.0%	98%	-	64.7%	66.7%	3.9
former Yugoslav Republic of Macedonia, the	72.3%	35.7%	80.3%	66.7%	12.6	80%	1.5%	0.0%	60%	100.0%	86.2%	33.3%	0.98
Georgia ^d	-	81.2%	77.4%	87.2%	76.0	82%	10.2%	38.0%	25%	87.5%	84.0%	48.9%	4.8
Israel	-	-	93.2%	84.6%	3.1	87%	7.4%	0.0%	-	100.0%	82.9%	75.0%	0.19

¹ 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein.

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

M/XDR-TB – Multidrug-resistant and extensively drug-resistant tuberculosis.

Figures in red – target not met. Figures in green – target met.

² Cases with missing information on previous history of TB treatment are included among new cases.

³ These data are liable to change as the national TB registry was under review when this report was being produced.

⁴ No data available for risk groups other than TB contacts.

Collaborative tuberculosis/HIV activities, and management of relevant comorbidities					Management of latent tuberculosis infection and preventive treatment of persons at high risk, and vaccination against tuberculosis		2. BOLD POLICIES AND SUPPORTIVE SYSTEMS					3. INTENSIFIED RESEARCH AND INNOVATION	Country	
1D.1 TB/HIV case-detection rate (%). Target = Close to 100%	1D.2 HIV testing coverage (%) (G6) (E6). Target = 100%	1D.3 Percentage of HIV among all TB. Target = Decrease	D.4 ART enrolment rate (%) among TB-HIV co-infected. Target = Close to 100%	D.4 ART enrolment rate (%) among TB-HIV co-infected. Target = Close to 100%	1E.1 Contact investigation coverage aged under 5 years (G2) (E7). Target = 90%	1E.2 LTBI (treatment coverage of childhood TB contacts aged under 5 years (G5) (E8). Target = 90%	2A.1 Number of Member States that have a regular TB control/elimination performance publication every five years (E8) Target: TB control/elimination	2B.1 Percentage of TB patients and their households that experience catastrophic financial consequences due to TB (G6) (E9) Target: close to 0	2C.1 Treatment coverage (%) with new TB drugs. Target = 20%	2D.1 Number of member states with functioning multi-stakeholder coalitions advocating for TB care and resource	2E.1 Treatment success rate (%) of new and relapsed TB cases among prisoners. Target = 85.0%	3A.1 European TB research initiative established by mid-2016 Target is not defined yet		
-	-	-	-	-	-	-	-	-	-	-	-	-	-	EU/EEA
36.0%	45.4%	6.9%	-	-	-	-	-	-	-	-	60.0%	-	-	Austria
-	79.0%	0.0%	-	-	-	-	-	-	-	-	85.0%	-	-	Belgium
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Bulgaria
0.0%	80.7%	0.0%	-	-	-	-	-	-	-	-	-	-	-	Croatia ^b
55.6%	39.5%	2.4%	-	-	-	-	-	-	-	-	77.8%	-	-	Cyprus
81.8%	45.9%	6.0%	-	-	-	-	-	-	-	-	-	-	-	Czech Republic
91.3%	95.7%	12.0%	95.2%	-	-	-	-	-	-	-	88.9%	-	-	Denmark
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Estonia
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Finland
-	-	-	-	-	-	-	-	-	-	-	-	-	-	France ^c
4.3%	2.4%	5.3%	-	-	-	-	-	-	-	-	50.0%	-	-	Germany
-	100.0%	0.0%	-	-	-	-	-	-	-	-	-	-	-	Greece
17.4%	41.3%	3.0%	75.0%	-	-	-	-	-	-	-	-	-	-	Hungary
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Iceland
60.4%	78.0%	11.2%	61.8%	-	-	-	-	-	-	-	75.8%	-	-	Ireland
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Italy
68.0%	77.7%	3.6%	-	-	100%	-	-	-	-	-	61.1%	-	-	Latvia
40.0%	17.2%	40.0%	-	-	-	-	-	-	-	-	-	-	-	Liechtenstein
53.3%	92.0%	17.4%	100%	-	-	-	-	-	-	-	-	-	-	Lithuania
61.8%	62.3%	3.8%	71.4%	-	-	-	-	-	-	-	50.0%	-	-	Luxembourg
57.1%	86.0%	3.9%	100.0%	-	93.0%	15.4%	-	-	-	-	-	-	-	Malta
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Netherlands
56.6%	66.0%	13.9%	-	-	-	-	-	-	-	-	44.4%	-	-	Norway
68.6%	77.9%	2.7%	100%	-	-	-	-	-	-	-	50.8%	-	-	Poland
-	44.1%	0.0%	-	-	100%	100%	-	-	-	-	91.3%	-	-	Portugal
100.0%	80.5%	1.1%	100%	-	90%	75.0%	-	-	-	-	100.0%	-	-	Romania
60.9%	59.6%	7.7%	-	-	-	-	-	-	-	-	-	-	-	Slovakia
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Slovenia
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Spain
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Sweden
59.3%	68.8%	4.4%	94.2%	-	95.8%	47.9%	-	-	-	-	62.1%	-	-	United Kingdom
100.0%	53.7%	2.7%	100.0%	-	85.2%	-	-	-	-	-	68.4%	-	-	Subtotal EU/EEA
0.0%	0.0%	0.0%	-	-	100%	0.0%	-	-	-	-	-	-	-	Non-EU/EEA
77.0%	100.0%	5.6%	100.0%	23.2%	92.0%	-	-	-	-	-	92.9%	-	-	Albania
76.2%	91.5%	2.1%	78.8%	60.3%	-	98.7%	-	-	-	-	91.3%	-	-	Andorra
68.8%	98.0%	8.7%	83.3%	0.0%	100%	10.9%	-	-	-	-	83.6%	-	-	Armenia
50.0%	0.1%	100.0%	100.0%	100.0%	-	-	-	-	-	-	0.0%	-	-	Azerbaijan
-	78.7%	0.0%	-	-	72.3%	67.0%	-	-	-	-	83.6%	-	-	Belarus
79.2%	96.1%	2.1%	91.8%	20.1%	-	29.3%	-	-	-	-	0.0%	-	-	Bosnia and Herzegovina
85.7%	100.0%	7.2%	88.9%	-	-	-	-	-	-	-	50.0%	-	-	former Yugoslav Republic of Macedonia, the
-	-	-	-	-	-	-	-	-	-	-	83.6%	-	-	Georgia
-	-	-	-	-	-	-	-	-	-	-	100.0%	-	-	Israel

Table 26 cont.: Monitoring the WHO Europe Roadmap to Implement the Tuberculosis Action Plan for the WHO European Region, 2016 – 2020

Country	1. INTEGRATED, PATIENT-CENTRED CARE AND PREVENTION												
	Systematic screening of contacts and high-risk groups ^a	Early diagnosis of all forms of tuberculosis and universal access to drug-susceptibility testing, including the use of rapid tests							Equitable access to quality treatment and continuum of care for all people with tuberculosis, including drug-resistant tuberculosis; and patient support to facilitate treatment adherence				
		1A.1 Coverage of population at risk with systematic screening for active TB and LTBI (TB contacts for 2016 assessment). Target = 80%	1B.1 Percentage of TB patients diagnosed using WHO recommended rapid tests (G) Target = 40%	1B.2 First-line DST coverage (%) among all bacteriologically confirmed TB cases (G). Target = 100%	1B.3 RR/MDR-TB case detection rate (%) (G3) Target = 85%	1B.4 TB notification rate per 100 000 population (E) Target = 24.6 ^b	1B.5 TB case detection rate (%) Target: Increase	1B.6 Percentage of RR/MDR-TB among new TB patients Target = Decrease	1B.7 Percentage of RR/MDR-TB among previously treated TB patients Target = Decrease	1C.1 Percentage of hospitalization of new TB patients (E3) Target = Decrease	1C.2 Percentage of detected RR/MDR-TB enrolled in treatment (G2) Target = 100%	1C.3 Treatment success rate (%) among all new and relapsed TB patients (G4) Target = 85%	1C.4 Treatment success rate (%) among the MDR-TB treatment cohort (E4) Target = 75%
EU/EEA													
Kazakhstan ^a	–	85.3%	52.1%	166.2%	68.5	100%	25.5%	20.5%	85%	100.0%	90.6%	76.2%	2.4
Kyrgyzstan	–	36.1%	70.4%	49.4%	118.0	81%	21.9%	56.3%	87%	97.1%	82.5%	56.2%	7.2
Moldova	96.2%	50.8%	64.1%	73.6%	88.0	87%	25.6%	57.4%	62%	95.0%	79.5%	49.7%	6.3
Monaco	–	–	–	–	–	–	–	–	–	–	–	–	0
Montenegro	–	28.7%	100.0%	–	13.8	87%	0.0%	0.0%	–	–	92.5%	–	0.19
Russia ^a	100.0%	69.8%	91.0%	58.2%	64.2	98%	27.3%	65.2%	65%	94.0%	70.9%	50.6%	8.2
San Marino	–	–	–	–	–	–	0.0%	0.0%	–	–	–	–	0
Serbia	83.2%	48.7%	82.0%	42.1%	16.7	87%	0.5%	6.9%	70%	83.3%	89.3%	63.2%	0.96
Serbia excluding UN Administered Province of Kosovo ^b	–	–	73.6%	–	10.8	–	0.8%	7.5%	–	100.0%	83.1%	53.8%	–
UN Administered Province of Kosovo ^b	–	100.0%	98.5%	–	38.6	–	0.0%	6.3%	–	50.0%	96.5%	83.3%	–
Switzerland	–	–	94.3%	81.8%	6.8	87%	4.3%	7.1%	80%	100.0%	0.0%	75.0%	0.24
Tajikistan	–	73.2%	89.7%	62.3%	68.3	80%	20.8%	46.3%	56%	91.0%	89.4%	49.5%	6
Turkey	–	–	86.2%	73.1%	15.3	87%	2.2%	13.7%	50%	82.4%	86.8%	63.4%	0.61
Turkmenistan	100.0%	76.8%	–	–	37.2	62%	–	–	–	100.0%	86.0%	53.1%	7.6
Ukraine	–	–	91.8%	86.5%	65.4	75%	22.0%	40.8%	86%	99.2%	75.1%	46.0%	9.5
Uzbekistan	–	76.4%	–	–	51.0	67%	–	–	–	100.0%	88.9%	61.5%	5.9
Subtotal non-EU/EEA	99.8%	53.5%	85.7%	69.0%	48.9	86.4%	22.6%	56.3%	69.80%	95.5%	78.0%	55.1%	5.5
Total European Region	99.3%	45.9%	87.0%	69.4%	27.6	87.3%	17.5%	52.6%	71.10%	95.5%	77.2%	54.7%	2.8
Subtotal 18 HPC	99.8%	50.4%	86.1%	69.2%	52.3	86.6%	21.0%	54.3%	71.00%	95.5%	78.5%	54.7%	5.5

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

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

M/XDR-TB – Multidrug-resistant and extensively drug-resistant tuberculosis.

Figures in red – target not met. Figures in green – target met.

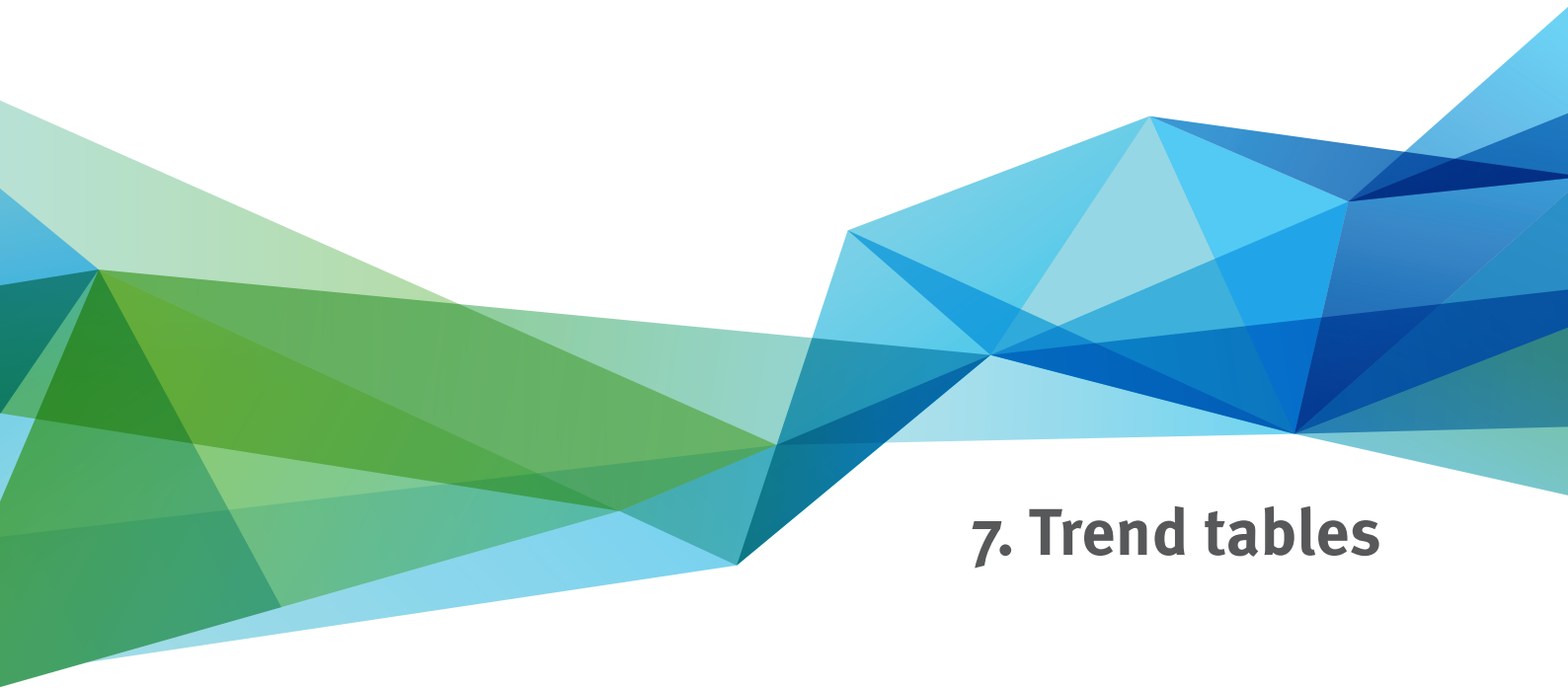
^b Cases with missing information on previous history of TB treatment are included among new cases.

^c These data are liable to change as the national TB registry was under review when this report was being produced.

^d No data available for risk groups other than TB contacts.

Collaborative tuberculosis/HIV activities, and management of relevant comorbidities					Management of latent tuberculosis infection and preventive treatment of persons at high risk, and vaccination against tuberculosis		2. BOLD POLICIES AND SUPPORTIVE SYSTEMS					3. INTENSIFIED RESEARCH AND INNOVATION	Country	
1D.1 TB/HIV case-detection rate (%) Target = Close to 100%	1D.2 HIV testing coverage (%) (G6) (E6) Target = 100%	1D.3 Percentage of HIV among all TB Target = Decrease	D.4 ART enrolment rate (%) among TB-HIV co-infected Target = Close to 100%	D.4 ART enrolment rate (%) among TB-HIV co-infected Target = Close to 100%	1E.1 Contact investigation coverage aged under 5 years (G2) (F7) Target = 90%	1E.2 LTBI treatment coverage of childhood TB contacts aged under 5 years (G5b) (E8) Target = 90%	2A.1 Number of Member States that have a regular TB control/elimination performance publication every five years (E8) Target: TB control/elimination	2B.1 Percentage of TB patients and their households that experience catastrophic financial consequences due to TB (G8) (G9) Target: close to 0	2C.1 Treatment coverage (%) with new TB drugs Target = 20%	2D.1 Number of member states with functioning multi-stakeholder coalitions advocating for TB care and resource	2E.1 Treatment success rate (%) of new and relapsed TB cases among prisoners Target = 85.0%	3A.1 European TB research initiative established by mid-2016 Target is not defined yet		
99.3%	86.2%	5.4%	83.0%	42.9%	-	-	-	-	-	-	79.3%	-	EU/EEA	
75.0%	89.0%	3.4%	68.6%	40.0%	-	76.4%	-	-	-	-	77.1%	-	Kazakhstan	
79.2%	94.3%	8.7%	65.9%	0.0%	96%	66.9%	-	-	-	-	86.5%	-	Kyrgyzstan	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Moldova
-	69.0%	0.0%	-	-	-	-	-	-	-	-	-	-	-	Monaco
92.1%	86.5%	20.7%	63.7%	92.7%	100%	81.6%	-	-	-	-	100.0%	-	Montenegro	
-	-	-	-	-	-	-	-	-	-	-	54.2%	-	-	Russia
50.0%	32.7%	1.0%	100.0%	-	83.2%	-	-	-	-	-	100.0%	-	-	San Marino
-	11.1%	6.0%	100.0%	-	-	-	-	-	-	-	-	-	-	Serbia
-	55.5%	0.0%	-	-	-	-	-	-	-	-	-	-	-	Serbia excluding UN Administered Province of Kosovo ^d
-	-	-	-	-	-	-	-	-	-	-	-	-	-	UN Administered Province of Kosovo ^d
-	-	-	-	-	-	-	-	-	-	-	-	-	-	Switzerland
80.4%	98.1%	3.4%	90.5%	57.1%	-	-	-	-	-	-	93.4%	-	-	Tajikistan
60.9%	70.2%	0.7%	91.1%	-	-	54.8%	-	-	-	-	79.0%	-	-	Turkey
0.0%	0.0%	0.0%	-	-	100.0%	-	-	-	-	-	-	-	-	Turkmenistan
72.0%	97.0%	20.7%	67.6%	51.6%	-	-	-	-	-	-	73.5%	-	-	Ukraine
63.2%	100.0%	4.1%	65.4%	100.0%	-	-	-	-	-	-	-	-	-	Uzbekistan
84.0%	88.5%	14.4%	65.9%	70.0%	99.8%	79.5%	-	-	-	-	59.5%	-	-	Subtotal non-EU/EEA
82.9%	86.1%	13.4%	65.1%	70.1%	99.3%	75.3%	-	-	-	-	55.9%	-	-	Total European Region
83.8%	88.6%	13.6%	66.1%	70.1%	99.8%	75.9%	-	-	-	-	59.8%	-	-	Subtotal 18 HPC





7. Trend tables

Table I: Estimated TB mortality per 100 000 population, European Region, 2007–2016

Country	2007		2008		2009		2010		2011		2012	
	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	47	0.6	49	(0.6)	48	(0.6)	39	(0.5)	55	(0.7)	42	(0.5)
Belgium	86	0.8	78	(0.7)	60	(0.6)	60	(0.6)	53	(0.5)	59	(0.5)
<i>Bulgaria</i>	<i>280</i>	<i>3.7</i>	<i>240</i>	<i>(3.2)</i>	<i>200</i>	<i>(2.7)</i>	<i>200</i>	<i>(2.8)</i>	<i>170</i>	<i>(2.4)</i>	<i>170</i>	<i>(2.4)</i>
Croatia	100	2.3	100	(2.4)	120	(2.8)	83	(1.9)	66	(1.5)	60	(1.4)
Cyprus	1	0.1	1	(0.1)	0	(0.0)	1	(0.1)	4	(0.3)	5	(0.4)
Czech Republic	71	0.7	54	(0.5)	52	(0.5)	40	(0.4)	56	(0.5)	30	(0.3)
Denmark	27	0.5	17	(0.3)	28	(0.5)	37	(0.7)	17	(0.3)	23	(0.4)
<i>Estonia</i>	<i>66</i>	<i>4.9</i>	<i>56</i>	<i>(4.2)</i>	<i>50</i>	<i>(3.7)</i>	<i>42</i>	<i>(3.1)</i>	<i>46</i>	<i>(3.5)</i>	<i>36</i>	<i>(2.7)</i>
Finland	56	1.1	60	(1.1)	54	(1.0)	48	(0.9)	61	(1.1)	49	(0.9)
France	730	1.2	700	(1.1)	690	(1.1)	660	(1.0)	650	(1.0)	550	(0.9)
Germany	460	0.6	370	(0.5)	350	(0.4)	360	(0.5)	350	(0.4)	370	(0.5)
Greece	100	0.9	86	(0.8)	94	(0.8)	78	(0.7)	75	(0.7)	110	(1.0)
Hungary	220	2.2	190	(1.9)	170	(1.7)	150	(1.6)	130	(1.3)	130	(1.3)
Iceland	5	1.7	1	(0.3)	7	(2.2)	2	(0.6)	1	(0.3)	1	(0.3)
Ireland	53	1.2	32	(0.7)	36	(0.8)	35	(0.8)	29	(0.6)	27	(0.6)
Italy	400	0.7	400	(0.7)	410	(0.7)	380	(0.6)	390	(0.7)	340	(0.6)
<i>Latvia</i>	<i>150</i>	<i>7.0</i>	<i>120</i>	<i>(5.7)</i>	<i>110</i>	<i>(5.2)</i>	<i>91</i>	<i>(4.3)</i>	<i>80</i>	<i>(3.8)</i>	<i>62</i>	<i>(3.0)</i>
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-
<i>Lithuania</i>	<i>360</i>	<i>11.0</i>	<i>350</i>	<i>(11.0)</i>	<i>270</i>	<i>(8.5)</i>	<i>220</i>	<i>(7.2)</i>	<i>220</i>	<i>(7.1)</i>	<i>260</i>	<i>(8.5)</i>
Luxembourg	2	0.4	0	(0.0)	0	(0.0)	1	(0.2)	2	(0.4)	0	(0.0)
Malta	6	1.5	1	(0.2)	1	(0.2)	1	(0.2)	3	(0.7)	1	(0.2)
Netherlands	57	0.4	53	(0.3)	66	(0.4)	56	(0.3)	37	(0.2)	35	(0.2)
Norway	36	0.8	26	(0.6)	28	(0.6)	29	(0.6)	29	(0.6)	22	(0.4)
Poland	830	2.2	880	(2.3)	810	(2.1)	630	(1.6)	690	(1.8)	680	(1.8)
Portugal	290	2.7	260	(2.5)	280	(2.6)	230	(2.1)	230	(2.2)	230	(2.2)
<i>Romania</i>	<i>1600</i>	<i>7.7</i>	<i>1600</i>	<i>(7.9)</i>	<i>1500</i>	<i>(7.4)</i>	<i>1500</i>	<i>(7.3)</i>	<i>1300</i>	<i>(6.4)</i>	<i>1300</i>	<i>(6.3)</i>
Slovakia	35	0.7	43	(0.8)	43	(0.8)	35	(0.7)	26	(0.5)	17	(0.3)
Slovenia	29	1.5	35	(1.7)	25	(1.2)	20	(1.0)	14	(0.7)	11	(0.5)
Spain	420	0.9	360	(0.8)	410	(0.9)	400	(0.9)	300	(0.6)	330	(0.7)
Sweden	63	0.7	64	(0.7)	61	(0.7)	36	(0.4)	47	(0.5)	39	(0.4)
United Kingdom	400	0.7	440	(0.7)	410	(0.7)	370	(0.6)	330	(0.5)	330	(0.5)
Subtotal EU/EEA	7000	(1.4)	6700	(1.3)	6400	(1.3)	5800	(1.1)	5500	(1.1)	5300	(1.0)
Non-EU/EEA												
Albania	10	(0.3)	21	(0.7)	6	(0.2)	9	(0.3)	8	(0.3)	8	(0.3)
Andorra	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
<i>Armenia</i>	<i>250</i>	<i>(8.6)</i>	<i>260</i>	<i>(8.8)</i>	<i>220</i>	<i>(7.5)</i>	<i>210</i>	<i>(7.3)</i>	<i>160</i>	<i>(5.5)</i>	<i>180</i>	<i>(6.2)</i>
<i>Azerbaijan</i>	<i>340</i>	<i>(3.9)</i>	<i>420</i>	<i>(4.7)</i>	<i>610</i>	<i>(6.8)</i>	<i>730</i>	<i>(8.1)</i>	<i>600</i>	<i>(6.5)</i>	<i>390</i>	<i>(4.2)</i>
<i>Belarus</i>	<i>1000</i>	<i>(11.0)</i>	<i>950</i>	<i>(10.0)</i>	<i>860</i>	<i>(9.1)</i>	<i>870</i>	<i>(9.2)</i>	<i>850</i>	<i>(9.0)</i>	<i>770</i>	<i>(8.1)</i>
Bosnia and Herzegovina	200	(5.2)	200	(5.2)	200	(5.2)	190	(5.2)	190	(5.2)	170	(4.8)
former Yugoslav Republic of Macedonia, the	60	(2.9)	48	(2.3)	19	(0.9)	34	(1.7)	27	(1.3)	23	(1.1)
<i>Georgia</i>	<i>220</i>	<i>(5.1)</i>	<i>220</i>	<i>(5.1)</i>	<i>230</i>	<i>(5.4)</i>	<i>230</i>	<i>(5.4)</i>	<i>230</i>	<i>(5.5)</i>	<i>220</i>	<i>(5.4)</i>
Israel	40	(0.6)	28	(0.4)	24	(0.3)	28	(0.4)	22	(0.3)	22	(0.3)
<i>Kazakhstan</i>	<i>3300</i>	<i>(21.0)</i>	<i>3100</i>	<i>(19.0)</i>	<i>2500</i>	<i>(15.0)</i>	<i>2100</i>	<i>(13.0)</i>	<i>1900</i>	<i>(11.0)</i>	<i>1800</i>	<i>(10.0)</i>
<i>Kyrgyzstan</i>	<i>730</i>	<i>(14.0)</i>	<i>640</i>	<i>(12.0)</i>	<i>620</i>	<i>(12.0)</i>	<i>610</i>	<i>(11.0)</i>	<i>680</i>	<i>(12.0)</i>	<i>640</i>	<i>(11.0)</i>
<i>Moldova</i>	<i>690</i>	<i>(17.0)</i>	<i>620</i>	<i>(15.0)</i>	<i>630</i>	<i>(15.0)</i>	<i>570</i>	<i>(14.0)</i>	<i>510</i>	<i>(13.0)</i>	<i>490</i>	<i>(12.0)</i>
Monaco	0	(0.2)	0	(0.3)	0	(0.3)	0	(0.3)	0	(0.2)	0	(0.1)
Montenegro	8	(1.3)	3	(0.6)	1	(0.2)	1	(0.2)	1	(0.2)	1	(0.2)
<i>Russia</i>	<i>27000</i>	<i>(19.0)</i>	<i>27000</i>	<i>(19.0)</i>	<i>25000</i>	<i>(18.0)</i>	<i>23000</i>	<i>(16.0)</i>	<i>21000</i>	<i>(15.0)</i>	<i>19000</i>	<i>(13.0)</i>
San Marino	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Serbia	270	(2.9)	200	(2.2)	190	(2.1)	180	(2.0)	150	(1.7)	160	(1.8)
Switzerland	29	(0.4)	34	(0.5)	27	(0.4)	28	(0.4)	25	(0.3)	23	(0.3)
<i>Tajikistan</i>	<i>850</i>	<i>(12.0)</i>	<i>790</i>	<i>(11.0)</i>	<i>740</i>	<i>(9.9)</i>	<i>690</i>	<i>(9.0)</i>	<i>640</i>	<i>(8.2)</i>	<i>600</i>	<i>(7.5)</i>
<i>Turkey</i>	<i>760</i>	<i>(1.1)</i>	<i>820</i>	<i>(1.2)</i>	<i>850</i>	<i>(1.2)</i>	<i>740</i>	<i>(1.0)</i>	<i>960</i>	<i>(1.3)</i>	<i>830</i>	<i>(1.1)</i>
<i>Turkmenistan</i>	<i>700</i>	<i>(14.0)</i>	<i>630</i>	<i>(13.0)</i>	<i>640</i>	<i>(13.0)</i>	<i>700</i>	<i>(14.0)</i>	<i>600</i>	<i>(12.0)</i>	<i>490</i>	<i>(9.3)</i>
<i>Ukraine</i>	<i>11000</i>	<i>(24.0)</i>	<i>11000</i>	<i>(23.0)</i>	<i>8700</i>	<i>(19.0)</i>	<i>8000</i>	<i>(17.0)</i>	<i>7200</i>	<i>(16.0)</i>	<i>7100</i>	<i>(16.0)</i>
<i>Uzbekistan</i>	<i>2900</i>	<i>(11.0)</i>	<i>2600</i>	<i>(9.5)</i>	<i>2400</i>	<i>(8.4)</i>	<i>2200</i>	<i>(7.7)</i>	<i>2100</i>	<i>(7.1)</i>	<i>1800</i>	<i>(6.2)</i>
Subtotal non-EU/EEA	50000	(13.1)	50000	(13.0)	44000	(11.4)	41000	(10.6)	38000	(9.7)	35000	(8.9)
Total European Region	58000	(6.5)	56000	(6.3)	51000	(5.7)	47000	(5.2)	44000	(4.9)	40000	(4.4)
Subtotal 18 HPC	52000	(13.5)	51000	(13.2)	46000	(11.9)	43000	(11.1)	39000	(10.0)	36000	(9.2)

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

	2013		2014		2015		2016		Mean annual % change in rate, 2012-2016	Mean annual % change in rate, 2007-2016	Country
	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000			
											EU/EEA
	68	(0.8)	71	(0.8)	71	(0.8)	71	(0.8)	13.7%	4.1%	Austria
	56	(0.5)	41	(0.4)	42	(0.4)	42	(0.4)	-8.6%	-8.3%	Belgium
	150	(2.1)	140	(2.0)	130	(1.9)	120	(1.7)	-8.3%	-8.3%	Bulgaria
	54	(1.3)	40	(1.0)	46	(1.1)	27	(0.6)	-18.1%	-13.4%	Croatia
	1	(0.1)	5	(0.4)	5	(0.4)	5	(0.4)	-0.6%	14.9%	Cyprus
	67	(0.6)	39	(0.4)	57	(0.5)	57	(0.5)	16.8%	-2.5%	Czech Republic
	17	(0.3)	13	(0.2)	13	(0.2)	13	(0.2)	-12.5%	-7.6%	Denmark
	26	(1.9)	29	(2.2)	21	(1.6)	16	(1.2)	-18.4%	-14.5%	Estonia
	31	(0.6)	41	(0.7)	34	(0.6)	31	(0.6)	-11.4%	-7.2%	Finland
	570	(0.9)	490	(0.8)	450	(0.7)	410	(0.6)	-7.8%	-6.9%	France
	380	(0.5)	320	(0.4)	320	(0.4)	320	(0.4)	-3.5%	-3.9%	Germany
	78	(0.7)	55	(0.5)	55	(0.5)	55	(0.5)	-16.1%	-6.6%	Greece
	98	(1.0)	87	(0.9)	98	(1.0)	72	(0.7)	-13.1%	-11.4%	Hungary
	0	(0.0)	0	(0.0)	2	(0.6)	2	(0.6)	18.4%	-10.8%	Iceland
	23	(0.5)	23	(0.5)	23	(0.5)	23	(0.5)	-4.1%	-9.5%	Ireland
	340	(0.6)	340	(0.6)	330	(0.6)	330	(0.6)	0.0%	-2.1%	Italy
	100	(5.1)	67	(3.3)	51	(2.6)	39	(2.0)	-9.6%	-13.0%	Latvia
	-	-	-	-	-	-	-	-	-	-	Liechtenstein
	210	(7.1)	230	(7.8)	190	(6.5)	190	(6.4)	-6.8%	-5.8%	Lithuania
	0	(0.0)	1	(0.2)	1	(0.2)	1	(0.2)	-	-9.2%	Luxembourg
	3	(0.7)	1	(0.2)	1	(0.2)	1	(0.2)	0.0%	-18.4%	Malta
	40	(0.2)	35	(0.2)	37	(0.2)	38	(0.2)	1.2%	-5.0%	Netherlands
	21	(0.4)	13	(0.3)	13	(0.3)	13	(0.3)	-13.2%	-11.5%	Norway
	580	(1.5)	580	(1.5)	520	(1.4)	480	(1.3)	-7.8%	-5.7%	Poland
	230	(2.2)	220	(2.1)	220	(2.1)	210	(2.0)	-2.4%	-3.3%	Portugal
	1200	(5.8)	1100	(5.7)	1100	(5.4)	1000	(5.1)	-5.1%	-4.5%	Romania
	20	(0.4)	35	(0.6)	35	(0.6)	35	(0.6)	18.9%	-0.3%	Slovakia
	9	(0.4)	21	(1.0)	11	(0.5)	13	(0.6)	3.1%	-9.5%	Slovenia
	300	(0.6)	290	(0.6)	280	(0.6)	280	(0.6)	-3.4%	-4.6%	Spain
	43	(0.5)	30	(0.3)	25	(0.3)	25	(0.3)	-11.6%	-10.7%	Sweden
	350	(0.5)	350	(0.5)	350	(0.5)	350	(0.5)	1.4%	-2.0%	United Kingdom
	5100	(1.0)	4700	(0.9)	4500	(0.9)	4300	(0.8)	-5.2%	-5.5%	Subtotal EU/EEA
											Non-EU/EEA
	8	(0.3)	8	(0.3)	8	(0.3)	8	(0.3)	0.0%	-1.4%	Albania
	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	0.0%	Andorra
	140	(4.7)	100	(3.6)	88	(3.0)	62	(2.1)	-23.7%	-14.5%	Armenia
	390	(4.2)	390	(4.1)	500	(5.2)	620	(6.4)	11.1%	5.7%	Azerbaijan
	640	(6.8)	510	(5.3)	370	(3.9)	230	(2.4)	-26.2%	-15.6%	Belarus
	160	(4.3)	140	(3.9)	140	(3.9)	140	(3.9)	-5.1%	-3.1%	Bosnia and Herzegovina
	20	(1.0)	20	(1.0)	20	(1.0)	20	(1.0)	-2.8%	-11.4%	former Yugoslav Republic of Macedonia, the
	210	(5.1)	200	(5.1)	200	(5.0)	190	(4.8)	-2.9%	-0.7%	Georgia
	15	(0.2)	15	(0.2)	15	(0.2)	15	(0.2)	-10.0%	-11.7%	Israel
	1200	(6.7)	1000	(5.8)	800	(4.5)	440	(2.4)	-30.0%	-21.4%	Kazakhstan
	650	(11.0)	540	(9.4)	480	(8.3)	430	(7.2)	-10.1%	-7.1%	Kyrgyzstan
	360	(8.7)	350	(8.7)	300	(7.5)	260	(6.3)	-14.9%	-10.4%	Moldova
	0	(0.1)	0	(0.0)	0	(0.0)	0	(0.0)	-100.0%	-100.0%	Monaco
	1	(0.2)	1	(0.2)	1	(0.2)	1	(0.2)	0.0%	-19.2%	Montenegro
	17000	(12.0)	15000	(11.0)	14000	(9.5)	12000	(8.2)	-10.9%	-8.9%	Russia
	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	San Marino
	150	(1.6)	120	(1.3)	87	(1.0)	84	(1.0)	-14.5%	-11.6%	Serbia
	20	(0.2)	20	(0.2)	20	(0.2)	20	(0.2)	-4.6%	-5.0%	Switzerland
	570	(7.0)	530	(6.4)	520	(6.0)	520	(6.0)	-5.4%	-7.4%	Tajikistan
	760	(1.0)	670	(0.9)	580	(0.7)	480	(0.6)	-13.7%	-6.3%	Turkey
	450	(8.4)	560	(10.0)	460	(8.3)	430	(7.6)	-4.9%	-6.6%	Turkmenistan
	6200	(14.0)	5400	(12.0)	4800	(11.0)	4200	(9.5)	-12.2%	-9.8%	Ukraine
	1800	(6.0)	1900	(6.1)	1900	(6.0)	1900	(5.9)	-1.2%	-6.7%	Uzbekistan
	31000	(7.8)	27000	(6.8)	25000	(6.2)	22000	(5.5)	-11.5%	-9.2%	Subtotal non-EU/EEA
	36000	(4.0)	33000	(3.6)	29000	(3.2)	26000	(2.8)	-10.5%	-8.0%	Total European Region
	32000	(8.1)	29000	(7.3)	26000	(6.5)	23000	(5.7)	-11.1%	-9.1%	Subtotal ±8 HPC

Table II: Estimated TB incidence per 100 000 population, European Region, 2007–2016

Country	2007		2008		2009		2010		2011		2012	
	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	930	(11.0)	870	(10.0)	760	(9.1)	760	(9.1)	770	(9.1)	710	(8.4)
Belgium	1100	(10.0)	1100	(10.0)	1100	(9.7)	1200	(11.0)	1100	(10.0)	1000	(9.4)
<i>Bulgaria</i>	<i>3 600</i>	<i>(47.0)</i>	<i>3 700</i>	<i>(49.0)</i>	<i>3 300</i>	<i>(45.0)</i>	<i>3 000</i>	<i>(41.0)</i>	<i>2 700</i>	<i>(37.0)</i>	<i>2 600</i>	<i>(36.0)</i>
Croatia	1100	(25.0)	1100	(26.0)	960	(22.0)	790	(18.0)	710	(17.0)	620	(14.0)
Cyprus	47	(4.4)	55	(5.1)	59	(5.3)	70	(6.3)	59	(5.2)	72	(6.4)
Czech Republic	910	(8.8)	930	(8.9)	730	(6.9)	710	(6.8)	650	(6.2)	650	(6.1)
Denmark	410	(7.5)	380	(6.9)	340	(6.1)	380	(6.9)	410	(7.4)	390	(7.0)
<i>Estonia</i>	<i>480</i>	<i>(36.0)</i>	<i>440</i>	<i>(33.0)</i>	<i>400</i>	<i>(30.0)</i>	<i>370</i>	<i>(28.0)</i>	<i>340</i>	<i>(25.0)</i>	<i>310</i>	<i>(24.0)</i>
Finland	340	(6.5)	380	(7.2)	460	(8.7)	350	(6.6)	360	(6.7)	300	(5.5)
France	6300	(10.0)	6300	(10.0)	5700	(9.1)	5600	(8.8)	5500	(8.7)	5500	(8.6)
Germany	5400	(6.6)	4800	(5.9)	4800	(5.9)	4700	(5.8)	4700	(5.8)	4600	(5.7)
Greece	710	(6.2)	670	(5.9)	620	(5.4)	510	(4.5)	520	(4.6)	600	(5.2)
Hungary	1800	(18.0)	1600	(16.0)	1500	(15.0)	1800	(18.0)	1500	(15.0)	1300	(14.0)
Iceland	14	(4.5)	7	(2.2)	10	(3.3)	25	(7.9)	9	(2.8)	12	(3.5)
Ireland	500	(11.0)	490	(11.0)	490	(11.0)	450	(9.6)	450	(9.6)	390	(8.4)
Italy	3200	(5.3)	4700	(8.0)	4700	(7.9)	5200	(8.7)	3900	(6.6)	3600	(6.0)
<i>Latvia</i>	<i>1400</i>	<i>(62.0)</i>	<i>1200</i>	<i>(57.0)</i>	<i>1100</i>	<i>(53.0)</i>	<i>1100</i>	<i>(51.0)</i>	<i>1000</i>	<i>(50.0)</i>	<i>1000</i>	<i>(50.0)</i>
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–
<i>Lithuania</i>	<i>2 600</i>	<i>(80.0)</i>	<i>2 500</i>	<i>(78.0)</i>	<i>2 400</i>	<i>(76.0)</i>	<i>2 300</i>	<i>(73.0)</i>	<i>2 200</i>	<i>(70.0)</i>	<i>2 100</i>	<i>(68.0)</i>
Luxembourg	45	(9.4)	32	(6.6)	31	(6.3)	33	(6.6)	29	(5.5)	52	(9.7)
Malta	44	(11.0)	55	(13.0)	48	(12.0)	33	(8.0)	34	(8.2)	48	(11.0)
Netherlands	1100	(6.5)	1100	(6.7)	1300	(7.8)	1200	(7.1)	1100	(6.7)	1100	(6.3)
Norway	330	(6.9)	340	(7.2)	380	(7.8)	340	(6.9)	370	(7.4)	390	(7.9)
Poland	9200	(24.0)	8500	(22.0)	8800	(23.0)	8100	(21.0)	9100	(24.0)	8100	(21.0)
Portugal	3400	(32.0)	3200	(30.0)	3100	(29.0)	3000	(28.0)	2900	(27.0)	2900	(27.0)
<i>Romania</i>	<i>26 000</i>	<i>(123.0)</i>	<i>25 000</i>	<i>(120.0)</i>	<i>24 000</i>	<i>(115.0)</i>	<i>21 000</i>	<i>(105.0)</i>	<i>20 000</i>	<i>(97.0)</i>	<i>19 000</i>	<i>(92.0)</i>
Slovakia	720	(13.0)	670	(12.0)	520	(9.6)	470	(8.7)	430	(8.0)	370	(6.8)
Slovenia	250	(12.0)	240	(12.0)	210	(11.0)	190	(9.5)	210	(10.0)	150	(7.5)
Spain	8400	(19.0)	8900	(19.0)	8300	(18.0)	7900	(17.0)	7400	(16.0)	6500	(14.0)
Sweden	530	(5.8)	590	(6.4)	660	(7.1)	710	(7.5)	620	(6.5)	680	(7.1)
United Kingdom	9000	(15.0)	9300	(15.0)	9100	(15.0)	8800	(14.0)	9500	(15.0)	9300	(14.0)
Subtotal EU/EEA	90 000	(17.9)	89 000	(17.6)	86 000	(16.9)	81 000	(15.9)	79 000	(15.5)	74 000	(14.5)
Non-EU/EEA												
Albania	500	(17.0)	490	(16.0)	510	(17.0)	500	(17.0)	490	(17.0)	470	(16.0)
Andorra	6	(7.0)	5	(5.5)	9	(11.0)	8	(9.5)	3	(4.1)	10	(13.0)
Armenia	2100	(72.0)	2100	(71.0)	2000	(68.0)	1800	(61.0)	1600	(55.0)	1500	(53.0)
<i>Azerbaijan</i>	<i>6 900</i>	<i>(79.0)</i>	<i>9 500</i>	<i>(108.0)</i>	<i>12 000</i>	<i>(133.0)</i>	<i>9 400</i>	<i>(104.0)</i>	<i>11 000</i>	<i>(125.0)</i>	<i>8 000</i>	<i>(86.0)</i>
<i>Belarus</i>	<i>6 900</i>	<i>(73.0)</i>	<i>6 800</i>	<i>(72.0)</i>	<i>6 700</i>	<i>(70.0)</i>	<i>6 500</i>	<i>(69.0)</i>	<i>6 300</i>	<i>(67.0)</i>	<i>6 100</i>	<i>(64.0)</i>
Bosnia and Herzegovina	3000	(79.0)	2100	(57.0)	2200	(58.0)	1700	(44.0)	1700	(46.0)	1800	(48.0)
former Yugoslav Republic of Macedonia, the	660	(32.0)	560	(27.0)	560	(27.0)	480	(23.0)	420	(20.0)	430	(21.0)
<i>Georgia</i>	<i>6 600</i>	<i>(149.0)</i>	<i>6 100</i>	<i>(140.0)</i>	<i>5 700</i>	<i>(133.0)</i>	<i>5 400</i>	<i>(127.0)</i>	<i>5 100</i>	<i>(122.0)</i>	<i>4 900</i>	<i>(119.0)</i>
Israel	460	(6.6)	370	(5.2)	400	(5.5)	390	(5.3)	470	(6.3)	580	(7.6)
<i>Kazakhstan</i>	<i>26 000</i>	<i>(163.0)</i>	<i>25 000</i>	<i>(156.0)</i>	<i>24 000</i>	<i>(151.0)</i>	<i>24 000</i>	<i>(145.0)</i>	<i>22 000</i>	<i>(134.0)</i>	<i>21 000</i>	<i>(121.0)</i>
<i>Kyrgyzstan</i>	<i>9 300</i>	<i>(179.0)</i>	<i>8 700</i>	<i>(165.0)</i>	<i>8 200</i>	<i>(153.0)</i>	<i>7 800</i>	<i>(145.0)</i>	<i>7 700</i>	<i>(141.0)</i>	<i>7 800</i>	<i>(140.0)</i>
<i>Moldova</i>	<i>5 600</i>	<i>(135.0)</i>	<i>5 100</i>	<i>(125.0)</i>	<i>5 100</i>	<i>(126.0)</i>	<i>4 800</i>	<i>(116.0)</i>	<i>4 900</i>	<i>(119.0)</i>	<i>5 100</i>	<i>(124.0)</i>
Monaco	1	(2.8)	1	(3.2)	1	(3.3)	1	(3.1)	1	(2.4)	1	(1.5)
Montenegro	170	(27.0)	150	(24.0)	130	(21.0)	130	(20.0)	130	(20.0)	110	(18.0)
<i>Russia</i>	<i>128 000</i>	<i>(90.0)</i>	<i>130 000</i>	<i>(91.0)</i>	<i>127 000</i>	<i>(89.0)</i>	<i>123 000</i>	<i>(86.0)</i>	<i>116 000</i>	<i>(81.0)</i>	<i>109 000</i>	<i>(76.0)</i>
San Marino	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Serbia	3300	(36.0)	3100	(34.0)	2900	(32.0)	2700	(30.0)	2500	(28.0)	2200	(24.0)
Switzerland	480	(6.4)	530	(7.0)	580	(7.5)	580	(7.5)	600	(7.6)	480	(6.0)
<i>Tajikistan</i>	<i>12 000</i>	<i>(169.0)</i>	<i>11 000</i>	<i>(155.0)</i>	<i>11 000</i>	<i>(141.0)</i>	<i>9 800</i>	<i>(128.0)</i>	<i>9 100</i>	<i>(117.0)</i>	<i>8 600</i>	<i>(108.0)</i>
<i>Turkey</i>	<i>22 000</i>	<i>(31.0)</i>	<i>20 000</i>	<i>(29.0)</i>	<i>19 000</i>	<i>(27.0)</i>	<i>18 000</i>	<i>(25.0)</i>	<i>17 000</i>	<i>(24.0)</i>	<i>16 000</i>	<i>(22.0)</i>
<i>Turkmenistan</i>	<i>4 300</i>	<i>(88.0)</i>	<i>4 700</i>	<i>(95.0)</i>	<i>3 900</i>	<i>(79.0)</i>	<i>4 000</i>	<i>(79.0)</i>	<i>3 400</i>	<i>(66.0)</i>	<i>3 700</i>	<i>(70.0)</i>
<i>Ukraine</i>	<i>57 000</i>	<i>(123.0)</i>	<i>55 000</i>	<i>(119.0)</i>	<i>53 000</i>	<i>(115.0)</i>	<i>50 000</i>	<i>(110.0)</i>	<i>48 000</i>	<i>(105.0)</i>	<i>46 000</i>	<i>(101.0)</i>
<i>Uzbekistan</i>	<i>30 000</i>	<i>(110.0)</i>	<i>29 000</i>	<i>(105.0)</i>	<i>29 000</i>	<i>(101.0)</i>	<i>28 000</i>	<i>(97.0)</i>	<i>27 000</i>	<i>(93.0)</i>	<i>26 000</i>	<i>(89.0)</i>
Subtotal non-EU/EEA	325 000	(85.0)	320 000	(83.3)	314 000	(81.4)	299 000	(77.1)	285 000	(73.0)	270 000	(68.8)
Total European Region	415 000	(46.8)	410 000	(46.1)	399 000	(44.7)	380 000	(42.4)	365 000	(40.5)	343 000	(38.0)
Subtotal 18 HPC	351 000	(91.3)	346 000	(89.7)	338 000	(87.3)	320 000	(82.4)	305 000	(78.1)	289 000	(73.7)

