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Contents

Abbreviations	v
Summary	1
1. Background and technical note	7
1.1 Tuberculosis case notifications and data sources for analysis, 2009.....	9
1.2 Reporting and analysis of tuberculosis cases, mortality, drug resistance and treatment outcome.....	9
1.3 Definitions.....	12
2. Commentary	15
2.1 The WHO European Region.....	17
2.2 European Union and European Economic Area countries.....	22
3. Tables	31
Table A: Update of individual TB data notified in TESSy.....	10
Table B: Follow-up to the TB Action Plan: monitoring feasibility overview and baseline data.....	25
Summary table: Tuberculosis surveillance data by region, European Region, 2009.....	33
Table 1: Description of the TB notification systems, European Region, 2009.....	34
Table 2: Tuberculosis cases, notification rates per 100 000 population and mean annual change in rates, European Region, 2005–2009.....	35
Table 3: New TB cases and relapses, notification rates per 100 000 population, European Region, 2000–2009.....	36
Table 4: Tuberculosis cases by history of previous TB treatment, European Region, 2009.....	38
Table 5: Tuberculosis cases by site of disease, European Region, 2009.....	39
Table 6: Pulmonary sputum smear-positive TB cases, percentage of all pulmonary TB cases and cases per 100 000 population, European Region, 2007–2009.....	40
Table 7: New pulmonary tuberculosis cases by laboratory confirmation, European Region, 2009.....	41
Table 8: New pulmonary sputum smear-positive tuberculosis cases, European Region, 2000–2009.....	42
Table 9: Tuberculosis cases confirmed by culture, European Region, 2005–2009.....	44
Table 10: Tuberculosis cases by <i>M. tuberculosis</i> complex species, EU/EEA, 2009.....	45
Table 11: New TB cases by age group, European Region, 2009.....	46
Table 12: Tuberculosis cases in children (< 15 age old), European Region, 2005–2009.....	47
Table 13: Tuberculosis cases in children (< 15 years old), by age group and origin, European Region, 2009.....	48
Table 14: Tuberculosis cases by geographical origin and sex ratio, European Region, 2009.....	49
Table 15a: Tuberculosis cases of national origin, by age group, European Region, 2009.....	50
Table 15b: Tuberculosis cases of foreign origin, by age group, European Region, 2009.....	51
Table 16: Tuberculosis cases of foreign origin by country and geographical area of origin, EU/EEA, 2009.....	52
Table 17: Laboratory practices and quality assurance for anti-TB drug susceptibility testing, European Region, 2009.....	53
Table 18: Characteristics of anti-TB drug resistance surveillance, European Region, 2009.....	54
Table 19: Multidrug-resistant TB cases by previous history of TB treatment, European Region, 2009.....	55
Table 20: Anti-TB drug resistance among all TB cases, European Region, 2009.....	56
Table 21: Anti-TB drug resistance among all XDR TB cases, European Region, 2008–2009.....	57
Table 22: Anti-TB drug resistance among new TB cases, European Region, 2009.....	58
Table 23: Anti-TB drug resistance among all TB cases of national origin, EU/EEA, 2009.....	59
Table 24: Anti-TB drug resistance among all TB cases of foreign origin, EU/EEA, 2009.....	60
Table 25: Tuberculosis cases with HIV infection, European Region, 2007–2009.....	61
Table 26: Treatment outcome of new laboratory-confirmed pulmonary TB cases, European Region, 2008.....	62
Table 27: Treatment outcome, retreatment laboratory-confirmed pulmonary TB cases, European Region, 2008.....	63
Table 28: Treatment outcome of all culture-confirmed pulmonary cases by geographical origin, EU/EEA, 2008.....	64
Table 29: Treatment outcome of all laboratory-confirmed pulmonary cases, European Region, 2008.....	65
Table 30: Treatment outcome after 24 months of all MDR TB cases, European Region, 2007.....	66
Table 31: Tuberculosis deaths and mortality rates per 100 000 population, European Region, 2006–2009.....	67