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

	2013		2014		2015		2016		Mean annual % change in rate, 2012–2016	Mean annual % change in rate, 2007–2016	Country
	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000	N	Rate per 100 000			
											EU/EEA
	720	(8.4)	650	(7.5)	650	(7.5)	710	(8.2)	-0.6%	-3.2%	Austria
	1000	(9.3)	1000	(9.1)	1100	(9.5)	1100	(10.0)	1.6%	0.0%	Belgium
	2400	(33.0)	2300	(32.0)	2000	(28.0)	1900	(27.0)	-6.9%	-6.0%	Bulgaria
	590	(14.0)	570	(13.0)	560	(13.0)	520	(12.0)	-3.8%	-7.8%	Croatia
	47	(4.1)	45	(3.9)	72	(6.2)	66	(5.6)	-3.3%	2.7%	Cyprus
	540	(5.1)	550	(5.1)	580	(5.5)	530	(5.0)	-4.8%	-6.1%	Czech Republic
	380	(6.7)	340	(5.9)	370	(6.5)	350	(6.1)	-3.4%	-2.3%	Denmark
	290	(22.0)	270	(20.0)	240	(18.0)	220	(16.0)	-9.6%	-8.6%	Estonia
	310	(5.6)	290	(5.3)	310	(5.6)	260	(4.7)	-3.9%	-3.5%	Finland
	5500	(8.6)	5300	(8.2)	5200	(8.1)	5000	(7.7)	-2.7%	-2.9%	France
	4800	(5.9)	5000	(6.1)	6500	(8.0)	6600	(8.1)	9.2%	2.3%	Germany
	570	(5.0)	560	(4.9)	500	(4.5)	490	(4.4)	-4.1%	-3.7%	Greece
	1200	(12.0)	920	(9.4)	990	(10.0)	860	(8.8)	-11.0%	-7.6%	Hungary
	13	(3.9)	9	(2.8)	8	(2.4)	7	(2.1)	-12.0%	-8.1%	Iceland
	410	(8.7)	340	(7.3)	340	(7.2)	340	(7.1)	-4.1%	-4.7%	Ireland
	3500	(5.8)	3900	(6.5)	4000	(6.7)	3700	(6.1)	0.4%	1.6%	Italy
	1000	(50.0)	990	(49.0)	800	(40.0)	740	(37.0)	-7.3%	-5.6%	Latvia
	-	-	-	-	-	-	-	-	-	-	Liechtenstein
	1900	(65.0)	1800	(62.0)	1600	(55.0)	1500	(53.0)	-6.0%	-4.5%	Lithuania
	44	(8.0)	28	(5.0)	34	(6.1)	33	(5.8)	-12.1%	-5.2%	Luxembourg
	58	(14.0)	52	(12.0)	37	(8.6)	58	(13.0)	4.3%	1.9%	Malta
	960	(5.7)	940	(5.5)	980	(5.8)	1000	(5.9)	-1.6%	-1.1%	Netherlands
	420	(8.2)	350	(6.8)	330	(6.3)	320	(6.1)	-6.3%	-1.4%	Norway
	8100	(21.0)	7500	(20.0)	7200	(19.0)	7100	(18.0)	-3.8%	-3.1%	Poland
	2700	(26.0)	2500	(24.0)	2400	(23.0)	2100	(20.0)	-7.2%	-5.1%	Portugal
	18000	(89.0)	17000	(86.0)	16000	(82.0)	15000	(74.0)	-5.3%	-5.5%	Romania
	460	(8.4)	370	(6.8)	350	(6.5)	320	(5.9)	-3.5%	-8.4%	Slovakia
	160	(7.7)	160	(7.9)	150	(7.2)	140	(6.5)	-3.5%	-6.6%	Slovenia
	6000	(13.0)	5500	(12.0)	4600	(10.0)	4700	(10.0)	-8.1%	-6.9%	Spain
	700	(7.3)	730	(7.5)	900	(9.2)	810	(8.2)	3.7%	3.9%	Sweden
	8300	(13.0)	7400	(11.0)	6600	(10.0)	6500	(9.9)	-8.3%	-4.5%	United Kingdom
	71000	(13.9)	67000	(13.1)	65000	(12.7)	63000	(12.3)	-4.1%	-4.1%	Subtotal EU/EEA
											Non-EU/EEA
	550	(19.0)	470	(16.0)	480	(16.0)	480	(16.0)	0.0%	-0.7%	Albania
	6	(7.1)	7	(8.7)	5	(5.9)	5	(6.0)	-17.6%	-1.7%	Andorra
	1700	(60.0)	1700	(57.0)	1400	(47.0)	1300	(44.0)	-4.5%	-5.3%	Armenia
	7300	(78.0)	7200	(76.0)	6800	(71.0)	6400	(66.0)	-6.4%	-2.0%	Azerbaijan
	5800	(61.0)	5500	(58.0)	5200	(55.0)	4900	(52.0)	-5.1%	-3.7%	Belarus
	1600	(44.0)	1500	(42.0)	1400	(39.0)	1100	(32.0)	-9.6%	-9.6%	Bosnia and Herzegovina
	400	(19.0)	350	(17.0)	350	(17.0)	330	(16.0)	-6.6%	-7.4%	former Yugoslav Republic of Macedonia, the
	4700	(116.0)	4200	(106.0)	3900	(99.0)	3600	(92.0)	-6.2%	-5.2%	Georgia
	350	(4.5)	420	(5.2)	320	(4.0)	290	(3.5)	-17.6%	-6.8%	Israel
	18000	(107.0)	16000	(93.0)	14000	(79.0)	12000	(67.0)	-13.7%	-9.4%	Kazakhstan
	8000	(141.0)	8200	(142.0)	8400	(144.0)	8700	(145.0)	0.9%	-2.3%	Kyrgyzstan
	5200	(127.0)	4700	(115.0)	4100	(102.0)	4100	(101.0)	-5.0%	-3.2%	Moldova
	0	(0.6)	0	(0.0)	0	(0.0)	0	(0.0)	-	-100.0%	Monaco
	140	(22.0)	130	(21.0)	92	(15.0)	100	(16.0)	-2.9%	-5.6%	Montenegro
	104000	(73.0)	101000	(70.0)	97000	(68.0)	94000	(66.0)	-3.5%	-3.4%	Russia
	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	San Marino
	2400	(27.0)	2100	(24.0)	1900	(21.0)	1700	(19.0)	-5.7%	-6.9%	Serbia
	540	(6.6)	490	(5.9)	610	(7.3)	660	(7.8)	6.8%	2.2%	Switzerland
	8100	(100.0)	7600	(91.0)	7400	(86.0)	7500	(85.0)	-5.8%	-7.4%	Tajikistan
	15000	(20.0)	15000	(20.0)	14000	(18.0)	14000	(18.0)	-4.9%	-5.9%	Turkey
	3800	(71.0)	3200	(59.0)	3800	(68.0)	3400	(60.0)	-3.8%	-4.2%	Turkmenistan
	44000	(96.0)	42000	(94.0)	41000	(91.0)	39000	(87.0)	-3.7%	-3.8%	Ukraine
	26000	(86.0)	25000	(82.0)	25000	(79.0)	24000	(76.0)	-3.9%	-4.0%	Uzbekistan
	258000	(65.3)	247000	(62.1)	237000	(59.2)	228000	(56.6)	-4.7%	-4.4%	Subtotal non-EU/EEA
	329000	(36.3)	315000	(34.6)	303000	(33.2)	290000	(31.6)	-4.4%	-4.3%	Total European Region
	275000	(69.7)	264000	(66.5)	253000	(63.4)	242000	(60.4)	-4.9%	-4.5%	Subtotal 18 HPC

Table III: Tuberculosis cases in children under 15 years, European Region, 2012–2016^a

Country	2012			2013			2014			2015			2016		
	N	% among all TB cases	Rate	N	% among all TB cases	Rate	N	% among all TB cases	Rate	N	% among all TB cases	Rate	N	% among all TB cases	Rate
EU/EEA															
Austria	27	(4.2)	2.2	23	(3.5)	1.9	14	(2.4)	1.1	20	(3.4)	1.6	31	(4.9)	2.5
Belgium	63	(6.5)	3.3	58	(6.0)	3.1	60	(6.3)	3.2	69	(7.1)	3.6	59	(5.6)	3.1
Bulgaria	178	(7.8)	18.2	146	(7.6)	14.7	145	(7.7)	14.6	118	(7.1)	11.8	126	(7.9)	12.6
Croatia ^b	12	(2.1)	1.9	4	(0.8)	0.6	2	(0.4)	0.3	13	(2.7)	2.1	6	(1.3)	1.0
Cyprus	3	(4.3)	2.1	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0
Czech Republic	5	(0.8)	0.3	5	(1.0)	0.3	6	(1.2)	0.4	5	(1.0)	0.3	10	(1.9)	0.6
Denmark	17	(4.4)	1.7	22	(6.2)	2.3	9	(2.8)	0.9	15	(4.2)	1.6	18	(5.5)	1.9
Estonia	2	(0.7)	1.0	1	(0.3)	0.5	1	(0.4)	0.5	2	(0.9)	1.0	4	(2.1)	1.9
Finland	5	(1.8)	0.6	2	(0.7)	0.2	10	(3.8)	1.1	11	(4.0)	1.2	6	(2.5)	0.7
France ^c	232	(4.6)	1.9	257	(5.2)	2.1	257	(5.3)	2.1	246	(5.2)	2.0	269	(5.8)	2.2
Germany	173	(4.1)	1.6	171	(3.9)	1.6	142	(3.1)	1.3	196	(3.3)	1.8	233	(3.9)	2.1
Greece	41	(7.3)	2.5	30	(5.6)	1.9	10	(1.9)	0.6	11	(2.3)	0.7	22	(5.0)	1.4
Hungary	9	(0.7)	0.6	8	(0.8)	0.6	4	(0.5)	0.3	9	(1.0)	0.6	6	(0.8)	0.4
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	10	(2.8)	1.0	9	(2.4)	0.9	7	(2.3)	0.7	14	(4.9)	1.4	17	(5.3)	1.6
Italy	206	(4.8)	2.5	205	(5.2)	2.5	201	(5.1)	2.4	177	(4.7)	2.1	158	(3.9)	1.9
Latvia	57	(5.7)	19.5	45	(5.0)	15.4	41	(5.4)	13.9	25	(3.5)	8.4	23	(3.5)	7.7
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	56	(3.1)	12.6	37	(2.2)	8.5	22	(1.4)	5.1	36	(2.4)	8.5	47	(3.3)	11.1
Luxembourg	3	(6.7)	3.3	1	(2.6)	1.1	0	(0.0)	0.0	2	(6.7)	2.1	1	(3.4)	1.1
Malta	2	(4.8)	3.2	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0
Netherlands	50	(5.2)	1.7	33	(3.9)	1.1	48	(5.9)	1.7	42	(4.9)	1.5	49	(5.5)	1.8
Norway	19	(5.1)	2.1	16	(4.1)	1.7	14	(4.3)	1.5	20	(6.4)	2.1	14	(4.7)	1.5
Poland	95	(1.3)	1.6	116	(1.6)	2.0	70	(1.0)	1.2	81	(1.3)	1.4	103	(1.6)	1.8
Portugal	75	(2.9)	4.8	51	(2.1)	3.3	42	(1.8)	2.8	34	(1.6)	2.3	33	(1.8)	2.3
Romania	717	(3.9)	22.5	695	(4.2)	22.1	639	(4.0)	20.6	655	(4.3)	21.3	596	(4.4)	19.4
Slovakia	19	(5.5)	2.3	38	(9.5)	4.6	46	(13.7)	5.5	67	(21.1)	8.1	61	(20.6)	7.3
Slovenia	5	(3.6)	1.7	2	(1.4)	0.7	3	(2.1)	1.0	1	(0.8)	0.3	3	(2.5)	1.0
Spain	388	(6.4)	5.5	382	(6.8)	5.4	295	(6.0)	4.2	365	(7.3)	5.2	268	(5.5)	3.8
Sweden	25	(4.0)	1.6	49	(7.7)	3.0	54	(8.2)	3.3	47	(5.8)	2.8	58	(8.0)	3.4
United Kingdom	412	(4.7)	3.7	315	(4.0)	2.8	280	(4.0)	2.5	226	(3.6)	2.0	226	(3.7)	2.0
Subtotal EU/EEA	2906	(4.2)	3.7	2721	(4.1)	3.4	2422	(4.0)	3.0	2507	(4.1)	3.0	2447	(4.1)	3.0
Non-EU/EEA															
Albania	3	(0.7)	0.5	19	(4.0)	3.3	21	(5.1)	3.8	11	(2.7)	2.1	13	(3.1)	2.5
Andorra	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(25.0)	9.5	0	(0.0)	0.0
Armenia	37	(3.1)	6.6	42	(3.0)	7.4	32	(2.4)	5.6	24	(2.2)	4.1	21	(2.0)	3.6
Azerbaijan	212	(3.3)	10.1	215	(3.7)	10.1	179	(3.1)	8.3	179	(3.3)	8.1	175	(3.4)	7.8
Belarus	21	(0.4)	1.5	14	(0.3)	1.0	24	(0.6)	1.6	18	(0.5)	1.2	13	(0.4)	0.8
Bosnia and Herzegovina	18	(1.3)	3.2	12	(1.0)	2.2	15	(1.3)	2.9	14	(1.3)	2.7	10	(1.1)	2.0
former Yugoslav Republic of Macedonia, the	29	(8.4)	8.1	23	(7.2)	6.5	19	(6.7)	5.4	14	(5.0)	4.0	25	(9.5)	7.2
Georgia	215	(5.5)	28.7	183	(5.3)	24.7	129	(4.0)	17.5	139	(4.4)	18.8	123	(4.1)	16.5
Israel	19	(3.8)	0.9	15	(4.9)	0.7	31	(8.6)	1.4	6	(2.1)	0.3	13	(5.2)	0.6
Kazakhstan	576	(3.2)	13.7	511	(2.7)	11.6	452	(3.0)	9.9	392	(2.8)	8.2	326	(2.6)	6.6
Kyrgyzstan	640	(10.3)	37.9	594	(8.4)	34.3	438	(6.9)	24.7	537	(7.6)	29.4	407	(5.8)	21.7
Moldova	145	(3.3)	22.2	134	(3.0)	20.7	114	(2.8)	17.7	114	(3.2)	17.8	103	(2.9)	16.1
Monaco	–	–	–	–	–	–	0	(0.0)	0.0	0	(0.0)	0.0	–	–	–
Montenegro	0	(0.0)	0.0	1	(0.8)	0.8	0	(0.0)	0.0	1	(1.3)	0.9	0	(0.0)	0.0
Russia	3 688	(3.5)	16.6	3 298	(3.1)	14.4	3 195	(3.1)	13.5	3 061	(3.1)	12.6	2 876	(3.1)	11.6
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	0	(0.0)	0.0
Serbia	20	(1.1)	1.3	14	(0.7)	0.9	41	(2.3)	2.7	29	(1.8)	2.0	17	(1.2)	1.2
Serbia excluding UN Administered Province of Kosovo ^d	18	(1.5)	4.7	14	(1.2)	0.9	21	(2.1)	2.0	8	(0.9)	0.8	0	(0.0)	0.0
UN Administered Province of Kosovo ^d	20	(2.8)	1.7	–	–	–	20	(2.4)	4.1	21	(2.7)	4.3	17	(2.4)	2.9
Switzerland	13	(3.1)	1.1	22	(4.7)	1.8	11	(2.6)	0.9	32	(6.0)	2.6	30	(5.2)	2.4
Tajikistan	360	(5.5)	12.7	389	(7.0)	13.5	334	(5.8)	11.4	328	(5.6)	10.9	389	(6.5)	12.7
Turkey	672	(4.8)	3.4	581	(4.4)	2.9	550	(4.2)	2.8	633	(5.0)	3.2	628	(5.2)	3.1
Turkmenistan	44	(1.5)	2.8	–	–	–	–	–	–	–	–	–	26	(1.2)	1.5
Ukraine	223	(0.5)	3.4	638	(1.7)	9.7	532	(1.7)	8.0	568	(1.9)	8.4	571	(2.0)	8.4
Uzbekistan	1 561	(10.5)	18.5	1 960	(9.4)	23.1	1 913	(10.4)	22.3	1 795	(11.0)	20.7	2 010	(12.5)	22.8
Subtotal non-EU/EEA	8 496	(3.6)	10.7	8 665	(3.7)	11.0	8 030	(3.7)	10.0	7 896	(3.8)	9.7	7 755	(3.9)	9.2
Total European Region	11 402	(3.9)	7.2	11 386	(3.9)	7.2	10 452	(3.9)	6.5	10 403	(4.0)	6.5	10 275	(4.2)	6.3
Subtotal 18 HPC	9 404	(3.7)	12.1	9 483	(3.8)	12.3	8 740	(3.8)	11.1	8 624	(3.9)	10.8	8 443	(4.0)	10.2

^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.

^b For non-EU countries new and relapse cases under 15 year of age are included, for EU/EEA countries all TB cases under 15 years of age are included.

^c These data are subject to change as the national TB registry was under review when this report was being produced.

^d Provisional data for 2016 including overseas territories reported to WHO Global TB database.

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

	2015							2016							Country
	Foreign		Native		Unknown origin		All TB cases (N)	Foreign		Native		Unknown origin		All TB cases (N)	
	N	% among all TB	N	% among all TB	N	% among all TB		N	% among all TB	N	% among all TB	N	% among all TB		
														EU/EEA	
	364	(62.4)	219	(37.6)	0	(0.0)	583	424	(66.9)	210	(33.1)	0	(0.0)	634	Austria ^a
	512	(52.4)	465	(47.6)	0	(0.0)	977	547	(52.2)	500	(47.8)	0	(0.0)	1047	Belgium ^a
	10	(0.6)	1650	(99.4)	0	(0.0)	1660	4	(0.2)	1599	(99.8)	0	(0.0)	1603	Bulgaria
	74	(15.2)	239	(49.2)	173	(35.6)	486	3	(0.7)	161	(35.0)	296	(64.3)	460	Croatia ^b
	52	(82.5)	11	(17.5)	0	(0.0)	63	56	(93.3)	4	(6.7)	0	(0.0)	60	Cyprus
	110	(21.3)	407	(78.7)	0	(0.0)	517	151	(29.3)	365	(70.7)	0	(0.0)	516	Czech Republic
	242	(67.8)	115	(32.2)	0	(0.0)	357	221	(67.0)	109	(33.0)	0	(0.0)	330	Denmark
	38	(17.5)	179	(82.5)	0	(0.0)	217	42	(21.9)	150	(78.1)	0	(0.0)	192	Estonia
	115	(42.3)	151	(55.5)	6	(2.2)	272	111	(47.0)	117	(49.6)	8	(3.4)	236	Finland
	2 628	(55.4)	1 843	(38.9)	270	(5.7)	4 741	2 758	(55.6)	2 200	(44.4)	0	(0.0)	4 958	France ^c
	4 066	(69.5)	1 560	(26.7)	226	(3.9)	5 852	4 125	(69.7)	1 427	(24.1)	363	(6.1)	5 915	Germany
	189	(39.2)	289	(60.0)	4	(0.8)	482	189	(42.7)	254	(57.3)	0	(0.0)	443	Greece ^a
	27	(3.0)	879	(97.0)	0	(0.0)	906	30	(3.8)	756	(96.2)	0	(0.0)	786	Hungary ^a
	6	(85.7)	1	(14.3)	0	(0.0)	7	4	(66.7)	2	(33.3)	0	(0.0)	6	Iceland
	126	(44.5)	144	(50.9)	13	(4.6)	283	160	(50.3)	145	(45.6)	13	(4.1)	318	Ireland
	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	Italy
	45	(6.2)	676	(93.8)	0	(0.0)	721	43	(6.5)	617	(93.5)	0	(0.0)	660	Latvia
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Liechtenstein
	15	(1.0)	1 492	(99.0)	0	(0.0)	1 507	13	(0.9)	1 429	(99.1)	0	(0.0)	1 442	Lithuania
	20	(66.7)	10	(33.3)	0	(0.0)	30	22	(75.9)	7	(24.1)	0	(0.0)	29	Luxembourg
	24	(75.0)	8	(25.0)	0	(0.0)	32	48	(96.0)	2	(4.0)	0	(0.0)	50	Malta
	624	(72.4)	236	(27.4)	2	(0.2)	862	669	(75.3)	214	(24.1)	6	(0.7)	889	Netherlands
	277	(88.5)	36	(11.5)	0	(0.0)	313	265	(88.6)	34	(11.4)	0	(0.0)	299	Norway
	52	(0.8)	6 378	(99.2)	0	(0.0)	6 430	92	(1.4)	6 352	(98.6)	0	(0.0)	6 444	Poland ^d
	363	(16.7)	1 812	(83.2)	3	(0.1)	2 178	336	(18.3)	1 500	(81.7)	0	(0.0)	1 836	Portugal
	36	(0.2)	15 145	(99.7)	2	(0.0)	15 183	24	(0.2)	13 593	(99.8)	0	(0.0)	13 617	Romania
	11	(3.5)	306	(96.5)	0	(0.0)	317	11	(3.7)	285	(96.3)	0	(0.0)	296	Slovakia
	50	(38.5)	80	(61.5)	0	(0.0)	130	43	(36.4)	75	(63.6)	0	(0.0)	118	Slovenia
	1 546	(30.9)	3 278	(65.6)	173	(3.5)	4 997	1 391	(28.5)	2 886	(59.2)	600	(12.3)	4 877	Spain
	729	(89.4)	86	(10.6)	0	(0.0)	815	652	(89.8)	74	(10.2)	0	(0.0)	726	Sweden
	4 361	(70.0)	1 750	(28.1)	123	(2.0)	6 234	4 369	(70.8)	1 662	(26.9)	144	(2.3)	6 175	United Kingdom
	18 476	(30.3)	40 672	(66.8)	1 773	(2.9)	60 921	19 312	(32.7)	37 909	(64.3)	1 773	(3.0)	58 994	Subtotal EU/EEA
															Non-EU/EEA
	4	(1.0)	411	(99.0)	-	-	415	0	(0.0)	415	(100.0)	-	-	415	Albania
	0	(0.0)	4	(100.0)	-	-	4	0	(0.0)	4	(100.0)	-	-	4	Andorra
	1	(0.1)	1 103	(99.9)	-	-	1 104	0	(0.0)	1 080	(100.0)	-	-	1 080	Armenia
	15	(0.2)	7 486	(99.8)	-	-	7 501	12	(0.2)	6 695	(99.8)	-	-	6 707	Azerbaijan
	0	(0.0)	4 177	(100.0)	-	-	4 177	0	(0.0)	3 598	(100.0)	-	-	3 598	Belarus
	0	(0.0)	1 095	(100.0)	-	-	1 095	0	(0.0)	907	(100.0)	-	-	907	Bosnia and Herzegovina
	10	(3.5)	274	(96.5)	-	-	284	8	(3.0)	259	(97.0)	-	-	267	former Yugoslav Republic of Macedonia, the
	0	(0.0)	0	(0.0)	-	-	0	0	(0.0)	0	(0.0)	-	-	0	Georgia
	233	(83.2)	47	(16.8)	-	-	280	202	(80.8)	48	(19.2)	-	-	250	Israel
	78	(0.5)	14 553	(99.5)	-	-	14 631	153	(1.2)	12 505	(98.8)	-	-	12 658	Kazakhstan
	0	(0.0)	0	(0.0)	-	-	0	0	(0.0)	0	(0.0)	-	-	7 995	Kyrgyzstan
	37	(0.9)	4 174	(99.1)	-	-	4 211	39	(0.9)	4 095	(99.1)	-	-	4 134	Moldova
	0	(0.0)	0	(0.0)	-	-	-	-	-	-	-	-	-	0	Monaco
	3	(3.8)	77	(96.3)	-	-	80	2	(2.3)	85	(97.7)	-	-	87	Montenegro
	0	(0.0)	130 904	(100.0)	-	-	130 904	2 797	(2.3)	118 249	(97.7)	-	-	121 046	Russia
	-	-	-	-	-	-	-	0	(0.0)	0	(0.0)	-	-	0	San Marino
	7	(0.4)	1 651	(99.6)	-	-	1 658	5	(0.3)	1 483	(99.7)	-	-	1 488	Serbia
	4	(0.5)	884	(99.5)	-	-	888	1	(0.1)	766	(99.9)	-	-	767	Serbia excluding UN Administered Province of Kosovo ^d
	3	(0.4)	767	(99.6)	-	-	770	4	(0.6)	717	(99.4)	-	-	721	UN Administered Province of Kosovo ^d
	428	(75.9)	136	(24.1)	-	-	564	486	(79.8)	123	(20.2)	-	-	609	Switzerland
	0	(0.0)	6 232	(100.0)	-	-	6 232	0	(0.0)	6 241	(100.0)	-	-	6 241	Tajikistan
	872	(6.8)	11 900	(93.2)	-	-	12 772	904	(7.3)	11 513	(92.7)	-	-	12 417	Turkey
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Turkmenistan
	10	(0.0)	35 294	(100.0)	-	-	35 304	20	(0.1)	34 068	(99.9)	-	-	34 088	Ukraine
	47	(0.2)	19 008	(99.8)	-	-	19 055	0	(0.0)	18 441	(100.0)	-	-	18 441	Uzbekistan
	1 745	(0.7)	238 526	(99.3)	0	(0.0)	240 271	4 628	(2.0)	219 809	(94.6)	0	(0.0)	232 432	Subtotal non-EU/EEA
	20 221	(6.7)	279 198	(92.7)	1 773	(0.6)	301 192	23 940	(8.2)	257 718	(88.4)	1 773	(0.6)	291 426	Total European Region
	1 204	(0.5)	253 973	(99.5)	2	(0.0)	255 179	4 051	(1.6)	233 873	(95.1)	0	(0.0)	245 919	Subtotal 18 HPC

Table V: MDR TB notification among new bacteriologically-confirmed^a pulmonary TB cases with available DST results, European Region, 2012–2016

Country	2012			2013			2014			2015			2016			Mean annual % change in rate, 2012–2016 ^e
	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	9	(4.0)	0.1	7	(2.5)	0.1	7	(2.6)	0.1	5	(1.9)	0.1	6	(2.2)	0.1	-10.4%
Belgium ^b	5	(1.3)	0.0	7	(1.8)	0.1	6	(1.5)	0.1	6	(1.4)	0.1	6	(1.4)	0.1	4.1%
Bulgaria	15	(2.2)	0.2	12	(1.9)	0.2	17	(2.7)	0.2	4	(0.7)	0.1	5	(0.9)	0.1	-23.6%
Croatia ^c	1	(0.4)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-100.0%
Cyprus	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Czech Republic	2	(0.6)	0.0	0	(0.0)	0.0	3	(1.0)	0.0	7	(2.2)	0.1	4	(1.3)	0.0	18.8%
Denmark ^b	0	(0.0)	0.0	1	(0.5)	0.0	1	(0.5)	0.0	4	(1.9)	0.1	3	(1.7)	0.1	–
Estonia	38	(20.4)	2.9	29	(17.2)	2.2	30	(19.4)	2.3	18	(13.5)	1.4	17	(12.9)	1.3	-18.1%
Finland	3	(2.1)	0.1	2	(1.2)	0.0	5	(3.3)	0.1	7	(4.4)	0.1	2	(1.6)	0.0	-10.0%
France ^d	–	–	–	–	–	–	25	(1.0)	0.0	–	–	–	33	(1.4)	0.0	–
Germany	12	(1.6)	0.0	10	(1.9)	0.0	9	(3.1)	0.0	4	(1.4)	0.0	4	(2.2)	0.0	-24.4%
Greece	1	(0.8)	0.0	7	(4.0)	0.1	3	(2.6)	0.0	3	(1.9)	0.0	2	(2.0)	0.0	19.7%
Hungary	9	(2.2)	0.1	6	(1.8)	0.1	1	(0.4)	0.0	6	(1.8)	0.1	12	(4.1)	0.1	7.7%
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	(1.3)	0.0	2	(1.4)	0.0	2	(1.6)	0.0	1	(1.0)	0.0	4	(3.1)	0.1	18.0%
Italy	12	(2.6)	0.0	21	(3.2)	0.0	24	(2.0)	0.0	18	(2.3)	0.0	24	(3.1)	0.0	18.3%
Latvia	73	(11.4)	3.6	48	(8.8)	2.4	38	(8.2)	1.9	36	(7.9)	1.8	32	(7.6)	1.6	-17.9%
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	116	(11.8)	3.9	116	(11.5)	3.9	128	(13.6)	4.3	104	(11.6)	3.6	117	(13.3)	4.1	1.2%
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	0	(0.0)	0.0	–
Malta	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Netherlands	5	(1.3)	0.0	7	(2.0)	0.0	4	(1.2)	0.0	6	(1.6)	0.0	6	(1.8)	0.0	4.3%
Norway ^b	2	(1.2)	0.0	4	(2.2)	0.1	5	(3.2)	0.1	4	(2.6)	0.1	7	(5.1)	0.1	35.3%
Poland	19	(0.5)	0.0	19	(0.5)	0.0	17	(0.4)	0.0	19	(0.5)	0.0	27	(0.7)	0.1	9.3%
Portugal	14	(1.1)	0.1	9	(0.8)	0.1	17	(1.6)	0.2	12	(1.2)	0.1	8	(1.3)	0.1	-12.6%
Romania	153	(3.1)	0.8	160	(3.2)	0.8	125	(2.1)	0.6	129	(2.0)	0.6	124	(2.0)	0.6	-4.7%
Slovakia	0	(0.0)	0.0	1	(0.7)	0.0	1	(0.8)	0.0	1	(0.7)	0.0	2	(2.2)	0.0	–
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	26	(3.2)	0.1	27	(1.9)	0.1	26	(1.7)	0.1	30	(3.9)	0.1	34	(4.0)	0.1	7.2%
Sweden	6	(2.1)	0.1	5	(1.8)	0.1	9	(3.0)	0.1	14	(3.3)	0.1	11	(3.0)	0.1	15.3%
United Kingdom ^b	43	(1.5)	0.1	35	(1.4)	0.1	28	(1.2)	0.0	28	(1.3)	0.0	34	(1.6)	0.1	-6.4%
Subtotal EU/EEA	566	(2.7)	0.1	535	(2.6)	0.1	531	(2.2)	0.1	432	(2.2)	0.1	524	(2.4)	0.1	-5.5%
Non-EU/EEA																
Albania	1	(0.6)	0.0	1	(3.7)	0.0	1	(4.8)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-100.0%
Andorra	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Armenia	57	(13.6)	2.0	43	(11.6)	1.5	57	(16.6)	2.0	42	(14.6)	1.4	55	(32.7)	1.7	-3.1%
Azerbaijan	128	(13.5)	1.4	187	(15.2)	2.0	158	(12.8)	1.7	195	(15.9)	2.0	161	(15.4)	1.7	4.6%
Belarus	753	(34.8)	7.9	755	(35.2)	8.0	667	(34.1)	7.0	678	(35.8)	7.1	654	(37.1)	6.9	-3.5%
Bosnia and Herzegovina	4	(0.6)	0.1	0	(0.0)	0.0	2	(25.0)	0.1	2	(0.3)	0.1	0	(0.0)	0.0	-100.0%
former Yugoslav Republic of Macedonia, the	0	(0.0)	0.0	0	(0.0)	0.0	2	(1.4)	0.1	3	(1.8)	0.1	2	(1.5)	0.1	–
Georgia	177	(9.2)	4.3	183	(11.2)	4.5	172	(11.6)	4.3	168	(11.6)	4.3	142	(10.2)	3.6	-4.3%
Israel	15	(4.7)	0.2	6	(3.8)	0.1	13	(6.6)	0.2	10	(6.8)	0.1	9	(7.4)	0.1	-13.3%
Kazakhstan	1864	(22.9)	11.0	1997	(26.3)	11.6	1110	(23.8)	6.3	1310	(24.0)	7.4	832	(25.5)	4.6	-19.5%
Kyrgyzstan	433	(26.1)	7.7	613	(28.4)	10.8	–	–	–	426	(25.0)	7.3	398	(21.9)	6.7	-3.6%
Moldova	299	(23.7)	7.3	343	(24.5)	8.4	398	(27.1)	9.8	402	(31.1)	9.9	304	(25.6)	7.5	0.5%
Monaco	–	–	–	–	–	–	0	(0.0)	0.0	0	(0.0)	0.0	–	–	–	–
Montenegro	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Russia	6537	(20.0)	4.6	6726	(21.2)	4.7	7634	(24.4)	5.3	8603	(26.7)	6.0	8463	(27.3)	5.9	–
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	0	(0.0)	0.0	–
Serbia	6	(0.8)	0.1	6	(0.9)	0.1	10	(1.7)	0.1	4	(0.7)	0.0	3	(0.8)	0.0	-15.6%
Serbia excluding UN Administered Province of Kosovo ^e	–	–	–	–	–	–	9	(1.7)	0.1	2	(0.9)	0.0	3	(0.8)	0.0	–
UN Administered Province of Kosovo ^e	–	–	–	–	–	–	1	(0.6)	0.1	2	(1.0)	0.1	0	(0.0)	0.0	–
Switzerland	3	(1.2)	0.0	3	(1.5)	0.0	5	(3.1)	0.1	7	(3.2)	0.1	12	(4.3)	0.1	39.8%
Tajikistan	286	(31.1)	3.6	143	(34.5)	1.7	158	(8.1)	1.9	484	(24.2)	5.7	495	(20.8)	5.7	12.2%
Turkey	151	(3.2)	0.2	123	(2.5)	0.2	116	(2.5)	0.2	122	(2.6)	0.2	110	(2.2)	0.1	-9.1%
Turkmenistan	–	–	–	–	–	–	32	(10.3)	0.6	–	–	–	–	–	–	–
Ukraine	1614	(14.4)	3.6	2479	(19.2)	5.5	2753	(21.0)	6.1	2856	(21.3)	6.4	2881	(22.0)	6.5	16.2%
Uzbekistan	703	(27.9)	2.4	1535	(36.3)	5.1	2112	(66.1)	6.9	211	(44.6)	0.7	292	38.6	0.9	-21.0%
Subtotal non-EU/EEA	13031	(18.4)	3.4	15143	(20.8)	3.9	15400	(23.1)	3.9	15523	(22.9)	3.9	14813	(22.8)	3.7	2.6%
Total European Region	13597	(14.8)	1.6	15678	(16.8)	1.9	15931	(17.6)	1.8	15955	(18.3)	2.0	15337	(17.7)	1.7	0.8%
Subtotal 18 HPC	13397	(17.6)	3.5	15492	(19.9)	4.0	15705	(21.3)	4.0	15788	(21.2)	4.0	15082	(21.2)	3.8	2.5%

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

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

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

^c Distribution by previous diagnosis.

^d These data are subject to change as the national TB registry was under review when this report was being produced.

^e Provisional data for 2016 including overseas territories.

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

Table VI: MDR TB notification among previously treated bacteriologically-confirmed^a pulmonary TB cases with available DST results, European Region, 2012–2016

Country	2012			2013			2014			2015			2016			Mean annual % change in rate, 2012–2016 ^e
	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	13	(43.3)	0.2	9	(37.5)	0.1	7	(36.8)	0.1	2	(16.7)	0.0	3	(17.6)	0.0	-31.3%
Belgium ^b	6	(12.8)	0.1	1	(2.4)	0.0	2	(4.2)	0.0	2	(5.9)	0.0	2	(5.7)	0.0	-24.4%
Bulgaria	33	(23.4)	0.5	14	(12.7)	0.2	19	(19.2)	0.3	19	(20.7)	0.3	14	(17.3)	0.2	-18.8%
Croatia ^c	0	(0.0)	0.0	0	(0.0)	0.0	2	(6.9)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Cyprus	0	(0.0)	0.0	1	(100.0)	0.1	0	(0.0)	0.0	–	–	–	0	(0.0)	0.0	–
Czech Republic	2	(9.1)	0.0	0	(0.0)	0.0	2	(13.3)	0.0	2	(8.0)	0.0	2	(16.7)	0.0	-0.1%
Denmark ^b	0	(0.0)	0.0	1	(5.0)	0.0	0	(0.0)	0.0	1	(4.5)	0.0	0	(0.0)	0.0	–
Estonia	23	(53.5)	1.7	25	(52.1)	1.9	19	(63.3)	1.4	18	(51.4)	1.4	6	(46.2)	0.5	-28.4%
Finland	0	(0.0)	0.0	0	(0.0)	0.0	1	(25.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
France ^d	–	–	–	–	–	–	30	(10.4)	0.0	–	–	–	18	(6.8)	0.0	–
Germany	14	(9.9)	0.0	27	(16.3)	0.0	22	(15.9)	0.0	30	(19.1)	0.0	19	(14.3)	0.0	7.3%
Greece	0	(0.0)	0.0	2	(11.8)	0.0	0	(0.0)	0.0	5	(18.5)	0.0	3	(27.3)	0.0	–
Hungary	2	(6.5)	0.0	4	(19.0)	0.0	2	(8.7)	0.0	2	(5.0)	0.0	6	(16.2)	0.1	–
Iceland	–	–	–	–	–	–	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	0	(0.0)	0.0	0	(0.0)	0.0	2	(18.2)	0.0	–
Italy	12	(8.8)	0.0	7	(4.2)	0.0	16	(7.2)	0.0	14	(12.5)	0.0	9	(9.3)	0.0	-7.4%
Latvia	32	(33.0)	1.6	27	(25.7)	1.3	32	(29.9)	1.6	26	(29.9)	1.3	21	(23.3)	1.1	-9.1%
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	153	(44.3)	5.1	135	(44.1)	4.5	138	(48.9)	4.7	134	(46.5)	4.6	125	(43.0)	4.3	-4.0%
Luxembourg	0	(0.0)	0.0	–	–	–	–	–	–	–	–	–	0	(0.0)	0.0	–
Malta	0	(0.0)	0.0	–	–	–	0	(0.0)	0.0	–	–	–	0	(0.0)	0.0	–
Netherlands	1	(5.0)	0.0	6	(30.0)	0.0	1	(12.5)	0.0	2	(8.7)	0.0	2	(20.0)	0.0	18.5%
Norway ^b	1	(7.7)	0.0	1	(6.3)	0.0	4	(23.5)	0.1	0	(0.0)	0.0	0	(0.0)	0.0	–
Poland	11	(2.1)	0.0	21	(4.3)	0.1	18	(4.3)	0.0	13	(3.0)	0.0	18	(4.0)	0.0	13.2%
Portugal	6	(5.2)	0.1	5	(6.1)	0.0	5	(5.7)	0.0	6	(7.1)	0.1	2	(3.9)	0.0	-23.6%
Romania	527	(20.8)	2.6	410	(17.6)	2.0	400	(17.9)	2.0	398	(17.2)	2.0	334	(15.6)	1.7	-10.4%
Slovakia	1	(3.8)	0.0	1	(2.9)	0.0	2	(7.7)	0.0	1	(6.3)	0.0	1	(5.6)	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	11	(15.9)	0.0	7	(6.8)	0.0	9	(8.2)	0.0	10	(16.4)	0.0	5	(12.2)	0.0	–
Sweden	2	(13.3)	0.0	2	(12.5)	0.0	2	(10.5)	0.0	2	(11.8)	0.0	3	(15.8)	0.0	9.6%
United Kingdom ^b	12	(6.3)	0.0	9	(4.4)	0.0	5	(3.0)	0.0	5	(3.4)	0.0	7	(4.7)	0.0	-13.2%
Subtotal EU/EEA	862	(18.5)	0.2	715	(16.4)	0.2	738	(16.6)	0.1	692	(17.1)	0.2	602	(15.0)	0.1	-11.9%
Non-EU/EEA																
Albania	0	(0.0)	0.0	0	(0.0)	0.0	1	(12.5)	0.0	4	(66.7)	0.1	1	(50.0)	0.0	–
Andorra	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	–
Armenia	35	(38.5)	1.2	23	(34.3)	0.8	43	(86.0)	1.5	47	(87.0)	1.6	60	(90.9)	2.0	13.0%
Azerbaijan	468	(30.0)	5.1	778	(48.8)	8.3	682	(35.0)	7.2	711	(29.7)	7.4	616	(39.3)	6.3	5.8%
Belarus	811	(68.6)	8.6	598	(54.5)	6.3	584	(69.1)	6.2	597	(68.4)	6.3	568	(71.6)	6.0	-8.5%
Bosnia and Herzegovina	3	(4.5)	0.1	1	(1.6)	0.0	1	(50.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	-100.0%
former Yugoslav Republic of Macedonia, the	4	(15.4)	0.2	1	(6.3)	0.0	0	(0.0)	0.0	1	(6.7)	0.0	0	(0.0)	0.0	-100.0%
Georgia	169	(31.2)	4.1	201	(38.1)	5.0	197	(39.2)	4.9	186	(38.8)	4.7	154	(38.0)	3.9	-1.2%
Israel	2	(33.3)	0.0	1	(100.0)	0.0	2	(50.0)	0.0	1	(16.7)	0.0	0	(0.0)	0.0	-100.0%
Kazakhstan	5744	(55.0)	33.9	4035	(57.8)	23.4	1152	(39.9)	6.6	1411	(40.0)	7.9	399	(20.5)	2.2	-49.4%
Kyrgyzstan	453	(54.5)	8.1	547	(55.1)	9.6	–	–	–	450	(56.3)	7.7	466	(56.3)	7.8	–
Moldova	581	(62.3)	14.3	561	(62.1)	13.8	453	(65.9)	11.1	501	(71.9)	12.3	221	(57.4)	5.4	-21.4%
Monaco	–	–	–	–	–	–	0	(0.0)	0.0	0	(0.0)	0.0	–	–	–	–
Montenegro	0	(0.0)	0.0	0	(0.0)	0.0	2	(40.0)	0.3	0	(0.0)	0.0	0	(0.0)	0.0	–
Russia	7075	(57.4)	4.9	6795	(56.3)	4.7	7951	(57.1)	5.5	8529	(59.1)	5.9	17508	(65.2)	12.2	25.3%
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	0	(0.0)	0.0	–
Serbia	3	(3.6)	0.0	4	(4.7)	0.0	4	(7.5)	0.0	1	(2.8)	0.0	5	(12.5)	0.1	14.1%
Serbia excluding UN Administered Province of Kosovo ^e	–	–	–	–	–	–	–	–	–	–	–	–	3	(7.5)	0.0	–
UN Administered Province of Kosovo ^e	–	–	–	–	–	–	–	–	–	–	–	–	2	(6.3)	0.1	–
Switzerland	4	(12.9)	0.0	8	(23.5)	0.1	4	(14.3)	0.0	4	(21.1)	0.0	1	(7.1)	0.0	-30.1%
Tajikistan	278	(56.0)	3.5	16	(34.8)	0.2	213	(52.2)	2.5	97	(48.7)	1.1	151	(46.3)	1.7	-16.0%
Turkey	140	(21.8)	0.2	105	(17.8)	0.1	130	(21.1)	0.2	102	(17.9)	0.1	80	(13.7)	0.1	-14.4%
Turkmenistan	0	(0.0)	0.0	0	(0.0)	0.0	32	(72.7)	0.6	–	–	–	–	–	–	–
Ukraine	1908	(32.2)	4.2	3365	(40.7)	7.5	3562	(41.5)	7.9	3169	(41.5)	7.1	2875	(40.8)	6.5	11.4%
Uzbekistan	479	(46.7)	1.6	1495	(56.1)	5.0	720	(79.8)	2.4	185	(56.2)	0.6	311	(25.3)	1.0	-11.6%
Subtotal non-EU/EEA	18157	(50.1)	4.7	18534	(51.5)	4.8	15733	(49.9)	4.0	15996	(49.8)	4.1	23416	(55.4)	5.9	5.9%
Total European Region	19019	(46.5)	2.3	19249	(47.7)	2.3	16471	(45.8)	1.8	16688	(46.3)	2.1	24018	(51.9)	2.6	3.7%
Subtotal 18 HPC	18909	(48.3)	4.9	19130	(49.4)	4.9	16327	(47.8)	4.2	16580	(47.7)	4.2	23909	(53.5)	6.0	5.5%

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

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

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

^c Distribution by previous diagnosis.

^d These data are subject to change as the national TB registry was under review when this report was being produced.

^e Provisional data for 2016 including overseas territories.

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

Table VII: MDR TB notification among all bacteriologically confirmed^a TB cases with available DST results, European Region, 2012–2016

Country	2012			2013			2014			2015			2016			Mean annual % change in rate, 2012–2016
	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	27	(6.7)	(0.3)	16	(3.5)	(0.2)	20	(4.8)	(0.2)	12	(2.8)	(0.1)	16	(3.4)	(0.2)	-13.0%
Belgium	20	(2.7)	(0.2)	13	(1.8)	(0.1)	11	(1.6)	(0.1)	15	(2.0)	(0.1)	10	(1.3)	(0.1)	-16.4%
Bulgaria	49	(5.9)	(0.7)	27	(3.6)	(0.4)	37	(5.0)	(0.5)	24	(3.6)	(0.3)	19	(2.8)	(0.3)	-20.6%
Croatia ^b	1	(0.3)	(0.0)	0	(0.0)	(0.0)	2	(0.5)	(0.0)	1	(0.3)	(0.0)	0	(0.0)	(0.0)	-100.0%
Cyprus	0	(0.0)	(0.0)	1	(3.3)	(0.1)	0	(0.0)	(0.0)	0	(0.0)	(0.0)	1	(2.4)	(0.1)	–
Czech Republic	4	(1.0)	(0.0)	0	(0.0)	(0.0)	5	(1.5)	(0.0)	9	(2.4)	(0.1)	6	(1.6)	(0.1)	10.5%
Denmark	1	(0.3)	(0.0)	2	(0.7)	(0.0)	2	(0.7)	(0.0)	6	(2.2)	(0.1)	4	(1.6)	(0.1)	40.6%
Estonia	62	(25.9)	(4.7)	54	(24.0)	(4.1)	50	(26.0)	(3.8)	38	(21.2)	(2.9)	24	(15.8)	(1.8)	-21.0%
Finland	3	(1.4)	(0.1)	2	(1.0)	(0.0)	8	(3.8)	(0.1)	8	(3.8)	(0.1)	6	(3.3)	(0.1)	18.5%
France ^{cd}	–	–	–	83	(1.9)	(0.1)	111	(2.6)	(0.2)	–	–	–	71	(1.7)	(0.1)	–
Germany	62	(2.1)	(0.1)	97	(3.2)	(0.1)	92	(3.0)	(0.1)	117	(3.0)	(0.1)	101	(2.7)	(0.1)	12.3%
Greece	3	(1.7)	(0.0)	10	(4.3)	(0.1)	4	(2.4)	(0.0)	9	(4.3)	(0.1)	5	(4.0)	(0.0)	14.4%
Hungary	11	(2.4)	(0.1)	10	(2.8)	(0.1)	3	(1.0)	(0.0)	8	(2.1)	(0.1)	18	(5.3)	(0.2)	13.4%
Iceland	1	(20.0)	(0.3)	0	(0.0)	(0.0)	0	(0.0)	(0.0)	0	(0.0)	(0.0)	0	(0.0)	(0.0)	-100.0%
Ireland	5	(1.8)	(0.1)	4	(1.5)	(0.1)	2	(0.9)	(0.0)	1	(0.5)	(0.0)	6	(2.6)	(0.1)	3.9%
Italy ^d	74	(3.0)	(0.1)	78	(3.3)	(0.1)	78	(3.1)	(0.1)	70	(2.7)	(0.1)	70	(2.6)	(0.1)	-1.9%
Latvia	107	(14.0)	(5.2)	79	(11.6)	(3.9)	70	(11.9)	(3.5)	63	(11.1)	(3.2)	56	(10.4)	(2.8)	-14.1%
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	271	(19.8)	(9.0)	256	(18.9)	(8.6)	271	(21.5)	(9.2)	241	(19.7)	(8.2)	244	(20.3)	(8.4)	-1.6%
Luxembourg	0	(0.0)	(0.0)	0	(0.0)	(0.0)	1	(6.3)	(0.2)	0	(0.0)	(0.0)	1	(4.0)	(0.2)	–
Malta	0	(0.0)	(0.0)	1	(3.7)	(0.2)	0	(0.0)	(0.0)	1	(4.5)	(0.2)	0	(0.0)	(0.0)	–
Netherlands	11	(1.7)	(0.1)	16	(2.6)	(0.1)	7	(1.3)	(0.0)	9	(1.6)	(0.1)	12	(2.1)	(0.1)	1.8%
Norway	6	(2.1)	(0.1)	6	(1.9)	(0.1)	11	(4.1)	(0.2)	5	(2.0)	(0.1)	11	(4.8)	(0.2)	15.1%
Poland	31	(0.7)	(0.1)	40	(0.9)	(0.1)	35	(0.8)	(0.1)	35	(0.8)	(0.1)	46	(1.1)	(0.1)	10.4%
Portugal	23	(1.5)	(0.2)	15	(1.1)	(0.1)	25	(2.0)	(0.2)	22	(1.8)	(0.2)	12	(1.5)	(0.1)	-14.6%
Romania	684	(9.0)	(3.4)	579	(7.8)	(2.9)	532	(6.4)	(2.7)	535	(6.0)	(2.7)	463	(5.5)	(2.3)	-8.9%
Slovakia	1	(0.6)	(0.0)	3	(1.4)	(0.1)	3	(1.9)	(0.1)	2	(1.3)	(0.0)	3	(2.7)	(0.1)	31.5%
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 ^d	37	(4.2)	(0.1)	34	(2.2)	(0.1)	35	(2.2)	(0.1)	40	(4.8)	(0.1)	39	(4.4)	(0.1)	1.5%
Sweden	14	(2.8)	(0.1)	8	(1.5)	(0.1)	15	(2.9)	(0.2)	22	(3.2)	(0.2)	22	(3.7)	(0.2)	10.9%
United Kingdom	80	(1.5)	(0.1)	74	(1.6)	(0.1)	56	(1.3)	(0.1)	48	(1.3)	(0.1)	56	(1.5)	(0.1)	-9.2%
Subtotal EU/EEA	1588	(4.7)	0.4	1508	(4.1)	0.3	1486	(4.0)	0.3	1343	(4.0)	0.3	1322	(3.7)	0.3	-8.0%
Non-EU/EEA																
Albania	1	(0.5)	0.0	1	(3.2)	0.0	3	(10.3)	0.1	4	(30.8)	0.1	4	(10.0)	0.1	41.3%
Andorra	0	(0.0)	0.0	1	(25.0)	1.2	2	(40.0)	2.5	0	(0.0)	0.0	0	(0.0)	0.0	–
Armenia	92	(18.0)	3.2	112	(25.6)	3.9	111	(18.2)	3.8	101	(23.2)	3.5	128	(27.8)	4.4	8.2%
Azerbaijan	599	(23.9)	6.5	970	(25.4)	10.3	495	(8.3)	5.2	1171	(31.8)	12.2	925	(31.3)	9.5	10.1%
Belarus	1604	(47.9)	16.9	1353	(41.7)	14.3	1251	(44.6)	13.2	1340	(47.4)	14.1	1543	(57.1)	16.3	-1.0%
Bosnia and Herzegovina	7	(0.9)	0.2	1	(50.0)	0.0	4	(0.6)	0.1	3	(0.4)	0.1	0	(0.0)	0.0	-100.0%
former Yugoslav Republic of Macedonia, the	4	(2.2)	0.2	1	(0.6)	0.0	3	(1.7)	0.1	5	(2.7)	0.2	2	(1.2)	0.1	-16.0%
Georgia	346	(14.0)	8.4	400	(17.5)	9.9	441	(18.9)	11.0	418	(17.9)	10.6	401	(17.1)	10.2	4.9%
Israel	17	(5.2)	0.2	8	(3.8)	0.1	17	(6.5)	0.2	15	(7.7)	0.2	11	(7.1)	0.1	-11.7%
Kazakhstan	7608	(40.9)	45.0	6032	(40.5)	35.1	5877	(36.8)	33.6	6497	(60.4)	36.6	5817	(55.4)	32.3	-7.9%
Kyrgyzstan	1755	(70.5)	31.4	1160	(36.8)	20.4	1267	–	21.9	1116	(37.9)	19.0	1236	(35.4)	20.8	-9.8%
Moldova	894	(40.7)	21.9	1042	(39.8)	25.6	925	(35.6)	22.7	1042	(43.6)	25.6	1031	(41.4)	25.4	3.7%
Monaco	–	–	–	–	–	–	0	(0.0)	0.0	0	(0.0)	0.0	–	–	–	–
Montenegro	0	(0.0)	0.0	0	(0.0)	0.0	2	(2.9)	0.3	1	(1.8)	0.2	0	(0.0)	0.0	–
Russia	13 612	(30.3)	9.5	12 069	(27.7)	8.4	15 585	(34.5)	10.8	17 132	(36.7)	11.9	27 363	(47.3)	19.0	19.0%
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	0	(0.0)	0	–
Serbia	9	(1.1)	0.1	10	(1.3)	0.1	14	(2.0)	0.2	5	(1.1)	0.1	8	(1.2)	0.1	-2.5%
Serbia excluding UN Administered Province of Kosovo ^d	–	–	–	–	–	–	–	–	–	–	–	–	6	(1.3)	0.1	–
UN Administered Province of Kosovo ^d	–	–	–	–	–	–	–	–	–	–	–	–	2	(0.9)	0.1	–
Switzerland	8	(2.9)	0.1	13	(3.1)	0.2	17	(4.2)	0.2	16	(3.6)	0.2	18	(3.8)	0.2	21.1%
Tajikistan	954	(67.4)	11.9	872	(30.7)	10.7	902	(27.9)	10.8	675	(20.9)	7.9	748	(23.5)	8.6	-8.0%
Turkey	291	(5.4)	0.4	228	(4.1)	0.3	349	(6.4)	0.5	304	(5.4)	0.4	256	(4.2)	0.3	-4.7%
Turkmenistan	–	–	–	81	–	1.5	210	–	3.8	270	–	4.9	557	–	9.8	–
Ukraine	6934	(40.5)	15.3	9929	(46.9)	22.0	7735	(32.9)	17.2	9397	(39.8)	21.0	8651	(40.0)	19.5	6.2%
Uzbekistan	2233	(62.9)	7.6	4366	(63.3)	14.5	3844	(21.4)	12.6	2149	(28.4)	6.9	1956	(13.4)	6.2	-4.8%
Subtotal non-EU/EEA	36 968	(34.5)	9.5	38 649	(34.4)	9.8	39 054	(30.5)	9.8	41 661	(36.5)	10.4	50 655	(38.3)	12.6	7.2%
Total European Region	38 556	(27.4)	4.6	40 157	(26.9)	4.4	40 540	(24.5)	4.5	43 004	(29.2)	5.1	51 977	(30.9)	5.7	5.3%
Subtotal 18 HPC	38 095	(33.0)	9.8	39 609	(32.7)	10.0	39 952	(29.2)	10.1	42 513	(34.4)	10.7	51 418	(36.4)	12.8	6.8%

EU/EEA countries designated as high-priority countries by WHO are presented in italics.

^a Bacteriologically-confirmed cases – culture-positive and microscopy-positive/nucleic acid amplification test-positive cases for EU/EEA countries.^b These data are subject to change as the national TB registry was under review when this report was being produced.^c Provisional data for 2016 reported to WHO Global TB database.^d Data from France, Italy and Spain reported from NRL may differ from data shown elsewhere in this report.

Table VIII: XDR TB notification among pulmonary MDR TB cases with second-line drug sensitivity test results, European Region, 2012–2016^a

Country	2012			2013			2014			2015			2016		
	MDR TB tested for SLD (N)	XDR TB (N)	% among tested	MDR TB tested for SLD (N)	XDR TB (N)	% among tested	MDR TB tested for SLD (N)	XDR TB (N)	% among tested	MDR TB tested for SLD (N)	XDR TB (N)	% among tested	MDR TB tested for SLD (N)	XDR TB (N)	% among tested
EU/EEA															
Austria	26	7 (26.9)		16	3 (18.8)		18	2 (11.1)		9	1 (11.1)		14	2 (14.3)	
Belgium	16	2 (12.5)		10	0 (0.0)		10	1 (10.0)		11	2 (18.2)		9	0 (0.0)	
Bulgaria	48	5 (10.4)		26	4 (15.4)		36	3 (8.3)		21	4 (19.0)		19	0 (0.0)	
Croatia ^b	–	–		–	–		2	0 (0.0)		1	0 (0.0)		0	0	–
Cyprus	0	0		1	1 (100.0)		0	0		0	0		0	0	–
Czech Republic	2	1 (50.0)		0	0		5	0 (0.0)		8	1 (12.5)		0	0	–
Denmark	0	0		2	1 (50.0)		1	0 (0.0)		5	1 (20.0)		0	0	–
Estonia	55	4 (7.3)		53	10 (18.9)		48	8 (16.7)		35	8 (22.9)		23	7 (30.4)	
Finland	3	1 (33.3)		2	0 (0.0)		6	1 (16.7)		8	1 (12.5)		3	1 (33.3)	
France ^c	–	–		81	21 (25.9)		70	30 (42.9)		76	8 (10.5)		69	6 (8.7)	
Germany	18	1 (5.6)		41	3 (7.3)		58	11 (19.0)		72	11 (15.3)		58	5 (8.6)	
Greece	2	0 (0.0)		10	0 (0.0)		2	1 (50.0)		0	0		0	0	–
Hungary	10	2 (20.0)		9	1 (11.1)		2	0 (0.0)		7	1 (14.3)		0	0	–
Iceland	0	0		0	0		0	0		0	0		0	0	–
Ireland	1	0 (0.0)		3	1 (33.3)		2	0 (0.0)		0	0		5	0 (0.0)	
Italy	50	5 (10.0)		55	7 (12.7)		64	9 (14.1)		31	6 (19.4)		43	5 (11.6)	
Latvia	104	17 (16.3)		69	15 (21.7)		70	13 (18.6)		62	16 (25.8)		53	20 (37.7)	
Liechtenstein	–	–		–	–		–	–		–	–		–	–	
Lithuania	210	52 (24.8)		186	46 (24.7)		232	60 (25.9)		238	58 (24.4)		242	58 (24.0)	
Luxembourg	–	–		–	–		–	–		–	–		–	–	
Malta	0	0		1	1 (100.0)		0	0		0	0		0	0	–
Netherlands	–	–		0	0		5	0 (0.0)		8	0 (0.0)		8	0 (0.0)	
Norway	4	0 (0.0)		5	1 (20.0)		9	1 (11.1)		4	0 (0.0)		7	0 (0.0)	
Poland	4	0 (0.0)		4	1 (25.0)		25	5 (20.0)		23	4 (17.4)		38	8 (21.1)	
Portugal	15	3 (20.0)		11	4 (36.4)		13	2 (15.4)		13	5 (38.5)		4	1 (25.0)	
Romania	369	41 (11.1)		309	56 (18.1)		301	58 (19.3)		315	66 (21.0)		207	62 (30.0)	
Slovakia	1	0 (0.0)		2	0 (0.0)		3	0 (0.0)		2	0 (0.0)		3	0 (0.0)	
Slovenia	–	–		–	–		–	–		–	–		0	0	–
Spain	37	1 (2.7)		34	2 (5.9)		35	2 (5.7)		42	1 (2.4)		39	0 (0.0)	
Sweden	9	1 (11.1)		7	2 (28.6)		11	1 (9.1)		16	1 (6.3)		14	4 (28.6)	
United Kingdom	59	2 (3.4)		43	2 (4.7)		34	2 (5.9)		34	10 (29.4)		39	6 (15.4)	
Subtotal EU/EEA	1043	145 (13.9)		980	182 (18.6)		1062	210 (19.8)		1041	205 (19.7)		897	185 (20.6)	
Non-EU/EEA															
Albania	0	0		0	0		0	0		0	0		0	0	–
Andorra	0	0		0	0		0	0		0	0		0	0	–
Armenia	92	2 (2.2)		66	7 (10.6)		100	8 (8.0)		89	8 (9.0)		53	6 (11.3)	
Azerbaijan	319	38 (11.9)		–	–		840	100 (11.9)		670	125 (18.7)		535	71 (13.3)	
Belarus	–	–		1353	80 (5.9)		1251	366 (29.3)		1275	453 (35.5)		1246	572 (45.9)	
Bosnia and Herzegovina	5	0 (0.0)		0	0		3	0 (0.0)		0	0		0	0	–
former Yugoslav Republic of Macedonia, the	1	1 (100.0)		0	0		0	0		0	0		0	0	–
Georgia	341	30 (8.8)		369	71 (19.2)		357	54 (15.1)		347	62 (17.9)		296	52 (17.6)	
Israel	17	4 (23.5)		7	1 (14.3)		15	0 (0.0)		11	1 (9.1)		9	2 (22.2)	
Kazakhstan	–	–		–	–		–	–		–	–		–	–	
Kyrgyzstan	511	18 (3.5)		–	–		–	–		235	44 (18.7)		407	72 (17.7)	
Moldova	761	33 (4.3)		782	35 (4.5)		277	11 (4.0)		–	–		514	42 (8.2)	
Monaco	–	–		–	–		0	0		0	0		–	–	
Montenegro	0	0		0	0		2	0 (0.0)		0	0		0	0	–
Russia	–	–		–	–		–	–		–	–		25258	3402 (13.5)	
San Marino	–	–		–	–		–	–		–	–		0	0	–
Serbia	9	0 (0.0)		6	0 (0.0)		7	0 (0.0)		0	0		14	1 (7.1)	
Serbia excluding UN Administered Province of Kosovo ^d	–	–		–	–		7	0 (0.0)		–	–		14	1 (7.1)	
UN Administered Province of Kosovo ^d	–	–		–	–		1	0 (0.0)		–	–		0	0	–
Switzerland	8	0 (0.0)		12	1 (8.3)		11	1 (9.1)		11	2 (18.2)		13	0 (0.0)	
Tajikistan	345	49 (14.2)		159	28 (17.6)		371	54 (14.6)		561	54 (9.6)		697	59 (8.5)	
Turkey	104	6 (5.8)		114	3 (2.6)		169	2 (1.2)		133	3 (2.3)		130	9 (6.9)	
Turkmenistan	–	–		–	–		–	–		–	–		–	–	
Ukraine	–	–		–	–		–	–		–	–		5756	247 (3.3)	
Uzbekistan	356	31 (8.7)		528	167 (31.6)		927	181 (19.5)		–	–		1802	184 (10.2)	
Subtotal non-EU/EEA	2869	212 (7.4)		3396	393 (11.6)		4330	777 (17.9)		3332	752 (22.6)		36679	4719 (12.9)	
Total European Region	3912	357 (9.1)		4376	575 (13.1)		5392	987 (18.3)		4373	957 (21.9)		37576	4904 (13.1)	
Subtotal 18 HPC	3121	312 (10.0)		4014	522 (13.0)		4979	918 (18.4)		3981	901 (22.6)		37187	4863 (13.1)	

^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.

XDR TB – Extensively drug-resistant tuberculosis.

MDR TB – Multidrug-resistant tuberculosis.

SLD – Drug susceptibility testing for second-line TB drugs.

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

^c These data are subject to change as the national TB registry was under review when this report was being produced.

^d Provisional data for 2016 including overseas territories.

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

Table IX: Tuberculosis cases with HIV infection, European Region, 2012–2016^a

Country	2012					2013					2014				
	All TB cases (N)	Cases with known HIV status		HIV positive		All TB cases (N)	Cases with known HIV status		HIV positive		All TB cases (N)	Cases with known HIV status		HIV positive	
		N	%	N	% ^b		N	%	N	% ^b		N	%	N	% ^b
EU/EEA															
Austria	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Belgium	976	550	(56.4)	40	(7.3)	963	482	(50.1)	36	(7.5)	949	494	(52.1)	38	(7.7)
Bulgaria	2280	1513	(66.4)	3	(0.2)	1932	1874	(97.0)	4	(0.2)	1872	1377	(73.6)	3	(0.2)
Croatia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cyprus	–	–	–	–	–	–	–	–	–	–	41	28	(68.3)	1	(3.6)
Czech Republic	597	135	(22.6)	5	(3.7)	497	122	(24.5)	0	(0.0)	511	146	(28.6)	3	(2.1)
Denmark	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Estonia	289	274	(94.8)	45	(16.4)	290	280	(96.6)	37	(13.2)	248	239	(96.4)	24	(10.0)
Finland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Greece	–	–	–	–	–	540	363	(67.2)	35	(9.6)	519	336	(64.7)	18	(5.4)
Hungary	–	–	–	–	–	–	–	–	–	–	851	30	(3.5)	2	(6.7)
Iceland	11	11	(100.0)	0	(0.0)	11	8	(72.7)	0	(0.0)	9	7	(77.8)	0	(0.0)
Ireland	359	102	(28.4)	15	(14.7)	374	124	(33.2)	9	(7.3)	311	119	(38.3)	17	(14.3)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	993	844	(85.0)	114	(13.5)	904	420	(46.5)	95	(22.6)	761	488	(64.1)	95	(19.5)
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	1781	1213	(68.1)	29	(2.4)	1705	1144	(67.1)	39	(3.4)	1607	1135	(70.6)	36	(3.2)
Luxembourg	45	44	(97.8)	1	(2.3)	38	36	(94.7)	1	(2.8)	24	13	(54.2)	1	(7.7)
Malta	42	42	(100.0)	4	(9.5)	50	44	(88.0)	0	(0.0)	46	35	(76.1)	6	(17.1)
Netherlands	956	458	(47.9)	30	(6.6)	845	477	(56.4)	17	(3.6)	814	495	(60.8)	22	(4.4)
Norway	–	–	–	–	–	392	31	(7.9)	8	(25.8)	324	260	(80.2)	17	(6.5)
Poland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Portugal	2606	2277	(87.4)	301	(13.2)	2410	2091	(86.8)	252	(12.1)	2278	1959	(86.0)	226	(11.5)
Romania	18190	10402	(57.2)	237	(2.3)	16689	10403	(62.3)	271	(2.6)	15879	11178	(70.4)	314	(2.8)
Slovakia	345	322	(93.3)	0	(0.0)	401	368	(91.8)	0	(0.0)	336	282	(83.9)	0	(0.0)
Slovenia	138	103	(74.6)	0	(0.0)	140	105	(75.0)	1	(1.0)	144	110	(76.4)	0	(0.0)
Spain	6070	4425	(72.9)	387	(8.7)	5632	3609	(64.1)	285	(7.9)	4914	3201	(65.1)	228	(7.1)
Sweden	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
United Kingdom	8711	5239	(60.1)	268	(5.1)	7868	5918	(75.2)	225	(3.8)	–	–	–	–	–
Subtotal EU/EEA	44389	27954	(63.0)	1479	(5.3)	41681	27899	(66.9)	1315	(4.7)	32438	21932	(67.6)	1051	(4.8)
Non-EU/EEA															
Albania	420	233	(55.5)	7	(3.0)	474	109	(23.0)	2	(1.8)	408	41	(10.0)	2	(4.9)
Andorra	9	1	(11.1)	0	(0.0)	5	1	–	1	(100.0)	6	0	(0.0)	–	–
Armenia	1518	1518	(100.0)	79	(5.2)	1417	1417	(100.0)	67	(4.7)	1342	1342	(100.0)	84	(6.3)
Azerbaijan	8140	7849	(96.4)	129	(1.6)	8597	8329	(96.9)	131	(1.6)	7539	7004	(92.9)	148	(2.1)
Belarus	5246	5246	(100.0)	229	(4.4)	4859	4859	(100.0)	250	(5.1)	4274	4274	(100.0)	271	(6.3)
Bosnia and Herzegovina	1420	56	(3.9)	0	(0.0)	1261	74	(5.9)	0	(0.0)	–	–	–	–	–
former Yugoslav Republic of Macedonia, the	355	145	(40.8)	0	(0.0)	323	207	(64.1)	0	(0.0)	285	171	(60.0)	1	(0.6)
Georgia	4974	1881	(37.8)	45	(2.4)	4319	2739	(63.4)	55	(2.0)	3850	2591	(67.3)	57	(2.2)
Israel	509	503	(98.8)	16	(3.2)	308	299	(97.1)	14	(4.7)	368	367	(99.7)	25	(6.8)
Kazakhstan	21523	21184	(98.4)	441	(2.1)	19857	18104	(91.2)	466	(2.6)	15718	15435	(98.2)	625	(4.0)
Kyrgyzstan	6916	6916	(100.0)	151	(2.2)	–	–	–	–	–	–	–	–	–	–
Moldova	5348	5348	(100.0)	264	(4.9)	5051	4085	(80.9)	250	(6.1)	4636	4426	(95.5)	338	(7.6)
Monaco	–	–	–	–	–	–	–	–	–	–	0	–	–	0	–
Montenegro	107	82	(76.6)	0	(0.0)	120	98	(81.7)	2	(2.0)	113	94	(83.2)	0	(0.0)
Russia	97542	75995	(77.9)	4880	(6.4)	73361	69724	(95.0)	4990	(7.2)	70854	67425	(95.2)	5251	(7.8)
San Marino	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–
Serbia	1215	39	(3.2)	6	(15.4)	1181	132	(11.2)	19	(14.4)	998	127	(12.7)	8	(6.3)
Serbia excluding UN Administered Province of Kosovo ^c	1215	39	(3.2)	6	(15.4)	1181	132	(11.2)	19	(14.4)	998	127	(12.7)	8	(6.3)
UN Administered Province of Kosovo ^c	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tajikistan	6929	6375	(92.0)	88	(1.4)	6495	6367	(98.0)	135	(2.1)	6260	5656	(90.4)	161	(2.8)
Turkey	14691	8646	(58.9)	45	(0.5)	13409	8787	(65.5)	32	(0.4)	13378	9344	(69.8)	45	(0.5)
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ukraine	45569	34181	(75.0)	4726	(13.8)	48134	42213	(87.7)	8290	(19.6)	40302	39057	(96.9)	7640	(19.6)
Uzbekistan	16810	16810	(100.0)	820	(4.9)	25168	24670	(98.0)	1097	(4.4)	22804	22347	(98.0)	780	(3.5)
Subtotal non-EU/EEA	239241	193008	(80.7)	11926	(6.2)	214339	192214	(89.7)	15801	(8.2)	193135	179701	(93.0)	15436	(8.6)
Total European Region	283630	220962	(77.9)	13405	(6.1)	256020	220113	(86.0)	17116	(7.8)	225573	201633	(89.4)	16487	(8.2)
Subtotal 18 HPC	252332	199782	(79.2)	12190	(6.1)	232495	205714	(88.5)	16223	(7.9)	211692	193685	(91.5)	15897	(8.2)

^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.

HIV – Human immunodeficiency virus.

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

^c Percentages calculated from TB cases with known HIV test results.

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

	2015					2016					Country
	All TB cases (N)	Cases with known HIV status		HIV positive		All TB cases (N)	Cases with known HIV status		HIV positive		
		N	%	N	% ^a		N	%	N	% ^a	
	-	-	-	-	-	-	-	-	-	-	EU/EEA
	977	432	(44.2)	31	(7.2)	1047	479	(45.7)	33	(6.9)	Austria
	1660	1311	(79.0)	1	(0.1)	1603	1260	(78.6)	0	(0.0)	Belgium
	-	-	-	-	-	-	-	-	-	-	Bulgaria
	63	48	(76.2)	2	(4.2)	60	48	(80.0)	0	(0.0)	Croatia
	517	182	(35.2)	2	(1.1)	516	205	(39.7)	5	(2.4)	Cyprus
	-	-	-	-	-	330	150	(45.5)	9	(6.0)	Czech Republic
	217	210	(96.8)	26	(12.4)	192	184	(95.8)	22	(12.0)	Denmark
	-	-	-	-	-	-	-	-	-	-	Estonia
	-	-	-	-	-	-	-	-	-	-	Finland
	-	-	-	-	-	-	-	-	-	-	France
	-	-	-	-	-	-	-	-	-	-	Germany
	482	343	(71.2)	22	(6.4)	-	-	-	-	-	Greece
	906	20	(2.2)	1	(5.0)	786	19	(2.4)	1	(5.3)	Hungary
	7	7	(100.0)	0	(0.0)	6	6	(100.0)	0	(0.0)	Iceland
	283	122	(43.1)	8	(6.6)	318	132	(41.5)	4	(3.0)	Ireland
	-	-	-	-	-	-	-	-	-	-	Italy
	721	449	(62.3)	78	(17.4)	660	507	(76.8)	57	(11.2)	Latvia
	-	-	-	-	-	-	-	-	-	-	Liechtenstein
	1507	1082	(71.8)	39	(3.6)	1442	1138	(78.9)	41	(3.6)	Lithuania
	-	-	-	-	-	29	5	(17.2)	2	(40.0)	Luxembourg
	32	26	(81.3)	4	(15.4)	50	46	(92.0)	8	(17.4)	Malta
	862	636	(73.8)	35	(5.5)	889	554	(62.3)	21	(3.8)	Netherlands
	313	260	(83.1)	8	(3.1)	299	257	(86.0)	10	(3.9)	Norway
	-	-	-	-	-	-	-	-	-	-	Poland
	2178	1941	(89.1)	232	(12.0)	1836	1212	(66.0)	168	(13.9)	Portugal
	15183	11533	(76.0)	308	(2.7)	13617	10634	(78.1)	287	(2.7)	Romania
	317	201	(63.4)	0	(0.0)	296	132	(44.6)	0	(0.0)	Slovakia
	130	108	(83.1)	0	(0.0)	118	95	(80.5)	1	(1.1)	Slovenia
	4997	3129	(62.6)	223	(7.1)	4877	2925	(60.0)	226	(7.7)	Spain
	-	-	-	-	-	-	-	-	-	-	Sweden
	-	-	-	-	-	-	-	-	-	-	United Kingdom
	31352	22040	(70.3)	1020	(4.6)	28971	19988	(69.0)	895	(4.5)	Subtotal EU/EEA
											Non-EU/EEA
	415	183	(44.1)	6	(3.3)	415	223	(53.7)	6	(2.7)	Albania
	4	0	(0.0)	0	-	4	0	(0.0)	-	-	Andorra
	1090	1090	(100.0)	99	(9.1)	1027	1027	(100.0)	57	(5.6)	Armenia
	6964	6964	(100.0)	112	(1.6)	5159	4722	(91.5)	99	(2.1)	Azerbaijan
	3765	3740	(99.3)	206	(5.5)	3211	3148	(98.0)	275	(8.7)	Belarus
	1092	209	(19.1)	0	(0.0)	907	1	(0.1)	1	(100.0)	Bosnia and Herzegovina
	282	185	(65.6)	0	(0.0)	263	207	(78.7)	0	(0.0)	former Yugoslav Republic of Macedonia, the
	3152	2809	(89.1)	79	(2.8)	2983	2866	(96.1)	61	(2.1)	Georgia
	280	280	(100.0)	14	(5.0)	250	250	(100.0)	18	(7.2)	Israel
	14006	13838	(98.8)	376	(2.7)	12322	10616	(86.2)	576	(5.4)	Kazakhstan
	7027	6745	(96.0)	206	(3.1)	7026	6254	(89.0)	210	(3.4)	Kyrgyzstan
	3608	3439	(95.3)	300	(8.7)	3571	3366	(94.3)	293	(8.7)	Moldova
	0	0	(0.0)	-	-	-	-	-	-	-	Monaco
	80	73	(91.3)	1	(1.4)	87	60	(69.0)	0	(0.0)	Montenegro
	68815	65585	(95.3)	6407	(9.8)	92407	79935	(86.5)	16570	(20.7)	Russia
	-	-	-	-	-	0	0	-	-	-	San Marino
	1649	91	(5.5)	4	(4.4)	1472	84	(5.7)	5	(6.0)	Serbia
	879	91	(10.4)	4	(4.4)	755	84	(11.1)	5	(6.0)	Serbia excluding UN Administered Province of Kosovo ^c
	770	0	(0.0)	-	-	717	398	(55.5)	0	(0.0)	UN Administered Province of Kosovo ^c
	-	-	-	-	-	-	-	-	-	-	Switzerland
	5894	5627	(95.5)	152	(2.7)	5965	5850	(98.1)	201	(3.4)	Tajikistan
	12550	8759	(69.8)	59	(0.7)	12186	8549	(70.2)	56	(0.7)	Turkey
	-	-	-	-	-	-	-	-	-	-	Turkmenistan
	30151	29749	(98.7)	6637	(22.3)	29052	28194	(97.0)	5832	(20.7)	Ukraine
	16315	13058	(80.0)	841	(6.4)	18441	18441	(100.0)	758	(4.1)	Uzbekistan
	177139	162424	(91.7)	15499	(9.5)	196748	173793	(88.3)	25018	(14.4)	Subtotal non-EU/EEA
	208491	184464	(88.5)	16519	(9.0)	225719	193781	(85.9)	25913	(13.4)	Total European Region
	185878	169523	(91.2)	15734	(9.3)	210864	186691	(88.5)	25395	(13.6)	Subtotal 18 HPC

Table X: Treatment success after 12 months of new TB cases and relapses, European Region, 2011–2015^a

Country	2011			2012			2013			2014			2015		
	Cases reported ^b	N	(%)	Cases reported	N	(%)	Cases reported	N	(%)	Cases reported	N	(%)	Cases reported	N	(%)
EU/EEA															
Austria	654	472	(72.2)	608	427	(70.2)	621	452	(72.8)	553	410	(74.1)	553	402	(72.7)
Belgium	950	752	(79.2)	880	681	(77.4)	876	690	(78.8)	867	700	(80.7)	905	719	(79.4)
Bulgaria	2263	1943	(85.9)	2172	1886	(86.8)	1893	1620	(85.6)	1789	1530	(85.5)	1598	1350	(84.5)
Croatia ^b	–	–	–	538	51	(9.5)	511	225	(44.0)	496	354	(71.4)	483	50	(10.4)
Cyprus	51	32	(62.7)	65	28	(43.1)	40	20	(50.0)	39	23	(59.0)	63	35	(55.6)
Czech Republic	557	393	(70.6)	554	414	(74.7)	468	321	(68.6)	467	355	(76.0)	499	343	(68.7)
Denmark	356	260	(73.0)	341	230	(67.4)	329	239	(72.6)	291	156	(53.6)	314	157	(50.0)
Estonia	254	186	(73.2)	217	163	(75.1)	222	193	(86.9)	194	162	(83.5)	172	142	(82.6)
Finland	313	131	(41.9)	261	116	(44.4)	265	140	(52.8)	250	112	(44.8)	260	94	(36.2)
France	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	4125	2673	(64.8)	3981	2937	(73.8)	4003	2681	(67.0)	4268	2713	(63.6)	5543	3600	(64.9)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	1437	1056	(73.5)	1169	821	(70.2)	1029	759	(73.8)	795	577	(72.6)	851	600	(70.5)
Iceland	9	8	(88.9)	10	9	(90.0)	11	10	(90.9)	9	8	(88.9)	7	7	(100.0)
Ireland	385	236	(61.3)	328	203	(61.9)	346	213	(61.6)	288	162	(56.3)	265	151	(57.0)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	775	645	(83.2)	872	758	(86.9)	804	669	(83.2)	675	561	(83.1)	642	540	(84.1)
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	1546	1290	(83.4)	1447	1186	(82.0)	1374	1111	(80.9)	1282	1034	(80.7)	1219	962	(78.9)
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	32	22	(68.8)	41	10	(24.4)	48	36	(75.0)	–	–	–	–	–	–
Netherlands	971	841	(86.6)	921	783	(85.0)	814	728	(89.4)	797	708	(88.8)	837	723	(86.4)
Norway	316	280	(88.6)	335	293	(87.5)	348	316	(90.8)	293	251	(85.7)	276	243	(88.0)
Poland	8137	5047	(62.0)	7253	4383	(60.4)	7005	4161	(59.4)	6500	3783	(58.2)	6196	3293	(53.1)
Portugal	2517	1986	(78.9)	2535	1981	(78.1)	2341	1748	(74.7)	2197	1592	(72.5)	2114	1516	(71.7)
Romania	17353	14691	(84.7)	16351	13844	(84.7)	15115	12814	(84.8)	14525	12304	(84.7)	13908	11828	(85.0)
Slovakia	393	363	(92.4)	343	302	(88.0)	395	370	(93.7)	318	280	(88.1)	305	263	(86.2)
Slovenia	190	155	(81.6)	138	112	(81.2)	139	107	(77.0)	142	110	(77.5)	129	105	(81.4)
Spain	6410	4541	(70.8)	5738	4087	(71.2)	5328	4355	(81.7)	4686	2708	(57.8)	–	–	–
Sweden	526	461	(87.6)	578	481	(83.2)	595	537	(90.3)	610	535	(87.7)	754	659	(87.4)
United Kingdom	8300	6508	(78.4)	8099	6511	(80.4)	7270	6019	(82.8)	6534	5344	(81.8)	5802	4594	(79.2)
Subtotal EU/EEA	58820	44972	(76.5)	55775	42697	(76.6)	52190	40534	(77.7)	48865	36472	(74.6)	43695	32376	(74.1)
Non-EU/EEA^c															
Albania	413	382	(92.5)	407	373	(91.6)	472	416	(88.1)	406	358	(88.2)	409	354	(86.6)
Andorra	3	3	(100.0)	9	9	(100.0)	5	3	(60.0)	6	5	(83.3)	4	4	(100.0)
Armenia	1200	934	(77.8)	1350	1093	(81.0)	1251	1008	(80.6)	1228	959	(78.1)	910	721	(79.2)
Azerbaijan	2208	1717	(77.8)	4616	3831	(83.0)	4294	3504	(81.6)	1623	1349	(83.1)	1475	1221	(82.8)
Belarus	4926	3480	(70.6)	3425	2902	(84.7)	3034	2626	(86.6)	2706	2381	(88.0)	2525	2243	(88.8)
Bosnia and Herzegovina	1321	945	(71.5)	1301	1096	(84.2)	1261	1040	(82.5)	1196	923	(77.2)	1092	707	(64.7)
former Yugoslav Republic of Macedonia, the	307	272	(88.6)	346	298	(86.1)	317	287	(90.5)	281	244	(86.8)	282	243	(86.2)
Georgia	4237	3414	(80.6)	3638	3103	(85.3)	3098	2465	(79.6)	2862	2377	(83.1)	2841	2386	(84.0)
Israel	514	403	(78.4)	509	412	(80.9)	305	257	(84.3)	322	285	(88.5)	263	218	(82.9)
Kazakhstan	12400	9430	(76.0)	16275	14068	(86.4)	14456	12841	(88.8)	12473	11186	(89.7)	14006	12691	(90.6)
Kyrgyzstan	3662	3091	(84.4)	–	–	–	5658	4797	(84.8)	5731	4837	(84.4)	6139	5063	(82.5)
Moldova	3836	2815	(73.4)	4203	3205	(76.3)	3889	3095	(79.6)	3459	2724	(78.8)	2992	2379	(79.5)
Monaco	–	–	–	0	–	–	3	3	(100.0)	0	–	–	–	–	–
Montenegro	100	86	(86.0)	107	90	(84.1)	119	104	(87.4)	113	101	(89.4)	80	74	(92.5)
Russia	88554	57801	(65.3)	89666	61765	(68.9)	83301	56980	(68.4)	77136	53266	(69.1)	80424	57060	(70.9)
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	0	–	–
Serbia	1794	1537	(85.7)	1851	1546	(83.5)	1427	1118	(78.3)	1281	1042	(81.3)	1647	1471	(89.3)
Serbia excluding UN Administered Province of Kosovo ^d	–	–	–	1197	968	(80.9)	1184	928	(78.4)	1045	828	(79.2)	882	733	(83.1)
UN Administered Province of Kosovo ^d	–	–	–	654	578	(88.4)	243	190	(78.2)	236	214	(90.7)	765	738	(96.5)
Switzerland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tajikistan	5935	5145	(86.7)	5811	4845	(83.4)	5263	4619	(87.8)	5149	4606	(89.5)	5298	4734	(89.4)
Turkey	14417	12915	(89.6)	13535	11946	(88.3)	13170	11373	(86.4)	12933	11245	(86.9)	12362	10735	(86.8)
Turkmenistan	2140	1852	(86.5)	2804	2369	(84.5)	3046	2199	(72.2)	2122	1797	(84.7)	2472	2126	(86.0)
Ukraine	27793	18620	(67.0)	30928	21922	(70.9)	29726	20959	(70.5)	22294	16109	(72.3)	23892	17939	(75.1)
Uzbekistan	13995	11836	(84.6)	14132	11905	(84.2)	17373	14457	(83.2)	16328	14215	(87.1)	15220	13536	(88.9)
Subtotal non-EU/EEA	189755	136678	(72.0)	194913	146778	(75.3)	191468	144151	(75.3)	169649	130009	(76.6)	174333	135905	(78.0)
Total European Region	248575	181650	(73.1)	250688	189475	(75.6)	243658	184685	(75.8)	218514	166481	(76.2)	218028	168281	(77.2)
Subtotal 18 HPC	207494	151805	(73.2)	211442	160791	(76.0)	206967	157330	(76.0)	184509	142642	(77.3)	188095	147656	(78.5)

^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.

^b Excluding rifampicin-resistant cases.

^c These data are subject to change as the national TB registry was under review when this report was being produced.

^d For non-EU countries data are related to all new and relapse cases except for 2011.

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

Table XI: Treatment success after 12 months of all TB cases, European Region, 2011–2015

Country	2011			2012			2013			2014			2015		
	Cases reported	Success		Cases reported	Success		Cases reported	Success		Cases reported	Success		Cases reported	Success	
		N	(%)		N	(%)		N	(%)		N	(%)		N	(%)
EU/EEA															
Austria	684	476	(69.6)	646	432	(66.9)	653	464	(71.1)	586	423	(72.2)	583	417	(71.5)
Belgium	1019	788	(77.3)	976	736	(75.4)	963	743	(77.2)	949	752	(79.2)	977	764	(78.2)
<i>Bulgaria</i>	<i>2406</i>	<i>1991</i>	<i>(82.8)</i>	<i>2280</i>	<i>1917</i>	<i>(84.1)</i>	<i>1932</i>	<i>1626</i>	<i>(84.2)</i>	<i>1872</i>	<i>1565</i>	<i>(83.6)</i>	<i>1660</i>	<i>1385</i>	<i>(83.4)</i>
Croatia ^a	–	–	–	575	59	(10.3)	517	226	(43.7)	499	354	(70.9)	486	50	(10.3)
Cyprus	54	34	(63.0)	69	30	(43.5)	41	20	(48.8)	41	24	(58.5)	63	35	(55.6)
Czech Republic	600	422	(70.3)	597	444	(74.4)	497	345	(69.4)	511	379	(74.2)	517	350	(67.7)
Denmark	381	276	(72.4)	389	265	(68.1)	356	252	(70.8)	320	174	(54.4)	357	171	(47.9)
<i>Estonia</i>	<i>339</i>	<i>189</i>	<i>(55.8)</i>	<i>289</i>	<i>168</i>	<i>(58.1)</i>	<i>290</i>	<i>203</i>	<i>(70.0)</i>	<i>248</i>	<i>167</i>	<i>(67.3)</i>	<i>217</i>	<i>149</i>	<i>(68.7)</i>
Finland	324	131	(40.4)	274	122	(44.5)	273	141	(51.6)	263	114	(43.3)	272	95	(34.9)
France ^b	5000	2372	(47.4)	5003	2277	(45.5)	4947	2474	(50.0)	4888	2592	(53.0)	–	–	–
Germany	4309	2752	(63.9)	4213	3073	(72.9)	4340	2838	(65.4)	4526	2826	(62.4)	5852	3728	(63.7)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	1445	1059	(73.3)	1223	847	(69.3)	1045	765	(73.2)	851	607	(71.3)	906	631	(69.6)
Iceland	9	8	(88.9)	11	9	(81.8)	11	10	(90.9)	9	8	(88.9)	7	7	(100.0)
Ireland	412	250	(60.7)	359	218	(60.7)	374	232	(62.0)	311	173	(55.6)	283	157	(55.5)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	885	655	(74.0)	993	765	(77.0)	904	688	(76.1)	761	593	(77.9)	721	551	(76.4)
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	1904	1326	(69.6)	1781	1222	(68.6)	1705	1132	(66.4)	1607	1058	(65.8)	1507	987	(65.5)
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	33	23	(69.7)	42	10	(23.8)	50	37	(74.0)	–	–	–	–	–	–
Netherlands	1004	856	(85.3)	956	801	(83.8)	845	737	(87.2)	814	717	(88.1)	862	733	(85.0)
Norway	354	308	(87.0)	374	319	(85.3)	392	346	(88.3)	324	268	(82.7)	313	268	(85.6)
Poland	8478	5191	(61.2)	7542	4501	(59.7)	7250	4252	(58.6)	6698	3865	(57.7)	6430	3387	(52.7)
Portugal	2609	2024	(77.6)	2606	2015	(77.3)	2410	1779	(73.8)	2278	1625	(71.3)	2178	1539	(70.7)
<i>Romania</i>	<i>19202</i>	<i>15242</i>	<i>(79.4)</i>	<i>18190</i>	<i>14388</i>	<i>79</i>	<i>16689</i>	<i>13272</i>	<i>(79.5)</i>	<i>15879</i>	<i>12679</i>	<i>(79.8)</i>	<i>15183</i>	<i>12185</i>	<i>(80.3)</i>
Slovakia	399	366	(91.7)	345	303	(87.8)	401	372	(92.8)	336	291	(86.6)	317	271	(85.5)
Slovenia	192	157	(81.8)	138	112	(81.2)	140	108	(77.1)	144	111	(77.1)	130	106	(81.5)
Spain	6798	4760	(70.0)	6070	4286	(70.6)	5632	4582	(81.4)	4914	2827	(57.5)	–	–	–
Sweden	580	494	(85.2)	623	504	(80.9)	639	566	(88.6)	659	570	(86.5)	815	688	(84.4)
United Kingdom	8919	6913	(77.5)	8711	6892	(79.1)	7868	6411	(81.5)	7049	5676	(80.5)	6234	4865	(78.0)
Subtotal EU/EEA	68339	49063	(71.8)	65275	46715	(71.6)	61164	44621	(73.0)	57337	40438	(70.5)	46870	33519	(71.5)
Non-EU/EEA															
Albania	413	382	(92.5)	413	377	(91.3)	472	416	(88.1)	406	358	(88.2)	409	354	(86.6)
Andorra	3	3	(100.0)	9	9	(100.0)	5	3	(60.0)	6	5	(83.3)	4	4	(100.0)
Armenia	1200	934	(77.8)	1365	1100	(80.6)	1269	1022	(80.5)	1242	966	(77.8)	923	731	(79.2)
Azerbaijan	2208	1717	(77.8)	7495	5951	(79.4)	6946	5436	(78.3)	3997	3109	(77.8)	4213	3230	(76.7)
Belarus	4926	3480	(70.6)	3613	3031	(83.9)	3256	2784	(85.5)	2955	2562	(86.7)	2788	2444	(87.7)
Bosnia and Herzegovina	1321	945	(71.5)	1420	1188	(83.7)	1261	1040	(82.5)	1196	923	(77.2)	1095	707	(64.6)
former Yugoslav Republic of Macedonia, the	307	272	(88.6)	355	305	(85.9)	322	292	(90.7)	282	245	(86.9)	284	245	(86.3)
Georgia	4237	3414	(80.6)	4524	3757	(83.0)	3877	3006	(77.5)	3371	2727	(80.9)	3144	2582	(82.1)
Israel	514	403	(78.4)	509	412	(80.9)	305	257	(84.3)	322	285	(88.5)	263	218	(82.9)
Kazakhstan	12400	9430	(76.0)	19446	16556	(85.1)	14920	13133	(88.0)	12803	11441	(89.4)	14631	13172	(90.0)
Kyrgyzstan	3662	3091	(84.4)	–	–	–	6788	5656	(83.3)	6646	5563	(83.7)	6686	5423	(81.1)
Moldova	3836	2815	(73.4)	4658	3382	(72.6)	4246	3234	(76.2)	3751	2861	(76.3)	3209	2480	(77.3)
Monaco	–	–	–	–	–	–	3	3	(100.0)	0	–	–	–	–	–
Montenegro	100	86	(86.0)	107	90	(84.1)	120	104	(86.7)	113	101	(89.4)	80	74	(92.5)
Russia	88554	57801	(65.3)	97627	64731	(66.3)	90235	59691	(66.2)	82926	55673	(67.1)	88718	61238	(69.0)
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	0	–	–
Serbia	1794	1537	(85.7)	1888	1573	(83.3)	1476	1152	(78.0)	1295	1049	(81.0)	1669	1484	(88.9)
Serbia excluding UN Administered Province of Kosovo ^c	–	–	–	–	–	–	–	–	–	–	–	–	897	739	(82.4)
UN Administered Province of Kosovo ^c	–	–	–	–	–	–	–	–	–	–	–	–	772	745	(96.5)
Switzerland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tajikistan	5935	5145	(86.7)	6929	5682	(82.0)	6075	5282	(86.9)	5504	4896	(89.0)	5584	4964	(88.9)
Turkey	14417	12915	(89.6)	14691	12714	(86.5)	13409	11465	(85.5)	13125	11341	(86.4)	12520	10807	(86.3)
Turkmenistan	2140	1852	(86.5)	3422	2758	(80.6)	3675	2364	(64.3)	2265	1890	(83.4)	2753	2352	(85.4)
Ukraine	27793	18620	(67.0)	36514	24790	(67.9)	38875	26014	(66.9)	27563	19586	(71.1)	27548	20034	(72.7)
Uzbekistan	13995	11836	(84.6)	16765	13799	(82.3)	21713	17843	(82.2)	20275	17402	(85.8)	17837	15694	(88.0)
Subtotal non-EU/EEA	189755	136678	(72.0)	221750	162205	(73.1)	219248	160197	(73.1)	190043	142983	(75.2)	194358	148237	(76.3)
Total European Region	258094	185741	(72.0)	287025	208920	(72.8)	280412	204818	(73.0)	247380	183421	(74.1)	241228	181756	(75.3)
Subtotal 18 HPC	210039	152453	(72.6)	240582	176711	(73.5)	236804	173851	(73.4)	206790	156079	(75.5)	209842	160408	(76.4)

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

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

^b These data are subject to change as the national TB registry was under review when this report was being produced.

^c Data are including overseas territories.

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

Table XII: Treatment success after 24 months of RR/MDR TB cases started on treatment, European Region, 2010–2014

Country	2010			2011			2012			2013			2014		
	Cases reported	Success		Cases reported	Success		Cases reported	Success		Cases reported	Success		Cases reported	Success	
		N	(%)		N	(%)		N	(%)		N	(%)		N	(%)
EU/EEA															
Austria	16	9	(56.3)	22	15	(68.2)	27	14	(51.9)	16	12	(75.0)	21	13	(61.9)
Belgium	25	14	(56.0)	17	13	(76.5)	25	17	(68.0)	14	11	(78.6)	13	7	(53.8)
Bulgaria	70	17	(24.3)	65	37	(56.9)	58	38	(65.5)	37	17	(45.9)	44	22	(50.0)
Croatia ^a	–	–	–	–	–	–	1	0	(0.0)	–	–	–	2	0	(0.0)
Cyprus	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Czech Republic	21	0	(0.0)	13	7	(53.8)	5	2	(40.0)	0	–	–	7	3	(42.9)
Denmark	2	1	(50.0)	3	0	(0.0)	1	0	(0.0)	2	1	(50.0)	2	1	(50.0)
Estonia	64	34	(53.1)	70	40	(57.1)	57	42	(73.7)	54	34	(63.0)	50	32	(64.0)
Finland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	62	30	(48.4)	65	34	(52.3)	71	35	(49.3)	114	41	(36.0)	104	35	(33.7)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	21	9	(42.9)	8	4	(50.0)	13	6	(46.2)	11	4	(36.4)	4	4	(100.0)
Iceland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ireland	4	4	(100.0)	3	1	(33.3)	4	4	(100.0)	4	3	(75.0)	2	1	(50.0)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Latvia	88	58	(65.9)	96	52	(54.2)	107	66	(61.7)	79	54	(68.4)	71	52	(73.2)
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Lithuania	315	94	(29.8)	306	111	(36.3)	285	101	(35.4)	274	90	(32.8)	279	35	(12.5)
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	1	0	(0.0)	0	–	–	0	–	–	2	1	(0.0)	0	–	–
Netherlands	12	8	(66.7)	17	11	(64.7)	14	10	(71.4)	17	17	(100.0)	7	6	(85.7)
Norway	9	5	(55.6)	4	3	(75.0)	7	3	(42.9)	7	5	(71.4)	11	9	(81.8)
Poland	38	18	(47.4)	49	16	(32.7)	41	7	(17.1)	47	10	(21.3)	49	9	(18.4)
Portugal	30	11	(36.7)	40	22	(55.0)	27	13	(48.1)	18	10	(55.6)	28	15	(53.6)
Romania	639	149	(23.3)	618	184	(29.8)	777	290	(37.3)	657	258	(39.3)	596	245	(41.1)
Slovakia	1	0	(0.0)	4	2	(50.0)	1	0	(0.0)	2	0	(0.0)	4	2	(50.0)
Slovenia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Spain	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Sweden	20	19	(95.0)	18	14	(77.8)	15	13	(86.7)	10	7	(70.0)	17	15	(88.2)
United Kingdom	77	38	(49.4)	92	49	(53.3)	85	55	(64.7)	79	51	(64.6)	56	33	(58.9)
Subtotal EU/EEA	1515	518	(34.2)	1510	615	(40.7)	1621	716	(44.2)	1444	626	(43.4)	1367	539	(39.4)
Non-EU/EEA															
Albania	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Andorra	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Armenia	132	59	(44.7)	121	61	(50.4)	115	51	(44.3)	104	45	(43.3)	118	68	(57.6)
Azerbaijan	286	156	(54.5)	565	339	(60.0)	373	225	(60.3)	647	382	(59.0)	745	441	(59.2)
Belarus	1442	452	(31.3)	1600	807	(50.4)	2509	1366	(54.4)	2136	1152	(53.9)	1472	872	(59.2)
Bosnia and Herzegovina	7	4	(57.1)	5	1	(20.0)	7	3	(42.9)	1	1	(100.0)	3	2	(66.7)
former Yugoslav Republic of Macedonia, the	7	1	(14.3)	1	1	(100.0)	3	2	(66.7)	2	1	(50.0)	3	1	(33.3)
Georgia	504	271	(53.8)	611	305	(49.9)	623	296	(47.5)	411	176	(42.8)	411	201	(48.9)
Israel	12	4	(33.3)	11	7	(63.6)	13	12	(92.3)	7	4	(57.1)	16	12	(75.0)
Kazakhstan	5777	4197	(72.7)	5261	3910	(74.3)	7213	5265	(73.0)	6527	4730	(72.5)	6320	4813	(76.2)
Kyrgyzstan	556	236	(42.4)	492	280	(56.9)	775	486	(62.7)	1064	611	(57.4)	1157	650	(56.2)
Moldova	791	390	(49.3)	761	413	(54.3)	856	504	(58.9)	943	538	(57.1)	919	457	(49.7)
Monaco	–	–	–	–	–	–	0	–	–	0	–	–	–	–	–
Montenegro	0	–	–	1	0	(0.0)	1	1	(100.0)	0	–	–	2	–	–
Russia	4681	2035	(43.5)	15896	5895	(37.1)	16021	6427	(40.1)	18213	8802	(48.3)	20089	10170	(50.6)
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	0	–	–
Serbia	10	8	(80.0)	14	9	(64.3)	7	4	(57.1)	19	15	(78.9)	19	12	(63.2)
Serbia excluding UN Administered Province of Kosovo ^b	–	–	–	–	–	–	6	3	(50.0)	13	10	(76.9)	13	7	(53.8)
UN Administered Province of Kosovo ^b	–	–	–	–	–	–	1	1	(100.0)	6	5	(83.3)	6	5	(83.3)
Switzerland	–	–	–	–	–	–	–	–	–	–	–	–	12	9	(75.0)
Tajikistan	245	151	(61.6)	380	242	(63.7)	535	351	(65.6)	625	375	(60.0)	804	398	(49.5)
Turkey	250	168	(67.2)	275	181	(65.8)	291	193	(66.3)	228	149	(65.4)	257	163	(63.4)
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	–	213	143	(67.1)
Ukraine	3902	1144	(29.3)	3810	1298	(34.1)	5556	1909	(34.4)	7633	2948	(38.6)	7174	3297	(46.0)
Uzbekistan	628	366	(58.3)	855	455	(53.2)	1491	737	(49.4)	2647	1390	(52.5)	3602	2216	(61.5)
Subtotal non-EU/EEA	19230	9642	(50.1)	30659	14204	(46.3)	36389	17832	(49.0)	41207	21319	(51.7)	43336	23925	(55.2)
Total European Region	20745	10160	(49.0)	32169	14819	(46.1)	38010	18548	(48.8)	42651	21945	(51.5)	44703	24464	(54.7)
Subtotal 18 HPC	20370	9977	(49.0)	31782	14610	(46.0)	37584	18347	(48.8)	42279	21751	(51.4)	44321	24275	(54.8)

^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.

RR/MDR TB – Rifampicin-resistant and multidrug-resistant tuberculosis.

^b These data are subject to change as the national TB registry was under review when this report was being produced.

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

Table XIII: Treatment success after 24 months of XDR TB cases started on treatment, European Region, 2010–2014

Country	2010			2011			2012			2013			2014		
	MDR TB cases	Success		MDR TB cases	Success		MDR TB cases	Success		MDR TB cases	Success		MDR TB cases	Success	
		N	(%)		N	(%)		N	(%)		N	(%)		N	(%)
EU/EEA															
Austria	1	1	(100.0)	7	4	(57.1)	7	2	(28.6)	3	2	(66.7)	2	1	(50.0)
Belgium	2	2	(100.0)	3	2	(66.7)	2	2	(100.0)	0	–	–	1	1	(100.0)
Bulgaria	1	1	(100.0)	–	–	–	5	1	(20.0)	4	0	(0.0)	3	0	(0.0)
Croatia	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–
Cyprus	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Czech Republic	1	1	(100.0)	2	0	(0.0)	1	0	(0.0)	–	–	–	–	–	–
Denmark	–	–	–	–	–	–	0	–	–	1	1	(100.0)	–	–	–
Estonia	11	3	(27.3)	15	4	(26.7)	3	1	(33.3)	10	3	(30.0)	8	1	(12.5)
Finland	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–
Germany	–	–	–	1	1	(100.0)	1	0	(0.0)	3	0	(0.0)	11	2	(18.2)
Greece	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–
Hungary	2	0	(0.0)	–	–	–	2	1	(50.0)	1	0	(0.0)	–	–	–
Iceland	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–
Ireland	–	–	–	–	–	–	0	–	–	1	1	(100.0)	–	–	–
Italy	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–
Latvia	13	8	(61.5)	12	5	(41.7)	17	9	(52.9)	15	11	(73.3)	13	10	(76.9)
Liechtenstein	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–
Lithuania	50	0	(0.0)	52	0	(0.0)	52	5	(9.6)	47	0	(0.0)	61	0	(0.0)
Luxembourg	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–
Malta	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–
Netherlands	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Norway	–	–	–	–	–	–	0	–	–	–	–	–	–	–	(0.0)
Poland	1	1	(100.0)	1	0	(0.0)	0	–	–	1	0	(0.0)	5	1	(20.0)
Portugal	4	2	(50.0)	9	5	(55.6)	4	2	(50.0)	4	2	(50.0)	3	2	(66.7)
Romania	26	2	(7.7)	34	6	(17.6)	41	3	(7.3)	56	9	(16.1)	57	9	(15.8)
Slovakia	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–
Slovenia	–	–	–	–	–	–	0	–	–	–	–	–	–	–	–
Spain	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Sweden	–	–	–	–	–	–	2	2	(100.0)	2	1	(50.0)	1	0	(0.0)
United Kingdom	3	1	(33.3)	6	1	(16.7)	2	0	(0.0)	3	1	(33.3)	3	1	(33.3)
Subtotal EU/EEA	115	22	(19.1)	142	28	(19.7)	139	28	(20.1)	151	31	(20.5)	168	28	(16.7)
Non-EU/EEA															
Albania	0	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Andorra	0	–	–	0	–	–	0	–	–	0	–	–	0	–	–
Armenia	3	1	(33.3)	2	1	(50.0)	2	0	(0.0)	10	2	(20.0)	10	4	(40.0)
Azerbaijan	–	–	–	–	–	–	33	12	(36.4)	95	25	(26.3)	69	16	(23.2)
Belarus	–	–	–	–	–	–	0	–	–	60	23	(38.3)	431	157	(36.4)
Bosnia and Herzegovina	0	–	–	0	–	–	–	–	–	0	–	–	0	–	–
former Yugoslav Republic of Macedonia, the	1	0	(0.0)	0	–	–	1	1	(100.0)	0	–	–	0	–	–
Georgia	35	8	(22.9)	19	2	(10.5)	43	12	(27.9)	70	15	(21.4)	56	18	(32.1)
Israel	1	0	(0.0)	0	–	–	4	4	(100.0)	1	0	(0.0)	2	1	(50.0)
Kazakhstan	–	–	–	0	–	–	–	–	–	360	109	(30.3)	318	98	(30.8)
Kyrgyzstan	7	1	(14.3)	14	3	(21.4)	–	–	–	43	12	(27.9)	32	5	(15.6)
Moldova	–	–	–	–	–	–	–	–	–	–	–	–	9	3	(33.3)
Monaco	–	–	–	–	–	–	–	–	–	3	3	(100.0)	–	–	–
Montenegro	0	–	–	2	0	(0.0)	0	–	–	0	–	–	0	–	–
Russia	–	–	–	–	–	–	1318	344	(26.1)	1965	520	(26.5)	2209	687	(31.1)
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	0	–	–
Serbia	0	–	–	3	3	(100.0)	1	1	(100.0)	0	–	–	0	–	–
Serbia excluding UN Administered Province of Kosovo ^a	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
UN Administered Province of Kosovo ^a	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Switzerland	–	–	–	–	–	–	–	–	–	–	–	–	1	0	(0.0)
Tajikistan	–	–	–	0	–	–	1	1	(100.0)	4	3	(75.0)	0	–	–
Turkey	3	2	(66.7)	1	1	(100.0)	6	4	(66.7)	3	1	(33.3)	2	0	(0.0)
Turkmenistan	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ukraine	–	–	–	–	–	–	–	–	–	–	–	–	1097	278	(25.3)
Uzbekistan	16	0	(0.0)	8	1	(12.5)	21	3	(14.3)	–	–	–	–	–	–
Subtotal non-EU/EEA	66	12	(18.2)	49	11	(22.4)	1430	382	(26.7)	2614	713	(27.3)	4236	1267	(29.9)
Total European Region	181	34	(18.8)	191	39	(20.4)	1569	410	(26.1)	2765	744	(26.9)	4404	1295	(29.4)
Subtotal 18 HPC	165	26	(15.8)	157	23	(14.6)	1537	395	(25.7)	2742	733	(26.7)	4375	1286	(29.4)

^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.