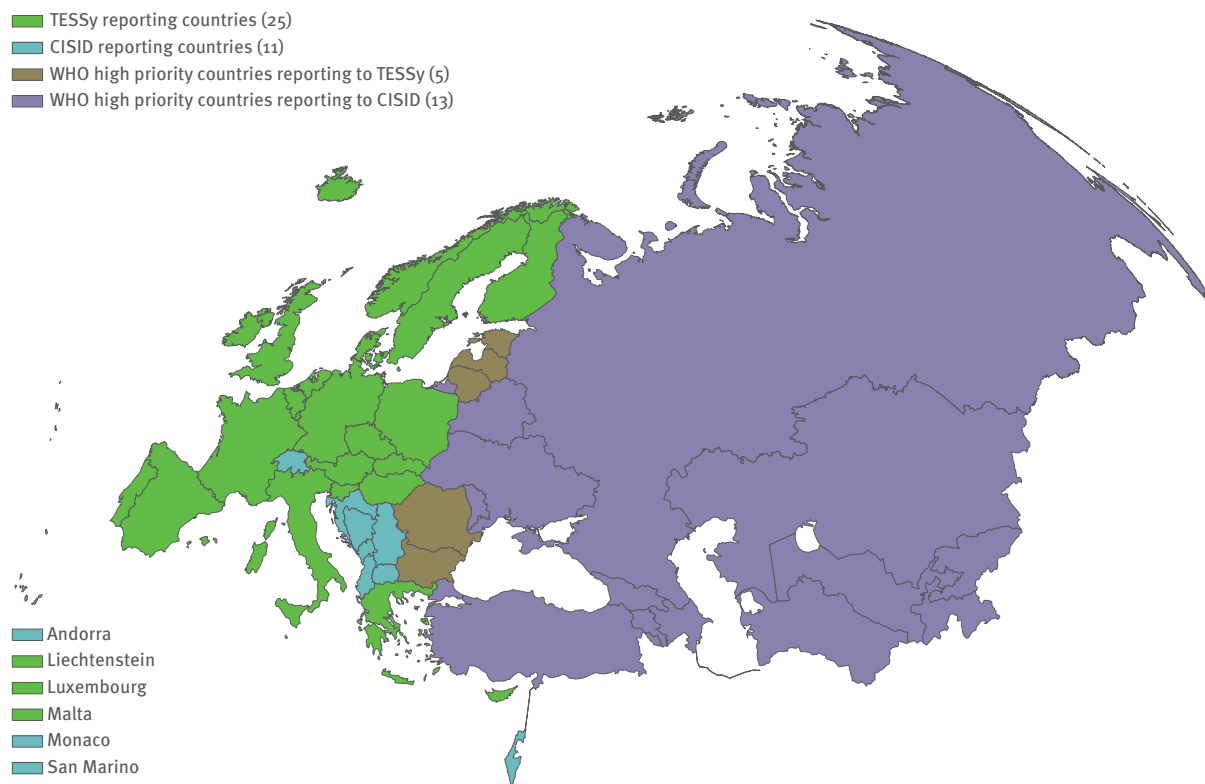
4. Maps & figures	69
Figure A: All TB cases by previous treatment history, European Region, 2009	18
Figure B: Age group distribution of new TB cases by priority of Stop TB at the Regional level, European Region, 2009	19
Figure C: TB trends by incidence grouping, 2002–2009	24
Figure D: Notification rates of paediatric TB in low-burden countries of EU (<20/100 000), 2000–2009	26
Figure E: Notification rates of paediatric TB in high-burden countries of EU (>20/100 000), 2000–2009	27
Figure F: Percentage of culture-positive cases among new pulmonary TB cases, 2009	28
Figure G: Treatment success rate among previously untreated laboratory-confirmed pulmonary TB cases, 2008	28
Map 1: Total TB notification rates per 100 000 population, Europe, 2009	71
Map 2: New TB cases and relapses, notification rates per 100 000 population, Europe, 2009	71
Map 3: TB mortality rates per 100 000 population, Europe, 2007–2009	72
Map 4: Percentage of notified TB cases of foreign origin, Europe, 2009	72
Map 5: Percentage of smear-positive cases among pulmonary TB cases, Europe, 2009	73
Map 6: Percentage of TB cases confirmed by culture, Europe, 2009	73
Map 7: Percentage of notified TB cases with primary multidrug resistance, Europe, 2009	74
Map 8: Percentage of notified TB cases with multidrug resistance among all TB cases with DST, Europe, 2009	74
Map 9: Percentage of notified TB cases with extensively drug resistance among MDR-TB cases, Europe, 2009	75
Map 10: Percentage of HIV positive TB cases, Europe, 2009	75
Map 11: Percentage success rate among laboratory-confirmed new pulmonary TB cases, Europe, 2008	76
Figure 1: Total TB notifications by previous treatment history and total TB case rates, Europe, 2000–2009	77
Figure 2: Treatment outcome by area, new culture-confirmed pulmonary cases, Europe, 2001–2008	78
Figure 3: Percentage of MDR among tested TB cases, Europe, 2001–2008	79
Figure 4: Percentage of TB cases with HIV infection among all TB cases, Europe, 2000–2009	80
5. Country profiles	81

Abbreviations

AFB	Acid-fast bacilli
AIDS	Acquired immunodeficiency syndrome
CISID	Centralized Information System for Infectious Diseases
DOTS	The internationally recommended strategy for the control of tuberculosis
DRS	Drug resistance surveillance
DST	Drug susceptibility testing
ECDC	European Centre for Disease Prevention and Control
EEA	European Economic Area
EITUD	European individual tuberculosis dataset
ERLN-TB	European Reference Laboratory Network for TB
EQA	External quality assurance
EU	European Union
HIV	Human immunodeficiency virus
HPC	High priority countries
ICD	International classification of diseases
ISO	International Organization for Standardization
MDB	Mortality database
MDR	Multidrug resistance
MDR TB	Multidrug-resistant tuberculosis
TB	Tuberculosis
TESSy	The European Surveillance System
TOM	Treatment outcome monitoring
UN	United Nations
WHO	World Health Organization
XDR	Extensively drug resistance
XDR TB	Extensively drug-resistant tuberculosis

Summary

Map: Tuberculosis surveillance in Europe 2009^a



^a Data from Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia.

Summary

Since 1 January 2008, the European Centre for Disease Prevention and Control (ECDC) and the WHO Regional Office for Europe have jointly coordinated the collection of tuberculosis (TB) surveillance data in Europe. Their aim is to ensure a high quality of standardised TB data covering all 53 countries of the WHO European Region, plus Liechtenstein.

The WHO European Region

As in the previous year, surveillance of TB reveals a mixed epidemiological picture among the Member States of WHO European Region. Member States in the east remain with much higher notification rates than in the west. While the Region comprises only 5.6% of newly detected and relapsed TB cases in the world, it reported 329 391 new episodes of TB in 2009 and 46 241 deaths from TB in 2008, the majority of them in the 18 high-priority countries (HPC) of the Region.

The trend in TB notifications has been decreasing since 2005. Despite of this encouraging trend, notification rates of the newly detected and relapse TB cases in the 18 HPC remained almost eight times higher (73.0 per 100 000 population) than in the rest of the region (9.2 per 100 000) and twice as high as the Regional average (36.8 per 100 000 population). The Region is detecting an estimated 79% (74–85) of TB cases, which is the highest detection rate among all WHO Regions.

The percentage of cases previously treated for TB in the Region decreased sharply to 17.5% in 2009 from 29.8% in 2008, a drop almost entirely due to changes in case definition and notification policies in Russia and Kazakhstan.

The confirmation of TB by sputum smear microscopy was made in 39.7% of newly detected cases of pulmonary TB (globally, the 2009 level was 57%). Culture confirmation was conducted in 20.6% of smear-negative cases.

Based on the available data, cross-border migrants represent about one quarter of TB cases in the Region, with little variation between EU/EEA and other countries in the Region.

Based on the available data, the percentage of HIV-infected individuals among incident TB cases increased to 3.9% from 3.0% in 2008. This increase was seen entirely in non-EU/EEA countries where the prevalence increased to 4.2% from 3.0% in 2008 (as a result of increases in HIV testing of TB cases). In EU/EEA countries, the percentage actually decreased to 2.3% from 3.1% in 2008.

The percentages of MDR TB throughout the Region remain alarming. The percentage of MDR among new TB cases rose slightly from 11.1% to 11.7% in 2009, but decreased from 46.9% to 36.6% among previously treated TB cases. Despite low coverage of drug susceptibility testing (DST)

on second-line drugs in non-EU/EEA countries, increases in DST in the east increased the total number of patients detected with extensively drug-resistant TB (XDR TB) notified in the Region, almost tripling the number of cases from 132 in 2008 to 344 in 2009, with all of that increase occurring in the east.

The treatment success rate among TB cases continues to decline. The rate in newly detected cases in 2008 with laboratory confirmation of disease was 69.7%, a slight decrease from the 70.7% success rate recorded in the previous year and a more substantial decrease from the 73.1% success rate for cases registered in 2006. Success rate was higher (78.1%) in the EU/EEA countries than in non-EU/EEA countries (66.9%). In addition to a high default rate, the failure rate is alarmingly high and indicates that approximately 11 000 TB patients are at increased risk of acquired drug resistance and MDR TB. Insufficient measures to prevent and retrieve treatment interruptions have resulted in more than 13 500 new and previously treated cases that defaulted from treatment. Considering that the WHO European Region has the lowest treatment success rate in the world, there is an urgent need to address the underlying and programmatic reasons for these poor outcomes, which can result in the further emergence of drug resistance.

Mortality has been decreasing in recent years, although in 2008, the most recent year with reliable data, crude mortality rate increased to 6.1 deaths per 100 000 population, up from 4.4 in 2007. Mortality rates geographically follow a distribution similar to notifications, increasing from west to east across the European Region. The 18 HPC countries accounted for 92% of the TB deaths in the Region.

European Union and European Economic Area countries¹

In 2009, 79 665 TB cases were reported by all 27 EU countries, Iceland and Norway, showing a decrease of 3 635 cases compared with 2008. Over 75% of cases occurred in the seven countries that reported 3 000 cases or more each (France, Germany, Italy, Poland, Romania, Spain and United Kingdom).

The overall notification rate in 2009 was 15.8 per 100 000 population. Rates lower than 20 per 100 000 were reported by 22 countries and rates higher than 20 per 100 000 by Romania (108.2), the Baltic States — Lithuania (62.1), Latvia (43.2) and Estonia (30.7) — Bulgaria (38.3), Portugal (27.0) and Poland (21.6). The overall notification rate was 4.5% lower than that for 2008 (for the 29 reporting countries), reflecting a net downward trend in 20 countries.

¹ The 27 EU Member States, Iceland, Liechtenstein and Norway.

Among previously untreated cases, more than 50% of all new cases were in the age groups 25–44 and 45–64. The middle-aged (45–64 year-olds) and the elderly (> 64 year-olds) together represented more than half of the cases (all cases) of national origin and most cases of foreign origin were reported among younger adults, especially in the 15–24 and 25–44 age groups (68.4%). Cases in children (< 15 years old) accounted for 4.2% of all notified cases. Nearly all countries experienced a decline or stabilisation at low levels in paediatric notification rates since 2005. Rates, however, remained high in Bulgaria, Latvia, Lithuania and Romania (12.9–29.6 per 100 000 child population) in 2009.

Overall, for the EU/EEA, the percentage of reported TB cases that were also HIV-seropositive was 2.3% in 2009. The percentage of HIV-seropositive cases has increased since 2007 in Estonia (8.4% to 9.5%), Latvia (from 3.6% to 7.5%) and Malta (from 5.3% to 9.1%), and decreased in Portugal (15.1% to 12.2%). Among the 8 countries with complete data, the percentage of TB cases with positive HIV serostatus in 2009 was highest in Portugal (12.2%), Estonia (9.5%), Latvia (7.5%) and Malta (9.1%, representing only four cases), and ranged between 0% and 4.2% in Iceland, Slovenia, Slovakia and Belgium.

Multidrug resistance remained most frequent in the Baltic States (combined MDR: 17.4%–28.0%) and Romania (combined MDR: 11.2%). Other countries reported lower levels of MDR (0%–8%), where it was generally more common in cases of foreign origin. Of the 15 countries reporting extensively drug resistance (XDR), Romania had the highest numbers (total of 22 cases), Estonia reported an increase in the total number and percentage of XDR cases (9.5% to 11.6%) compared with 2008, and Latvia reported decrease in the number of XDR cases in 2009 (from 19 to 16 cases, with percentage change of 14.8% to 12.2%).

Twenty-four countries reported treatment outcome monitoring (TOM) data for culture-confirmed pulmonary TB cases reported in 2008 that were followed-up. Among previously untreated, culture-confirmed pulmonary TB cases, 78.1% had a successful outcome. Successful outcomes were significantly lower among previously treated TB cases (53.2%) and among MDR TB culture-confirmed pulmonary cases at 24 months (32.0%).

Резюме

С 1 января 2008 г. Европейский центр профилактики и контроля заболеваний (ECDC) и Европейское региональное бюро ВОЗ совместно координируют усилия в области эпидемиологического надзора за туберкулезом (ТБ). Цель этого сотрудничества – обеспечить высокое качество стандартизированных данных о ситуации с туберкулезом во всех 53 государствах-членах Европейского региона ВОЗ и в Лихтенштейне.