XDR TB – Extensively drug-resistant tuberculosis.

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

Table XIV: Treatment success after 36 months of XDR TB cases notified in European Region, 2009–2013

Country	2009			2010			2011			2012			2013		
	XDR TB cases	Success		XDR TB cases	Success		XDR TB cases	Success		XDR TB cases	Success		XDR TB cases	Success	
		N	(%)		N	(%)		N	(%)		N	(%)		N	(%)
EU/EEA															
Austria	2	1	(50.0)	1	1	(100.0)	7	4	(57.1)	7	2	(28.6)	3	2	(66.7)
Belgium	3	2	(66.7)	2	2	(100.0)	3	3	(100.0)	2	2	(100.0)	–	–	–
<i>Bulgaria</i>	1	0	(0.0)	1	1	(100.0)	–	–	(100.0)	5	1	(20.0)	4	0	(0.0)
Croatia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cyprus	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Czech Republic	1	0	(0.0)	1	1	(100.0)	2	0	(0.0)	1	0	(0.0)	–	–	–
Denmark	–	–	–	–	–	–	–	–	–	–	–	–	1	1	(100.0)
<i>Estonia</i>	8	1	(12.5)	11	5	(45.5)	15	6	(45.5)	3	1	(25.0)	10	5	(50.0)
Finland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
France	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Germany	–	–	–	–	–	–	1	1	–	1	0	(0.0)	3	0	(0.0)
Greece	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hungary	–	–	–	2	0	(0.0)	0	0	(0.0)	2	1	(50.0)	1	0	(0.0)
Iceland	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ireland	–	–	–	–	–	–	–	–	–	–	–	–	1	1	(100.0)
Italy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
<i>Latvia</i>	16	9	(56.3)	13	9	(69.2)	12	7	(69.2)	17	9	(52.9)	15	11	(73.3)
Liechtenstein	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
<i>Lithuania</i>	4	1	(25.0)	50	3	(6.0)	52	11	(6.0)	52	6	(11.5)	47	11	(23.4)
Luxembourg	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Malta	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Netherlands	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Norway	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Poland	1	0	(0.0)	1	1	(100.0)	1	0	(0.0)	–	–	–	1	0	(0.0)
Portugal	–	–	–	4	3	–	9	7	(75.0)	4	4	(100.0)	4	4	(100.0)
<i>Romania</i>	26	1	(3.8)	26	2	(7.7)	34	6	(7.4)	41	5	(12.2)	56	11	(19.6)
Slovakia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Slovenia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Spain	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Sweden	0	–	–	–	–	–	0	–	–	2	2	(100.0)	2	2	(100.0)
United Kingdom	2	1	(50.0)	3	2	(66.7)	6	3	(66.7)	2	1	(50.0)	3	3	(100.0)
Total EU/EEA	64	16	(25.0)	115	30	(26.1)	142	48	(33.8)	139	34	(24.5)	151	51	(33.8)

WHO European Region 5 TB high-priority countries presented in italics.
XDR TB – Extensively drug-resistant tuberculosis.



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	Russia
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	LT	Lithuania	TM	Turkmenistan
CY	Cyprus	LU	Luxembourg	TR	Turkey
CZ	Czech Republic	LV	Latvia	UA	Ukraine
DE	Germany	MD	Moldova	UK	United Kingdom
DK	Denmark	ME	Montenegro	UZ	Uzbekistan
EE	Estonia	MK	former Yugoslav Republic of Macedonia, the		
EL	Greece	MT	Malta		
ES	Spain	NL	Netherlands		
FI	Finland	NO	Norway		
FR	France				

Albania

Population estimate 2016 by UN Statistical Database: 2926348

Tuberculosis case notifications, 2016

Total number of cases	415
Notification rate per 100 000	14.2
New* & relapses	415
New* & relapses notification rate per 100 000	14.2
Pulmonary	301 (72.5%)
of which smear positive	-
of which laboratory confirmed	207 (68.8%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	41.6 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	405 (97.6%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	40 (19.3%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	7-1-14
Pulmonary MDR TB cases notified	1 (2.5%)
of which XDR TB cases	0 (0.0%)
Notified MDR	4 -
of which XDR TB cases	0 -
TB cases tested for HIV	223 (53.7%)
HIV-positive TB cases	6 (3.3%)
of these on antiretroviral therapy	6 (100.0%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+75%, EQA 95%.

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

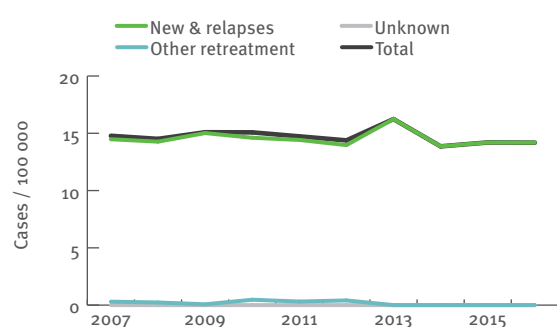
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	409	0
Success	354 (86.6%)	-
Died	11 (2.7%)	-
Failed	3 (0.7%)	-
Lost to follow-up	21 (5.1%)	-
Not evaluated	20 (4.9%)	-

* Treatment outcome as presented is treatment outcome after 12 months.

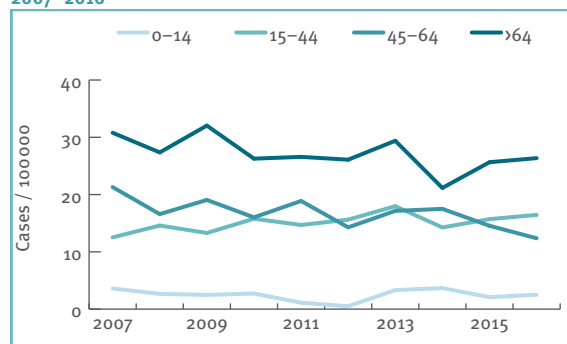
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



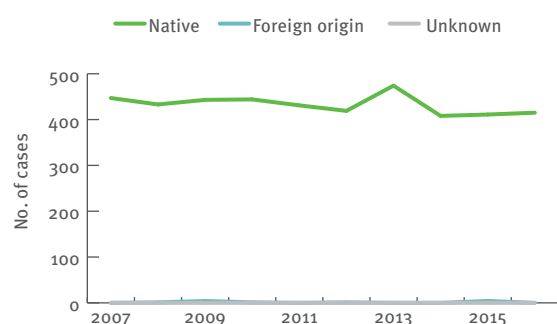
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

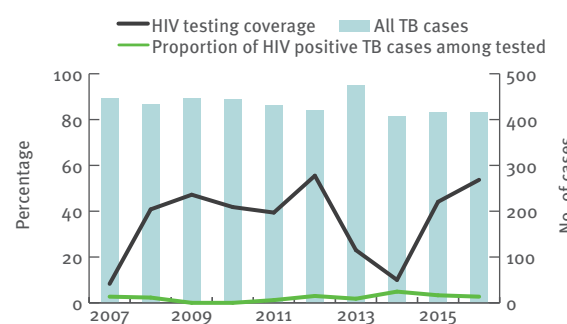


* Data up to 2012 include new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

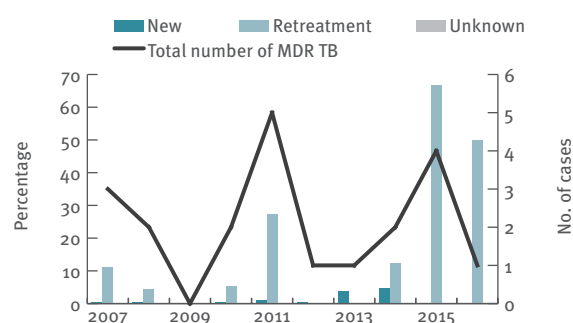


TB-HIV co-infection, 2007-2016

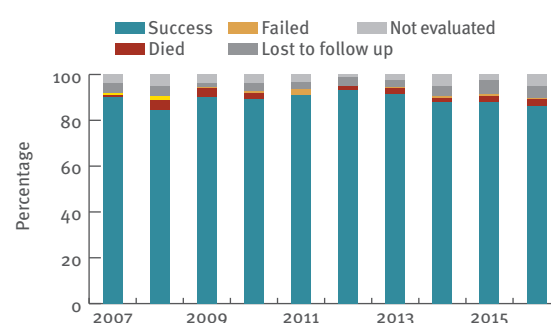


* Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new and relapsed TB cases, 2007-2016*



* 2007-2011 cohorts include new cases only.

Andorra

Population estimate 2016 by UN Statistical Database: 77 281

Tuberculosis case notifications, 2016

Total number of cases	4
Notification rate per 100 000	5.2
New* & relapses	4
New* & relapses notification rate per 100 000	5.2
Pulmonary	3 (75.0%)
of which smear positive	-
of which laboratory confirmed	2 (66.7%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse 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)	4 (100.0%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	1 (50.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	0-0-3
Pulmonary MDR TB cases notified	0 (0.0%)
of which XDR TB cases	0 (0.0%)
Notified MDR	0 -
of which XDR TB cases	- -
TB cases tested for HIV	0 (0.0%)
HIV-positive TB cases	- -
of these on antiretroviral therapy	- -

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

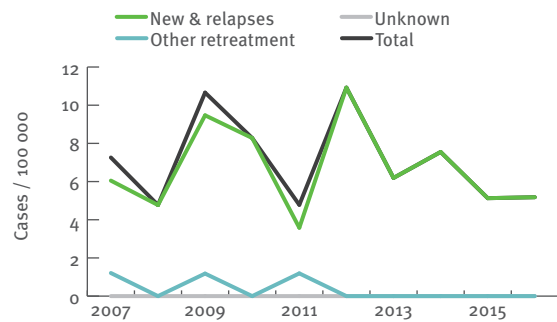
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	4	0
Success	4 (100%)	- -
Died	0 (0.0%)	- -
Failed	0 (0.0%)	- -
Lost to follow-up	0 (0.0%)	- -
Not evaluated	0 (0.0%)	- -

* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



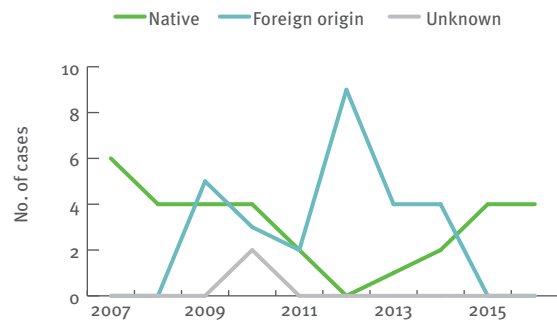
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

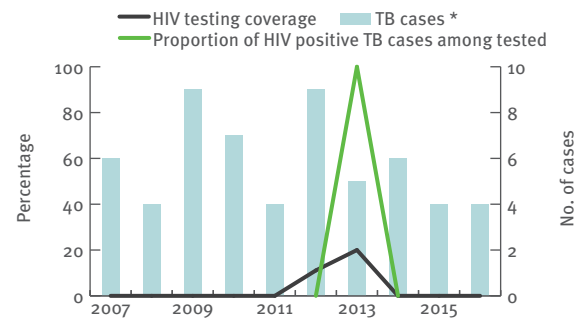


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016



TB-HIV co-infection, 2007-2016

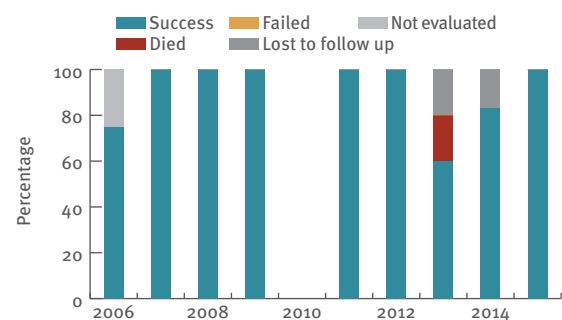


* Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007-2016

No MDR cases reported

Treatment outcome, new and relapsed TB cases, 2006-2015*



* 2005-2011 cohorts include new cases only.

Armenia

Population estimate 2016 by UN Statistical Database: 2924 816

Tuberculosis case notifications, 2016

Total number of cases	1080
Notification rate per 100 000	36.9
New* & relapses	1027
New* & relapses notification rate per 100 000	35.1
Pulmonary	829 (80.7%)
of which smear positive	-
of which laboratory confirmed	438 (52.8%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	44.1 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	818 (75.7%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	457 (100.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	180-160-210
Pulmonary MDR TB cases notified	115 (25.2%)
of which XDR TB cases	6 (5.2%)
Notified MDR	128 -
of which XDR TB cases	29 -
TB cases tested for HIV	1027 (100.0%)
HIV-positive TB cases	57 (5.6%)
of these on antiretroviral therapy	57 (100.0%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

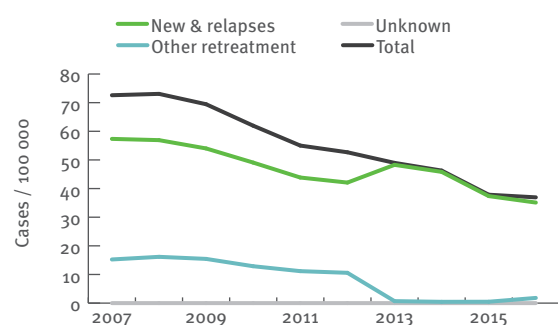
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	910	118
Success	721 (79.2%)	68 (57.6%)
Died	47 (5.2%)	8 (6.8%)
Failed	11 (1.2%)	19 (16.1%)
Lost to follow-up	131 (14.4%)	23 (19.5%)
Not evaluated	0 (0.0%)	0 (0.0%)

* Treatment outcome as presented is treatment outcome after 12 months.

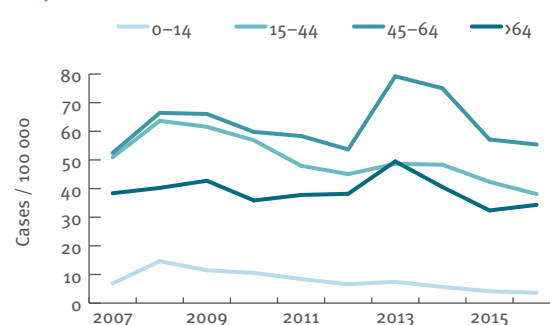
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



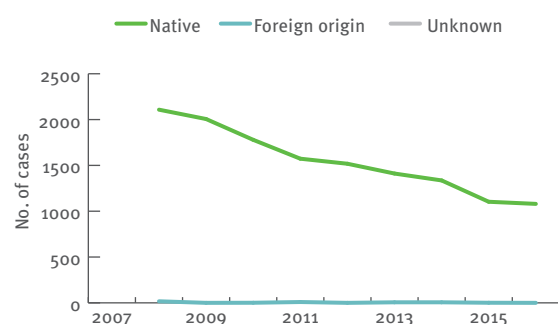
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

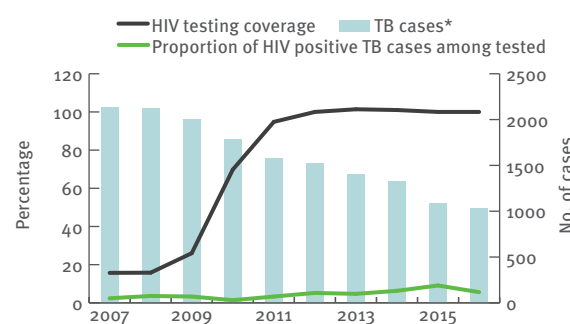


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

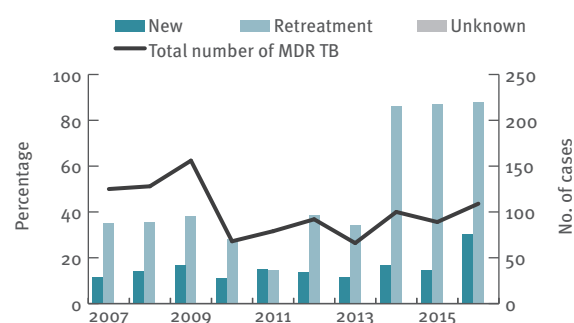


TB-HIV co-infection, 2007-2016

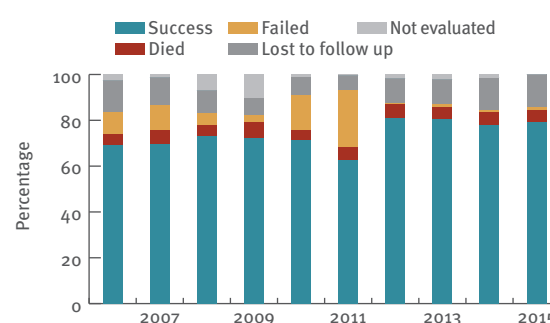


* Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new and relapsed TB cases, 2006-2015*



* 2006-2011 cohorts include new cases only.

Austria

Total population at 22 September 2017 by EUROSTAT: 8 690 076

Tuberculosis case notifications, 2016

Total number of cases	634
Notification rate per 100 000	7.3
New* & relapses	619
New* & relapses notification rate per 100 000	7.1
Pulmonary	483 (76.1%)
of which microscopy-positive	178 (36.9%)
of which laboratory confirmed	384 (79.5%)
Laboratory-confirmed TB cases	489 (77.0%)
Mean age of new native TB cases	57.3 years
Mean age of new foreign TB cases	33.5 years
Foreign origin of all TB cases	424 (66.8%)
New (not previously treated)	449 (70.7%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	-
Case-linked data reporting	Yes
Cases with DST results	473 (96.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	16-6-26
Pulmonary MDR TB cases notified	14 (3.7%)
of which XDR TB cases	2 (14.3%)
Notified MDR TB	16 (3.4%)
of which XDR TB cases	2 (12.5%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

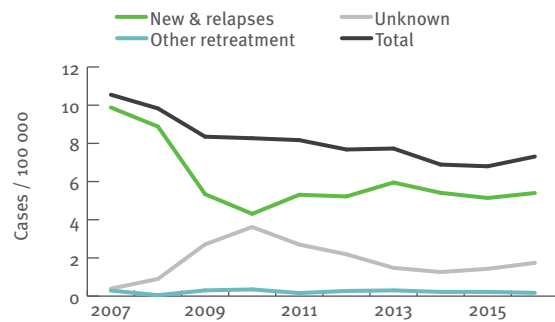
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	267	20
Success	187 (70.0%)	13 (65.0%)
Died	17 (6.4%)	0 (0.0%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	2 (0.7%)	1 (5.0%)
Still on treatment	27 (10.1%)	1 (5.0%)
Not evaluated	34 (12.7%)	5 (25.0%)

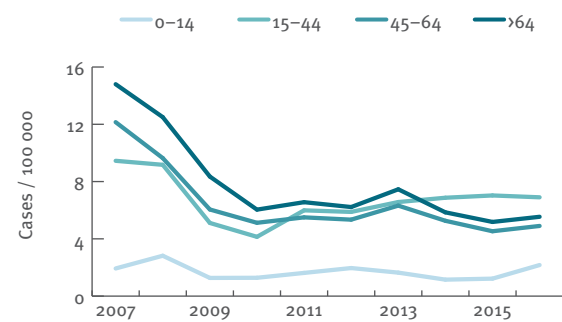
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

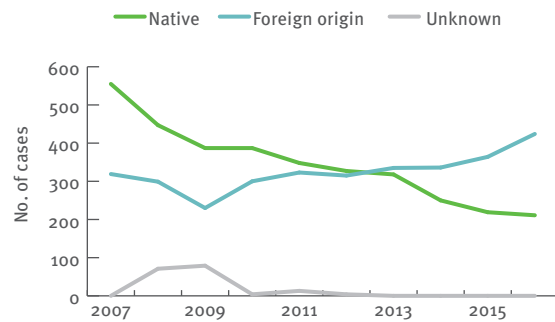
Tuberculosis notification rates by treatment history, 2007-2016



New and relapsed TB cases – notification rates by age group, 2007-2016



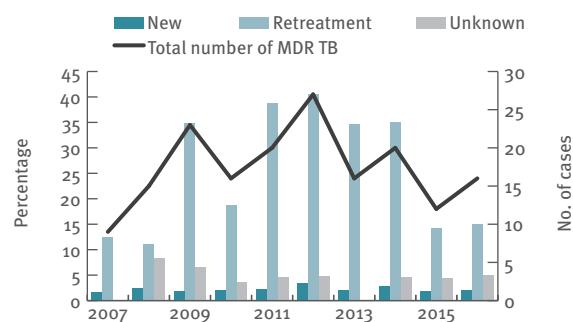
Tuberculosis cases by geographical origin, 2007-2016



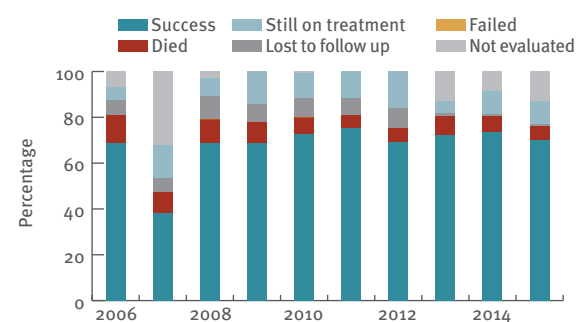
TB-HIV co-infection, 2007-2016

Data not available

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Azerbaijan

Population estimate 2016 by UN Statistical Database: 9725376

Tuberculosis case notifications, 2016

Total number of cases	6707
Notification rate per 100 000	69.0
New* & relapses	5159
New* & relapses notification rate per 100 000	53.0
Pulmonary	4122 (79.9%)
of which smear positive	-
of which laboratory confirmed	2529 (61.4%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	28.2 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	12 (0.2%)
New (not previously treated)	3793 (56.6%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	2614 (103.4%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	1500-1400-1600
Pulmonary MDR TB cases notified	777 (29.7%)
of which XDR TB cases	71 (13.3%)
Notified MDR	925 -
of which XDR TB cases	77 -
TB cases tested for HIV	4722 (91.5%)
HIV-positive TB cases	99 (2.1%)
of these on antiretroviral therapy	78 (78.8%)

* National coverage 100% or culturing 90%. C+/All TB cases 50%. DST done for C+ 75%. EQA 95%.

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

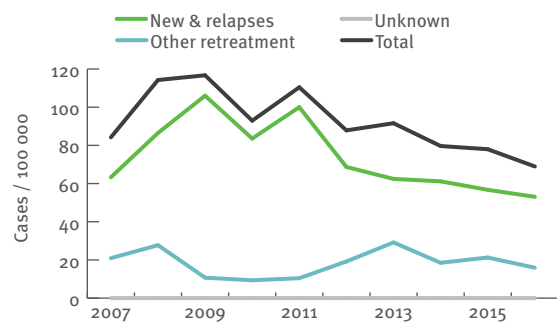
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	Bacteriologically confirmed new TB cases in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	1475	745
Success	1221 (82.8%)	441 (59.2%)
Died	49 (3.3%)	127 (17.0%)
Failed	34 (2.3%)	135 (18.1%)
Lost to follow-up	132 (8.9%)	42 (5.6%)
Not evaluated	39 (2.6%)	0 (0.0%)

* Treatment outcome as presented is treatment outcome after 12 months.

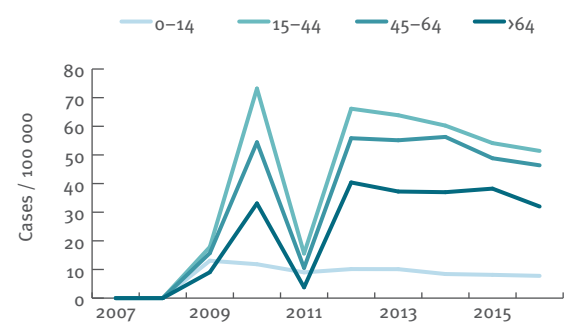
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



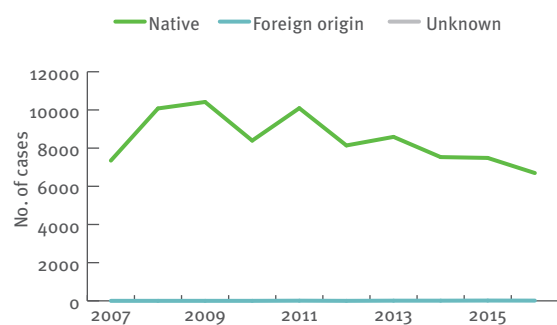
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

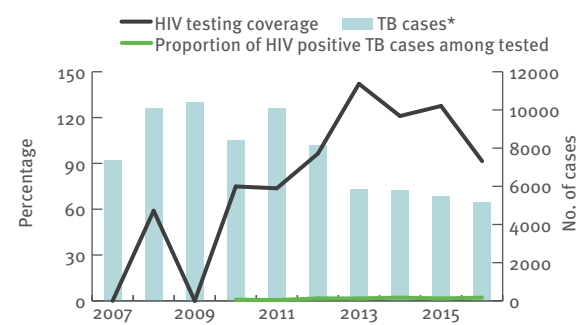


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

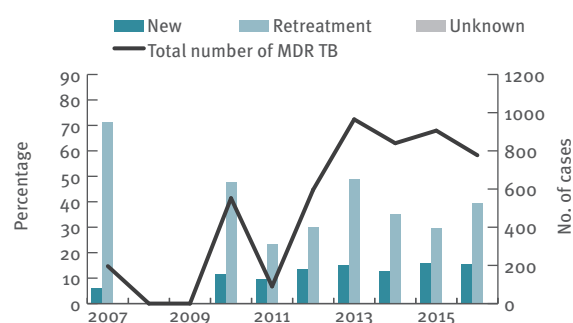


TB-HIV co-infection, 2007-2016

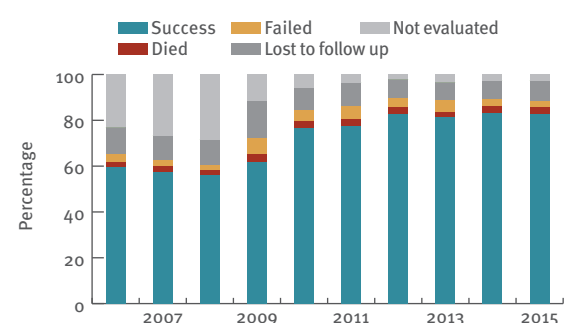


* Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome of new TB cases, 2006-2015



Belarus

Population estimate 2016 by UN Statistical Database: 9480042

Tuberculosis case notifications, 2016

Total number of cases	3598
Notification rate per 100 000	38.0
New* & relapses	3211
New* & relapses notification rate per 100 000	33.9
Pulmonary	2964 (92.3%)
of which smear positive	-
of which laboratory confirmed	2350 (79.3%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	44.2 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	2653 (73.7%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	2555 (108.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	1600-1500-1600
Pulmonary MDR TB cases notified	1222 (47.8%)
of which XDR TB cases	572 (46.8%)
Notified MDR	1543
of which XDR TB cases	572
TB cases tested for HIV	3148 (98.0%)
HIV-positive TB cases	275 (8.7%)
of these on antiretroviral therapy	229 (83.3%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

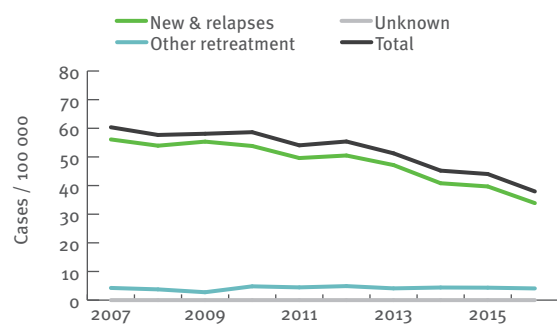
Treatment outcome monitoring

Geographical coverage	National		
Outcome cohort	New and relapsed TB cases notified in 2014*	All MDR TB cases enrolled into MDR treatment in 2013**	
Case-linked data reporting	Yes		
Cases notified	2525	1472	
Success	2243 (88.8%)	872	(59.2%)
Died	76 (3.0%)	126	(8.6%)
Failed	72 (2.9%)	289	(19.6%)
Lost to follow-up	77 (3.0%)	181	(12.3%)
Not evaluated	57 (2.3%)	4	(0.3%)

* Treatment outcome as presented is treatment outcome after 12 months.

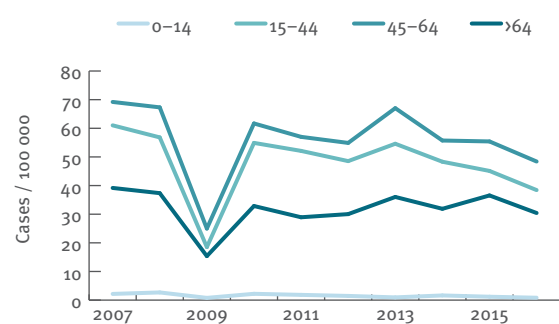
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



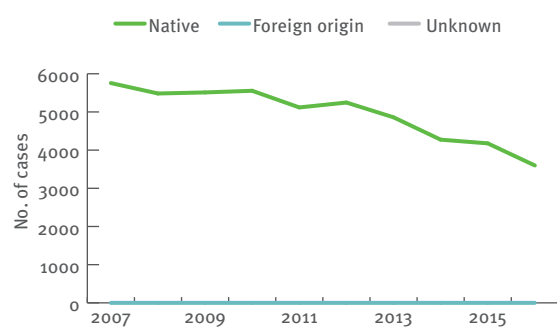
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases - notification rates by age group, 2007-2016*

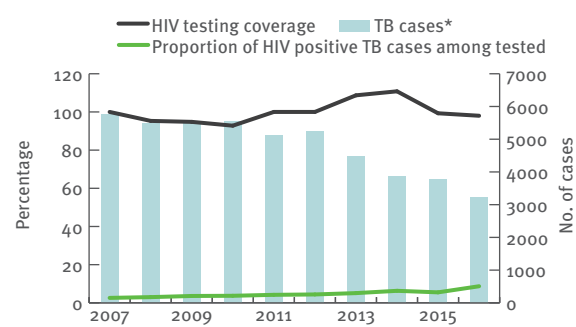


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

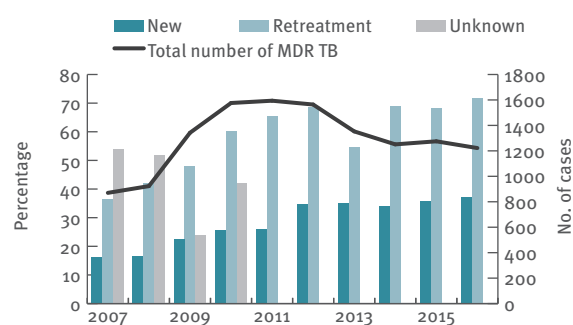


TB-HIV co-infection, 2007-2016

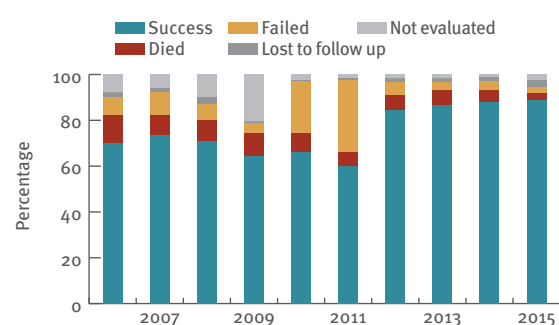


* Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new and relapsed TB cases, 2006-2015*



* 2005-2011 cohorts include new cases only.

Belgium

Total population at 22 September 2017 by EUROSTAT: 11311117

Tuberculosis case notifications, 2016

Total number of cases	1047
Notification rate per 100 000	9.3
New* & relapses	986
New* & relapses notification rate per 100 000	8.7
Pulmonary	715 (68.3%)
of which microscopy-positive	331 (46.3%)
of which laboratory confirmed	593 (82.9%)
Laboratory-confirmed TB cases	801 (76.5%)
Mean age of new native TB cases	45.2 years
Mean age of new foreign TB cases	35.5 years
Foreign origin of all TB cases	547 (52.2%)
New (not previously treated)	757 (72.3%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	769 (96.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	16-6-26
Pulmonary MDR TB cases notified	9 (1.6%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	10 (1.3%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	479 (45.7%)
HIV-positive TB cases of these on antiretroviral therapy	33 (6.9%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

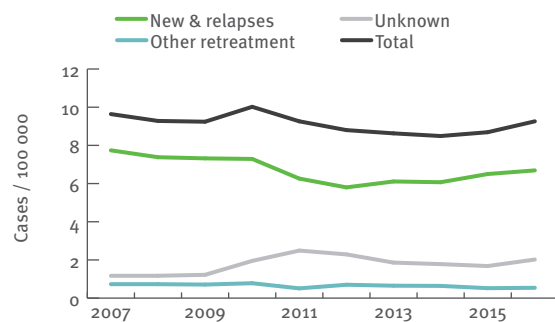
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	422	11
Success	351 (79.4%)	6 (54.5%)
Died	34 (7.7%)	1 (9.1%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	33 (7.5%)	0 (0.0%)
Still on treatment	12 (2.7%)	4 (36.4%)
Not evaluated	12 (2.7%)	0 (0.0%)

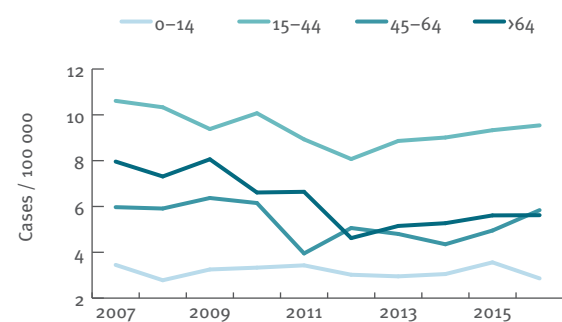
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

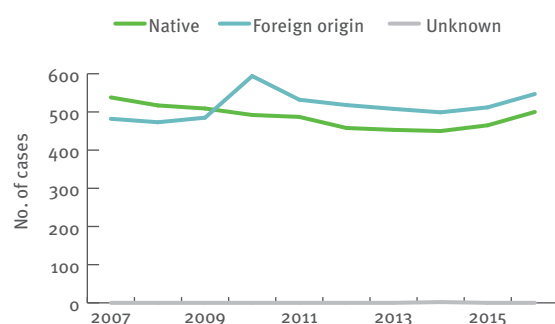
Tuberculosis notification rates by treatment history, 2007-2016



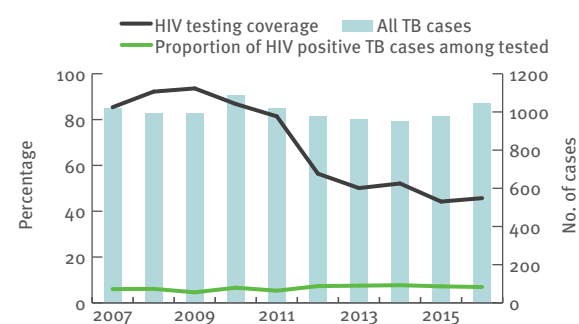
New and relapsed TB cases – notification rates by age group, 2007-2016



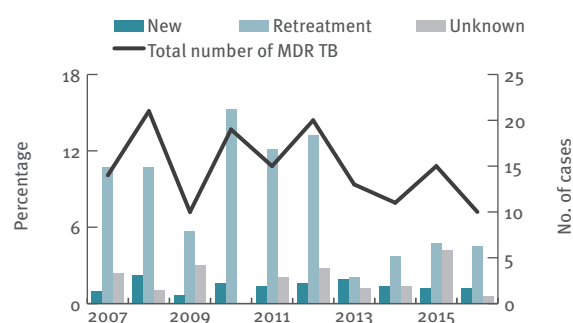
Tuberculosis cases by geographical origin, 2007-2016



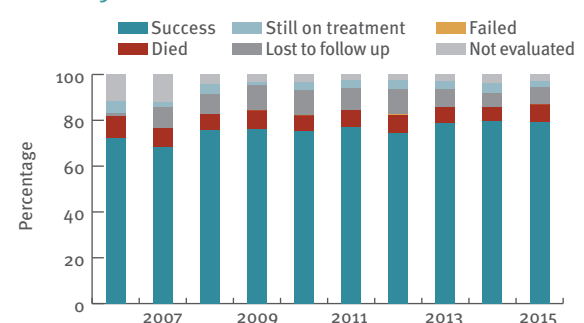
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Bosnia and Herzegovina

Population estimate 2016 by UN Statistical Database: 3516 816

Tuberculosis case notifications, 2016

Total number of cases	907
Notification rate per 100 000	25.8
New* & relapses	907
New* & relapses notification rate per 100 000	25.8
Pulmonary	792 (87.3%)
of which smear positive	-
of which laboratory confirmed	597 (75.4%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	40.0 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	829 (91.4%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	597 (100.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	0-0-0
Pulmonary MDR TB cases notified	0 (0.0%)
of which XDR TB cases	0
Notified MDR	0
of which XDR TB cases	0
TB cases tested for HIV	1 (0.1%)
HIV-positive TB cases	1 (100.0%)
of these on antiretroviral therapy	1 (100.0%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

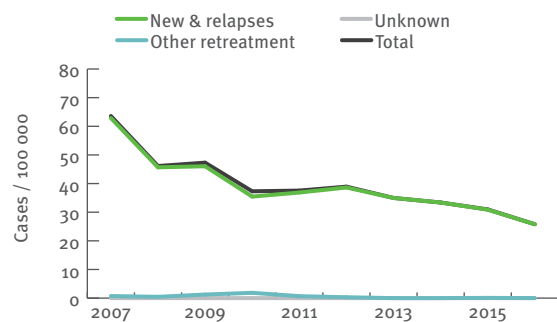
Treatment outcome monitoring

Geographical coverage	National	
	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Outcome cohort		
Case-linked data reporting	Yes	
Cases notified	1092	3
Success	707 (64.7%)	2 (66.7%)
Died	84 (7.7%)	1 (33.3%)
Failed	19 (1.7%)	0 (0.0%)
Lost to follow-up	2 (0.2%)	0 (0.0%)
Not evaluated	280 (25.6%)	0 (0.0%)

* Treatment outcome as presented is treatment outcome after 12 months.

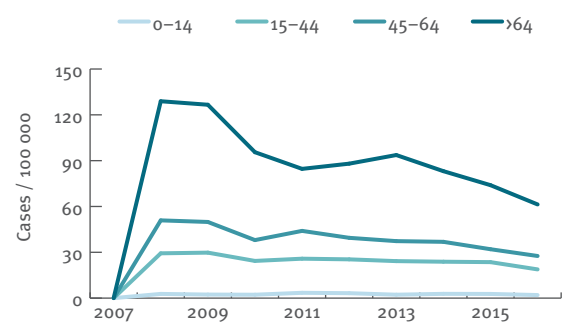
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007–2016*



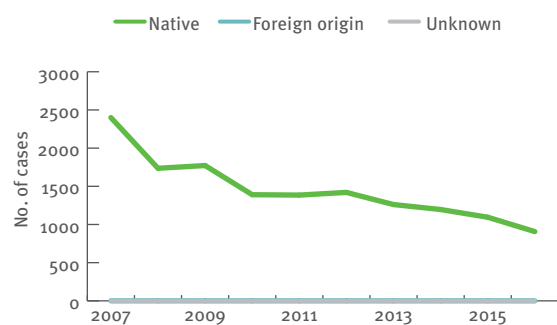
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007–2016*

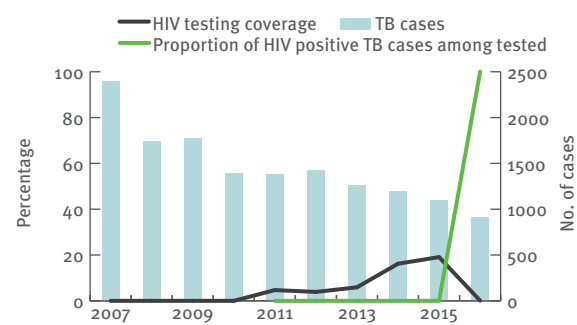


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007–2016

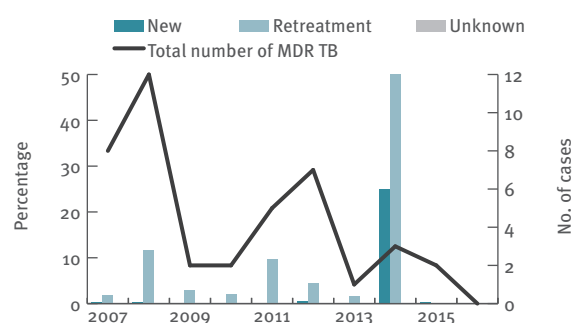


TB-HIV co-infection, 2007–2016

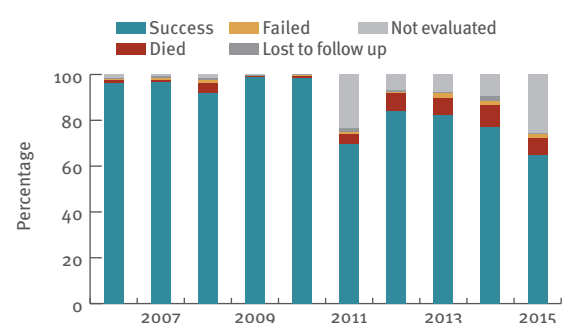


* Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007–2016



Treatment outcome, new and relapsed TB cases, 2006–2015*



* 2005–2011 cohorts include new cases only.