Европейский регион ВОЗ

Как и в предыдущем году, эпидемиологический надзор за туберкулезом показывает смешанную эпидемиологическую картину среди государств-членов европейского региона ВОЗ. Показатели регистрации ТБ в странах на востоке Региона по-прежнему значительно выше, чем на западе. Хотя вновь выявленные случаи и рецидивы туберкулеза в Регионе составляют всего 5,6% от глобального бремени, их общее число в 2009 г. достигло 329 391, а число случаев смерти от туберкулеза в 2008 г. составило 46 241, большинство из них – в 18 высокоприоритетных странах (ВПС) Региона².

С 2005 г. отмечается тенденция к снижению показателя регистрации случаев туберкулеза. Несмотря на эту обнадеживающую тенденцию, регистрация вновь выявленных случаев и рецидивов в 18 ВПС (73,0 на 100 000 населения) все еще в 8 раз превышает средний уровень этого показателя в остальных странах региона (9,2 на 100 000) и вдвое выше среднерегionalного показателя (36,8 на 100 000 населения). По сравнению с другими регионами ВОЗ, Европейский выделяется самым высоким уровнем выявления туберкулеза – 79% (74–85%).

По сравнению с 2008 г., в 2009 г. доля ранее леченных случаев ТБ в Регионе резко сократилась, с 29,8% в до 17,5%. Это объясняется, прежде всего, пересмотром критериев регистрации случаев раннего лечения ТБ в Российской Федерации и Казахстане.

Подтверждение диагноза туберкулеза с помощью микроскопии мазка мокроты было осуществлено в 39,7% вновь выявленных случаев туберкулеза легких (среднемировой уровень 2009 г. был 57%). Дополнительно, у 20,6% случаев с отрицательным результатом микроскопии мазка мокроты подтверждение диагноза было осуществлено путем бактериологического исследования (культура микобактерии ТБ).

Интерпретация имеющихся данных позволяет предположить, что туберкулез среди мигрантов составляет четверть всех случаев туберкулеза в Регионе, без

существенных различий между странами Европейского союза/Европейского экономического пространства (ЕС/ЕЭП)³ и остальными странами Региона.

По полученным данным, доля ВИЧ-инфицированных пациентов среди вновь выявленных случаев ТБ выросла с 3,0% в 2008 г. до 3,9% в 2009 гг. Рост произошел исключительно в странах, которые не входят в состав ЕС/ЕЭП, где этот показатель увеличился до 4,2% (с 3,0% в 2008 г.), что объясняется увеличением охвата тестированием случаев ТБ на ВИЧ. В странах ЕС/ЕЭП этот показатель фактически снизился до 2,3% (с 3,1% в 2008 г.).

В масштабе всего Региона продолжает вызывать озабоченность высокая распространенность случаев ТБ с множественной лекарственной устойчивостью (МЛУ-ТБ). В 2009 г. доля МЛУ среди новых случаев ТБ несколько возросла – с 11,1% до 11,7%, а среди случаев ранее леченного ТБ уменьшилась с 46,9% до 36,6%. Увеличение охвата тестированием на лекарственную чувствительность (ТЛЧ) к препаратам второго ряда на востоке Региона привело в увеличению почти втрое общего числа больных с широкой лекарственной устойчивостью к противотуберкулезным препаратам (ШЛУ-ТБ), с 132 в 2008 г. до 344 в 2009 г. (преимущественно за счет восточных стран). Тем не менее, охват тестированием на ШЛУ-ТБ в странах, не входящих в ЕС/ЕЭП, остается низким.

Показатель успешности лечения случаев ТБ продолжает снижаться. Его уровень среди вновь выявленных больных ТБ, подтвержденных лабораторно, в 2008 г. составил 69,7%, немного ниже, чем в предыдущем году – 70,7%, и существенно ниже, чем среди случаев, зарегистрированных в 2006 г. – 73,1%. Показатель успешности лечения был выше в ЕС/ЕЭП по сравнению с другими странами Региона, 78,1 и 66,9% соответственно. В дополнение к высокому проценту неудач лечения, распространенность отрывов от лечения вызывает чрезвычайную озабоченность по причине высокого риска развития МЛУ у приблизительно 11 000 больных ТБ этих категорий. Недостаточные меры по предотвращению перерывов в лечении у больных ТБ привели к появлению более 13 500 случаев с МЛУ-ТБ. Учитывая то, что в Европейском регионе ВОЗ самый низкий показатель успешного лечения в мире, существует острая необходимость решения технических и организационных проблем, которые приводят к столь неблагоприятным исходам и могут привести к возникновению лекарственной устойчивости.

За последние годы смертность от туберкулеза снизилась, хотя в 2008 г. (последний год, за который получены достоверные данные) этот показатель вырос до

² Азербайджан, Армения, Беларусь, Болгария, Грузия, Казахстан, Кыргызстан, Латвия, Литва, Республика Молдова, Российская Федерация, Румыния, Таджикистан, Туркменистан, Турция, Узбекистан, Украина, Эстония.

³ 27 стран - членов ЕС, а также Исландия, Лихтенштейн и Норвегия.

6,1 на 100 000 населения, по сравнению с 4,4 в 2007 г. Географическая картина смертности в Регионе сходна с распределением регистрации заболеваемости, возрастая с запада на восток, и 92% смертей от ТБ приходится на 18 стран, где борьба с туберкулезом является высокоприоритетной для Региона в целом.

Страны Европейского союза и Европейского экономического пространства

В 2009 г., в 27 странах ЕС, Исландии и Норвегии было зарегистрировано 79 665 случаев туберкулеза, что на 3 635 случаев меньше чем в 2008 г. Более 75% из них были зарегистрированы в 7 странах с 3 000 и более случаев (Германия, Испания, Италия, Польша, Румыния, Соединенное Королевство, Франция).