Bulgaria

Total population at 22 September 2017 by EUROSTAT: 7153784

Tuberculosis case notifications, 2016

Total number of cases	1603
Notification rate per 100 000	22.4
New* & relapses	1525
New* & relapses notification rate per 100 000	21.3
Pulmonary	1186 (74.0%)
of which microscopy-positive	618 (52.1%)
of which laboratory confirmed	745 (62.8%)
Laboratory-confirmed TB cases	764 (47.7%)
Mean age of new native TB cases	46.1 years
Mean age of new foreign TB cases	26.0 years
Foreign origin of all TB cases	4 (0.2%)
New (not previously treated)	1416 (88.3%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	670 (87.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	44-27-61
Pulmonary MDR TB cases notified	19 (2.9%)
of which XDR TB cases	0 (0.0%)
Notified MDR	19 (2.8%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	1260 (78.6%)
HIV-positive TB cases	0 (0.0%)
of these on antiretroviral therapy	-

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

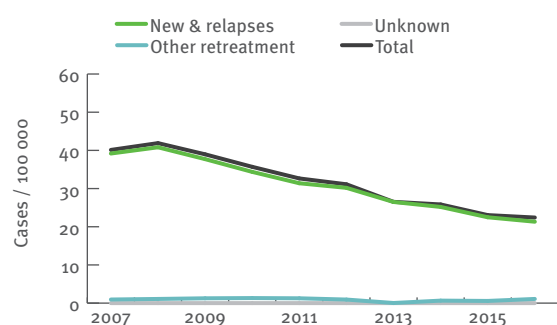
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	663	37
Success	574 (86.6%)	18 (48.6%)
Died	56 (8.4%)	12 (32.4%)
Failed	10 (1.5%)	0 (0.0%)
Lost to follow-up	18 (2.7%)	5 (13.5%)
Still on treatment	2 (0.3%)	0 (0.0%)
Not evaluated	3 (0.5%)	2 (5.4%)

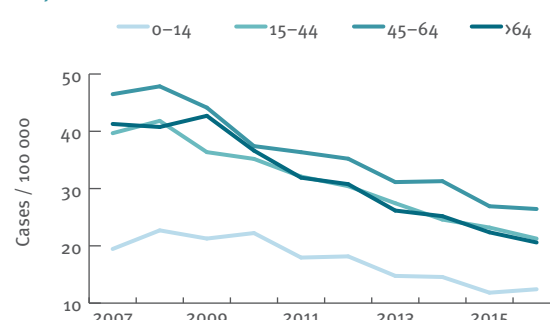
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

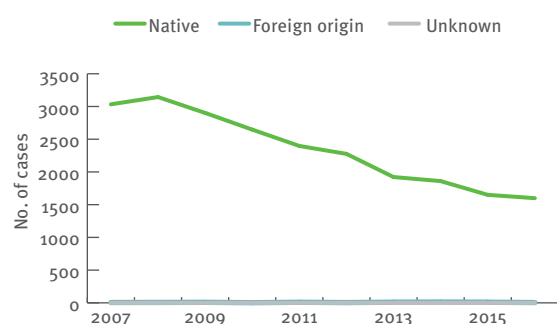
Tuberculosis notification rates by treatment history, 2007-2016



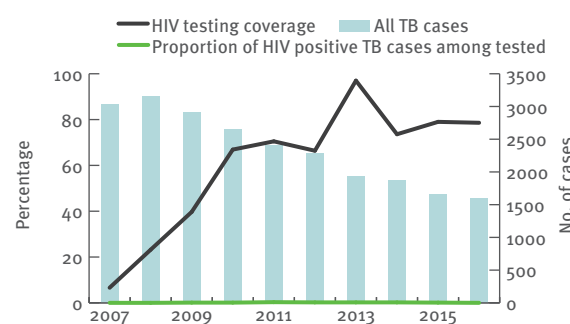
New and relapsed TB cases – notification rates by age group, 2007-2016



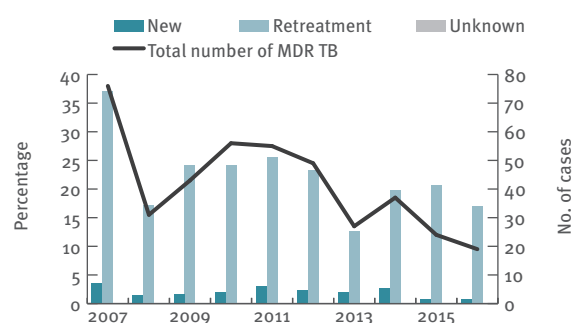
Tuberculosis cases by geographical origin, 2007-2016



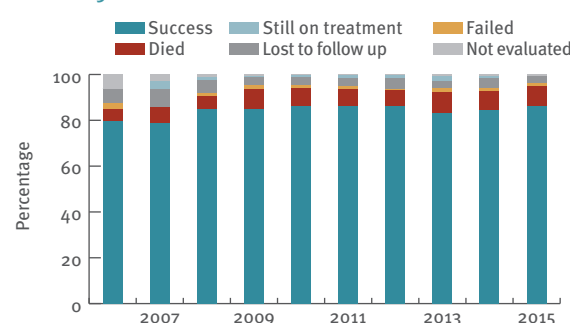
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015*



Croatia

Total population at 22 September 2017 by EUROSTAT: 4 190 669

Tuberculosis case notifications, 2016

Total number of cases	460
Notification rate per 100 000	11.0
New* & relapses	449
New* & relapses notification rate per 100 000	10.7
Pulmonary	307 (66.7%)
of which microscopy-positive	0 (0.0%)
of which laboratory confirmed	193 (62.9%)
Laboratory-confirmed TB cases	262 (57.0%)
Mean age of new native TB cases	52.5 years
Mean age of new foreign TB cases	66.3 years
Foreign origin of all TB cases	3 (0.7%)
New (not previously treated)	293 (63.7%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	262 (100.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	0-0-0
Pulmonary MDR TB cases notified	0 (0.0%)
of which XDR TB cases	0 -
Notified MDR	0 (0.0%)
of which XDR TB cases	0 -
TB cases tested for HIV	- -
HIV-positive TB cases	- -
of these on antiretroviral therapy	- -

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

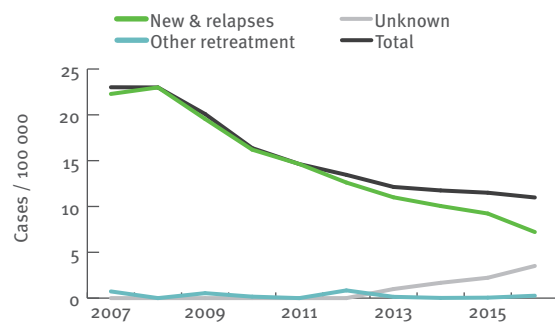
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	280	2
Success	35 (12.5%)	0 (0.0%)
Died	28 (10.0%)	1 (50.0%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	0 (0.0%)	0 (0.0%)
Still on treatment	1 (0.4%)	0 (0.0%)
Not evaluated	216 (77.1%)	1 (50.0%)

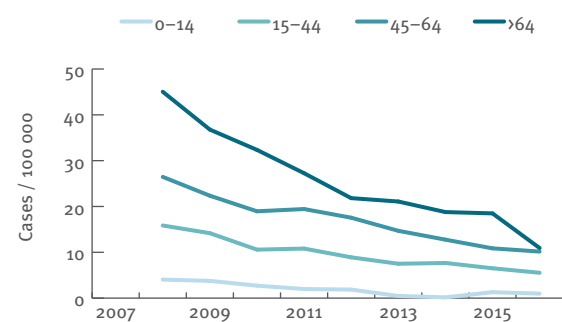
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

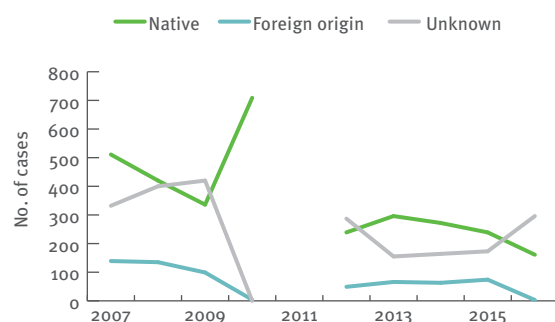
Tuberculosis notification rates by treatment history, 2007–2016



New and relapsed TB cases – notification rates by age group, 2007–2016



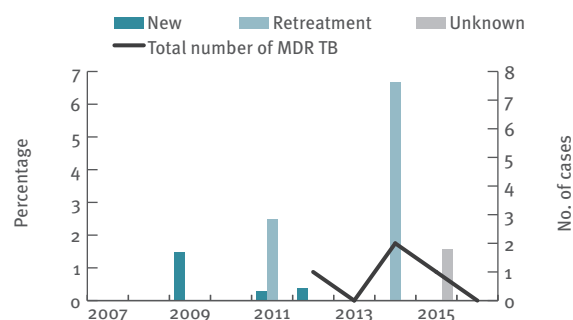
Tuberculosis cases by geographical origin, 2007–2016



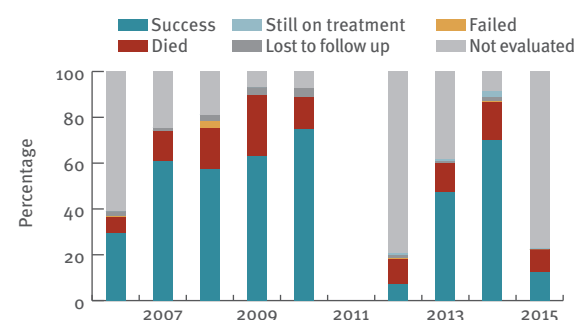
TB-HIV co-infection, 2007–2016

Data not available

MDR TB cases by previous treatment history, 2007–2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015



Cyprus

Total population at 22 September 2017 by EUROSTAT: 848 319

Tuberculosis case notifications, 2016

Total number of cases	60
Notification rate per 100 000	7.1
New* & relapses	57
New* & relapses notification rate per 100 000	6.7
Pulmonary	51 (85.0%)
of which microscopy-positive	23 (45.1%)
of which laboratory confirmed	39 (76.5%)
Laboratory-confirmed TB cases	42 (70.0%)
Mean age of new native TB cases	37.3 years
Mean age of new foreign TB cases	36.9 years
Foreign origin of all TB cases	56 (93.3%)
New (not previously treated)	55 (91.7%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	41 (97.6%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	0-0-0
Pulmonary MDR TB cases notified	0 (0.0%)
of which XDR TB cases	0 -
Notified MDR	1 (2.4%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	48 (80.0%)
HIV-positive TB cases of these on antiretroviral therapy	0 (0.0%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

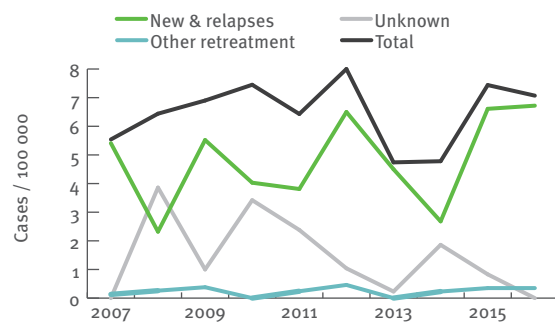
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	34	0
Success	18 (52.9%)	0 (0.0%)
Died	3 (8.8%)	0 (0.0%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	2 (5.9%)	0 (0.0%)
Still on treatment	2 (5.9%)	0 (0.0%)
Not evaluated	9 (26.5%)	0 (0.0%)

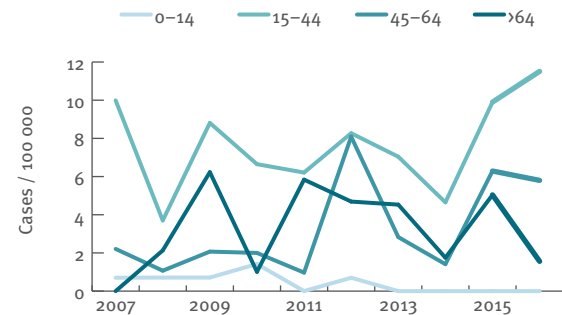
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

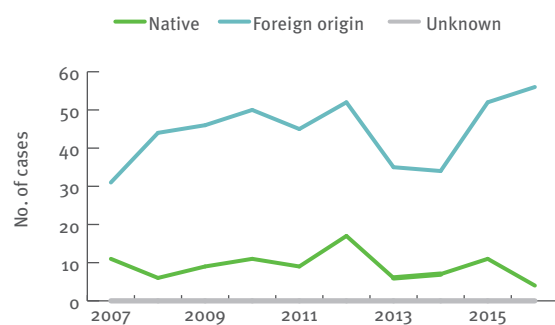
Tuberculosis notification rates by treatment history, 2007-2016



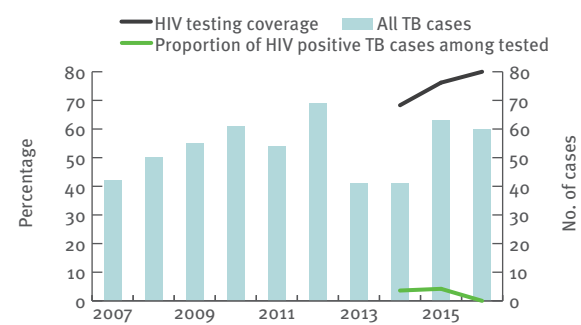
New and relapsed TB cases – notification rates by age group, 2007-2016



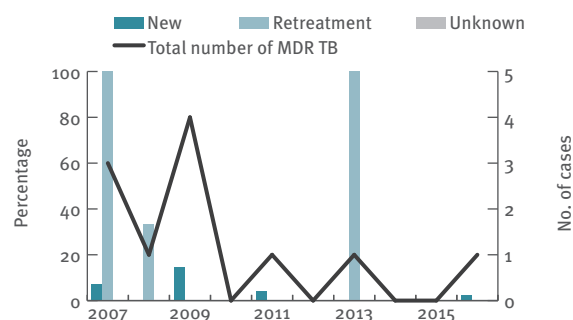
Tuberculosis cases by geographical origin, 2007-2016



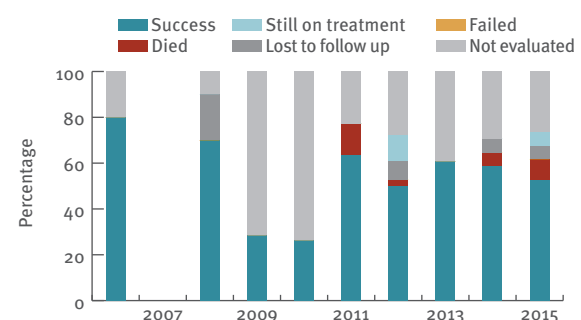
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Czech Republic

Total population at 22 September 2017 by EUROSTAT: 10538 275

Tuberculosis case notifications, 2016

Total number of cases	516
Notification rate per 100 000	4.9
New* & relapses	511
New* & relapses notification rate per 100 000	4.8
Pulmonary	446 (86.4%)
of which microscopy-positive	212 (47.5%)
of which laboratory confirmed	349 (78.3%)
Laboratory-confirmed TB cases	392 (76.0%)
Mean age of new native TB cases	55.7 years
Mean age of new foreign TB cases	39.7 years
Foreign origin of all TB cases	151 (29.3%)
New (not previously treated)	490 (95.0%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	367 (93.6%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	13-3-22
Pulmonary MDR TB cases notified	6 (1.8%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	6 (1.6%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	205 (39.7%)
HIV-positive TB cases of these on antiretroviral therapy	5 (2.4%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

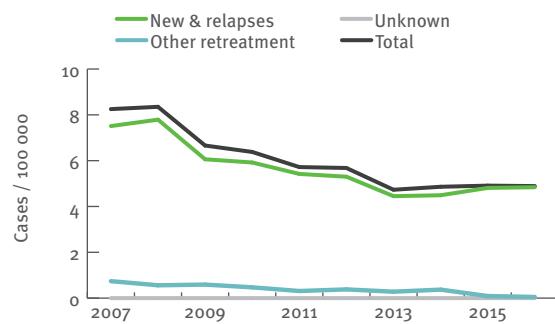
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	332	5
Success	222 (66.9%)	2 (40.0%)
Died	72 (21.7%)	0 (0.0%)
Failed	2 (0.6%)	0 (0.0%)
Lost to follow-up	15 (4.5%)	1 (20.0%)
Still on treatment	12 (3.6%)	0 (0.0%)
Not evaluated	9 (2.7%)	2 (40.0%)

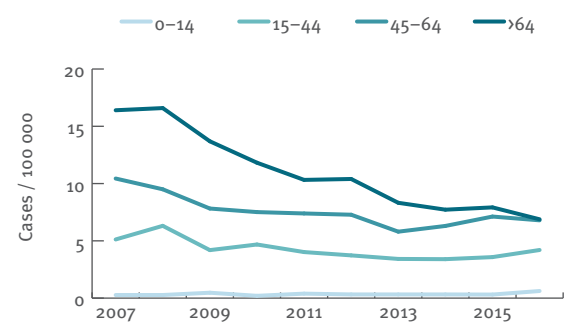
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

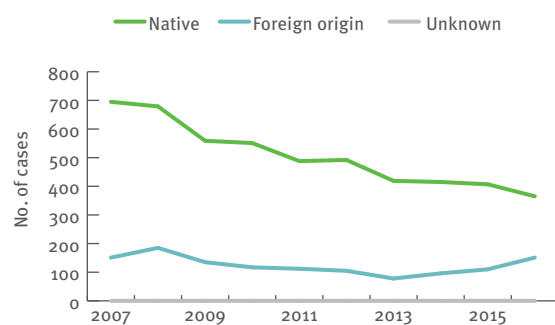
Tuberculosis notification rates by treatment history, 2007-2016



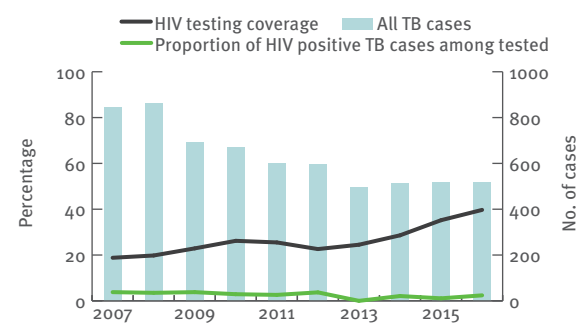
New and relapsed TB cases – notification rates by age group, 2007-2016



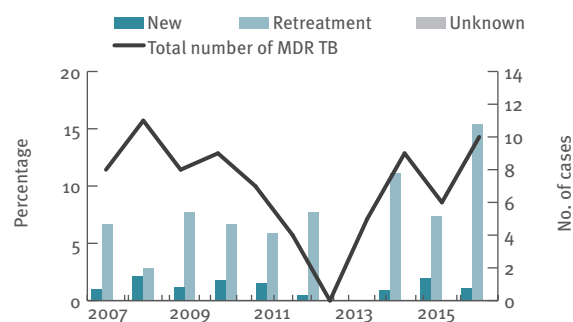
Tuberculosis cases by geographical origin, 2007-2016



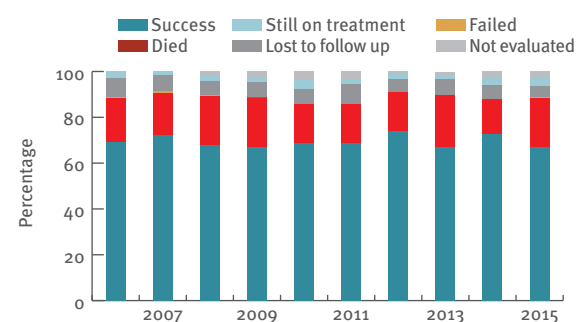
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Denmark

Total population at 22 September 2017 by EUROSTAT: 5 659 715

Tuberculosis case notifications, 2016

Total number of cases	330
Notification rate per 100 000	5.8
New* & relapses	292
New* & relapses notification rate per 100 000	5.2
Pulmonary	262 (79.4%)
of which microscopy-positive	122 (46.6%)
of which laboratory confirmed	208 (79.4%)
Laboratory-confirmed TB cases	258 (78.2%)
Mean age of new native TB cases	44.7 years
Mean age of new foreign TB cases	38.0 years
Foreign origin of all TB cases	221 (67.0%)
New (not previously treated)	292 (88.5%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	252 (97.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	1-0-4
Pulmonary MDR TB cases notified	3 (1.5%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	4 (1.6%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	150 (45.5%)
HIV-positive TB cases of these on antiretroviral therapy	9 (6.0%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

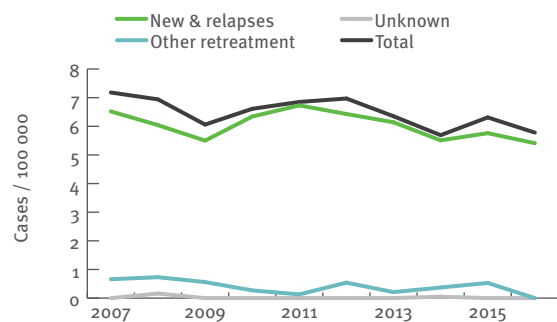
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	209	2
Success	100 (47.8%)	1 (50.0%)
Died	8 (3.8%)	0 (0.0%)
Failed	6 (2.9%)	0 (0.0%)
Lost to follow-up	1 (0.5%)	0 (0.0%)
Still on treatment	8 (3.8%)	0 (0.0%)
Not evaluated	86 (41.1%)	1 (50.0%)

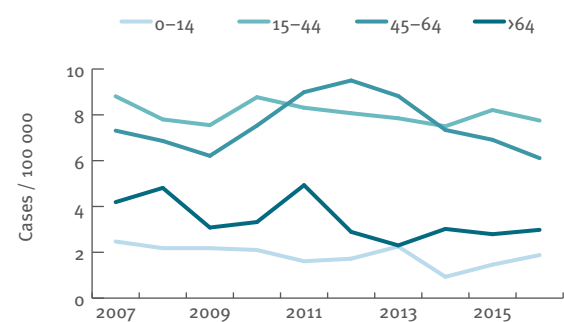
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

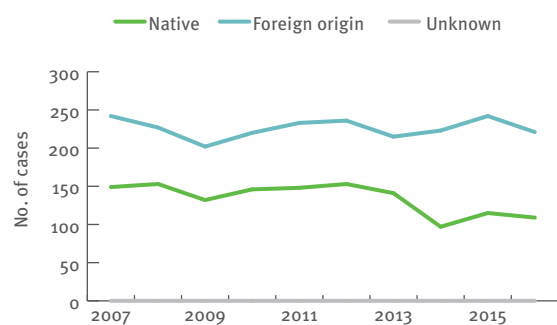
Tuberculosis notification rates by treatment history, 2007-2016



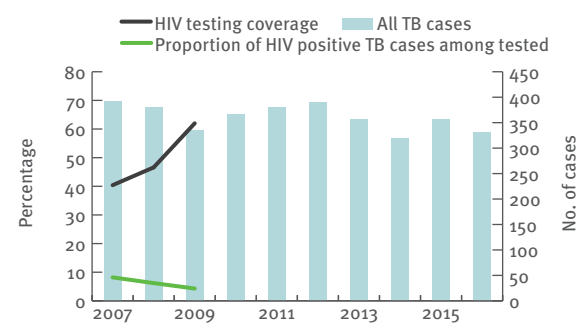
New and relapsed TB cases – notification rates by age group, 2007-2016



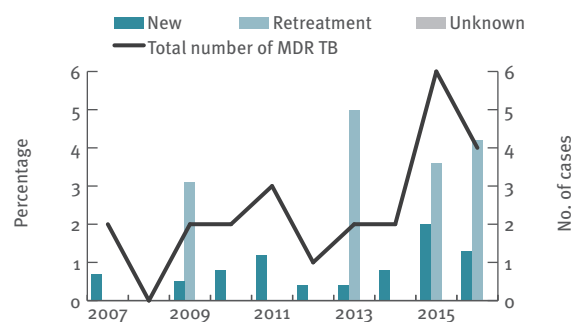
Tuberculosis cases by geographical origin, 2007-2016



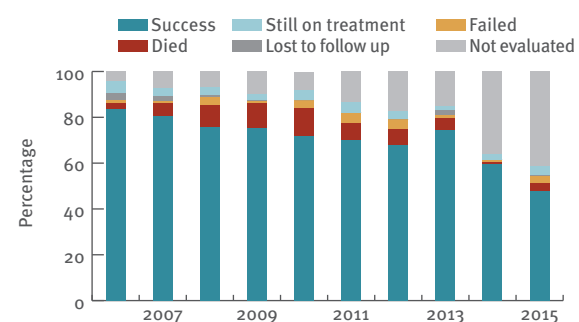
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Estonia

Total population at 22 September 2017 by EUROSTAT: 1315944

Tuberculosis case notifications, 2016

Total number of cases	192
Notification rate per 100 000	14.6
New* & relapses	188
New* & relapses notification rate per 100 000	14.3
Pulmonary	177 (92.2%)
of which microscopy-positive	90 (50.8%)
of which laboratory confirmed	149 (84.2%)
Laboratory-confirmed TB cases	156 (81.3%)
Mean age of new native TB cases	50.2 years
Mean age of new foreign TB cases	61.2 years
Foreign origin of all TB cases	42 (21.9%)
New (not previously treated)	167 (87.0%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	152 (97.4%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	34-23-45
Pulmonary MDR TB cases notified	23 (15.9%)
of which XDR TB cases	7 (30.4%)
Notified MDR TB	24 (15.8%)
of which XDR TB cases	7 (29.2%)
TB cases tested for HIV	184 (95.8%)
HIV-positive TB cases	22 (12.0%)
of these on antiretroviral therapy	20 (90.9%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

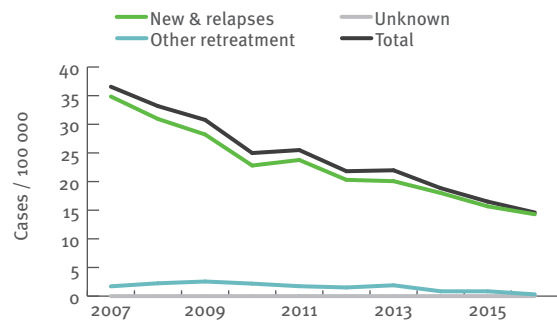
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	133	50
Success	98 (73.7%)	29 (58.0%)
Died	20 (15.0%)	10 (20.0%)
Failed	0 (0.0%)	3 (6.0%)
Lost to follow-up	3 (2.3%)	3 (6.0%)
Still on treatment	11 (8.3%)	3 (6.0%)
Not evaluated	1 (0.8%)	2 (4.0%)

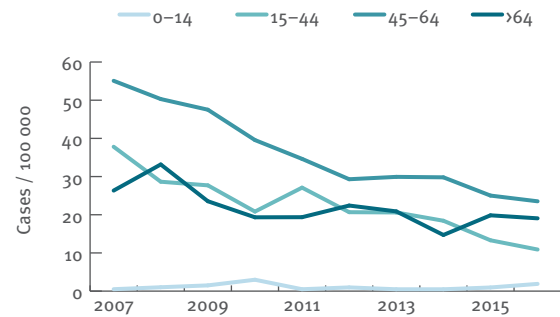
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

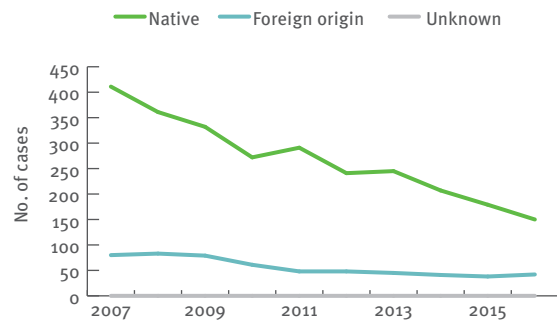
Tuberculosis notification rates by treatment history, 2007–2016



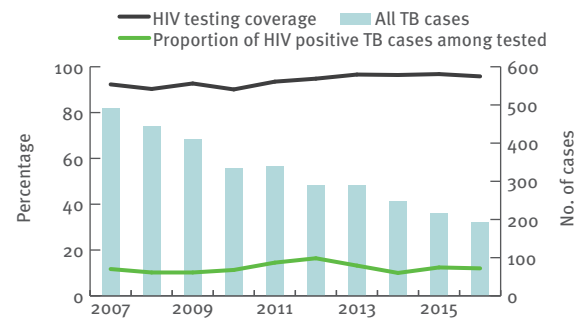
New and relapsed TB cases – notification rates by age group, 2007–2016



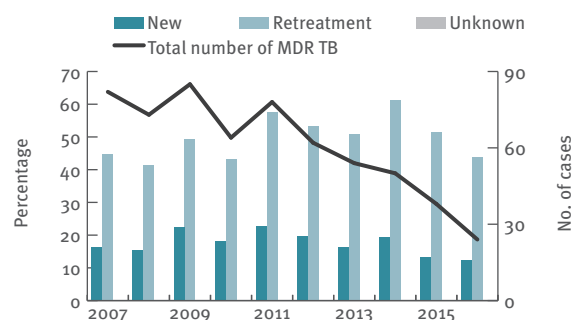
Tuberculosis cases by geographical origin, 2007–2016



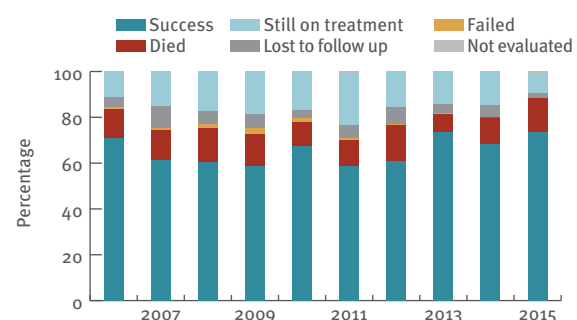
TB-HIV co-infection, 2007–2016



MDR TB cases by previous treatment history, 2007–2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015



Finland

Total population at 22 September 2017 by EUROSTAT: 5,487,308

Tuberculosis case notifications, 2016

Total number of cases	236
Notification rate per 100 000	4.3
New* & relapses	225
New* & relapses notification rate per 100 000	4.1
Pulmonary	175 (74.2%)
of which microscopy-positive	55 (31.4%)
of which laboratory confirmed	136 (77.7%)
Laboratory-confirmed TB cases	186 (78.8%)
Mean age of new native TB cases	67.4 years
Mean age of new foreign TB cases	33.4 years
Foreign origin of all TB cases	111 (47.0%)
New (not previously treated)	219 (92.8%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	-
Case-linked data reporting	Yes
Cases with DST results	183 (98.4%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	3-0-6
Pulmonary MDR TB cases notified	3 (2.2%)
of which XDR TB cases	1 (33.3%)
Notified MDR TB	6 (3.3%)
of which XDR TB cases	1 (16.7%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

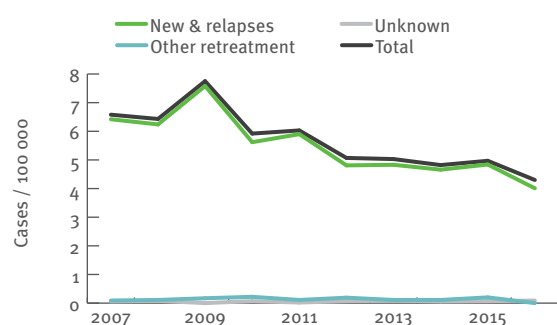
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	161	8
Success	86 (53.4%)	0 (0.0%)
Died	14 (8.7%)	0 (0.0%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	0 (0.0%)	0 (0.0%)
Still on treatment	2 (1.2%)	0 (0.0%)
Not evaluated	59 (36.6%)	8 (100.0%)

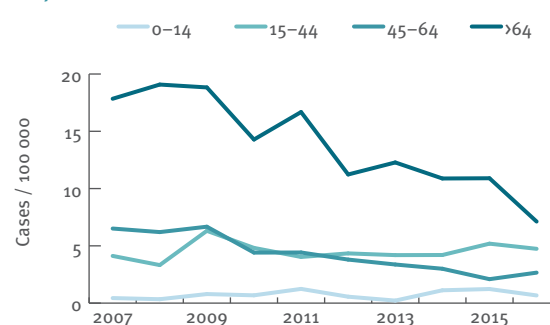
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

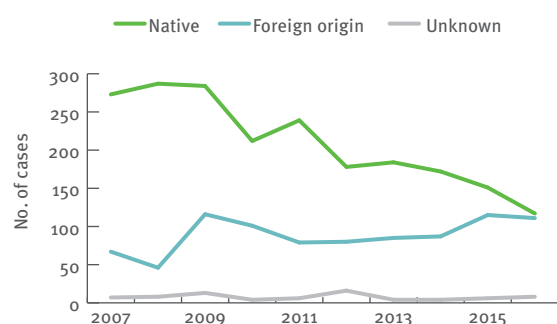
Tuberculosis notification rates by treatment history, 2007–2016



New and relapsed TB cases – notification rates by age group, 2007–2016



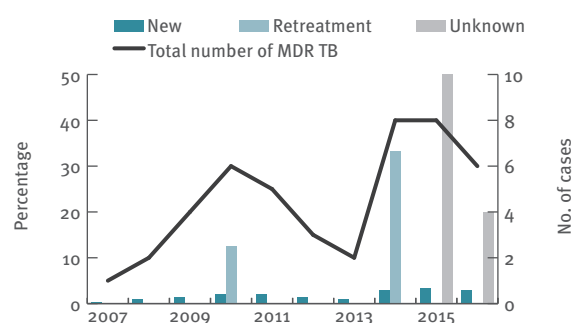
Tuberculosis cases by geographical origin, 2007–2016



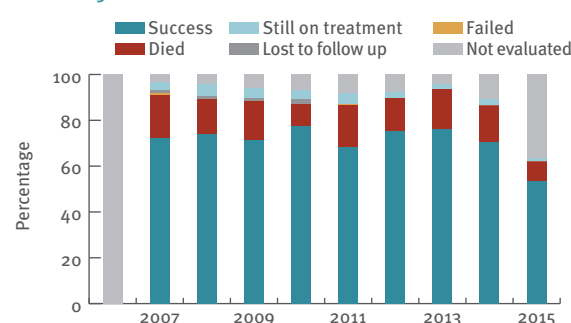
TB-HIV co-infection, 2007–2016

Data not available

MDR TB cases by previous treatment history, 2007–2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015



former Yugoslav Republic of Macedonia, the

Population estimate 2016 by UN Statistical Database: 2081206

Tuberculosis case notifications, 2016

Total number of cases	267
Notification rate per 100 000	12.8
New* & relapses	263
New* & relapses notification rate per 100 000	12.6
Pulmonary	211 (80.2%)
of which smear positive	-
of which laboratory confirmed	178 (84.4%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	41.3 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	8 (3.0%)
New (not previously treated)	243 (91.0%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	143 (80.3%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	3-0-6
Pulmonary MDR TB cases notified	2 (1.4%)
of which XDR TB cases	0 (0.0%)
Notified MDR	2 -
of which XDR TB cases	0 -
TB cases tested for HIV	207 (78.7%)
HIV-positive TB cases of these on antiretroviral therapy	0 (0.0%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

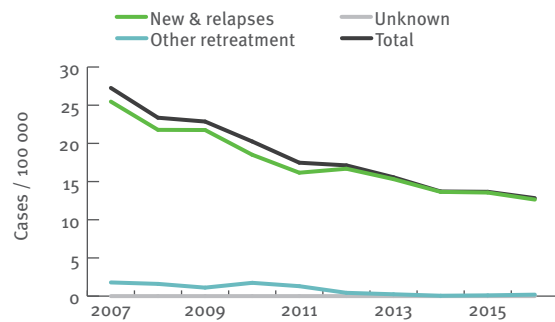
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	282	3
Success	243 (86.2%)	1 (33.3%)
Died	25 (8.9%)	0 (0.0%)
Failed	3 (1.1%)	0 (0.0%)
Lost to follow-up	7 (2.5%)	2 (66.7%)
Not evaluated	4 (1.4%)	0 (0.0%)

* Treatment outcome as presented is treatment outcome after 12 months.

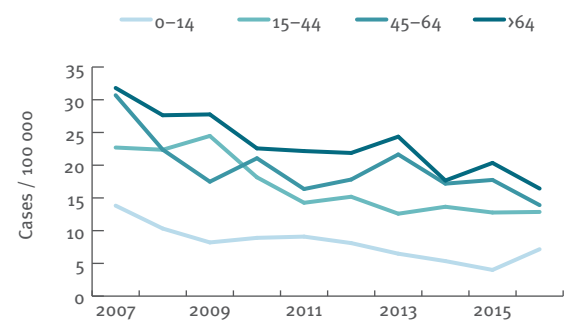
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



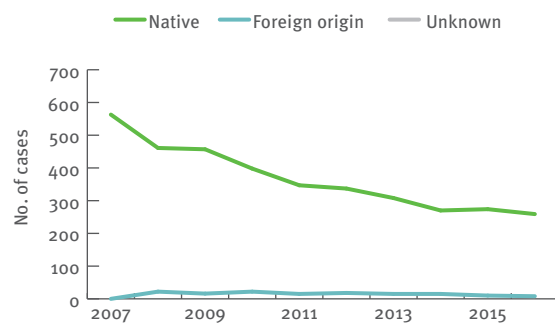
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

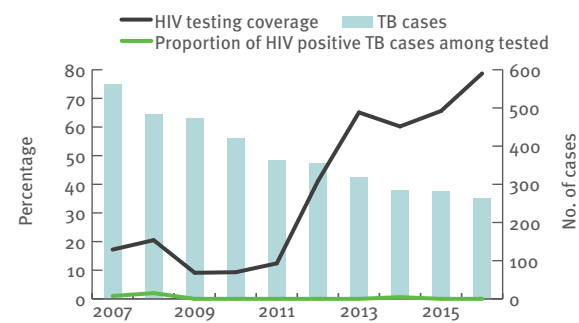


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

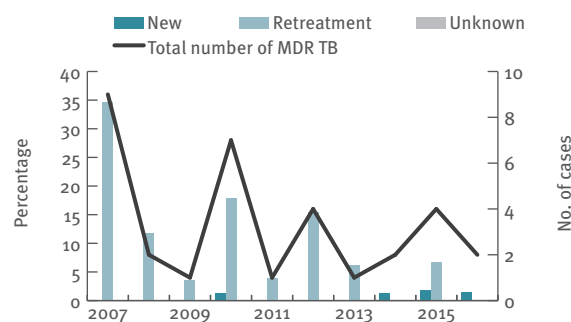


TB-HIV co-infection, 2007-2016

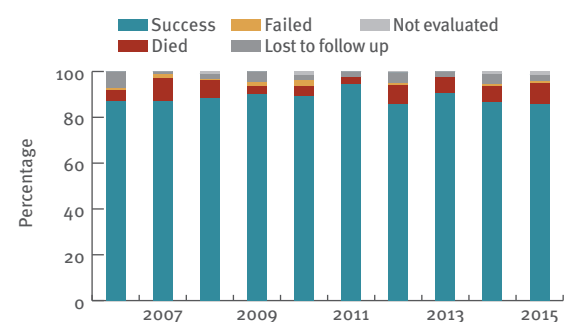


* Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new and relapsed TB cases, 2006-2015*



* 2005-2011 cohorts include new cases only.

France

Total population at 22 September 2017 by EUROSTAT: 66 488 186

Tuberculosis case notifications, 2016

Total number of cases	4 958
Notification rate per 100 000	7.5
New* & relapses	4 675
New* & relapses notification rate per 100 000	7.0
Pulmonary	3 319 (66.9%)
of which microscopy-positive	-
of which laboratory confirmed	3 120 (94.0%)
Laboratory-confirmed TB cases	4 197 (84.7%)
Mean age of new native TB cases	. years
Mean age of new foreign TB cases	. years
Foreign origin of all TB cases	2 758 (55.6%)
New (not previously treated)	-

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	-
Case-linked data reporting	No
Cases with DST results	4 197 (84.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	63-47-79
Pulmonary MDR TB cases notified	51 (1.6%)
of which XDR TB cases	6 (11.8%)
Notified MDR TB	69
of which XDR TB cases	6 (6.3%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

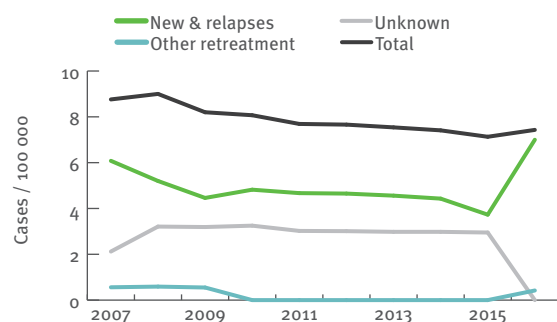
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

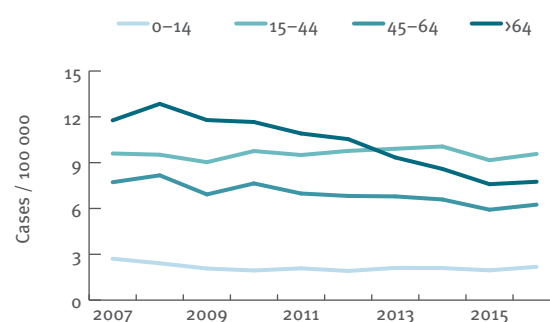
Treatment outcome monitoring

Data not available

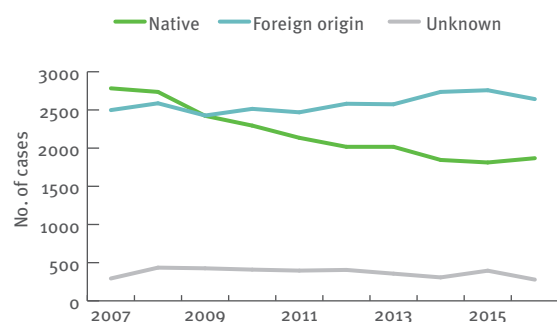
Tuberculosis notification rates by treatment history, 2007-2016



New and relapsed TB cases – notification rates by age group, 2007-2016



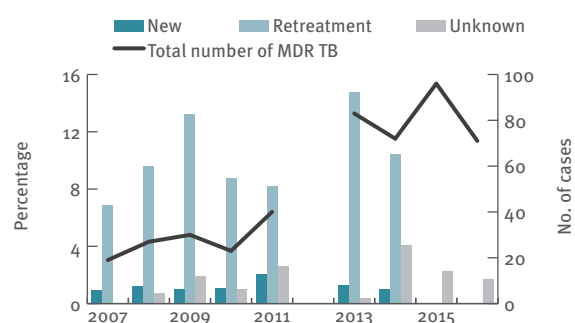
Tuberculosis cases by geographical origin, 2007-2016



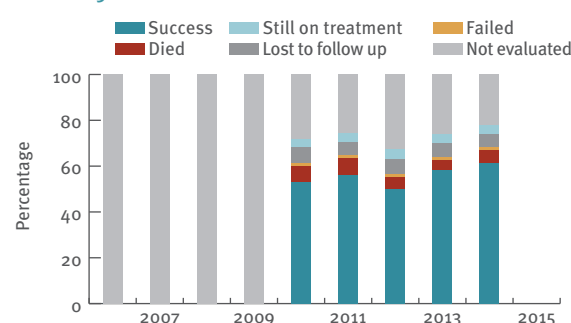
TB-HIV co-infection, 2007-2016

Data not available

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Georgia

Population estimate 2016 by UN Statistical Database: 3925405

Tuberculosis case notifications, 2016

Total number of cases	3330
Notification rate per 100 000	84.8
New* & relapses	2983
New* & relapses notification rate per 100 000	76.0
Pulmonary	2371 (79.5%)
of which smear positive	-
of which laboratory confirmed	1998 (84.3%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	42.2 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	2463 (74.0%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	1791 (89.6%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	460-420-500
Pulmonary MDR TB cases notified	296 (16.5%)
of which XDR TB cases	52 (17.6%)
Notified MDR	401 -
of which XDR TB cases	56 -
TB cases tested for HIV	2866 (96.1%)
HIV-positive TB cases	61 (2.1%)
of these on antiretroviral therapy	56 (91.8%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

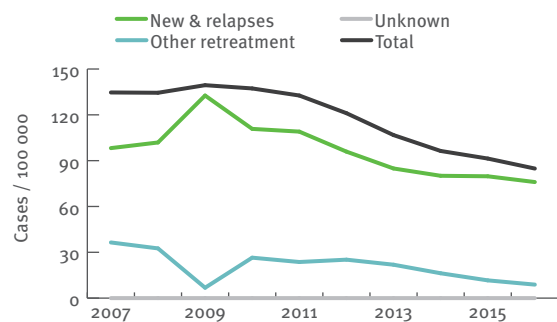
Treatment outcome monitoring

Geographical coverage	National		
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**	
Case-linked data reporting	Yes		
Cases notified	2841	411	
Success	2386 (84.0%)	201	(48.9%)
Died	110 (3.9%)	32	(7.8%)
Failed	60 (2.1%)	27	(6.6%)
Lost to follow-up	225 (7.9%)	118	(28.7%)
Not evaluated	60 (2.1%)	33	(8.0%)

* Treatment outcome as presented is treatment outcome after 12 months.

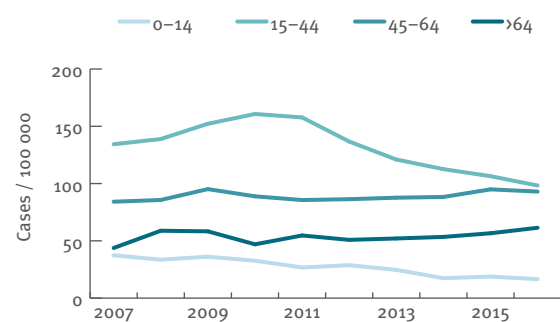
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



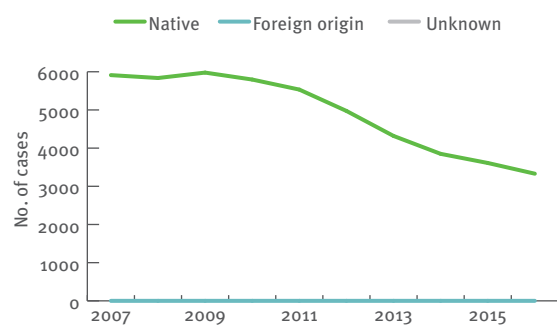
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New TB cases - notification rates by age group, 2007-2016*

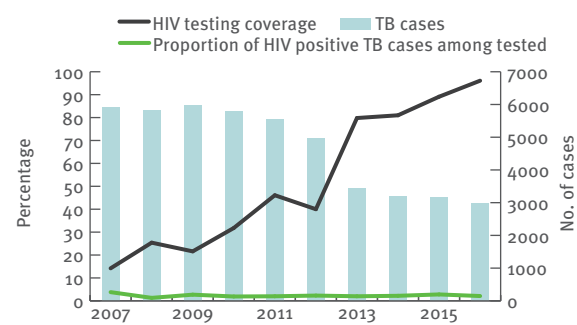


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

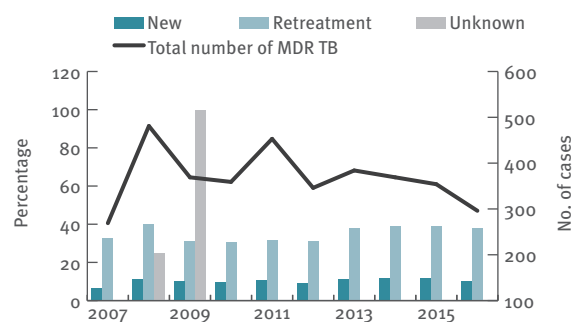


TB-HIV co-infection, 2007-2016

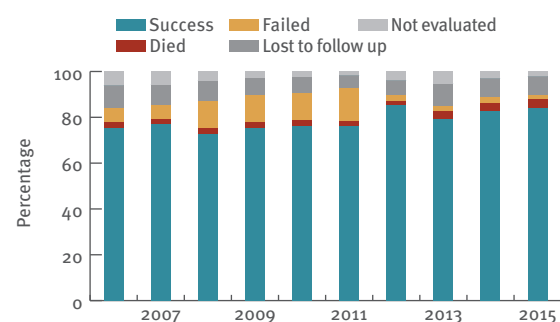


* Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015*



* 2005-2011 cohorts include new cases only.

Germany

Total population at 22 September 2017 by EUROSTAT: 82 175 684

Tuberculosis case notifications, 2016

Total number of cases	5915
Notification rate per 100 000	7.2
New* & relapses	5737
New* & relapses notification rate per 100 000	7.0
Pulmonary	4397 (74.3%)
of which microscopy-positive	1404 (31.9%)
of which laboratory confirmed	3253 (74.0%)
Laboratory-confirmed TB cases	4164 (70.4%)
Mean age of new native TB cases	62.4 years
Mean age of new foreign TB cases	35.7 years
Foreign origin of all TB cases	4125 (69.7%)
New (not previously treated)	5589 (94.5%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	-
Case-linked data reporting	Yes
Cases with DST results	3757 (90.2%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	160240
Pulmonary MDR TB cases notified	90 (3.0%)
of which XDR TB cases	5 (8.6%)
Notified MDR TB	101 (2.7%)
of which XDR TB cases	5 (7.8%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

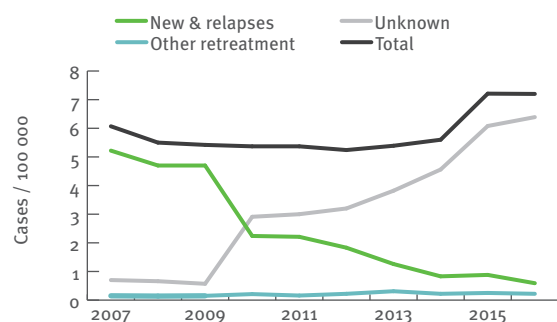
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	312	92
Success	176 (56.4%)	29 (31.5%)
Died	29 (9.3%)	9 (9.8%)
Failed	0 (0.0%)	1 (1.1%)
Lost to follow-up	4 (1.3%)	3 (3.3%)
Still on treatment	32 (10.3%)	12 (13.0%)
Not evaluated	71 (22.8%)	38 (41.3%)

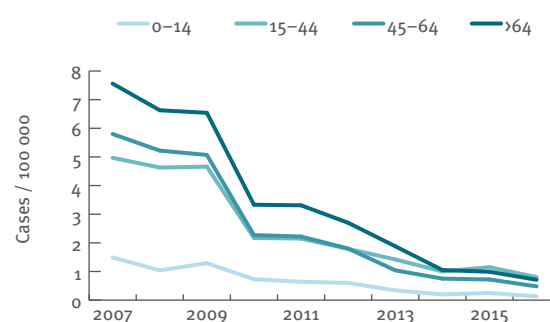
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

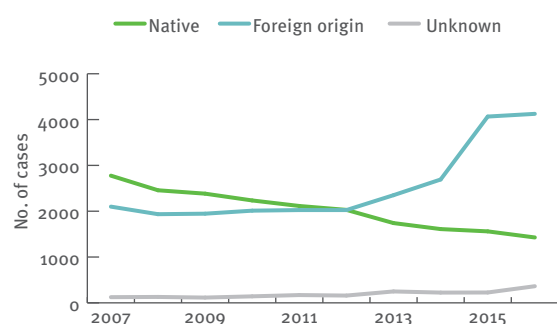
Tuberculosis notification rates by treatment history, 2007–2016



New and relapsed TB cases – notification rates by age group, 2007–2016



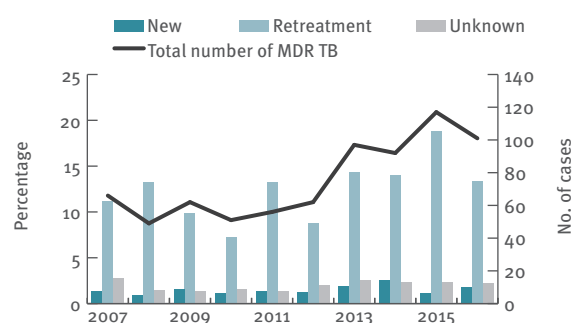
Tuberculosis cases by geographical origin, 2007–2016



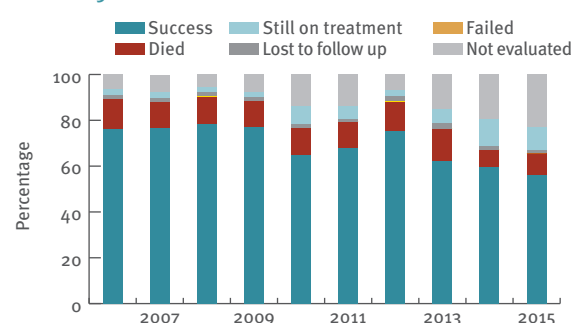
TB-HIV co-infection, 2007–2016

Data not available

MDR TB cases by previous treatment history, 2007–2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015



Greece

Total population at 22 September 2017 by EUROSTAT: 10783748

Tuberculosis case notifications, 2016

Total number of cases	443
Notification rate per 100 000	4.1
New* & relapses	407
New* & relapses notification rate per 100 000	3.8
Pulmonary	394 (88.9%)
of which microscopy-positive	223 (56.6%)
of which laboratory confirmed	227 (57.6%)
Laboratory-confirmed TB cases	246 (55.5%)
Mean age of new native TB cases	61.1 years
Mean age of new foreign TB cases	35.1 years
Foreign origin of all TB cases	189 (42.7%)
New (not previously treated)	407 (91.9%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	-
Case-linked data reporting	Yes
Cases with DST results	124 (50.4%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	10-0-23
Pulmonary MDR TB cases notified	5 (4.3%)
of which XDR TB cases	0 -
Notified MDR TB	5 (4.0%)
of which XDR TB cases	0 -
TB cases tested for HIV	- -
HIV-positive TB cases	- -
of these on antiretroviral therapy	- -

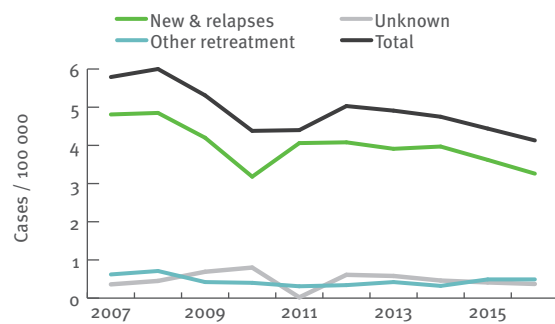
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

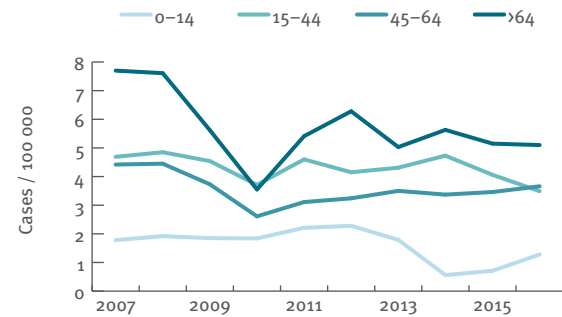
Treatment outcome monitoring

Data not available

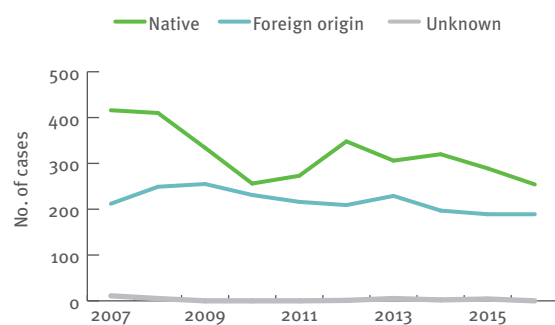
Tuberculosis notification rates by treatment history, 2007–2016



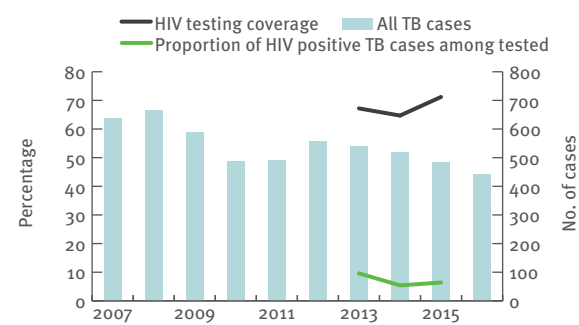
New and relapsed TB cases – notification rates by age group, 2007–2016



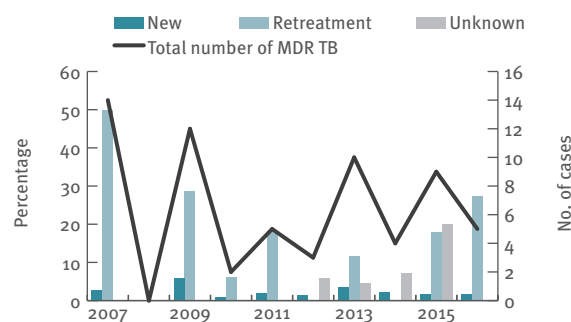
Tuberculosis cases by geographical origin, 2007–2016



TB-HIV co-infection, 2007–2016



MDR TB cases by previous treatment history, 2007–2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015

Data not available

Hungary

Total population at 22 September 2017 by EUROSTAT: 9855571

Tuberculosis case notifications, 2016

Total number of cases	786
Notification rate per 100 000	8.0
New* & relapses	737
New* & relapses notification rate per 100 000	7.5
Pulmonary	757 (96.3%)
of which microscopy-positive	252 (33.3%)
of which laboratory confirmed	396 (52.3%)
Laboratory-confirmed TB cases	404 (51.4%)
Mean age of new native TB cases	53.7 years
Mean age of new foreign TB cases	36.6 years
Foreign origin of all TB cases	30 (3.8%)
New (not previously treated)	677 (86.1%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	340 (84.2%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	30-17-43
Pulmonary MDR TB cases notified	18 (5.4%)
of which XDR TB cases	7 (46.7%)
Notified MDR TB	18 (5.3%)
of which XDR TB cases	7 (46.7%)
TB cases tested for HIV	19 (2.4%)
HIV-positive TB cases of these on antiretroviral therapy	1 (5.3%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

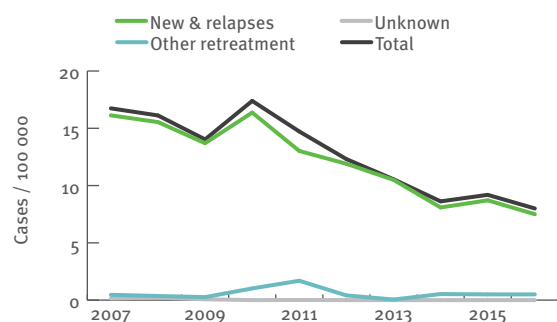
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	366	3
Success	224 (61.2%)	3 (100.0%)
Died	55 (15.0%)	0 (0.0%)
Failed	4 (1.1%)	0 (0.0%)
Lost to follow-up	48 (13.1%)	0 (0.0%)
Still on treatment	17 (4.6%)	0 (0.0%)
Not evaluated	18 (4.9%)	0 (0.0%)

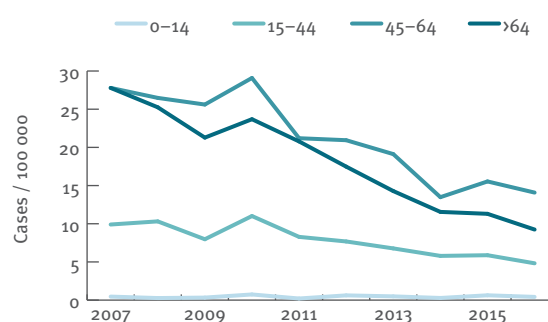
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

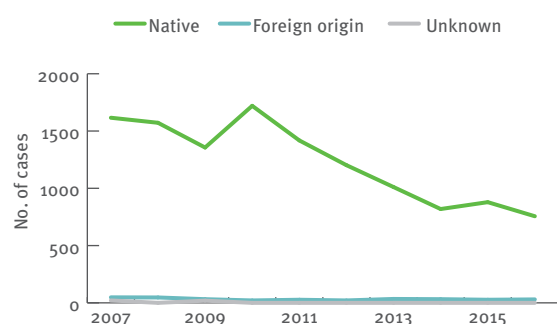
Tuberculosis notification rates by treatment history, 2007-2016



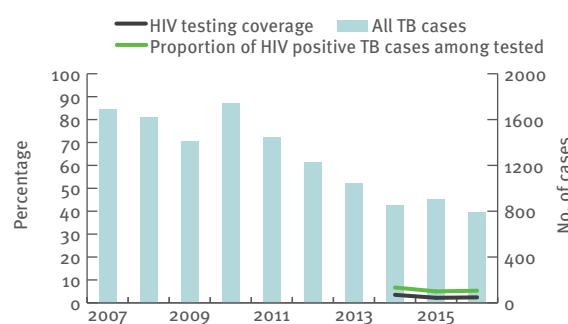
New and relapsed TB cases – notification rates by age group, 2007-2016



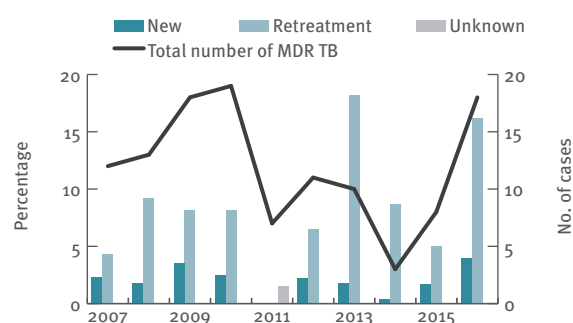
Tuberculosis cases by geographical origin, 2007-2016



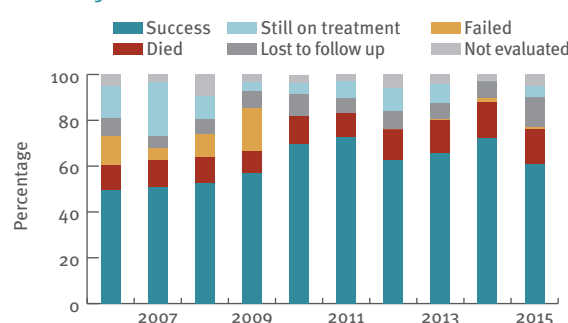
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Iceland

Total population at 22 September 2017 by EUROSTAT: 332529

Tuberculosis case notifications, 2016

Total number of cases	6
Notification rate per 100 000	1.8
New* & relapses	6
New* & relapses notification rate per 100 000	1.8
Pulmonary	6 (100.0%)
of which microscopy-positive	5 (83.3%)
of which laboratory confirmed	5 (83.3%)
Laboratory-confirmed TB cases	5 (83.3%)
Mean age of new native TB cases	69.0 years
Mean age of new foreign TB cases	37.3 years
Foreign origin of all TB cases	4 (66.7%)
New (not previously treated)	6 (100.0%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	4 (80.0%)
Estimated RR-TB among notified pulmonary 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	6 (100.0%)
HIV-positive TB cases of these on antiretroviral therapy	0 (0.0%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

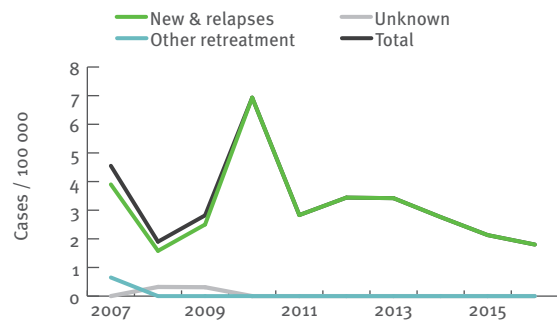
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	3	0
Success	3 (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

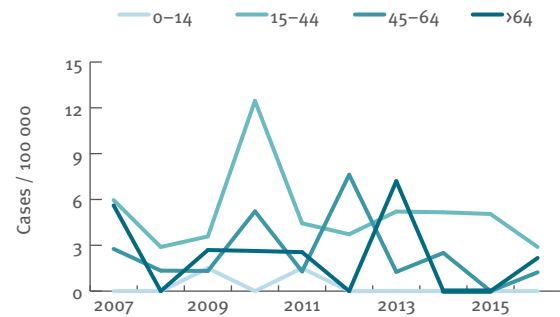
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

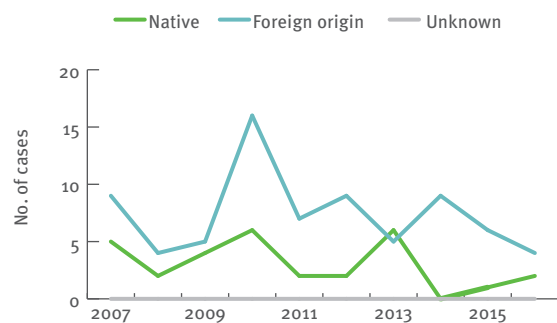
Tuberculosis notification rates by treatment history, 2007–2016



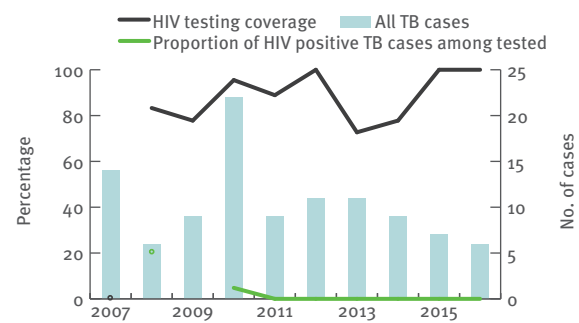
New and relapsed TB cases – notification rates by age group, 2007–2016



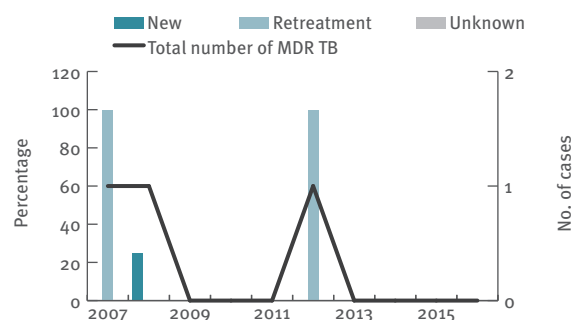
Tuberculosis cases by geographical origin, 2007–2016



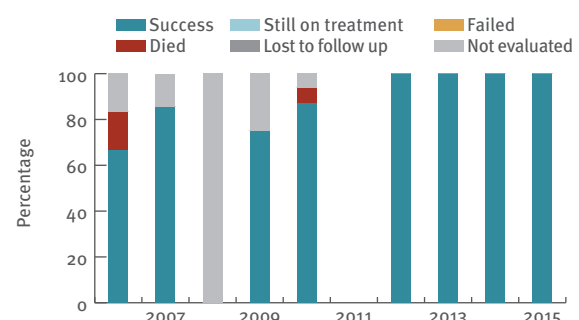
TB-HIV co-infection, 2007–2016



MDR TB cases by previous treatment history, 2007–2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015



* Not reported any new culture positive pulmonary cases for 2011.

Ireland

Total population at 22 September 2017 by EUROSTAT: 4 724 720

Tuberculosis case notifications, 2016

Total number of cases	318
Notification rate per 100 000	6.7
New* & relapses	293
New* & relapses notification rate per 100 000	6.2
Pulmonary	211 (66.4%)
of which microscopy-positive	85 (40.3%)
of which laboratory confirmed	170 (80.6%)
Laboratory-confirmed TB cases	237 (74.5%)
Mean age of new native TB cases	52.7 years
Mean age of new foreign TB cases	35.4 years
Foreign origin of all TB cases	161 (50.6%)
New (not previously treated)	293 (92.1%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	232 (97.9%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	2-0-6
Pulmonary MDR TB cases notified	6 (3.6%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	6 (2.6%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	132 (41.5%)
HIV-positive TB cases	4 (3.0%)
of these on antiretroviral therapy	3 (75.0%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

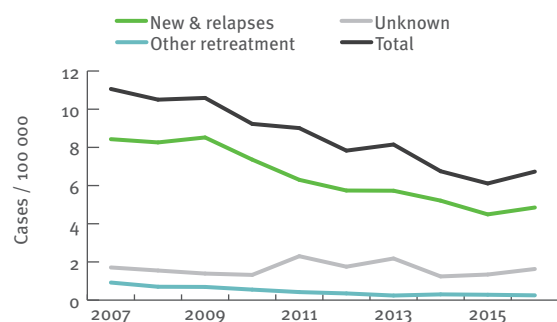
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	99	2
Success	68 (68.7%)	1 (50.0%)
Died	3 (3.0%)	0 (0.0%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	0 (0.0%)	0 (0.0%)
Still on treatment	0 (0.0%)	0 (0.0%)
Not evaluated	28 (28.3%)	1 (50.0%)

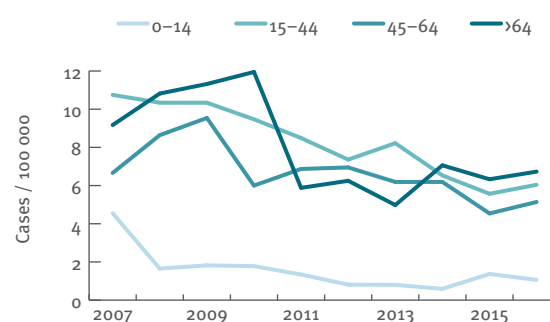
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

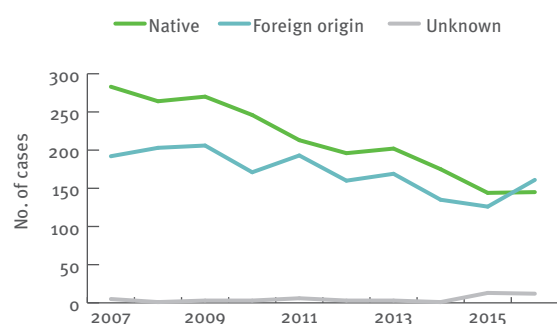
Tuberculosis notification rates by treatment history, 2007-2016



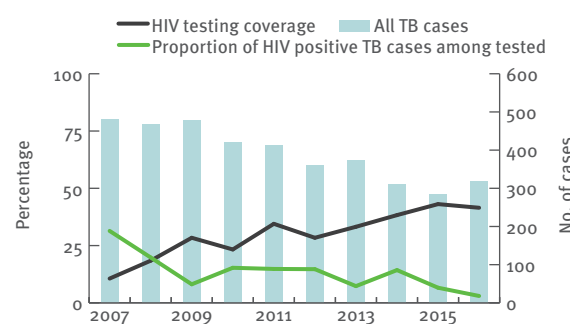
New and relapsed TB cases – notification rates by age group, 2007-2016



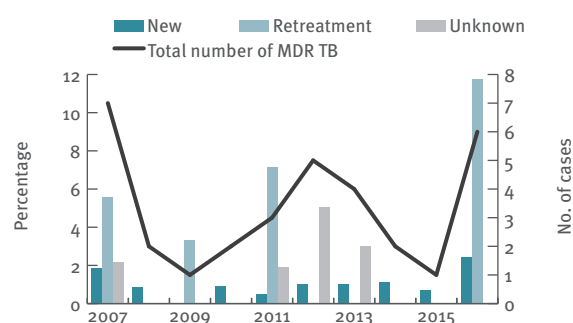
Tuberculosis cases by geographical origin, 2007-2016



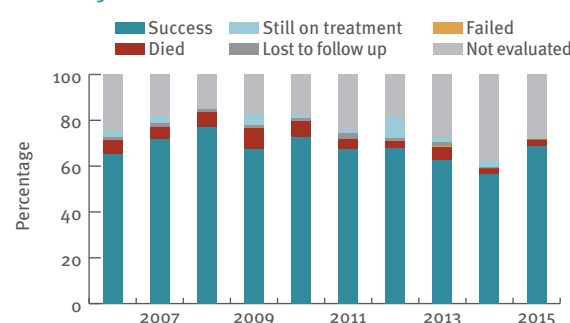
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Israel

Population estimate 2016 by UN Statistical Database: 8191828

Tuberculosis case notifications, 2016

Total number of cases	250
Notification rate per 100 000	3.1
New* & relapses	250
New* & relapses notification rate per 100 000	3.1
Pulmonary	184 (73.6%)
of which smear positive	-
of which laboratory confirmed	132 (71.7%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	37.4 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	202 (80.8%)
New (not previously treated)	242 (96.8%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	123 (93.2%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	13-5-22
Pulmonary MDR TB cases notified	9 (7.3%)
of which XDR TB cases	2 (22.2%)
Notified MDR	11 -
of which XDR TB cases	2 -
TB cases tested for HIV	250 (100.0%)
HIV-positive TB cases	18 (7.2%)
of these on antiretroviral therapy	16 (88.9%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

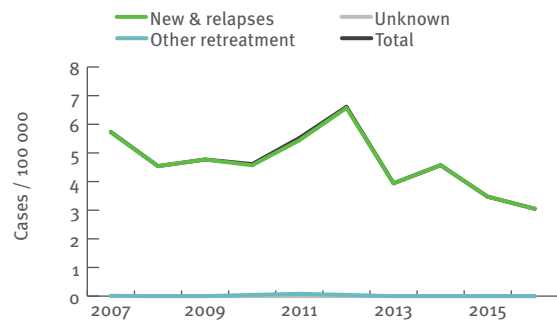
Treatment outcome monitoring

Geographical coverage	National		
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**	
Case-linked data reporting	Yes		
Cases notified	263	16	
Success	218 (82.9%)	12	(75.0%)
Died	19 (7.2%)	2	(12.5%)
Failed	1 (0.4%)	0	(0.0%)
Lost to follow-up	8 (3.0%)	1	(6.3%)
Not evaluated	17 (6.5%)	1	(6.3%)

* Treatment outcome as presented is treatment outcome after 12 months.

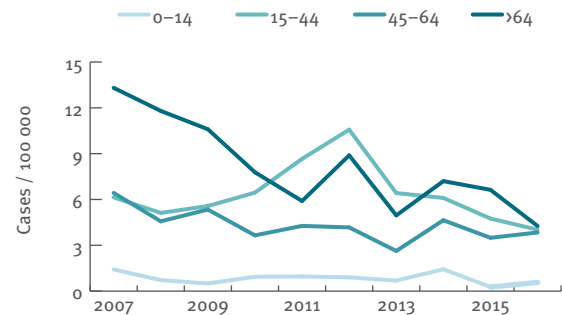
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



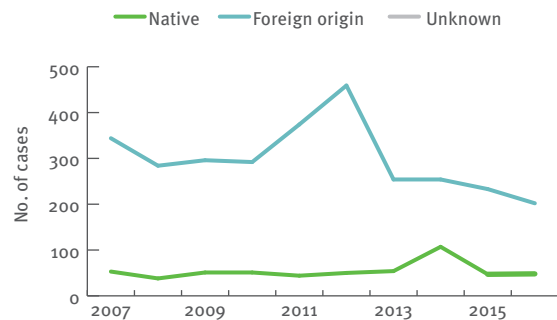
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

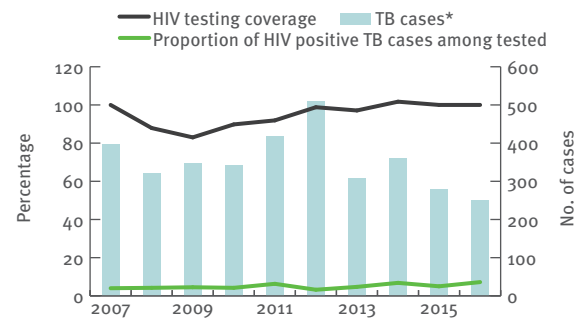


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

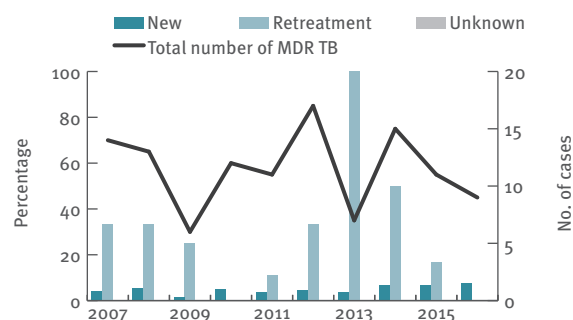


TB-HIV co-infection, 2007-2016

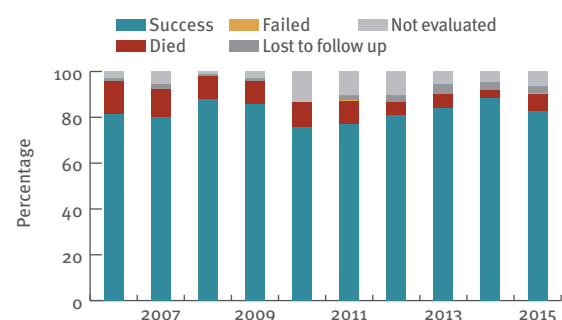


* HIV testing data are available for new TB cases in civilian population only.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new and relapsed TB cases, 2006-2015*



* 2005-2011 cohorts include new cases only.

Italy

Total population at 22 September 2017 by EUROSTAT: 60 655 551

Tuberculosis case notifications, 2016

Total number of cases	4 032
Notification rate per 100 000	6.6
New* & relapses	3 778
New* & relapses notification rate per 100 000	6.2
Pulmonary	2 820 (69.9%)
of which microscopy-positive	1 515 (53.7%)
of which laboratory confirmed	1 967 (69.8%)
Laboratory-confirmed TB cases	2 666 (66.1%)
Mean age of new native TB cases	51.0 years
Mean age of new foreign TB cases	35.9 years
Foreign origin of all TB cases	2 509 (62.2%)
New (not previously treated)	3 778 (93.7%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	No
Cases with DST results	2 666 (100.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	110-76-150
Pulmonary MDR TB cases notified	33 (1.7%)
of which XDR TB cases	5 (11.4%)
Notified MDR TB	70 (2.6%)
of which XDR TB cases	7 (12.7%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

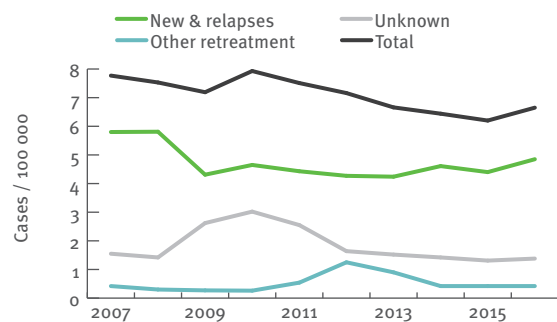
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

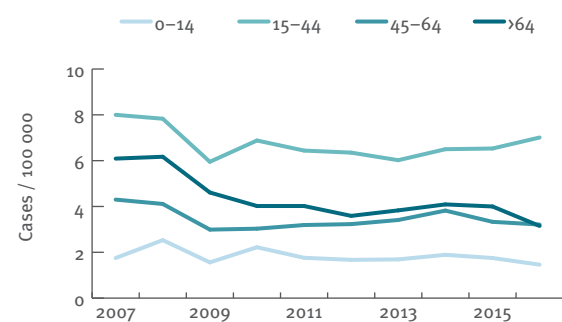
Treatment outcome monitoring

Data not available

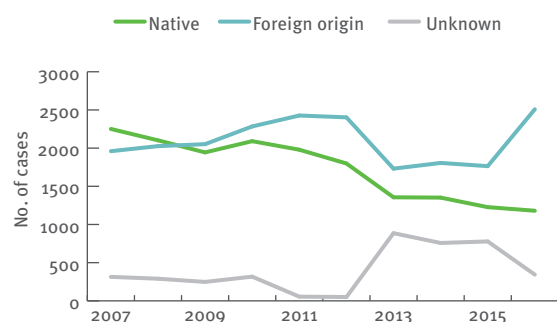
Tuberculosis notification rates by treatment history, 2007-2016



New and relapsed TB cases – notification rates by age group, 2007-2016



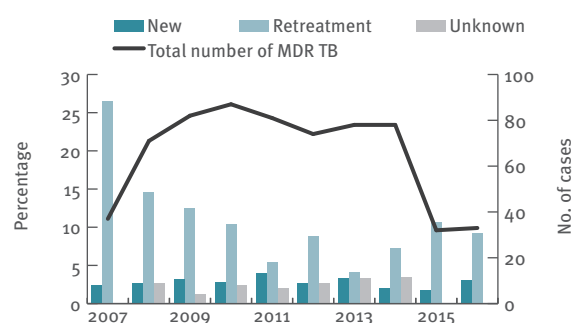
Tuberculosis cases by geographical origin, 2007-2016



TB-HIV co-infection, 2007-2016

Data not available

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015

Data not available

Kazakhstan

Population estimate 2016 by UN Statistical Database: 17987736

Tuberculosis case notifications, 2016

Total number of cases	12658
Notification rate per 100 000	70.4
New* & relapses	12322
New* & relapses notification rate per 100 000	68.5
Pulmonary	10927 (88.7%)
of which smear positive	-
of which laboratory confirmed	9679 (88.6%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	40.3 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	153 (1.2%)
New (not previously treated)	9381 (74.1%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	5213 (53.9%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	3500-3400-3600
Pulmonary MDR TB cases notified	1231 (23.6%)
of which XDR TB cases	-
TB cases tested for HIV	5817 -
Notified MDR	386 -
of which XDR TB cases	10616 (86.2%)
HIV-positive TB cases	576 (5.4%)
of these on antiretroviral therapy	478 (83.0%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

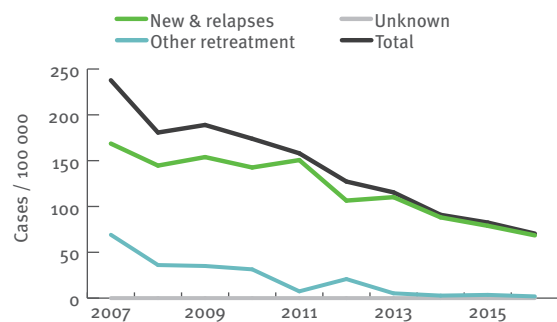
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	14 006	6 320
Success	12 691 (90.6%)	4 813 (76.2%)
Died	674 (4.8%)	604 (9.6%)
Failed	440 (3.1%)	371 (5.9%)
Lost to follow-up	201 (1.4%)	468 (7.4%)
Not evaluated	0 (0.0%)	64 (1.0%)

* Treatment outcome as presented is treatment outcome after 12 months.

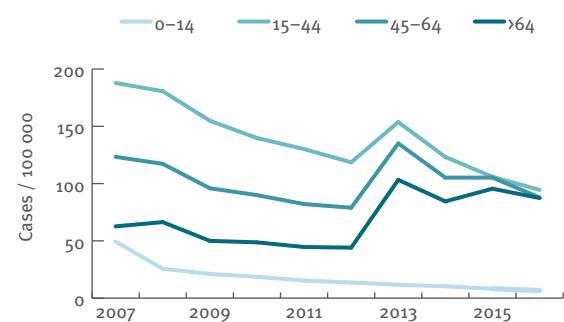
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



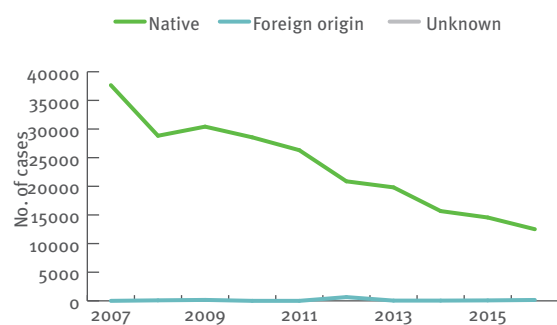
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

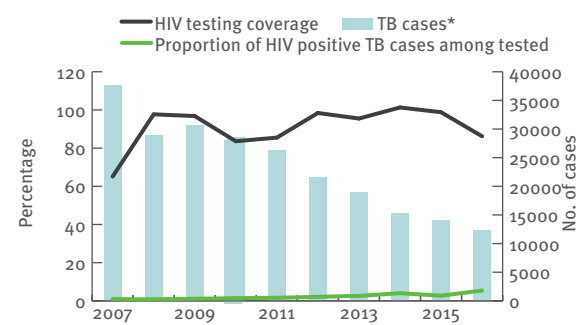


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

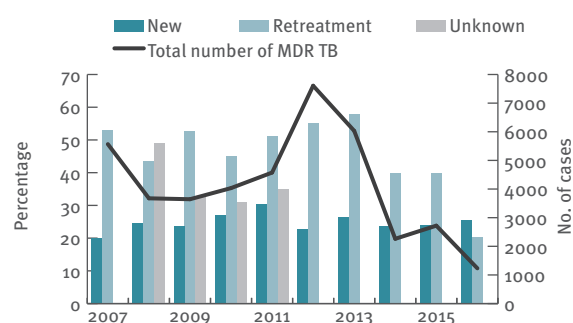


TB-HIV co-infection, 2007-2016

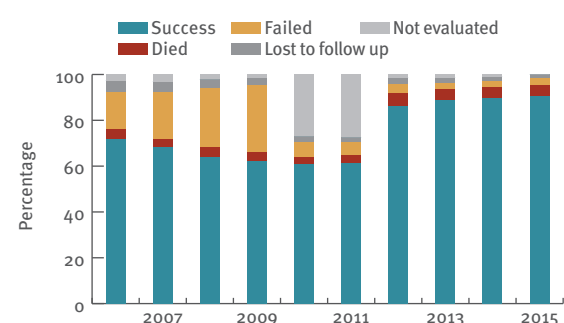


* Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new and relapsed TB cases 2006-2015*



* 2005-2011 cohorts include new cases only.

Kyrgyzstan

Population estimate 2016 by UN Statistical Database: 5955734

Tuberculosis case notifications, 2016

Total number of cases	7995
Notification rate per 100 000	134.2
New* & relapses	7026
New* & relapses notification rate per 100 000	118.0
Pulmonary	5514 (78.5%)
of which smear positive	-
of which laboratory confirmed	3183 (57.7%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	38.9 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	5702 (71.3%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	2642 (83.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	2500-2400-2600
Pulmonary MDR TB cases notified	864 (32.7%)
of which XDR TB cases	72 (8.3%)
Notified MDR	1236 -
of which XDR TB cases	73 -
TB cases tested for HIV	6254 (89.0%)
HIV-positive TB cases	210 (3.4%)
of these on antiretroviral therapy	144 (68.6%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

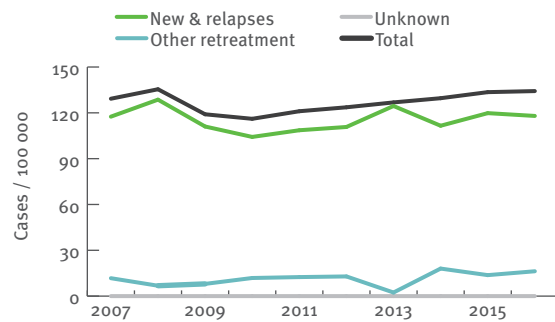
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	6139	1157
Success	5063 (82.5%)	650 (56.2%)
Died	364 (5.9%)	142 (12.3%)
Failed	138 (2.2%)	105 (9.1%)
Lost to follow-up	564 (9.2%)	260 (22.5%)
Not evaluated	10 (0.2%)	0 (0.0%)

* Treatment outcome as presented is treatment outcome after 12 months.

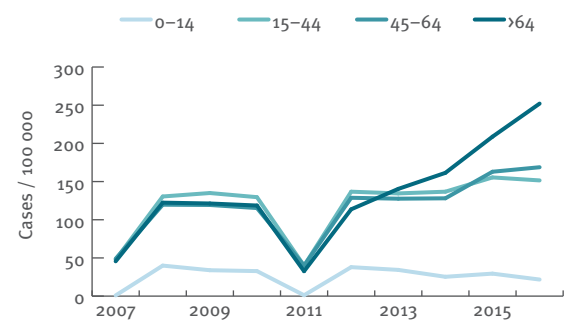
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016



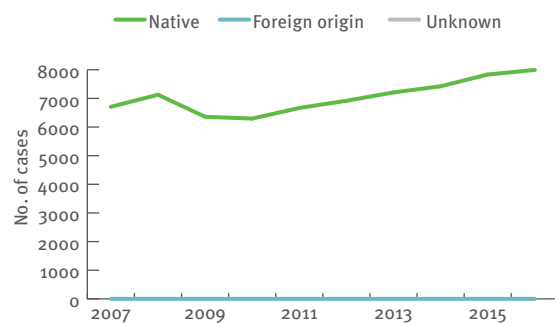
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases - notification rates by age group, 2007-2016*

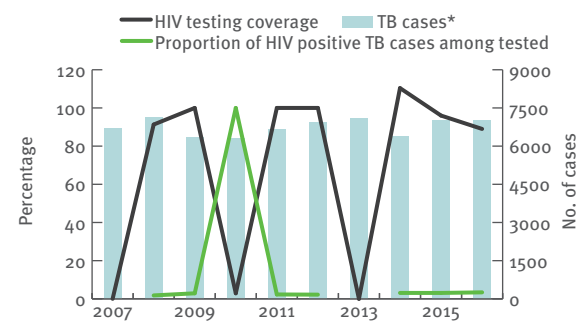


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

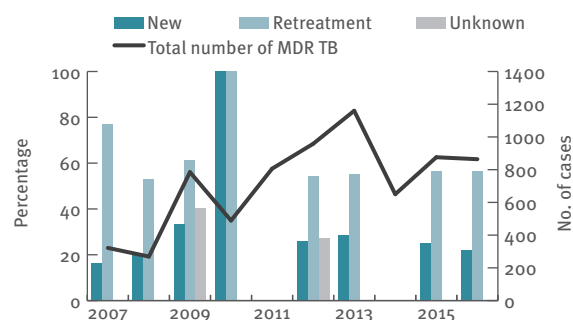


TB-HIV co-infection, 2007-2016

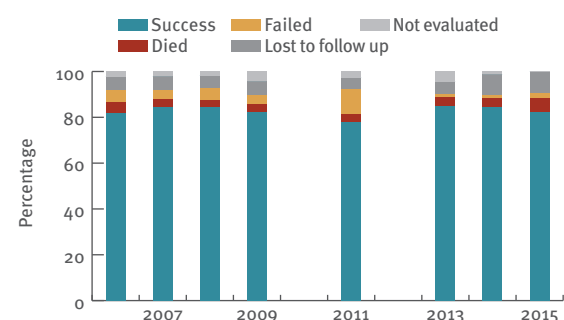


* Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome of new TB cases, 2006-2015



* 2005-2011 cohorts include new cases only.

Latvia

Total population at 22 September 2017 by EUROSTAT: 1986957

Tuberculosis case notifications, 2016

Total number of cases	660
Notification rate per 100 000	33.5
New* & relapses	641
New* & relapses notification rate per 100 000	32.6
Pulmonary	619 (93.8%)
of which microscopy-positive	265 (42.8%)
of which laboratory confirmed	535 (86.4%)
Laboratory-confirmed TB cases	559 (84.7%)
Mean age of new native TB cases	44.1 years
Mean age of new foreign TB cases	56.6 years
Foreign origin of all TB cases	43 (6.5%)
New (not previously treated)	560 (84.8%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	536 (95.9%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	62-47-78
Pulmonary MDR TB cases notified	53 (10.4%)
of which XDR TB cases	20 (37.7%)
Notified MDR TB	56 (10.4%)
of which XDR TB cases	21 (37.5%)
TB cases tested for HIV	507 (76.8%)
HIV-positive TB cases	57 (11.2%)
of these on antiretroviral therapy	34 (59.6%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

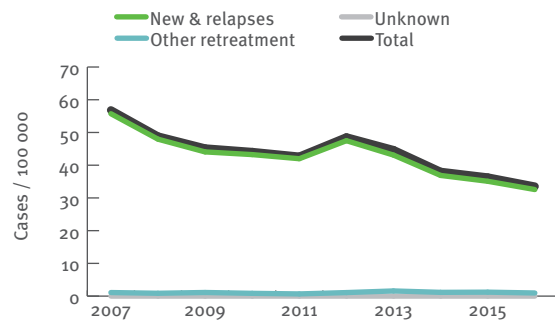
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	477	70
Success	383 (80.3%)	52 (74.3%)
Died	36 (7.5%)	5 (7.1%)
Failed	0 (0.0%)	1 (1.4%)
Lost to follow-up	23 (4.8%)	11 (15.7%)
Still on treatment	33 (6.9%)	0 (0.0%)
Not evaluated	2 (0.4%)	1 (1.4%)

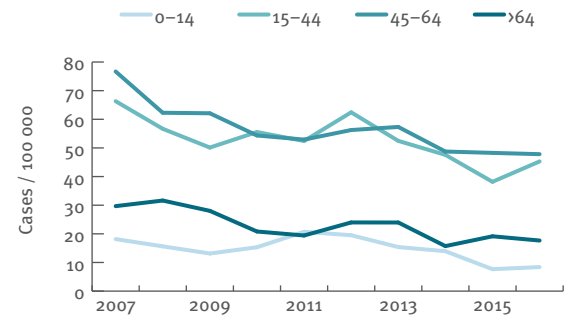
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

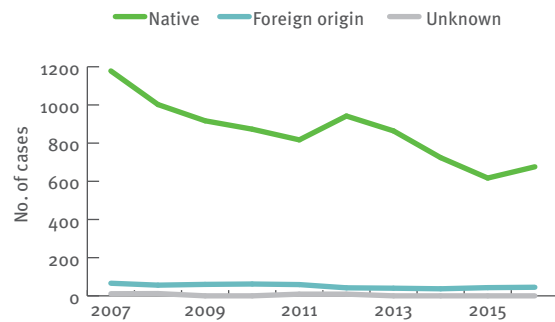
Tuberculosis notification rates by treatment history, 2007–2016



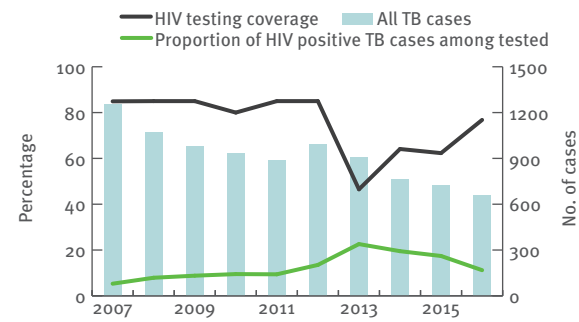
New and relapsed TB cases – notification rates by age group, 2007–2016



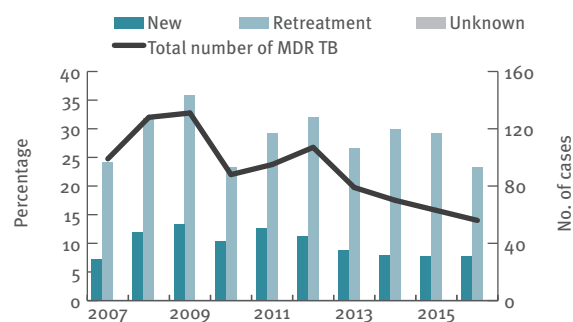
Tuberculosis cases by geographical origin, 2007–2016



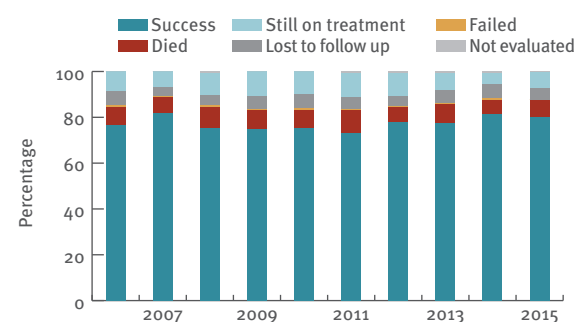
TB-HIV co-infection, 2007–2016



MDR TB cases by previous treatment history, 2007–2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015



Lithuania

Total population at 22 September 2017 by EUROSTAT: 2888558

Tuberculosis case notifications, 2016

Total number of cases	1442
Notification rate per 100 000	49.9
New* & relapses	1347
New* & relapses notification rate per 100 000	46.6
Pulmonary	1327 (92.0%)
of which microscopy-positive	827 (62.3%)
of which laboratory confirmed	1171 (88.2%)
Laboratory-confirmed TB cases	1201 (83.3%)
Mean age of new native TB cases	46.0 years
Mean age of new foreign TB cases	57.3 years
Foreign origin of all TB cases	13 (0.9%)
New (not previously treated)	1150 (79.8%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	1201 (100.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	260-240-290
Pulmonary MDR TB cases notified	242 (20.7%)
of which XDR TB cases	58 (24.0%)
Notified MDR TB	244 (20.3%)
of which XDR TB cases	58 (23.8%)
TB cases tested for HIV	1138 (78.9%)
HIV-positive TB cases of these on antiretroviral therapy	41 (3.6%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

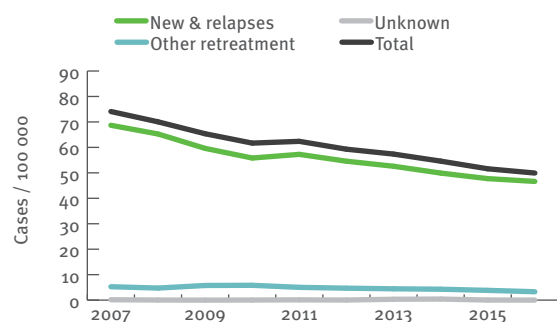
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	894	271
Success	607 (67.9%)	32 (11.8%)
Died	111 (12.4%)	59 (21.8%)
Failed	12 (1.3%)	7 (2.6%)
Lost to follow-up	66 (7.4%)	37 (13.7%)
Still on treatment	97 (10.9%)	131 (48.3%)
Not evaluated	1 (0.1%)	5 (1.8%)

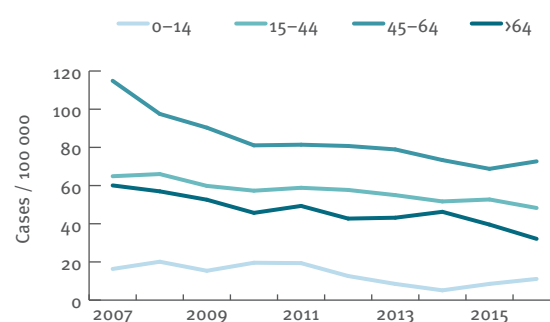
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

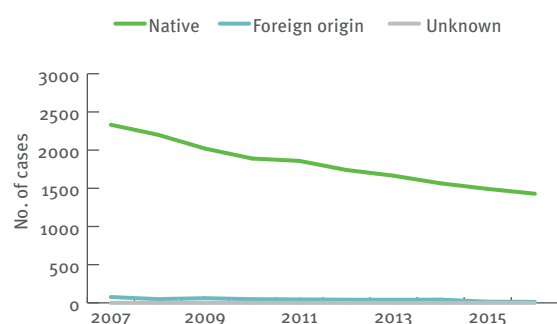
Tuberculosis notification rates by treatment history, 2007-2016



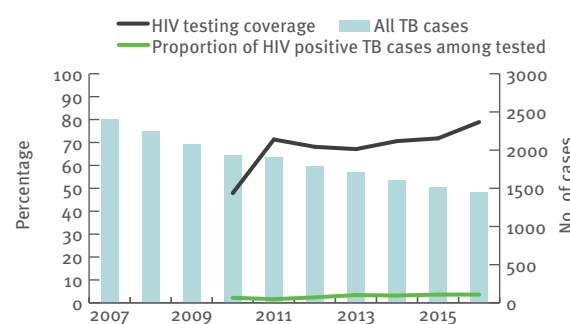
New and relapsed TB cases – notification rates by age group, 2007-2016



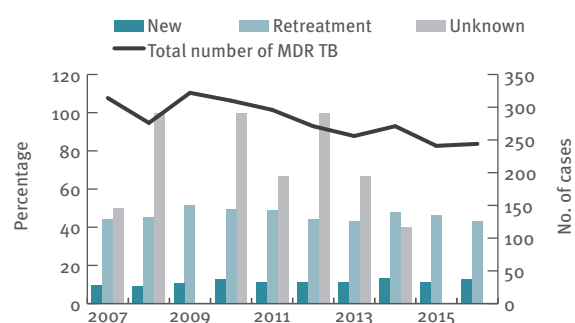
Tuberculosis cases by geographical origin, 2007-2016



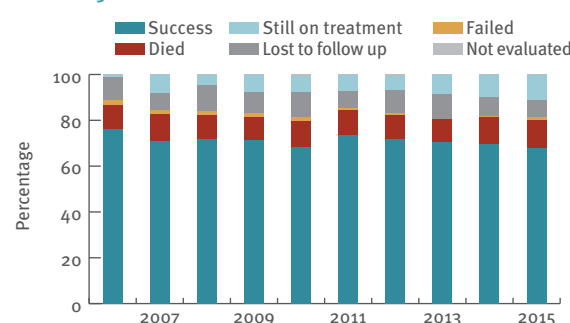
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Luxembourg

Total population at 22 September 2017 by EUROSTAT: 576 249

Tuberculosis case notifications, 2016

Total number of cases	29
Notification rate per 100 000	5.0
New* & relapses	29
New* & relapses notification rate per 100 000	5.0
Pulmonary	24 (82.8%)
of which microscopy-positive	10 (41.7%)
of which laboratory confirmed	22 (91.7%)
Laboratory-confirmed TB cases	26 (89.7%)
Mean age of new native TB cases	42.9 years
Mean age of new foreign TB cases	49.0 years
Foreign origin of all TB cases	22 (75.9%)
New (not previously treated)	29 (100.0%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	25 (96.2%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	0-0-0
Pulmonary MDR TB cases notified	1 (4.8%)
of which XDR TB cases	0 -
Notified MDR TB	1 (4.0%)
of which XDR TB cases	0 -
TB cases tested for HIV	5 (17.2%)
HIV-positive TB cases	2 (39.7%)
of these on antiretroviral therapy	- -

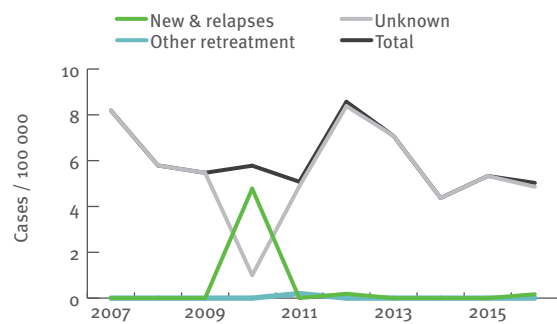
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

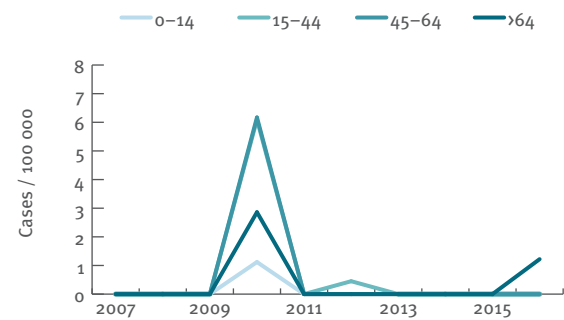
Treatment outcome monitoring

Data not available

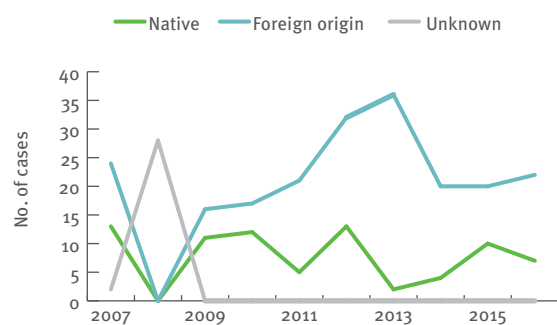
Tuberculosis notification rates by treatment history, 2007–2016



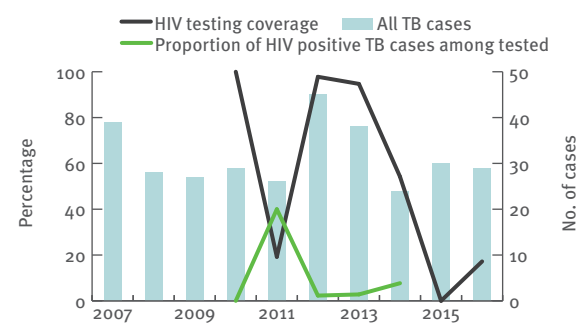
New and relapsed TB cases – notification rates by age group, 2007–2016



Tuberculosis cases by geographical origin, 2007–2016

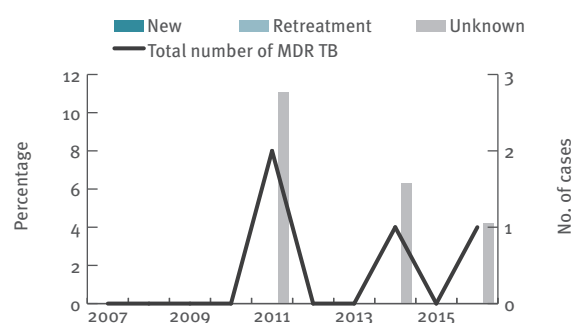


TB-HIV co-infection, 2007–2016*



* No data available for 2006–2009

MDR TB cases by previous treatment history, 2007–2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015

Data not available

Malta

Total population at 22 September 2017 by EUROSTAT: 434 403

Tuberculosis case notifications, 2016

Total number of cases	50
Notification rate per 100 000	11.5
New* & relapses	50
New* & relapses notification rate per 100 000	11.5
Pulmonary	37 (74.0%)
of which microscopy-positive	18 (48.6%)
of which laboratory confirmed	33 (89.2%)
Laboratory-confirmed TB cases	42 (84.0%)
Mean age of new native TB cases	85.0 years
Mean age of new foreign TB cases	30.3 years
Foreign origin of all TB cases	48 (96.0%)
New (not previously treated)	50 (100.0%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	42 (100.0%)
Estimated RR-TB among notified pulmonary 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	46 (92.0%)
HIV-positive TB cases	8 (17.4%)
of these on antiretroviral therapy	8 (100.0%)

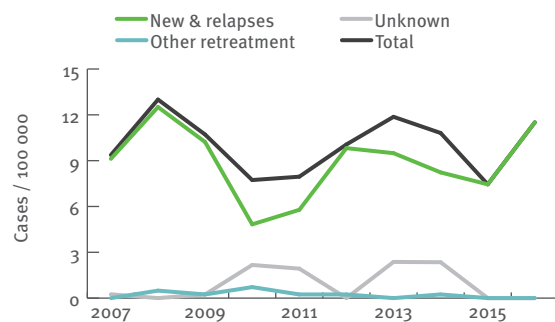
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

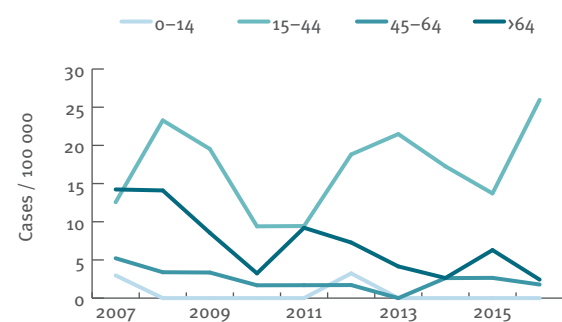
Treatment outcome monitoring

Data not available

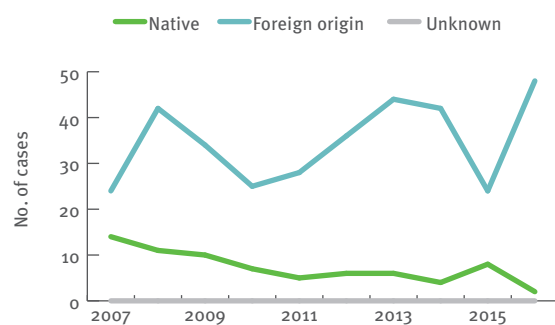
Tuberculosis notification rates by treatment history, 2007-2016



New and relapsed TB cases – notification rates by age group, 2007-2016

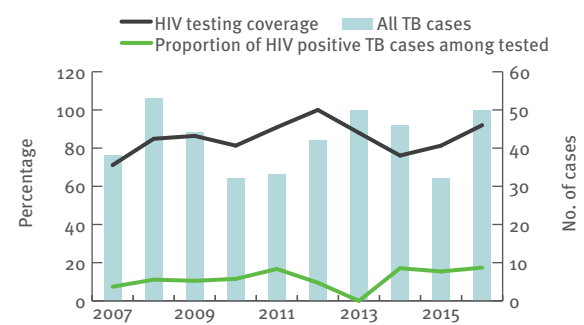


Tuberculosis cases by geographical origin, 2007-2016

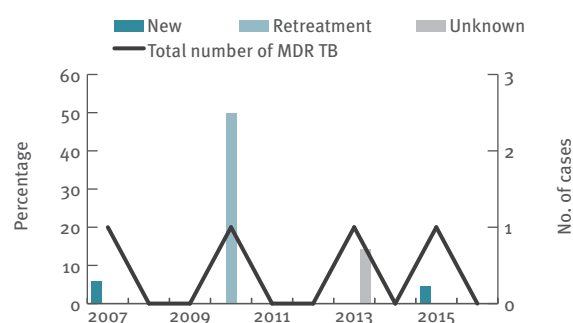


* By nationality for 2000-2006

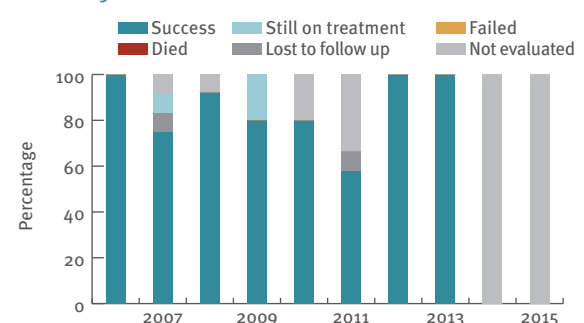
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Moldova

Population estimate 2016 by UN Statistical Database: 4 059 608

Tuberculosis case notifications, 2016

Total number of cases	4 134
Notification rate per 100 000	101.8
New* & relapses	3 571
New* & relapses notification rate per 100 000	88.0
Pulmonary	3 235 (90.6%)
of which smear positive	-
of which laboratory confirmed	2 019 (62.4%)
Laboratory-confirmed TB cases	-
Mean age of new native TB cases	43.3 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	39 (0.9%)
New (not previously treated)	2 846 (68.8%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	1 574 (78.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	1 400-1 300-1 400
Pulmonary MDR TB cases notified	525 (33.4%)
of which XDR TB cases	42 (8.0%)
Notified MDR	1 031 -
of which XDR TB cases	72 -
TB cases tested for HIV	3 366 (94.3%)
HIV-positive TB cases	293 (8.7%)
of these on antiretroviral therapy	193 (65.9%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

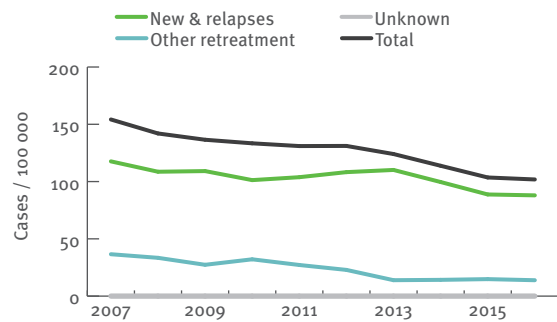
Treatment outcome monitoring

Geographical coverage	National		
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**	
Case-linked data reporting	Yes		
Cases notified	2 992	919	
Success	2 379 (79.5%)	457	(49.7%)
Died	338 (11.3%)	129	(14.0%)
Failed	86 (2.9%)	142	(15.5%)
Lost to follow-up	137 (4.6%)	188	(20.5%)
Not evaluated	52 (1.7%)	3	(0.3%)

* Treatment outcome as presented is treatment outcome after 12 months.