В среднем показатель регистрации ТБ в 2009 г. составил 15,8 на 100 000 населения. Этот показатель был ниже 20 на 100 000 в 22 странах ЕС/ЕЭП и выше 20 на 100 000 Румынии (108,2), странах Балтии – Литве (62,1), Латвии (43,2) и Эстонии (30,7), а также в Болгарии (38,3), Португалии (27,0) и Польше (21,6). В целом показатель регистрации был на 4,5% ниже, чем в 2008 г. (в 29 странах, представивших отчеты), отражая общую тенденцию к снижению в 20 странах ЕС/ЕЭП.

Среди ранее не леченных случаев, более 50% были в возрастных категориях 25–44 и 45–64 года. Более половины больных среди коренного населения стран ЕС/ЕЭП были в возрасте 45 лет и старше, а среди мигрантов большинство (68,4%) больных были от 15 до 44 лет. Случаи среди детей (< 15 лет) составили 4,2% от всех зарегистрированных случаев ТБ. Почти во всех странах уровень педиатрического ТБ снизился по сравнению с 2005 г. или остался на низком уровне в 2009, кроме Болгарии, Латвии, Литвы и Румынии, где этот показатель в 2009 г. все еще оставался высоким (12,9–29,6 на 100 000 детей).

В 2009 г., в странах ЕС/ЕЭП доля зарегистрированных случаев ТБ, в которых был также выявлен ВИЧ, составила в среднем 2,3%. За период с 2007 г. процент ВИЧ-серопозитивных случаев увеличился в Латвии (с 3,6% до 7,5%), Мальте (с 5,3% до 9,1%) и Эстонии (с 8,4% до 9,5%) и уменьшился в Португалии (с 15,1% до 12,2%). Среди 8 стран, представивших соответствующие данные, самое высокий процент случаев ТБ с ВИЧ-серопозитивным статусом был зарегистрирован в Португалии (12,2%), Эстонии (9,5%), Латвии (7,5%) и Мальте (9,1%, зарегистрировано только 4 случая), и варьировал от 0% до 4,2% в Исландии, Словении, Словакии и Бельгии.

Доля туберкулеза с множественной лекарственной устойчивостью (МЛУ-ТБ) среди всех случаев ТБ остается высокой в странах Балтии (от 17,4% до 28,0%) и Румынии (11,2%). В других странах был зарегистрирован более низкий процент МЛУ-ТБ (0–8%), с распространением случаев, главным образом, среди мигрантов. Среди 15 стран представивших отчеты о регистрации случаев с

ШЛУ-ТБ, Румыния выделяется с 22 случаями. В Эстонии отмечено увеличение абсолютного числа и процентной доли случаев с ШЛУ-ТБ (с 9,5% до 11,6%) по сравнению с 2008 г., а в Латвии в 2009 г. произошло снижение этого показателя, с 14,2% до 12,2% (с 19 до 16 случаев).

В 2009 г. данные о результатах лечения случаев зарегистрированных в 2008 г. представили 24 страны ЕС/ЕЭП. Среди новых случаев легочной локализации и лабораторно подтвержденным ростом культуры микобактерии туберкулеза 78,1% были успешно вылечены. Доля успешного лечения была существенно ниже среди ранее леченных случаев ТБ, зарегистрированных в 2008 г. (53,2%) и среди случаев МЛУ-ТБ с легочной локализацией (32,0%), зарегистрированных в 2007 г.

1. Background and technical note

1. Background and technical note

1.1 Tuberculosis case notifications and data sources for analysis, 2009

Since 1 January 2008, ECDC and the WHO Regional Office for Europe have jointly coordinated the collection of TB surveillance data in Europe. Their aim is to ensure a high quality of standardised TB data covering the 53 countries of the WHO European Region, plus Liechtenstein. Designated national surveillance institutions are responsible for providing the data, which is reported to a joint database. The data from the European Union and European Economic Area (EU/EEA) countries are validated and processed in the platform of The European Surveillance System (TESSy), while data from all other countries are validated and processed in the Centralized Information System for Infectious Diseases (CISID) platform. The procedures and methods guiding these European TB Surveillance activities are those recommended by European experts from ECDC, WHO and the International Union Against Tuberculosis and Lung Disease [9,11,12,7].

Since 1996, data on TB notifications from the European Region for the previous calendar year have been collected annually. The historical data used for the report were collected and analysed by the 'EuroTB' project for TB surveillance activities in Europe from 1996 to 2007.

This report covers the 53 countries of the WHO European Region plus Liechtenstein. Together these are collectively referred to as the 'European Region'. Data were reported by 51 countries (no data from Liechtenstein, Monaco or San Marino).

The data published in this report might differ from figures in national reports due to different times of reporting. The deadline for updating the data used in this report in the joint database was 22 November 2010.

1.2 Reporting and analysis of tuberculosis cases, mortality, drug resistance and treatment outcome

Tuberculosis case reporting and mortality

Case-based data for the last four years have been uploaded by EU/EEA countries to the joint database to allow for the exclusion of duplicate cases or those later found not to have TB, as well as for updates of certain variables, including culture and treatment outcome. Other countries of the European Region submitted data in aggregate form. Notification data were analysed by the main epidemiological determinants (location, gender and age) as well as by the

principal case management determinants (previous history of anti-TB treatment, localisation of disease, laboratory results and HIV serostatus). Notification data were provided by 51 countries, however, completeness differs by country due to differences in national surveillance systems and national laws.

Countries not reporting case-based data (other than EU/EEA Member States) uploaded their notification data in a standard, aggregate format to the Centralized Information System of Infectious Diseases (CISID), maintained by WHO Regional Office for Europe, who collected, analysed and validated the data. While aggregated data reporting to CISID have changed over time, the data in CISID have retained a common core structure and information with previous years.