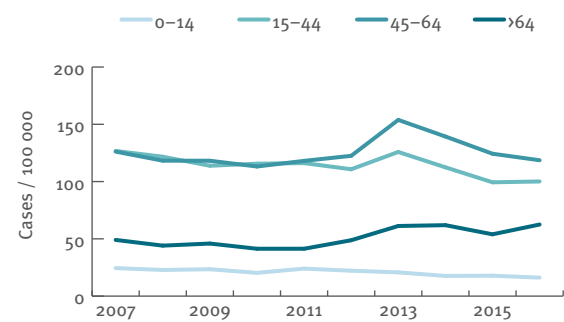
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



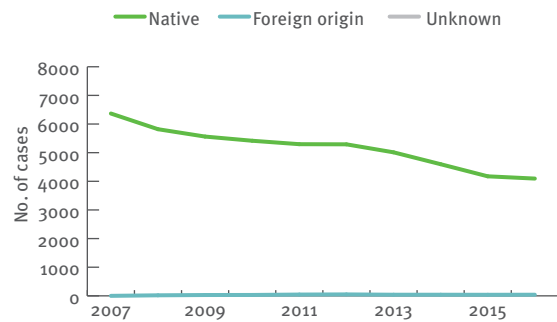
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

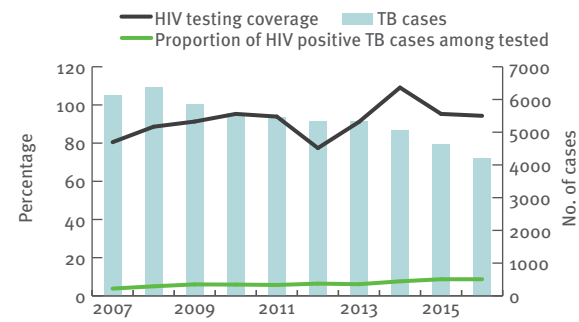


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

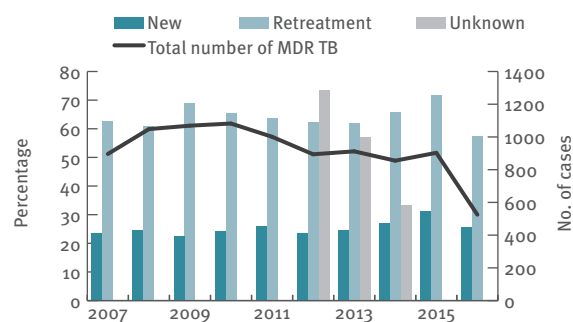


TB-HIV co-infection, 2007-2016

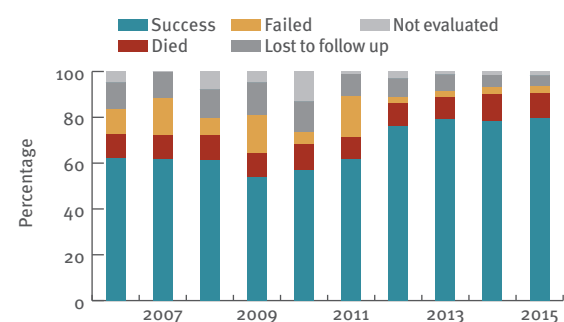


** Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new and relapsed TB cases, 2006-2015*



* 2005-2011 cohorts include new cases only.

Montenegro

Population estimate 2016 by UN Statistical Database: 628615

Tuberculosis case notifications, 2016

Total number of cases	87
Notification rate per 100 000	13.8
New* & relapses	87
New* & relapses notification rate per 100 000	13.8
Pulmonary	77 (88.5%)
of which smear positive	-
of which laboratory confirmed	58 (75.3%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	47.6 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	2 (2.3%)
New (not previously treated)	73 (83.9%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	57 (98.3%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	0-0-0
Pulmonary MDR TB cases notified	0 (0.0%)
of which XDR TB cases	0 -
Notified MDR	0 -
of which XDR TB cases	- -
TB cases tested for HIV	60 (69.0%)
HIV-positive TB cases	0 (0.0%)
of these on antiretroviral therapy	0 -

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

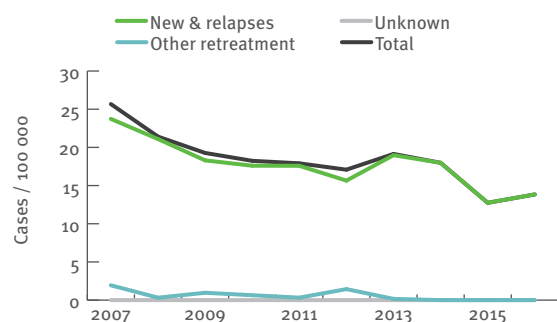
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	80	2
Success	74 (92.5%)	0 (0.0%)
Died	3 (3.8%)	1 (50.0%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	3 (3.8%)	1 (50.0%)
Not evaluated	0 (0.0%)	0 (0.0%)

* Treatment outcome as presented is treatment outcome after 12 months.

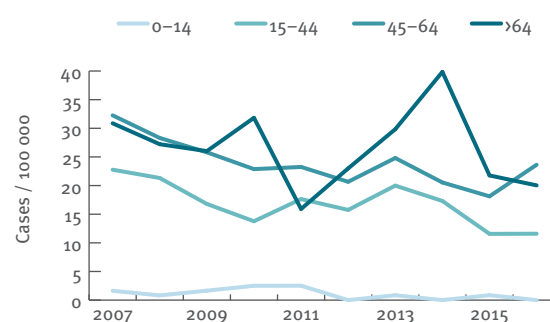
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



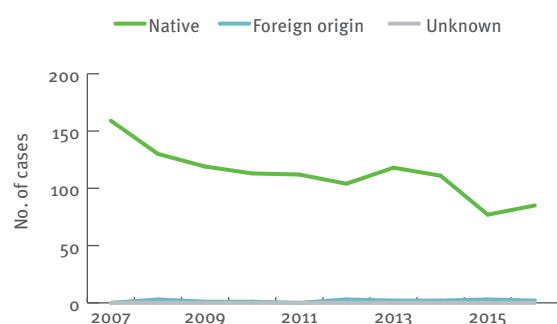
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

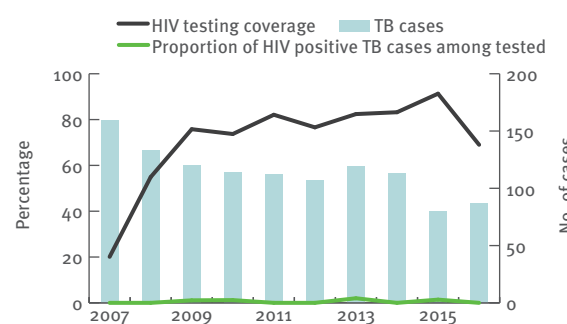


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

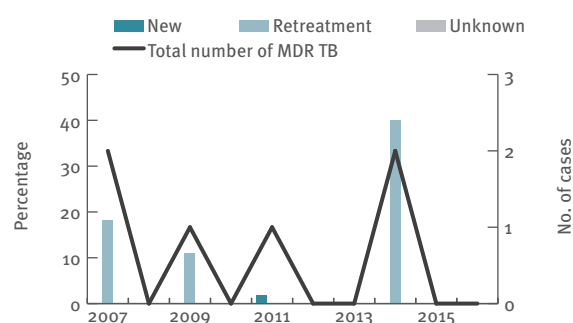


TB-HIV co-infection, 2007-2016

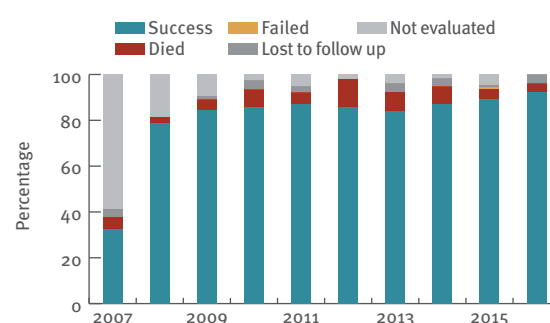


* Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome of new TB cases, 2006-2015*



* 2005-2011 cohorts include new cases only.

Netherlands

Total population at 22 September 2017 by EUROSTAT: 16 979 120

Tuberculosis case notifications, 2016

Total number of cases	889
Notification rate per 100 000	5.2
New* & relapses	877
New* & relapses notification rate per 100 000	5.2
Pulmonary	477 (53.7%)
of which microscopy-positive	185 (38.8%)
of which laboratory confirmed	353 (74.0%)
Laboratory-confirmed TB cases	583 (65.6%)
Mean age of new native TB cases	44.2 years
Mean age of new foreign TB cases	38.2 years
Foreign origin of all TB cases	669 (75.3%)
New (not previously treated)	862 (97.0%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	583 (100.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	15-6-24
Pulmonary MDR TB cases notified	8 (2.3%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	12 (2.1%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	554 (62.3%)
HIV-positive TB cases	21 (3.8%)
of these on antiretroviral therapy	15 (71.4%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

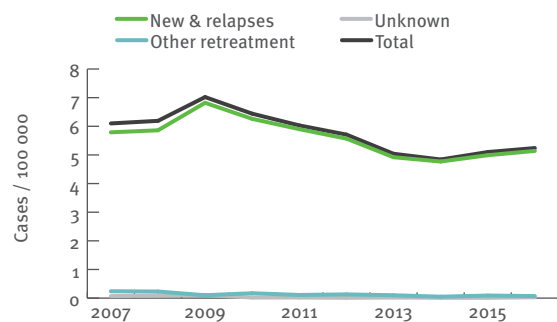
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	369	7
Success	315 (85.4%)	5 (71.4%)
Died	22 (6.0%)	0 (0.0%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	4 (1.1%)	0 (0.0%)
Still on treatment	6 (1.6%)	1 (14.3%)
Not evaluated	22 (6.0%)	1 (14.3%)

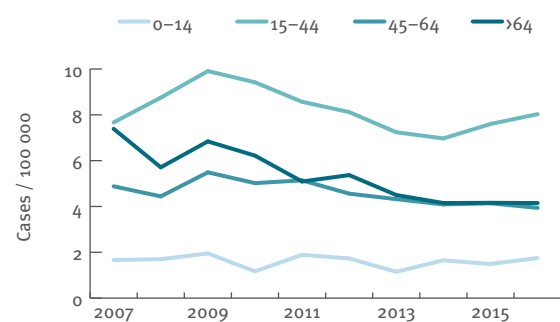
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

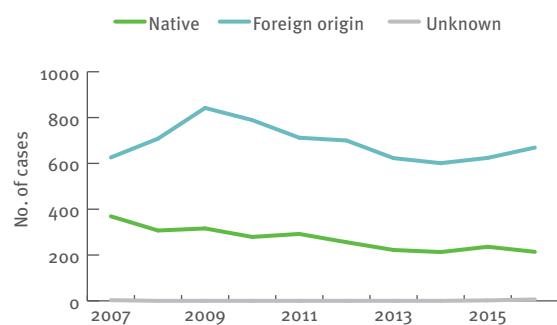
Tuberculosis notification rates by treatment history, 2007-2016



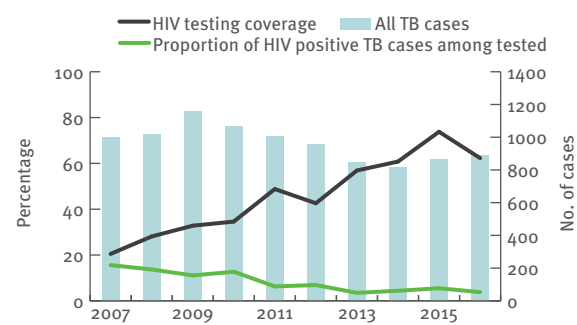
New and relapsed TB cases – notification rates by age group, 2007-2016



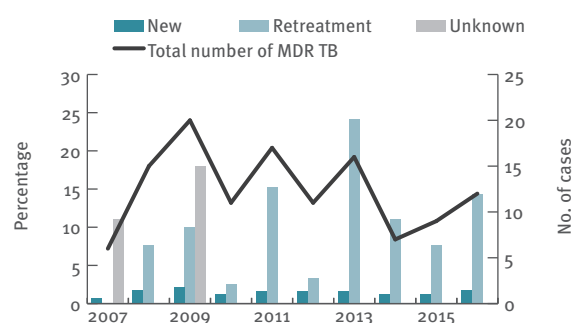
Tuberculosis cases by geographical origin, 2007-2016



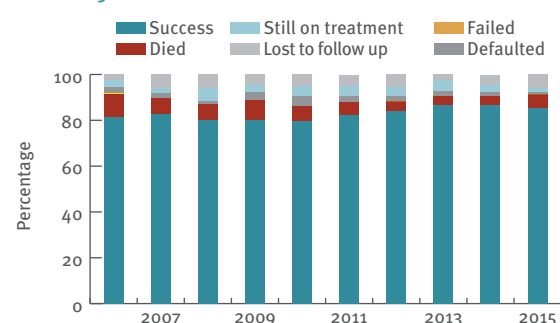
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Norway

Total population at 22 September 2017 by EUROSTAT: 5210721

Tuberculosis case notifications, 2016

Total number of cases	299
Notification rate per 100 000	5.7
New* & relapses	278
New* & relapses notification rate per 100 000	5.3
Pulmonary	186 (62.2%)
of which microscopy-positive	72 (38.7%)
of which laboratory confirmed	158 (84.9%)
Laboratory-confirmed TB cases	230 (76.9%)
Mean age of new native TB cases	47.0 years
Mean age of new foreign TB cases	34.3 years
Foreign origin of all TB cases	264 (88.3%)
New (not previously treated)	278 (93.0%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	228 (99.1%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	6-1-10
Pulmonary MDR TB cases notified	7 (4.5%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	10 (4.4%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	254 (84.9%)
HIV-positive TB cases	10 (3.9%)
of these on antiretroviral therapy	8 (80.0%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

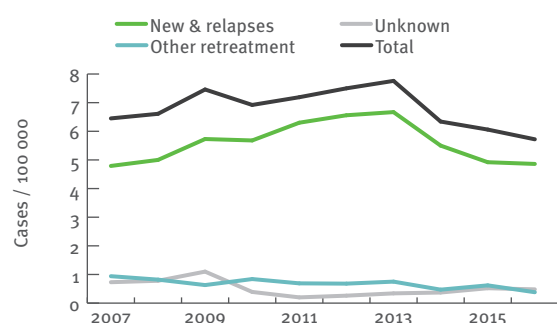
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	154	11
Success	127 (82.5%)	9 (81.8%)
Died	4 (2.6%)	0 (0.0%)
Failed	2 (1.3%)	0 (0.0%)
Lost to follow-up	6 (3.9%)	1 (9.1%)
Still on treatment	6 (3.9%)	0 (0.0%)
Not evaluated	9 (5.8%)	1 (9.1%)

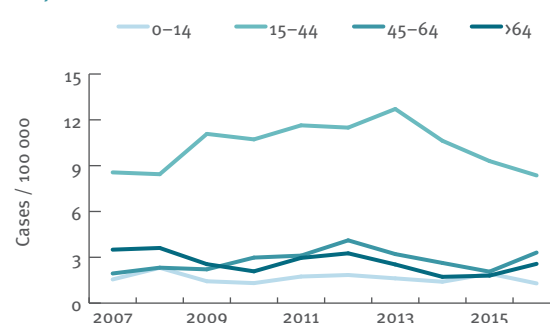
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

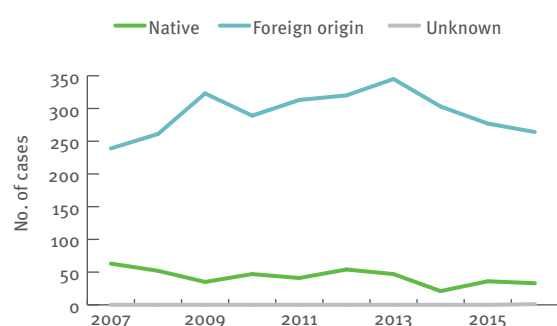
Tuberculosis notification rates by treatment history, 2007-2016



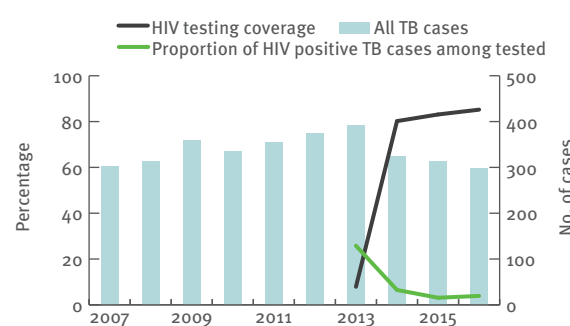
New and relapsed TB cases – notification rates by age group, 2007-2016



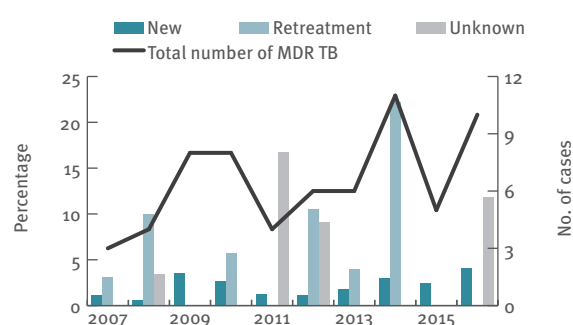
Tuberculosis cases by geographical origin, 2007-2016



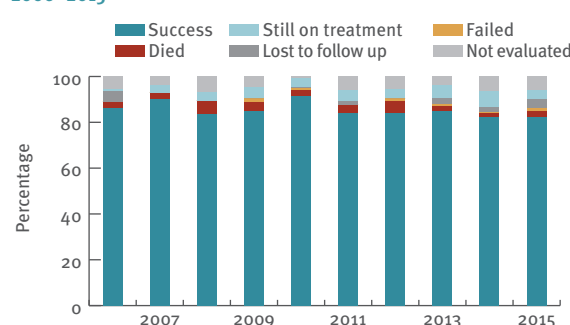
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Poland

Total population at 22 September 2017 by EUROSTAT: 37 967 209

Tuberculosis case notifications, 2016

Total number of cases	6 444
Notification rate per 100 000	17.0
New* & relapses	6 143
New* & relapses notification rate per 100 000	16.2
Pulmonary	6 116 (94.9%)
of which microscopy-positive	2 644 (43.2%)
of which laboratory confirmed	4 475 (73.2%)
Laboratory-confirmed TB cases	4 619 (71.7%)
Mean age of new native TB cases	53.2 years
Mean age of new foreign TB cases	34.6 years
Foreign origin of all TB cases	92 (1.4%)
New (not previously treated)	5 713 (88.7%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	-
Case-linked data reporting	Yes
Cases with DST results	4 189 (90.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	77-56-98
Pulmonary MDR TB cases notified	45 (1.1%)
of which XDR TB cases	8 (21.1%)
Notified MDR TB	46 (1.1%)
of which XDR TB cases	8 (20.5%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

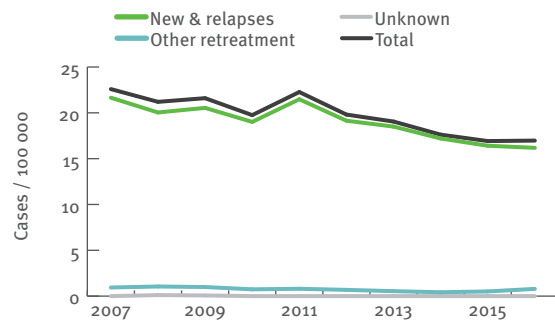
Treatment outcome monitoring

Geographical coverage	National	
	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Outcome cohort		
Case-linked data reporting	Yes	
Cases notified	3 978	35
Success	2 085 (52.4%)	3 (8.6%)
Died	414 (10.4%)	12 (34.3%)
Failed	3 (0.1%)	0 (0.0%)
Lost to follow-up	209 (5.3%)	5 (14.3%)
Still on treatment	8 (0.2%)	0 (0.0%)
Not evaluated	1 259 (31.6%)	15 (42.9%)

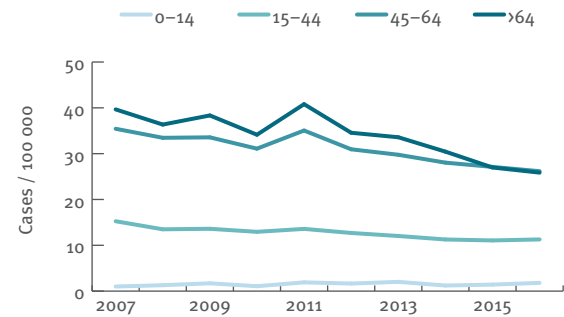
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

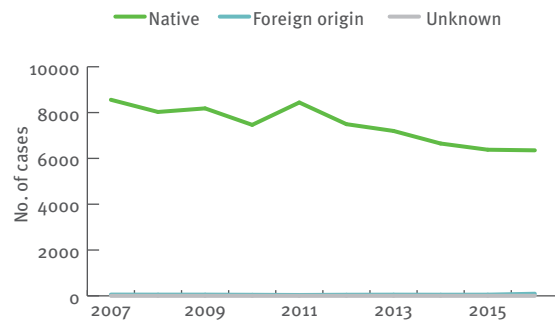
Tuberculosis notification rates by treatment history, 2007-2016



New and relapsed TB cases – notification rates by age group, 2007-2016



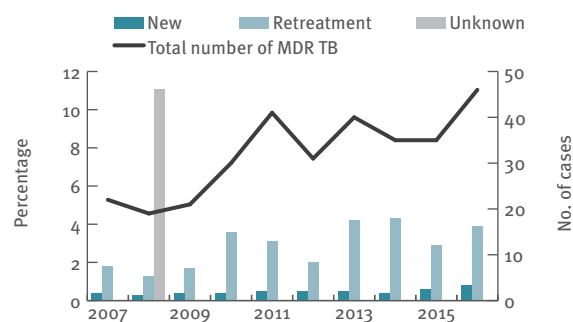
Tuberculosis cases by geographical origin, 2007-2016



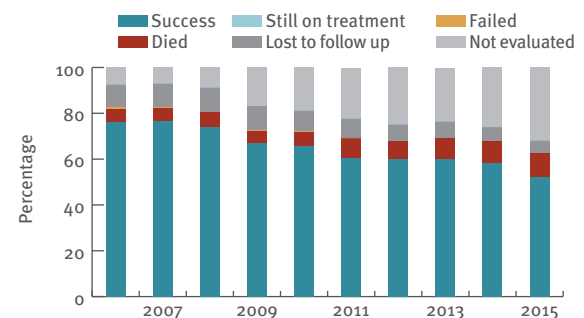
TB-HIV co-infection, 2007-2016

Data not available

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Portugal

Total population at 22 September 2017 by EUROSTAT 10341330

Tuberculosis case notifications, 2016

Total number of cases	1836
Notification rate per 100 000	17.8
New* & relapses	1794
New* & relapses notification rate per 100 000	17.3
Pulmonary	1302 (70.9%)
of which microscopy-positive	760 (58.4%)
of which laboratory confirmed	945 (72.6%)
Laboratory-confirmed TB cases	1123 (61.2%)
Mean age of new native TB cases	52.2 years
Mean age of new foreign TB cases	40.7 years
Foreign origin of all TB cases	336 (18.3%)
New (not previously treated)	1715 (93.4%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	789 (70.3%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	19-10-27
Pulmonary MDR TB cases notified	10 (1.5%)
of which XDR TB cases	1 (25.0%)
Notified MDR TB	12 (1.5%)
of which XDR TB cases	2 (40.0%)
TB cases tested for HIV	1212 (66.0%)
HIV-positive TB cases of these on antiretroviral therapy	168 (13.9%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

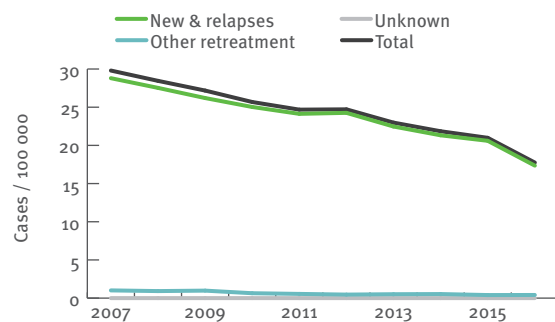
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	1157	25
Success	835 (72.2%)	13 (52.0%)
Died	98 (8.5%)	7 (28.0%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	40 (3.5%)	0 (0.0%)
Still on treatment	153 (13.2%)	1 (4.0%)
Not evaluated	31 (2.7%)	4 (16.0%)

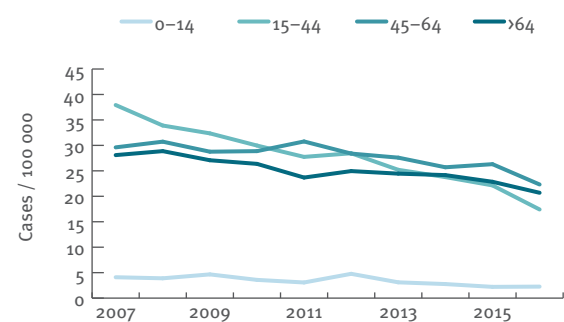
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

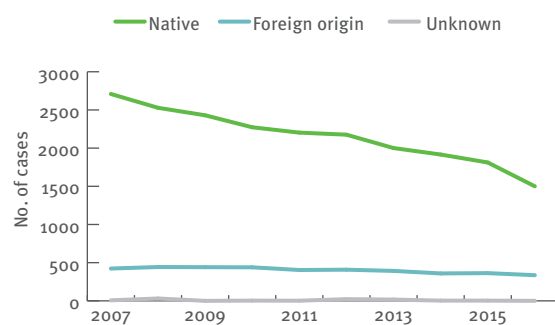
Tuberculosis notification rates by treatment history, 2007-2016



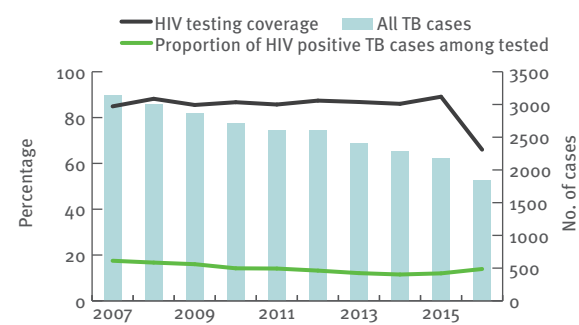
New and relapsed TB cases – notification rates by age group, 2007-2016



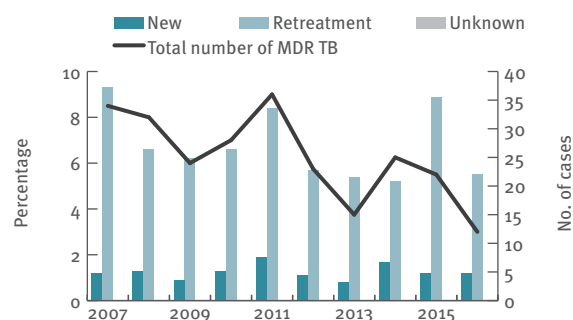
Tuberculosis cases by geographical origin, 2007-2016



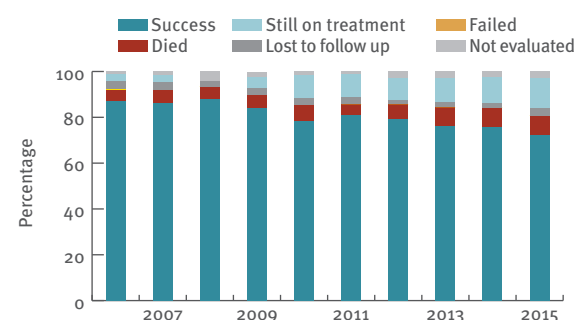
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Romania

Total population at 22 September 2017 by EUROSTAT: 19 870 647

Tuberculosis case notifications, 2016

Total number of cases	13 617
Notification rate per 100 000	68.5
New* & relapses	12 790
New* & relapses notification rate per 100 000	64.4
Pulmonary	11 523 (84.6%)
of which microscopy-positive	7 454 (64.7%)
of which laboratory confirmed	9 185 (79.7%)
Laboratory-confirmed TB cases	9 517 (69.9%)
Mean age of new native TB cases	42.9 years
Mean age of new foreign TB cases	31.8 years
Foreign origin of all TB cases	24 (0.2%)
New (not previously treated)	10 741 (78.9%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	8 440 (88.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	730-670-790
Pulmonary MDR TB cases notified	458 (5.6%)
of which XDR TB cases	62 (29.8%)
Notified MDR TB	463 (5.5%)
of which XDR TB cases	63 (30.0%)
TB cases tested for HIV	10 634 (78.1%)
HIV-positive TB cases	287 (2.7%)
of these on antiretroviral therapy	254 (88.5%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

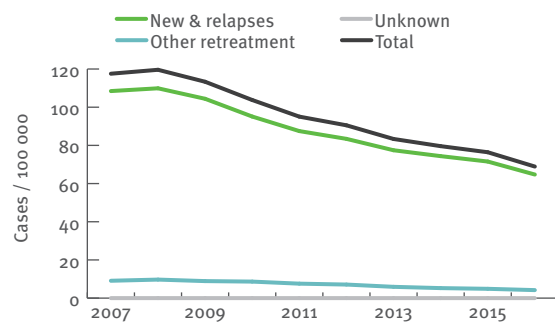
Treatment outcome monitoring

Geographical coverage	National		
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**	
Case-linked data reporting	Yes		
Cases notified	7 417	532	
Success	6 282 (84.7%)	199	(37.4%)
Died	518 (7.0%)	93	(17.5%)
Failed	152 (2.0%)	156	(29.3%)
Lost to follow-up	371 (5.0%)	80	(15.0%)
Still on treatment	89 (1.2%)	4	(0.8%)
Not evaluated	5 (0.1%)	0	(0.0%)

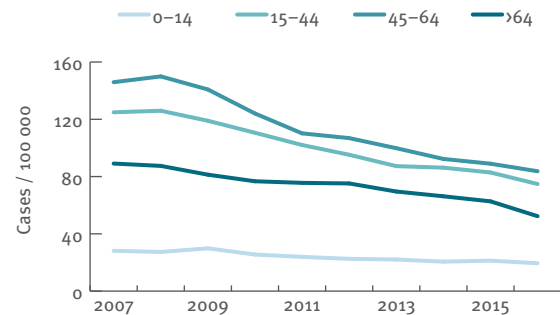
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

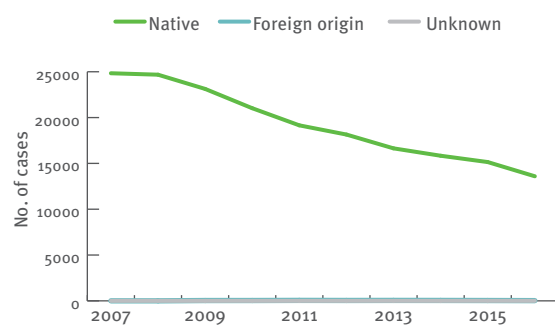
Tuberculosis notification rates by treatment history, 2007–2016



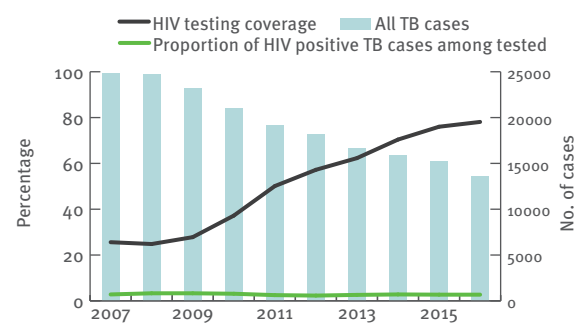
New and relapsed TB cases – notification rates by age group, 2007–2016



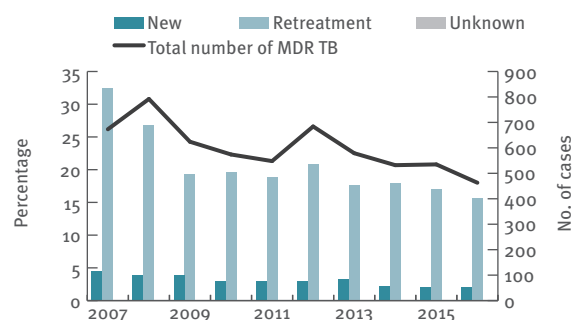
Tuberculosis cases by geographical origin, 2007–2016



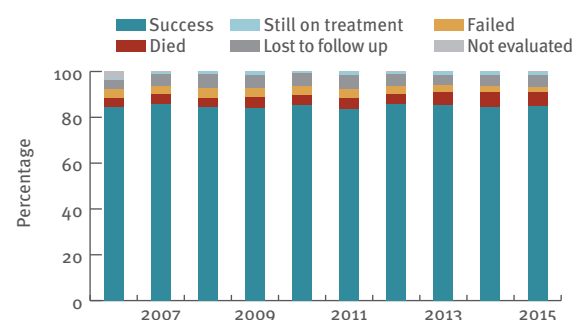
TB-HIV co-infection, 2007–2016



MDR TB cases by previous treatment history, 2007–2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015



Russia

Population estimate 20156 by UN Statistical Database: 143964513

Tuberculosis case notifications, 2016

Total number of cases	121046
Notification rate per 100 000**	84.1
New* & relapses	92407
New* & relapses notification rate per 100 000	64.2
Pulmonary	84066 (91.0%)
of which smear positive	26060 31%
of which laboratory confirmed	42681 (50.8%)
Laboratory-confirmed TB cases***	63638 (52.6%)
Mean age of new and relapse TB cases	41.6 years
Mean age of new foreign TB cases	34.6 years
Foreign origin of all TB cases	2797 (2.3%)
New (not previously treated)	78121 (64.5%)

* Cases with unknown previous treatment included in new cases.
 ** UN Population Division estimates are lower than the population registered by the Federal State Statistics Service of the Russian Federation.
 *** New & relapses before start of treatment.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	57910 (91.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	47000-46000-47000
Pulmonary MDR TB cases notified	25971 (44.8%)
of which XDR TB cases	3402 (13.1%)
Notified MDR	27363 -
of which XDR TB cases	3402 -
TB cases tested for HIV	79935 (86.5%)
HIV-positive TB cases	16570 (20.7%)
of these on antiretroviral therapy	10549 (63.7%)

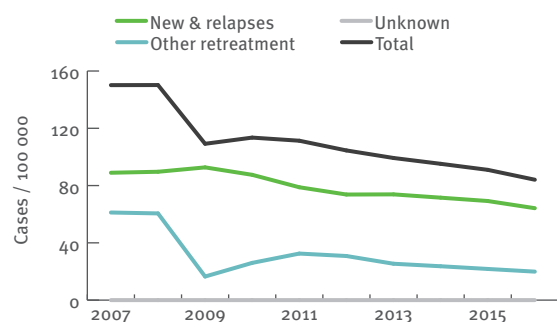
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.
 ** More than 50% of TB cases with reported HIV status.

Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	80424	20089
Success	57060 (70.9%)	10170 (50.6%)
Died	8035 (10.0%)	3409 (17.0%)
Failed	5646 (7.0%)	2655 (13.2%)
Lost to follow-up	4074 (5.1%)	1830 (9.1%)
Not evaluated	5609 (7.0%)	2025 (10.1%)

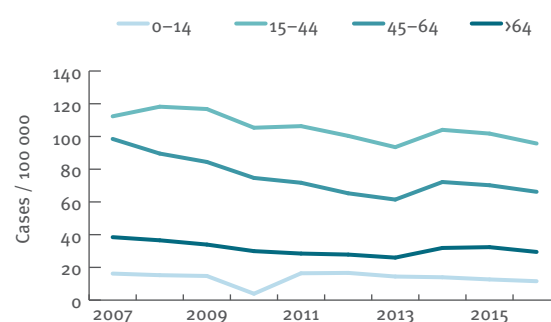
* Treatment outcome as presented is treatment outcome after 12 months.
 ** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



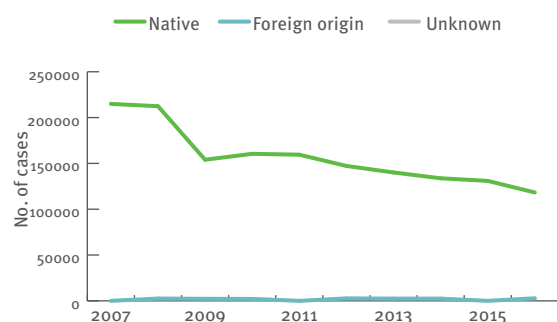
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

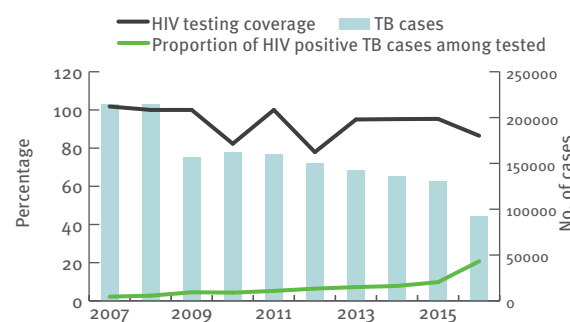


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

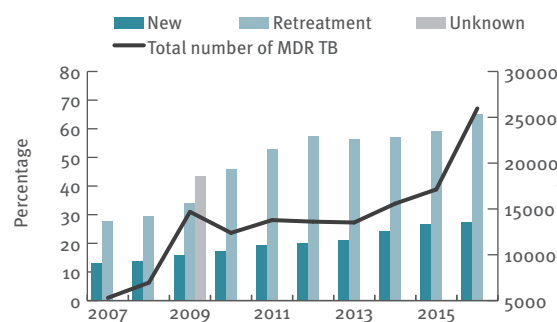


TB-HIV co-infection, 2007-2016*

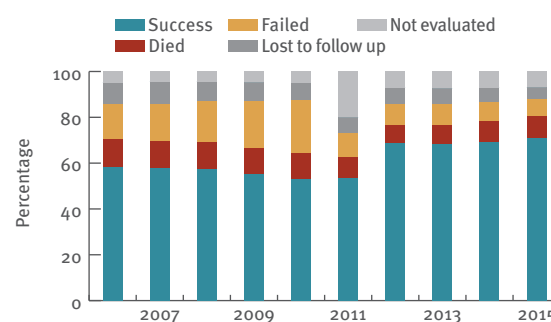


* HIV testing data are available for new TB cases in civilian population only.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new and relapsed TB cases, 2006-2015*



* 2005-2011 cohorts include new cases only.

Serbia

Population estimate 2016 by UN Statistical Database: 8820083

Tuberculosis case notifications, 2016

Total number of cases	1488
Notification rate per 100 000	16.9
New* & relapses	1472
New* & relapses notification rate per 100 000	16.7
Pulmonary	1206 (81.9%)
of which microscopy-positive	-
of which laboratory confirmed	815 (67.6%)
Laboratory-confirmed TB cases	-
Mean age of new native TB cases	41.8 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	5 (0.3%)
New (not previously treated)	1348 (90.6%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	398 (48.8%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	19-8-29
Pulmonary MDR TB cases notified	6 (1.5%)
of which XDR TB cases	1 (16.7%)
Notified MDR TB	8 -
of which XDR TB cases	1 -
TB cases tested for HIV	84 (5.7%)
HIV-positive TB cases	5 (6.0%)
of these on antiretroviral therapy	5 (100.0%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

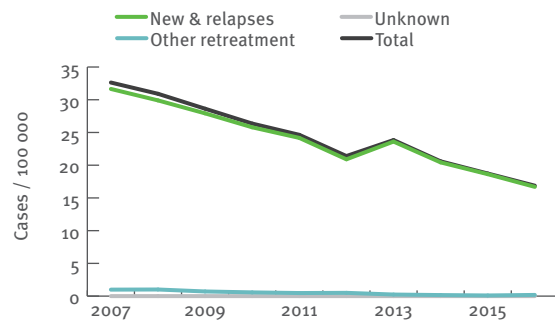
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	1647	19
Success	1471 (89.3%)	12 (63.2%)
Died	82 (5.0%)	2 (10.5%)
Failed	12 (0.7%)	2 (10.5%)
Lost to follow-up	60 (3.6%)	3 (15.8%)
Not evaluated	22 (1.3%)	0 (0.0%)

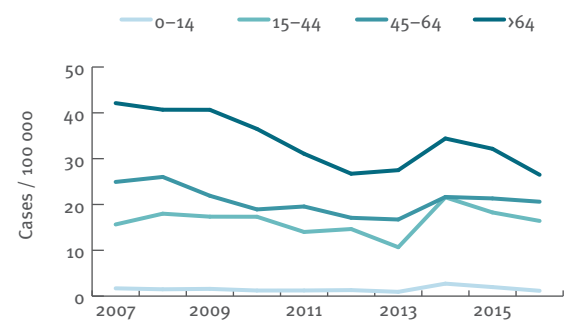
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

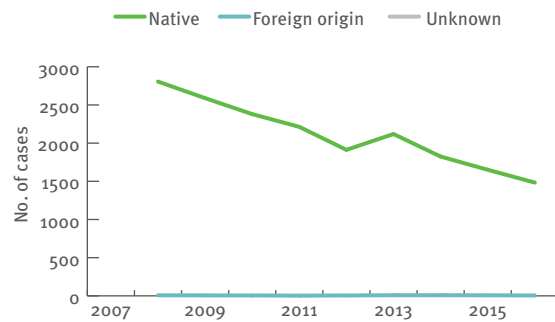
Tuberculosis notification rates by treatment history, 2007-2016



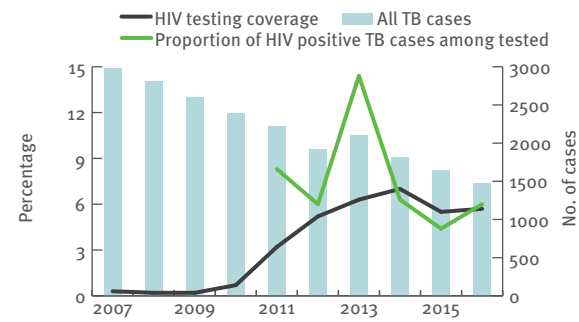
New and relapsed TB cases – notification rates by age group, 2007-2016



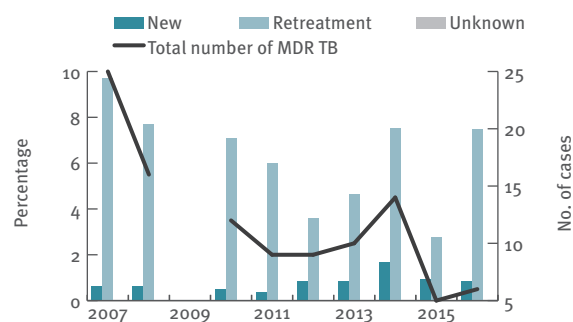
Tuberculosis cases by geographical origin, 2007-2016



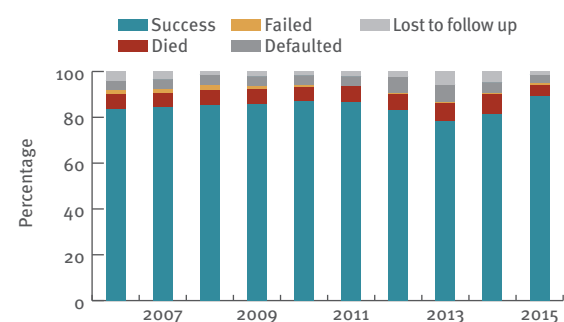
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Slovakia

Total population at 22 September 2017 by EUROSTAT: 5 426 252

Tuberculosis case notifications, 2016

Total number of cases	296
Notification rate per 100 000	5.5
New* & relapses	281
New* & relapses notification rate per 100 000	5.2
Pulmonary	253 (85.5%)
of which microscopy-positive	88 (34.8%)
of which laboratory confirmed	115 (45.5%)
Laboratory-confirmed TB cases	117 (39.5%)
Mean age of new native TB cases	44.4 years
Mean age of new foreign TB cases	30.4 years
Foreign origin of all TB cases	11 (3.7%)
New (not previously treated)	257 (86.8%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	113 (96.6%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	1-0-4
Pulmonary MDR TB cases notified	3 (2.7%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	3 (2.7%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	132 (44.6%)
HIV-positive TB cases	0 (0.0%)
of these on antiretroviral therapy	0 (0.0%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

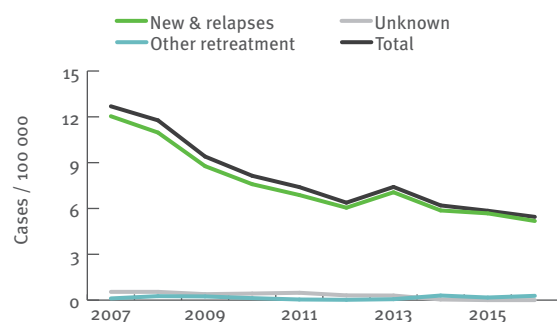
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	136	3
Success	119 (87.5%)	1 (33.3%)
Died	14 (10.3%)	2 (66.7%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	1 (0.7%)	0 (0.0%)
Still on treatment	1 (0.7%)	0 (0.0%)
Not evaluated	1 (0.7%)	0 (0.0%)

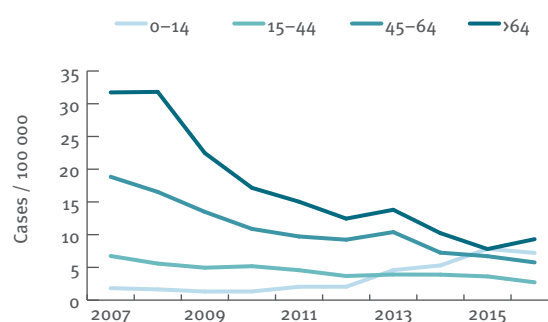
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

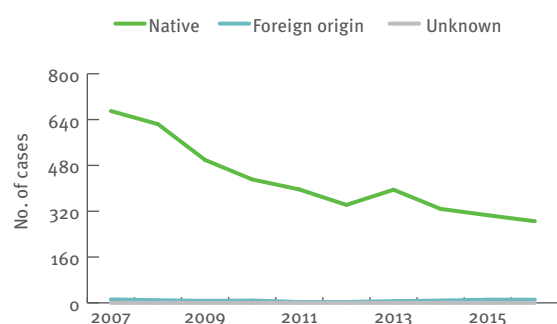
Tuberculosis notification rates by treatment history, 2007-2016



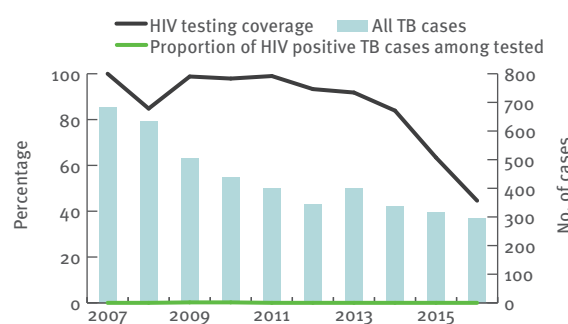
New and relapsed TB cases – notification rates by age group, 2007-2016