ECDC and WHO Regional Office for Europe jointly conducted collection of TB surveillance data and TB control programme management information for the 2009 calendar year from 16 April 2010 to 30 September 2010. All countries submitting data uploaded their information to the ECDC–WHO/Europe Joint TB Information System via the common portal: www.ecdcwhosurveillance.org. The data were redirected either to TESSy or to CISID depending on the Member State affiliation (EU/EEA or non-EU/EEA) and type of data being reported (case notification or programme management).

In 2009, the TB data collection form in CISID was expanded to collect data on laboratory confirmation (by smear and culture), TB by geographic origin of individuals, and TB in prisons.

There were no changes made to TESSy variables for the 2010 data collection. Case-based TB data from the EU/EEA Member States were collected and validated by ECDC. While some countries updated data by November 2010, changes to the national totals of TB notifications shown in this report were permitted until 22 November 2010. Notification data for previous years (2006–2008) were also updated to adjust for under- or overreporting to TESSy. Where relevant, particularly for countries in the EU/EEA, tables have been stratified by origin of the case (national/foreign). Twenty-four countries provided information on origin by place of birth. Data on citizenship (nationality) was provided by Austria, Belgium, Malta (until 2006), Poland, Greece and all other non-EU/EEA countries except Turkey.

For calculation of overall notification rates, country population denominators by age group and gender were obtained from Eurostat for the EU and EEA countries and United Nations statistics for all others.

Data from the EuroTB individual database (EITUD) were transferred to TESSy using the EuroTB data transfer protocol in September 2010. Member States were requested to

update their historical data as needed. For the 2010 data collection period, two countries updated their historical data (Table A).

By 2010, 29 EU/EEA countries were reporting case-based clinical and demographic data on TB cases to TESSy. Of these, 28 countries included data about previous treatment, 28 countries submitted data on anti-TB drug susceptibility testing, 23 on outcome for cases notified in 2008, and 15 on MDR TB outcome for cases notified in 2007. Data from TESSy were imported into CISID giving a Region-wide reporting rate of 96.2% (51 out of 53 countries of the WHO European Region).

Data on TB as the underlying cause of death (Table 31) for EU/EEA countries were retrieved from Eurostat (updated: October 2010). ICD-10 codes A15–19 and B90 were captured. For other countries data were obtained from the European mortality database (MDB) or alternatively from CISID (updated: August 2010), if MDB did not contain the necessary information. These data are coded and reported via national vital registration authorities, or National TB Programme Managers.

The geographical origin of TB cases is classified according to place of birth (born in the country/foreign-born) or, if unavailable, citizenship (national/non-national). The country of origin (coded according to the ISO list) is included in the case-based TESSy data. For TB, either of the two categories for defining foreign or native origin should be provided, though 'country of birth' is preferred to 'country of nationality', which was used by four countries: Austria, Belgium, Poland and Greece for 2009 data.

Population data used in the calculation of notification rates were taken from: Eurostat⁴ mid-year estimates (for EU/EEA countries 1995–2008), Eurostat 1 January population data (for EU/EEA countries 2009⁵), Eurostat and UN Statistical database⁶ (for other countries in the European Region).

4 Available from: <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>

5 Eurostat data for mid-year population calculations were not available at the time of analysis.

6 Population estimate 2009 by UN Statistical Database.

Table A: Update of individual TB data notified in TESSy

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Austria	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy
Belgium	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Bulgaria	-	-	-	-	-	-	-	-	-	-	-	-	TESSy	TESSy	TESSy
Cyprus	-	-	-	-	-	-	-	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Czech Republic	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Denmark	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Estonia	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Finland	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy	TESSy
France	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy
Germany	-	-	-	-	-	-	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy
Greece	-	-	-	-	-	-	-	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy
Hungary	-	-	-	-	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Iceland	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Ireland	-	-	-	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Italy	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Latvia	-	-	-	-	-	-	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	TESSy	-	-
Lithuania	-	-	-	-	-	-	-	-	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Luxembourg	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy
Malta	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Netherlands	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Norway	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy
Poland	-	-	-	-	-	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Portugal	-	-	-	-	-	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Romania	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Slovakia	-	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Slovenia	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy	TESSy
Spain	-	-	-	-	-	-	-	-	-	-	-	-	TESSy	TESSy	TESSy
Sweden	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy
United Kingdom	-	-	-	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	EITUD	TESSy	TESSy	TESSy	TESSy

EITUD: updated by 2007;
TESSy: updated after 2007;
-: no individual data reported this year.

Tuberculosis/HIV surveillance

Information on the HIV serostatus of notified TB cases is collected in aggregate format via CISID. The number of cases with HIV-associated TB obtained from both TB and AIDS notification is known to be underreported, with detection rates of 46% of the estimated total number in the Region [14]. Testing and reporting of HIV serostatus of TB cases is known to be incomplete, especially in the EU/EEA countries (19.3% of all TB cases have reported HIV serostatus) as compared with the rest of the Region (81.4%). The Region-wide average for testing HIV serostatus was 69.0%.

The number of cases for whom HIV status is known is expressed as a percentage of all reported TB cases, as the number of cases to have had a positive HIV test is not known. Therefore, the HIV prevalence among TB patients may be an underestimation. HIV/TB co-infection data for the latest year are presented by year of report. An analysis of outcome data for HIV-positive TB cases is not included in this report.

Drug resistance surveillance

Since the reporting year 1998, the results of drug susceptibility testing (DST) from initial isolates of *Mycobacterium tuberculosis* have been collected for isoniazid, rifampicin, ethambutol and streptomycin. Data on second-line drug resistance for amikacin, kanamycin, capreomycin, ciprofloxacin and ofloxacin have been reported via TESSy since 2008 and via CISID since 2009. In countries where DST results are matched with TB case notifications, information on DST is collected as part of the individual data (25 countries in 2009). When drug resistance surveillance (DRS) data are not matched with TB case notifications, or no individual data are available, data are collected in aggregate form in CISID by previous history of anti-TB treatment. Information on the organisation of anti-TB DST in the country and on laboratory practices for DST is also collected using CISID module of the Joint TB surveillance system. Of 54 countries, 41 reported nationwide coverage of routine DST on first-line drugs, while the other 14 reported partial coverage or no data.

Data on DST for isoniazid, rifampicin, ethambutol and streptomycin at the start of treatment are reported. Percentages of drug-resistant cases are calculated using as a denominator those cases with DST results available for at least isoniazid and rifampicin. If these cases had results for ethambutol and streptomycin, DST results for these antibiotics are also shown. DRS methodology varies across countries. The results of DST on the second-line drugs were analysed for the MDR cases only. Initial DST results may be collected routinely for all culture-positive TB cases notified, or for cases included in specific surveys or diagnosed in/referred to selected laboratories. Geographical coverage of DRS is partial in some countries. The representativeness (completeness) of diagnostic DST data depends on the routine use of culture, DST at TB diagnosis and external quality assurance (EQA).

On the basis of differences in geographical coverage and on underlying laboratory practices, DRS data are considered

as complete for the country (Y) if nationwide data matched to TB case notification in countries using culture routinely (90% culture usage and > 50% of cases reported as culture positive in 2009), DST results for isoniazid and rifampicin are available for the majority of culture-positive cases (> 75% in 2009), and results of external quality control show 95% or more confirmation by a Supranational Reference Laboratory.

DRS data are otherwise considered not complete (N), including diagnostic DST data from countries where culture and DST are routinely used, but do not meet the criteria of > 50% culture confirmation and > 75% culture-positive cases with DST results (Table 18).

Treatment outcome monitoring

Since the reporting year 2002, outcome data have been collected from EU/EEA countries for all individual cases by resubmission of an updated individual dataset for the year before the last, and for MDR treatment outcome for cases reported two years before the notified cases (thus for data related to 2009 cases, outcome data were collected for TB cases notified in 2008, and MDR TB for cases reported in 2007). Alternatively, from all non-EU/EEA countries, aggregated treatment outcome data are reported separately in tabular format to CISID, with the same timeframes. This report includes an analysis of the data for outcome at 12 months and first-time outcome at 24 months after the start of treatment. Twenty-five countries provided MDR TB treatment outcome results, although the completeness and data quality are varying. Non-EU countries reported their data in aggregated form for the past three years.

The cases eligible for outcome analysis (cohorts) are expected to include all the laboratory-confirmed (confirmation level varies, especially among the non-EU/EEA countries) pulmonary TB cases notified in the calendar year of interest, after exclusion of cases with final diagnosis other than TB. For countries implementing individual data reporting, the most recently updated information has been used for the purposes of this report. Hence, for these countries, the cohort is defined on the basis of the new dataset, updated following initial notification. This could result in the denominators used for treatment outcome monitoring (TOM) being different 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 culture or smear-positive, depending on the type of cohort.

Geographical areas

The total population of the WHO European Region is 894.5 million, of which 504.3 million (56%) live in EU/EEA Member States⁷.

⁷ For calculation of rates the total population of only the countries that reported data has been used: 28 EU/EEA countries 504.3 million, and 22 non-EU/EEA countries 390.2 million.

The 27 EU Member States with the three EEA countries are presented separately in Tables and in Chapter 2.

In order to highlight better the 18 high priority countries (HPC) [13], their data are presented in italics and subtotals along with subtotals for the EU/EEA and non-EU/EEA Member States.

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.

The 30 EU and EEA countries are: Austria, Belgium, Bulgaria, 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 24 countries in the rest of the European Region ('non-EU/EEA') are: Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Croatia, Georgia, Israel, Kazakhstan, Kyrgyzstan, the former Yugoslav Republic of Macedonia, Moldova, Monaco, Montenegro, Russia, San Marino, Serbia, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

TB notifications from Greenland (63 cases) and Kosovo (901 cases)⁸ are footnoted in Table 2, but are not included in the totals of the European Region.

1.3 Definitions

Tuberculosis case definition for surveillance

For the collection of 2009 data, information from EU/EEA countries was collected to enable the classification of cases according to the case definition published by the European Commission [7]. By this definition, cases are divided into 'possible' (based on clinical criteria only – all notifiable TB cases should be classified as 'clinical criteria met'), 'probable' (having in addition positive acid-fast bacilli (AFB) detected or detection of *M. tuberculosis* in nucleic acid or granulomata in histology) and 'confirmed' (by culture or by detection of both positive AFB and *M. tuberculosis* nucleic acid).

Data from other countries of the European Region follow the WHO recommended definitions. According to this definition a 'case of tuberculosis' is a patient in whom TB has been confirmed by bacteriology or diagnosed by a clinician, also a 'definite case' is a patient with positive culture for *Mycobacterium tuberculosis* complex. In countries where culture is not routinely available, a patient with one sputum smear positive for acid-fast bacilli (AFB+) is also considered a definite case.

Cases discovered post-mortem, with gross pathological findings indicative of active TB that would have indicated

anti-TB treatment had the patient been diagnosed before dying, also fit the clinical criteria and are included.

For the purposes of this report, the following definitions apply:

Definite (laboratory-confirmed) TB case:

- in countries where laboratories able to perform culture and identification of *M. tuberculosis* complex are routinely available, a definite case is a patient with culture-confirmed disease due to *M. tuberculosis* complex;
- in countries where routine culturing of specimens is not feasible, patients with sputum smear positive for AFB are also considered as definite cases.