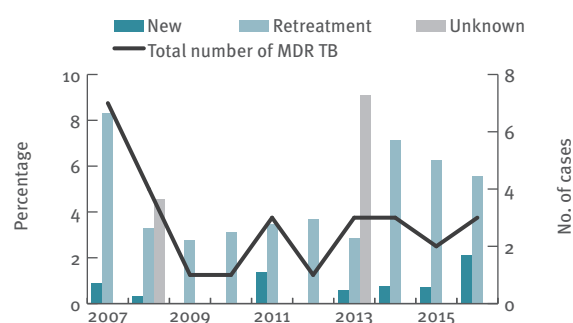
Tuberculosis cases by geographical origin, 2007-2016



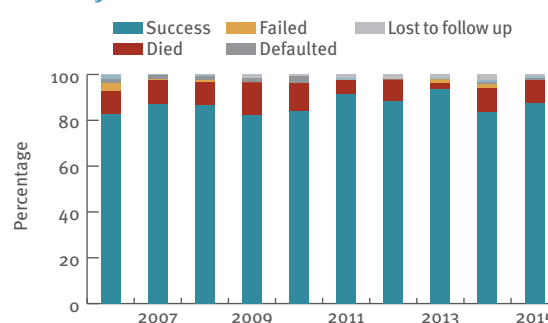
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Slovenia

Total population at 22 September 2017 by EUROSTAT: 2 064 188

Tuberculosis case notifications, 2016

Total number of cases	118
Notification rate per 100 000	5.7
New* & relapses	118
New* & relapses notification rate per 100 000	5.7
Pulmonary	103 (87.3%)
of which microscopy-positive	58 (56.3%)
of which laboratory confirmed	96 (93.2%)
Laboratory-confirmed TB cases	109 (92.4%)
Mean age of new native TB cases	60.2 years
Mean age of new foreign TB cases	53.3 years
Foreign origin of all TB cases	43 (36.4%)
New (not previously treated)	113 (95.8%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	109 (100.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	0-0-0
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	95 (80.5%)
HIV-positive TB cases	1 (1.1%)
of these on antiretroviral therapy	1 (100.0%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

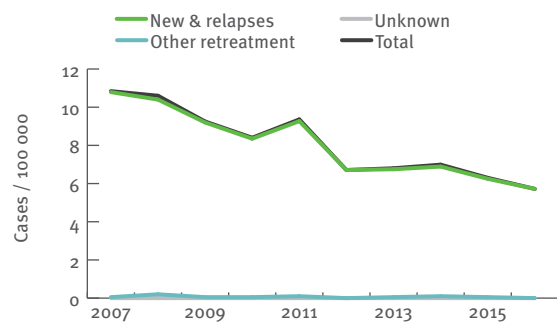
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	88	0
Success	76 (86.4%)	0 -
Died	11 (12.5%)	0 -
Failed	0 (0.0%)	0 -
Lost to follow-up	0 (0.0%)	0 -
Still on treatment	1 (1.1%)	0 -
Not evaluated	0 (0.0%)	0 -

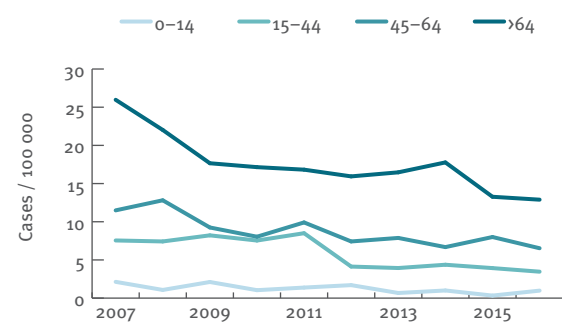
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

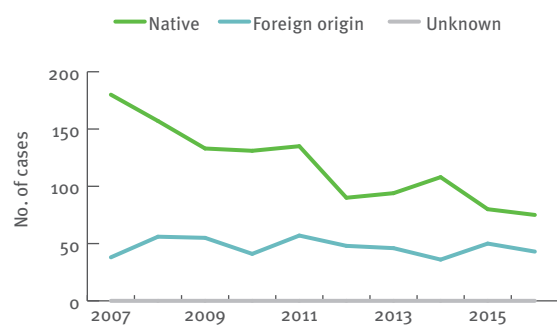
Tuberculosis notification rates by treatment history, 2007–2016



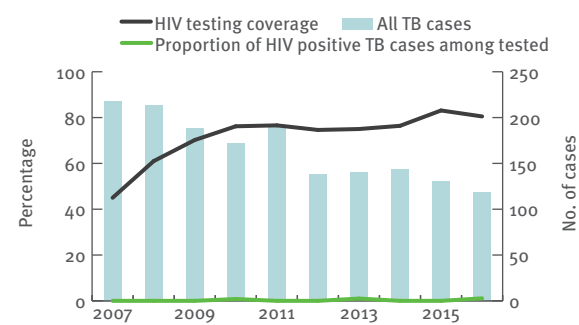
New and relapsed TB cases – notification rates by age group, 2007–2016



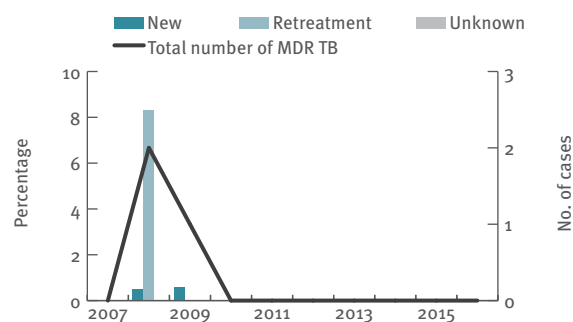
Tuberculosis cases by geographical origin, 2007–2016



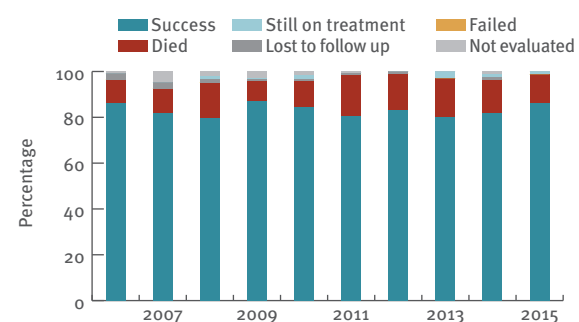
TB-HIV co-infection, 2007–2016



MDR TB cases by previous treatment history, 2007–2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015



Spain

Total population at 22 September 2017 by EUROSTAT: 46 449 565

Tuberculosis case notifications, 2016

Total number of cases	4 877
Notification rate per 100 000	10.5
New* & relapses	4 734
New* & relapses notification rate per 100 000	10.2
Pulmonary	3 515 (72.1%)
of which microscopy-positive	1 675 (47.7%)
of which laboratory confirmed	2 689 (76.5%)
Laboratory-confirmed TB cases	3 372 (69.1%)
Mean age of new native TB cases	51.8 years
Mean age of new foreign TB cases	38.7 years
Foreign origin of all TB cases	1 391 (28.5%)
New (not previously treated)	4 734 (97.1%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	896 (26.6%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	25-10-40
Pulmonary MDR TB cases notified	39 (4.4%)
of which XDR TB cases	0 (0.0%)
Notified MDR TB	39 (4.4%)
of which XDR TB cases	0 (0.0%)
TB cases tested for HIV	2 925 (60.0%)
HIV-positive TB cases	226 (7.7%)
of these on antiretroviral therapy	-

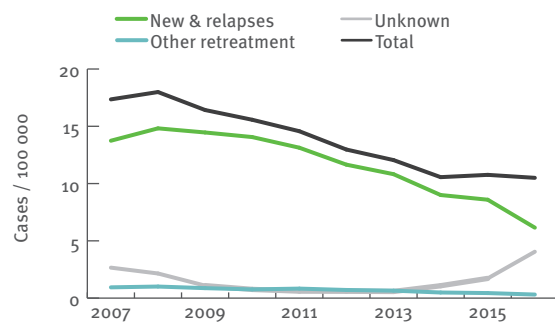
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

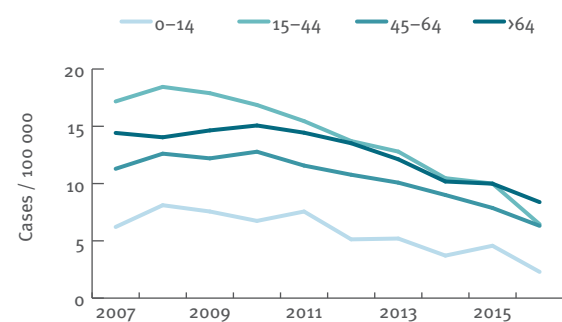
Treatment outcome monitoring

Data not available

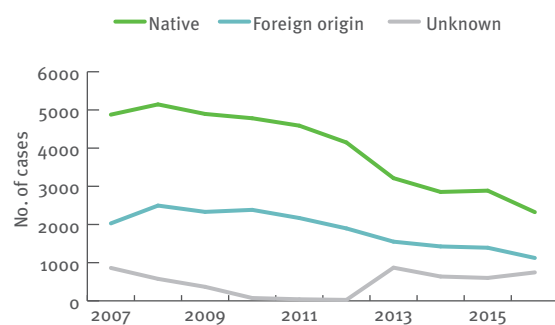
Tuberculosis notification rates by treatment history, 2007-2016



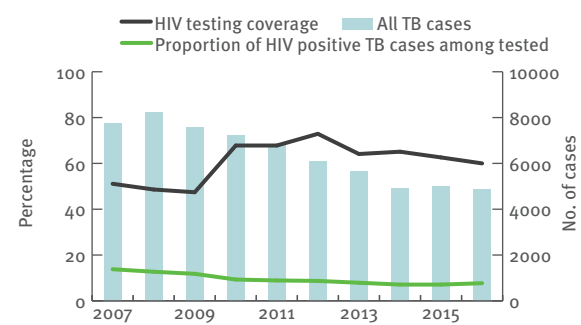
New and relapsed TB cases – notification rates by age group, 2007-2016



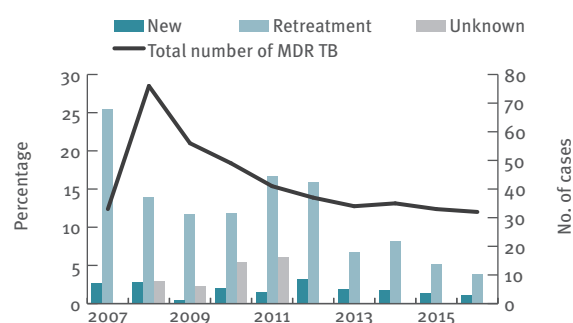
Tuberculosis cases by geographical origin, 2007-2016



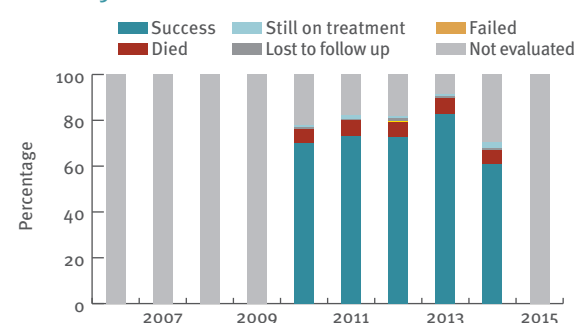
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Sweden

Total population at 22 September 2017 by EUROSTAT: 9747355

Tuberculosis case notifications, 2016

Total number of cases	726
Notification rate per 100 000	7.4
New* & relapses	702
New* & relapses notification rate per 100 000	7.2
Pulmonary	482 (66.4%)
of which microscopy-positive	123 (25.5%)
of which laboratory confirmed	419 (86.9%)
Laboratory-confirmed TB cases	597 (82.2%)
Mean age of new native TB cases	49.5 years
Mean age of new foreign TB cases	30.3 years
Foreign origin of all TB cases	652 (89.8%)
New (not previously treated)	697 (96.0%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	595 (99.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	23-13-32
Pulmonary MDR TB cases notified	14 (3.3%)
of which XDR TB cases	4 (28.6%)
Notified MDR TB	22 (3.7%)
of which XDR TB cases	4 (18.2%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

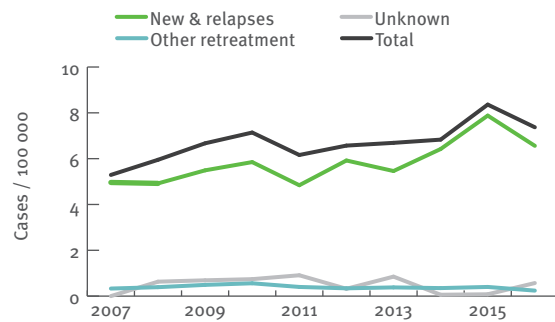
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	428	15
Success	345 (80.6%)	13 (86.7%)
Died	15 (3.5%)	1 (6.7%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	6 (1.4%)	0 (0.0%)
Still on treatment	24 (5.6%)	0 (0.0%)
Not evaluated	38 (8.9%)	1 (6.7%)

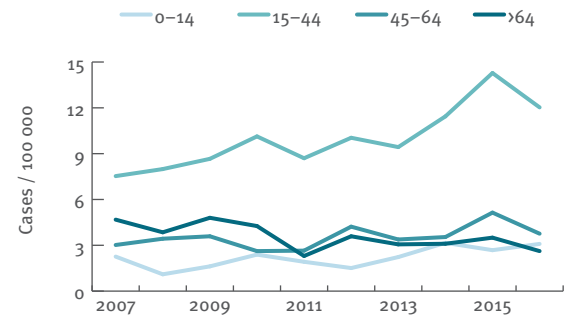
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

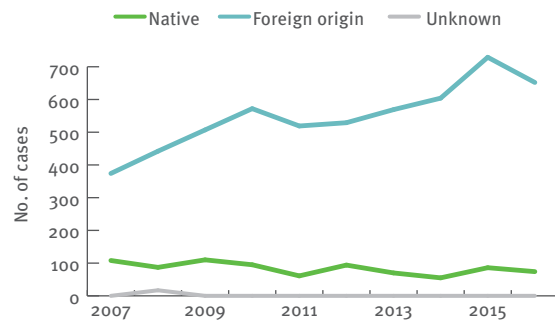
Tuberculosis notification rates by treatment history, 2007–2016



New and relapsed TB cases – notification rates by age group, 2007–2016



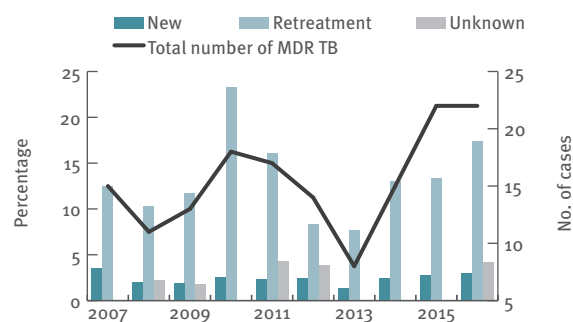
Tuberculosis cases by geographical origin, 2007–2016



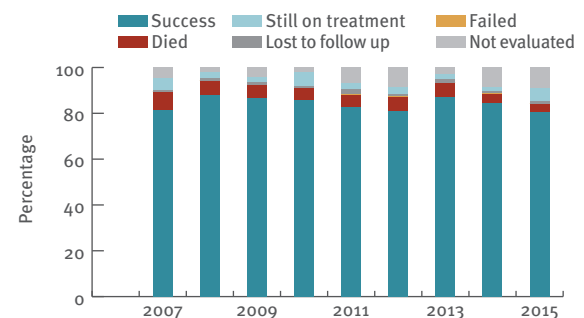
TB-HIV co-infection, 2007–2016

Data not available

MDR TB cases by previous treatment history, 2007–2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006–2015



Switzerland

Population estimate 2016 by UN Statistical Database: 8 401 739

Tuberculosis case notifications, 2016

Total number of cases	609
Notification rate per 100 000	7.2
New* & relapses	573
New* & relapses notification rate per 100 000	6.8
Pulmonary	402 (70.2%)
of which smear positive	-
of which laboratory confirmed	362 (90.0%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	34.8 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	486 (79.8%)
New (not previously treated)	573 (94.1%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	296 (81.8%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	22-11-34
Pulmonary MDR TB cases notified	13 (4.4%)
of which XDR TB cases	0 (0.0%)
Notified MDR	18
of which XDR TB cases	0
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

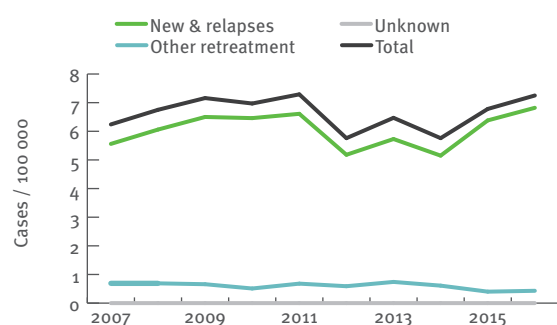
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	-	12
Success	-	9 (75.0%)
Died	-	0 (0.0%)
Failed	-	1 (8.3%)
Lost to follow-up	-	0 (0.0%)
Not evaluated	-	2 (16.7%)

* Treatment outcome as presented is treatment outcome after 12 months.

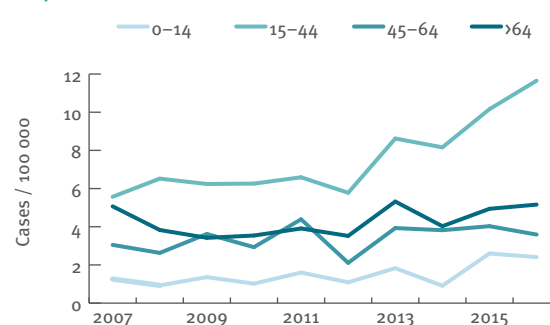
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



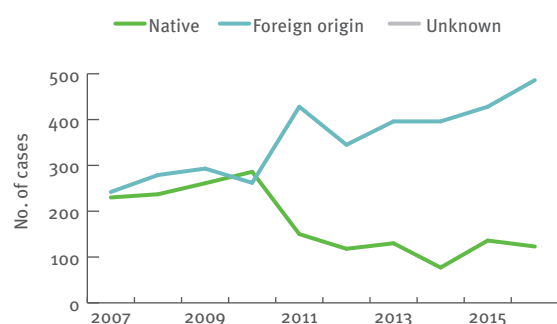
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

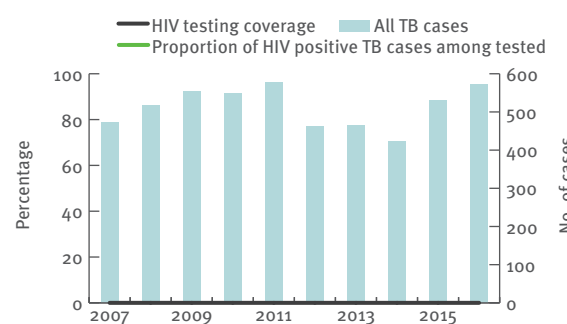


* Data up to 2012 includes new TB cases only.

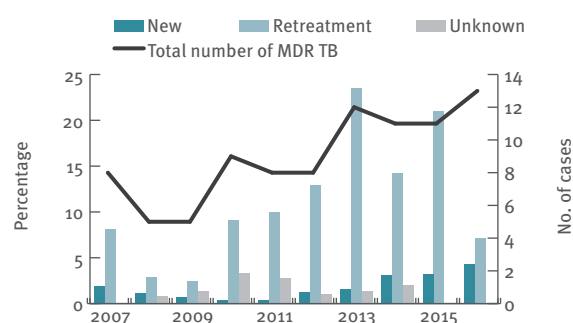
Tuberculosis cases by geographical origin, 2007-2016



TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new and relapsed TB cases, 2006-2015

Data not available

Tajikistan

Population estimate 2016 by UN Statistical Database: 8734 951

Tuberculosis case notifications, 2016

Total number of cases	6241
Notification rate per 100 000	71.4
New* & relapses	5965
New* & relapses notification rate per 100 000	68.3
Pulmonary	4368 (73.2%)
of which smear positive	-
of which laboratory confirmed	3011 (68.9%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	37.1 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	5241 (84.0%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	2702 (89.7%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	1200-1200-1300
Pulmonary MDR TB cases notified	646 (23.9%)
of which XDR TB cases	59 (9.1%)
Notified MDR	748 -
of which XDR TB cases	59 -
TB cases tested for HIV	5850 (98.1%)
HIV-positive TB cases	201 (3.4%)
of these on antiretroviral therapy	182 (90.5%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

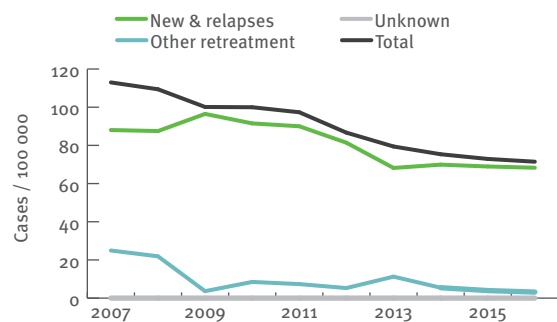
Treatment outcome monitoring

Geographical coverage	National		
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**	
Case-linked data reporting	Yes		
Cases notified	5298	804	
Success	4734 (89.4%)	398	(49.5%)
Died	237 (4.5%)	170	(21.1%)
Failed	111 (2.1%)	67	(8.3%)
Lost to follow-up	172 (3.2%)	159	(19.8%)
Not evaluated	44 (0.8%)	10	(1.2%)

* Treatment outcome as presented is treatment outcome after 12 months.

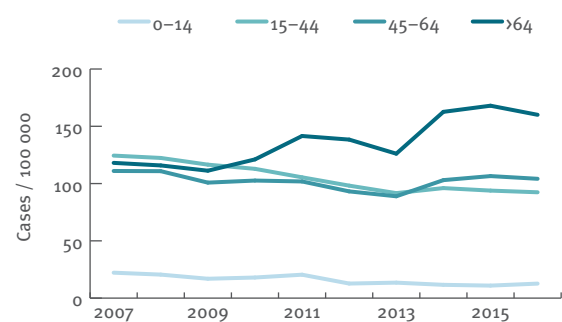
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



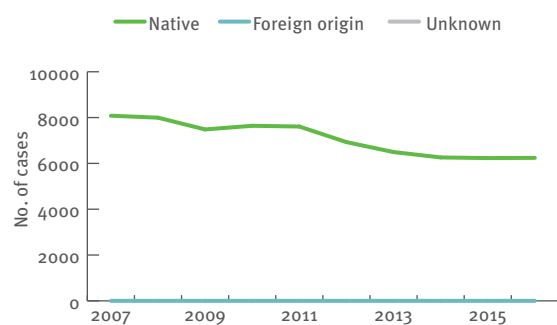
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

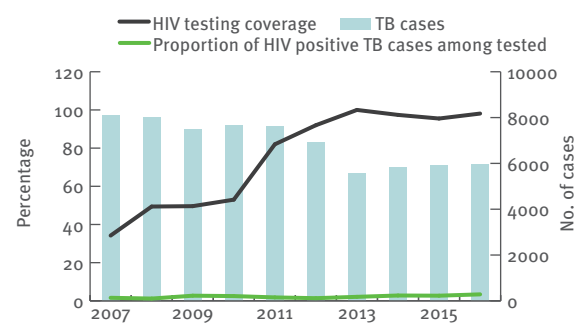


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

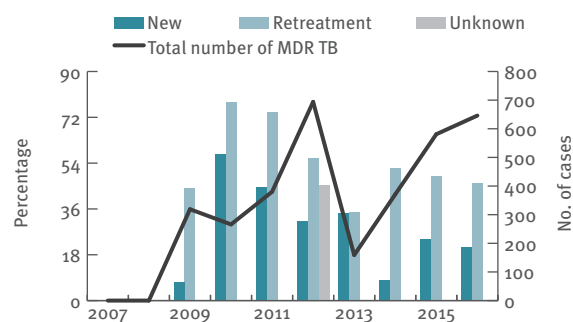


TB-HIV co-infection, 2007-2016

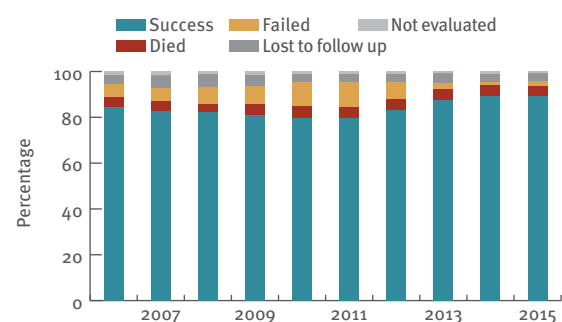


* Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015*



* 2005-2011 cohorts include new cases only.

Turkey

Population estimate 2016 by UN Statistical Database: 79512426

Tuberculosis case notifications, 2016

Total number of cases	12 417
Notification rate per 100 000	15.6
New* & relapses	12 186
New* & relapses notification rate per 100 000	15.3
Pulmonary (new and relapse)	8 044 (66.0%)
of which smear positive	-
of which laboratory confirmed	6 334 (78.7%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	41.4 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	904 (7.3%)
New (not previously treated)	11 442 (92.1%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	5 612 (88.6%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	350-300-390
Pulmonary MDR TB cases notified	190 (3.4%)
of which XDR TB cases	9 (4.7%)
Notified MDR	256 -
of which XDR TB cases	9 -
TB cases tested for HIV	8 549 (70.2%)
HIV-positive TB cases	56 (0.7%)
of these on antiretroviral therapy	51 (91.1%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

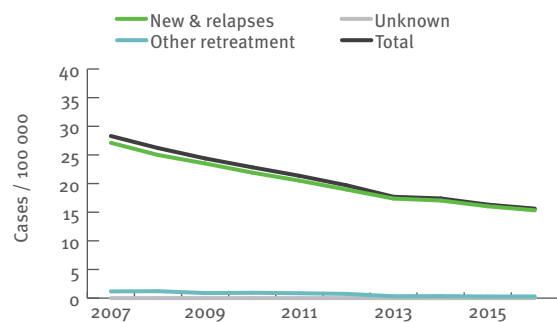
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	12 362	257
Success	10 735 (86.8%)	163 (63.4%)
Died	695 (5.6%)	27 (10.5%)
Failed	30 (0.2%)	15 (5.8%)
Lost to follow-up	432 (3.5%)	30 (11.7%)
Not evaluated	470 (3.8%)	22 (8.6%)

* Treatment outcome as presented is treatment outcome after 12 months.

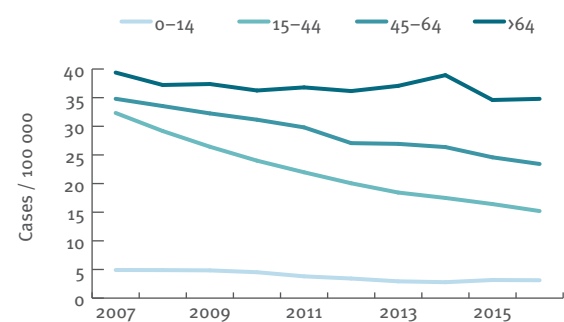
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



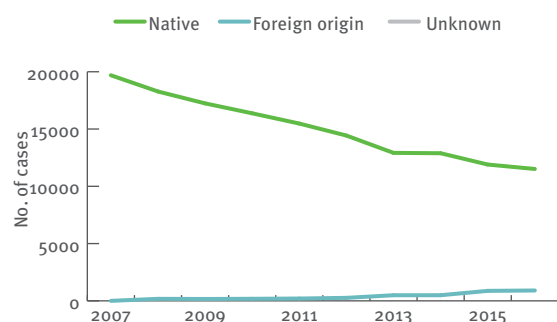
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

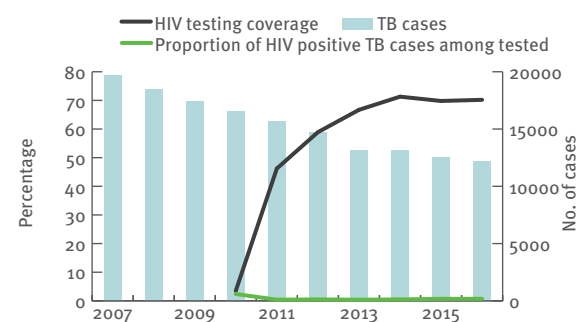


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

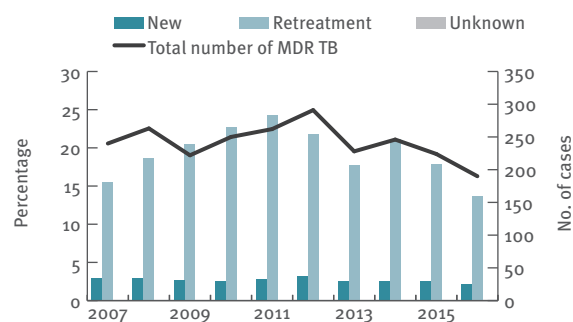


TB-HIV co-infection, 2007-2016

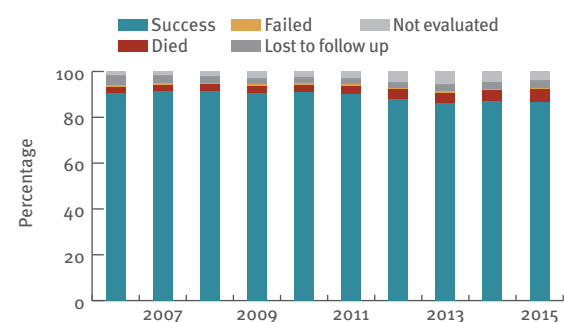


* Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new and relapsed TB cases, 2006-2015*



* 2005-2011 cohorts include new cases only.

Turkmenistan

Population estimate 2016 by UN Statistical Database: 5622544

Tuberculosis case notifications, 2016

Total number of cases	2376
Notification rate per 100 000	42.0
New* & relapses	2104
New* & relapses notification rate per 100 000	37.2
Pulmonary	1616 (76.8%)
of which smear positive	-
of which laboratory confirmed	1616 (100.0%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	40.0 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	1952 (82.2%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	No
Cases with DST results	-
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	450-390-520
Pulmonary MDR TB cases notified	557
of which XDR TB cases	-
Notified MDR	557
of which XDR TB cases	-
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

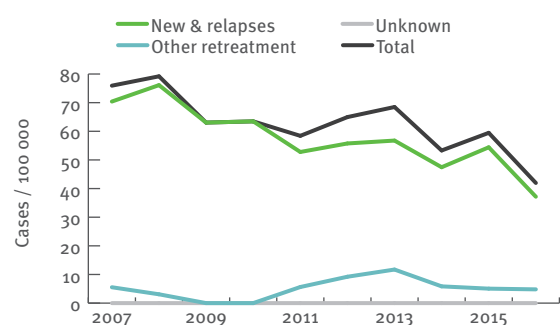
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	2472	213
Success	2126 (86.0%)	143 (67.1%)
Died	105 (4.2%)	24 (11.3%)
Failed	105 (4.2%)	32 (15.0%)
Lost to follow-up	82 (3.3%)	9 (6.6%)
Not evaluated	54 (2.2%)	0 (0.0%)

* Treatment outcome as presented is treatment outcome after 12 months.

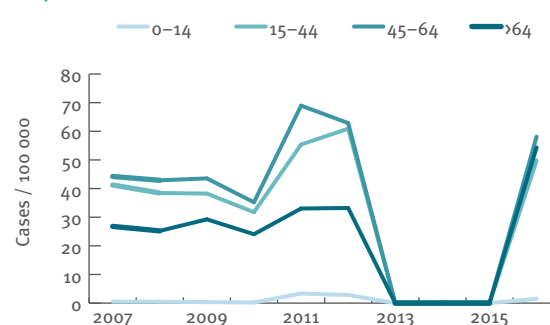
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



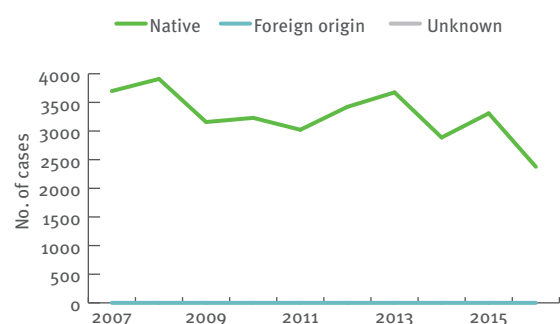
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

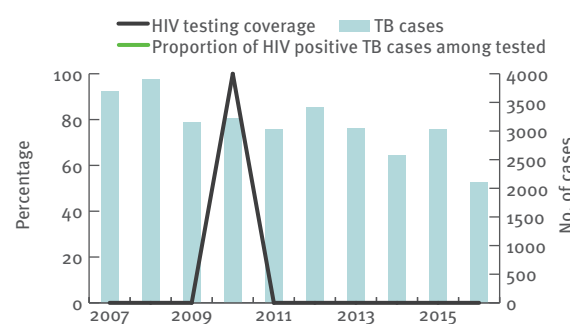


* Data up to 2012 includes new TB cases only.

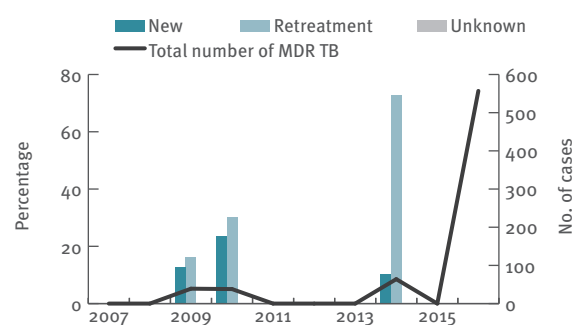
Tuberculosis cases by geographical origin, 2007-2016



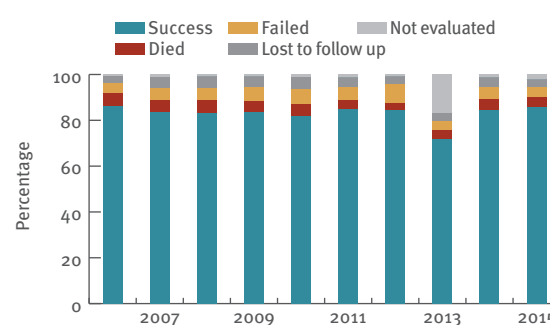
TB-HIV co-infection, 2006-2014



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome of new TB cases, 2006-2015*



* 2005-2011 cohorts include new cases only.

Ukraine

Population estimate 2016 by UN Statistical Database: 44 438 625

Tuberculosis case notifications, 2016

Total number of cases	34 088
Notification rate per 100 000	76.7
New* & relapses	29 052
New* & relapses notification rate per 100 000	65.4
Pulmonary	26 357 (90.7%)
of which smear positive	-
of which laboratory confirmed	18 125 (68.8%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	41.8 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	20 (0.1%)
New (not previously treated)	23 316 (68.4%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	20 147 (111.2%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	10 000-10 000-11 000
Pulmonary MDR TB cases notified	5 756 (28.6%)
of which XDR TB cases	247 (4.3%)
Notified MDR	8 651 -
of which XDR TB cases	1 195 -
TB cases tested for HIV	28 194 (97.0%)
HIV-positive TB cases	5 832 (20.7%)
of these on antiretroviral therapy	3 945 (67.6%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

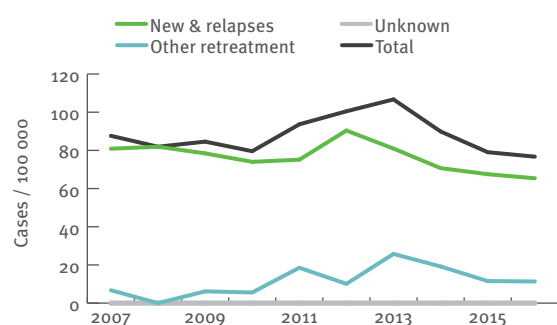
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	23 892	7 174
Success	17 939 (75.1%)	3 297 (46.0%)
Died	2 393 (10.0%)	1 210 (16.9%)
Failed	1 950 (8.2%)	1 284 (17.9%)
Lost to follow-up	1 552 (6.5%)	1 186 (16.5%)
Not evaluated	58 (0.2%)	197 (2.7%)

* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



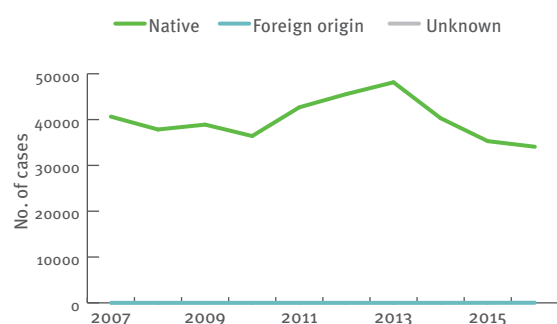
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

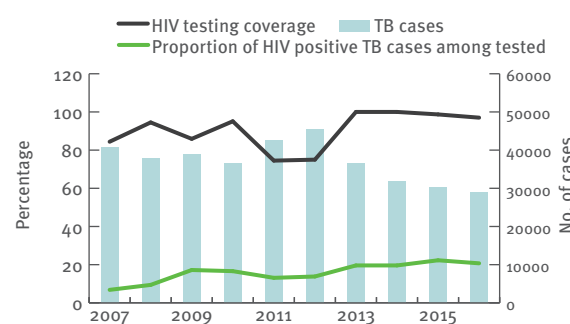


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

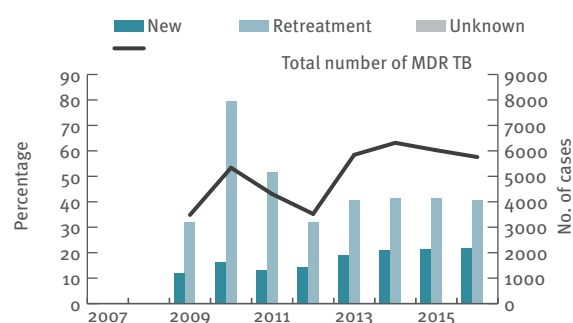


TB-HIV co-infection, 2007-2016

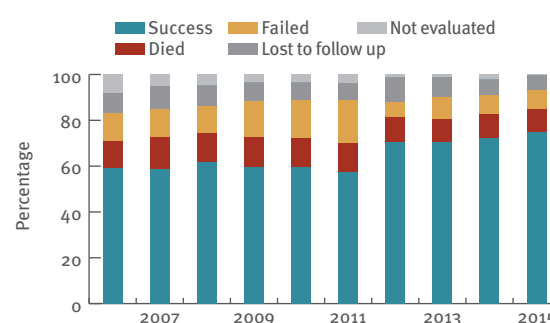


* Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new and relapsed TB cases, 2006-2015*



* 2005-2011 cohorts include new cases only.

United Kingdom

Total population at 22 September 2017 by EUROSTAT: 65 382 556

Tuberculosis case notifications, 2016

Total number of cases	6 175
Notification rate per 100 000	9.4
New* & relapses	5 793
New* & relapses notification rate per 100 000	8.9
Pulmonary	3 354 (54.3%)
of which microscopy-positive	1 379 (41.1%)
of which laboratory confirmed	2 535 (75.6%)
Laboratory-confirmed TB cases	3 907 (63.3%)
Mean age of new native TB cases	43.7 years
Mean age of new foreign TB cases	41.5 years
Foreign origin of all TB cases	4 369 (70.8%)
New (not previously treated)	5 793 (93.8%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	Yes
Completeness of HIV data**	No
Case-linked data reporting	Yes
Cases with DST results	3 789 (97.0%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	58-39-78
Pulmonary MDR TB cases notified	43 (1.8%)
of which XDR TB cases	6 (15.4%)
Notified MDR TB	56 (1.5%)
of which XDR TB cases	7 (14.0%)
TB cases tested for HIV	-
HIV-positive TB cases	-
of these on antiretroviral therapy	-

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%.

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

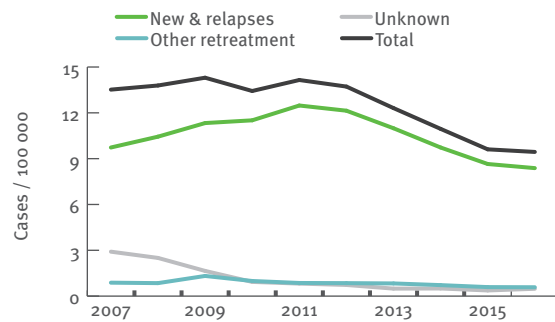
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New culture positive pulmonary TB cases notified in 2015*	All MDR TB cases notified in 2014**
Case-linked data reporting	Yes	
Cases notified	2 210	56
Success	1 679 (76.0%)	29 (51.8%)
Died	158 (7.1%)	2 (3.6%)
Failed	0 (0.0%)	0 (0.0%)
Lost to follow-up	112 (5.1%)	12 (21.4%)
Still on treatment	226 (10.2%)	10 (17.9%)
Not evaluated	35 (1.6%)	3 (5.4%)

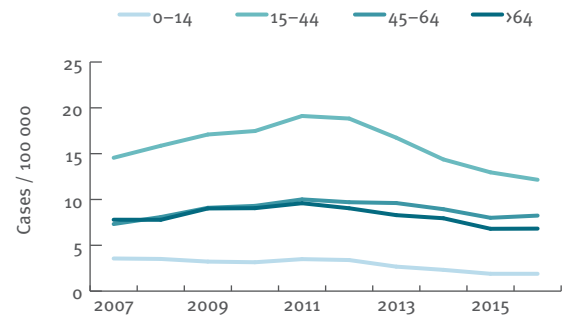
* Treatment outcome as presented is treatment outcome after 12 months.

** Treatment outcome as presented is treatment outcome after 24 months.

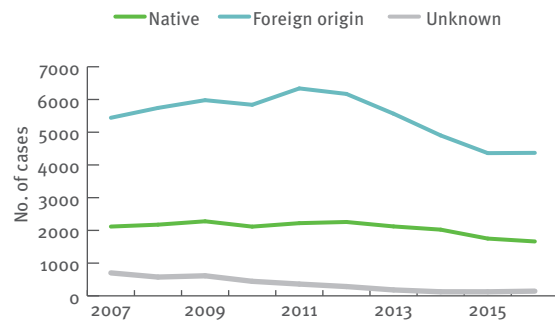
Tuberculosis notification rates by treatment history, 2007-2016



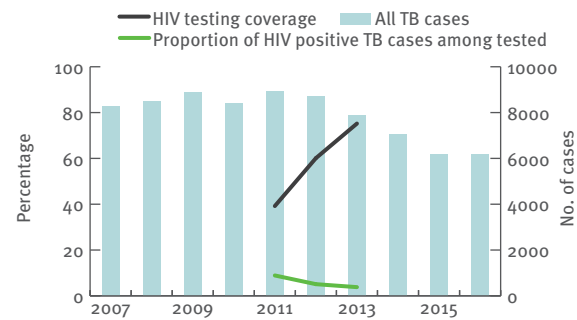
New and relapsed TB cases – notification rates by age group, 2007-2016



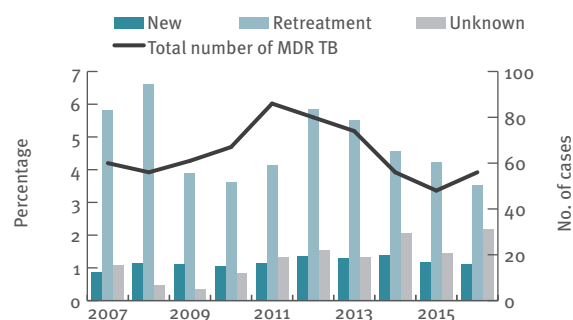
Tuberculosis cases by geographical origin, 2007-2016



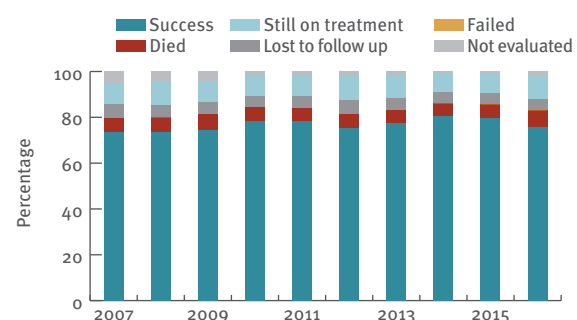
TB-HIV co-infection, 2007-2016



MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new culture-confirmed pulmonary TB cases, 2006-2015



Uzbekistan

Population estimate 2016 by UN Statistical Database: 31446795

Tuberculosis case notifications, 2016

Total number of cases	18 441
Notification rate per 100 000	58.6
New* & relapses	16 050
New* & relapses notification rate per 100 000	51.0
Pulmonary (new and relapse)	10 709 (66.7%)
of which smear positive	-
of which laboratory confirmed	4 854 (45.3%)
Laboratory-confirmed TB cases	-
Mean age of new and relapse TB cases	39.8 years
Mean age of new foreign TB cases	- years
Foreign origin of all TB cases	0 (0.0%)
New (not previously treated)	14 436 (78.3%)

* Cases with unknown previous treatment included in new cases.

Drug resistance surveillance & TB-HIV co-infection, 2016

Completeness of DRS data*	No
Completeness of HIV data**	Yes
Case-linked data reporting	Yes
Cases with DST results	1 986 (40.9%)
Estimated RR-TB among notified pulmonary cases N, (best-low-high)	5 800-4 900-6 600
Pulmonary MDR TB cases notified	603 (30.4%)
of which XDR TB cases	184
Notified MDR	1 956 -
of which XDR TB cases	184 -
TB cases tested for HIV	18 441 (114.9%)
HIV-positive TB cases	758 (4.1%)
of these on antiretroviral therapy	496 (65.4%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+75%, EQA 95%.

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

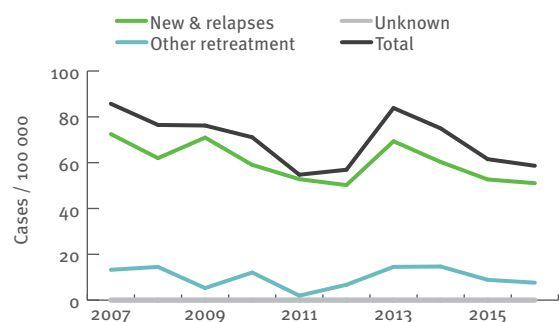
Treatment outcome monitoring

Geographical coverage	National	
Outcome cohort	New and relapsed TB cases notified in 2015*	All MDR TB cases enrolled into MDR treatment in 2014**
Case-linked data reporting	Yes	
Cases notified	15 220	3 602
Success	13 536 (88.9%)	2 216 (61.5%)
Died	688 (4.5%)	587 (16.3%)
Failed	193 (1.3%)	221 (6.1%)
Lost to follow-up	172 (1.1%)	220 (6.1%)
Not evaluated	631 (4.1%)	358 (9.9%)

* Treatment outcome as presented is treatment outcome after 12 months.

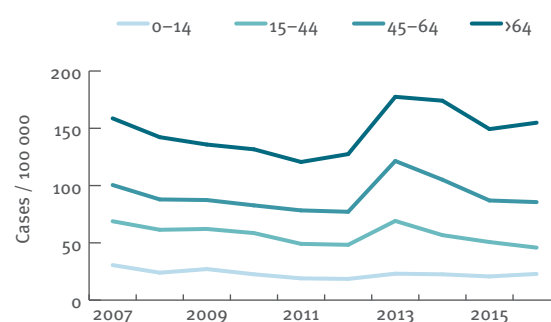
** Treatment outcome as presented is treatment outcome after 24 months.

Tuberculosis notification rates by treatment history, 2007-2016*



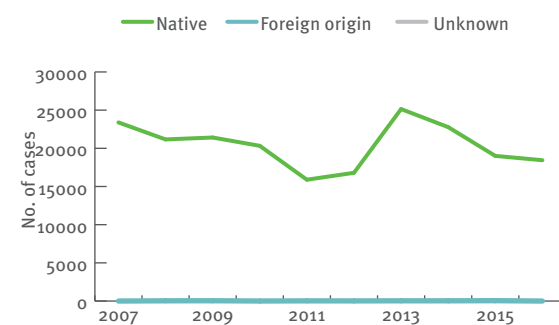
* Starting from 2013 onward cases with unknown history are included in new and relapses.

New and relapsed TB cases – notification rates by age group, 2007-2016*

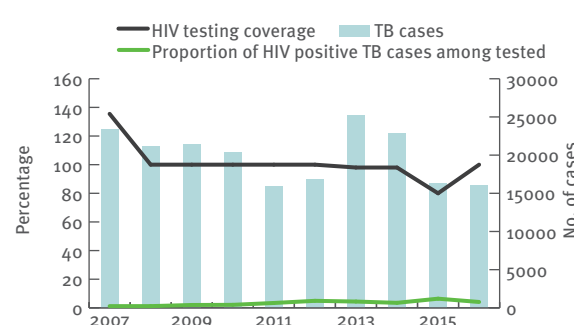


* Data up to 2012 includes new TB cases only.

Tuberculosis cases by geographical origin, 2007-2016

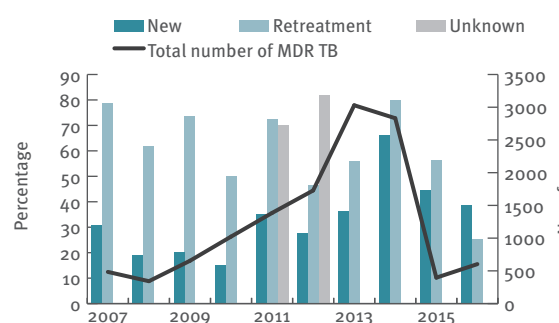


TB-HIV co-infection, 2007-2016

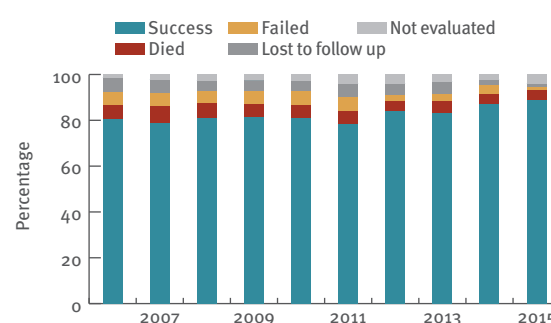


* Since 2015 data on HIV detection are collected for new TB cases and relapses.

MDR TB cases by previous treatment history, 2007-2016



Treatment outcome, new and relapsed TB cases, 2006-2015*



* 2005-2011 cohorts include new cases only.



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