Other-than-definite (not laboratory-confirmed cases) TB cases meet the following two conditions:

- a clinician's judgement that the patient's clinical and/or radiological signs and/or symptoms are compatible with tuberculosis; and
- a clinician's decision to treat the patient with a full course of anti-tuberculosis treatment.

Previous anti-tuberculosis treatment status

Never treated (new case)

This is defined as a case who had never previously received drug treatment for active TB, or who had received anti-TB drugs for less than one month.

Previously treated case (retreatment case)

This is a case previously diagnosed with TB and who had received treatment with anti-TB drugs (excluding preventive therapy) for at least one month. Previously treated cases were reported from 23 EU/EEA Member States. For others, information about previous treatment was not distinguished and so 'previously diagnosed' cases were reported instead (Belgium, Denmark, Ireland, Norway and United Kingdom) as a proxy calculation.

Relapse case (Table 3)

This is a case previously diagnosed with TB and who has been declared cured or treatment completed, and diagnosed with bacteriologically positive tuberculosis (smear-negative pulmonary and extrapulmonary cases may also be relapses if supported by pathological or bacteriological evidence).

Site of disease

Pulmonary case

A case with TB affecting the lung parenchyma, the tracheo-bronchial tree or the larynx.

Extrapulmonary case

A case with TB affecting any site other than pulmonary (see above). Pleural TB and intra-thoracic lymphatic TB by themselves are considered as extrapulmonary. Detailed information of further distribution of extrapulmonary

⁸ Throughout this document, 'Kosovo' means Kosovo in accordance with Security Council Resolution 1244 (1999).

cases was provided from 25 EU/EEA countries, but not analysed in this report.

Notes on the definition

- The above definitions are in accordance with the European Commission's definitions for TB surveillance [7].
- 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. A case, however, should be reported again if the diagnosis of confirmed tuberculosis is made following completion of anti-TB treatment (relapse case), even if this occurs within 12 months of reporting the initial episode of disease.
- Never treated cases 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 after default or chronic cases are variably included. In countries where information on previous anti-TB treatment is incomplete or not available, information on whether or not TB had been previously diagnosed is used as a proxy.

Geographical origin

Geographical origin of TB cases is classified according to place of birth (born in the country/foreign-born) or, if unavailable, citizenship (citizen/non-citizen). In Denmark, the place of birth of the parents is also used in classifying origin (similarly, in the Netherlands, the birthplace of parents has been notified for case management purposes). The country of origin is included in individual data. The term 'national' as used in this report refers to cases born in, or having citizenship (nationality) of, the country of report. Foreign origin refers to cases born in (or citizen of) another country than reporting country.

Drug resistance

Resistance among cases never treated: indicates primary drug resistance due to infection with resistant bacilli.

Resistance among cases previously treated: usually indicates acquired drug resistance emerging during treatment as a consequence of 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.

Extensively drug resistance (XDR): resistance to (1) isoniazid and rifampicin (i.e. MDR), and (2) resistance to a fluoroquinolone, and (3) resistance to one or more of the following injectable drugs: amikacin, capreomycin, or kanamycin [8].

Treatment outcome

Cohort

These include all TB cases notified in the calendar year of interest, after exclusion of cases with final diagnosis other than TB or cases found to have been reported more than once.

Notes:

1. Since the 2002 cohort: individual outcome data have been collected for all TB cases.
2. Up to the 2003 cohort: aggregate outcome data were only collected for laboratory-confirmed pulmonary cases.
3. Since the 2004 cohort: individual data collection has been extended to all cases including extrapulmonary cases (not analysed in this report).
4. Since 2008 cohort: outcome for MDR TB cases has been implemented for cases 'year of notification = -2', however the outcome has been reported for only 21% of all reported MDR TB cases in particular year.

Period of observation

Cases are observed until the first outcome is encountered up to a maximum of 12 months after the start of treatment. For monitoring the multidrug-resistant cases in EU/EEA countries for treatment outcome purposes, two variables were included on the list: Outcome24Months and Outcome36Months. In these variables, the first outcome for the cases should be reported according to the month, but only for cases reported in the previous outcome field 'still on treatment'⁹. Non-EU countries evaluate treatment outcomes according to the method recommended by the WHO definition. Cases still on treatment after 12 months of treatment were considered as treatment failures.

Treatment outcome categories

Since the 2001 cohort, outcome categories are those generally recommended — with two additional categories: 'still on treatment at 12 months', and 'unknown' [8,12] and are:

Cured: treatment completion and:

- culture becoming negative on samples taken at the end of treatment and on at least one previous occasion;

or

- in countries where sputum smear-positive cases are classified as definite (laboratory-confirmed) cases, sputum microscopy becoming negative for AFB at the end of treatment and on at least one previous occasion.

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

Failed: culture or sputum smear remaining positive or becoming positive again five months or later into the course of treatment.

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

Failure for MDR TB case: Treatment will be considered to have failed if two or more of the five cultures recorded in the final 12 months of therapy are positive, or if any one of the final three cultures is positive. Treatment will also be considered to have failed if a clinical decision has been made to terminate treatment early because of poor clinical or radiological response or adverse events. These latter failures can be indicated separately in order to do subanalysis [17].

Died: death before cure or treatment completion, irrespective of cause.

Defaulted: treatment interrupted for two months or more, not resulting from a decision of the care provider; or patient lost to follow-up for two months or more before the end of treatment, except if transferred.

Transferred: patient referred to another clinical unit for treatment and information on outcome not available.

Still on treatment¹⁰: patient still on treatment at 12 months and who did not meet any other outcome during treatment; or patient still on treatment on 24 months belonging to previous cohort of 'still on treatment 12 months' and not meeting any other outcome category.

Unknown: information on outcome not available, for cases not known to have been transferred.

In this report:

- 'Success' refers to the combined cured and completed.
- 'Loss to follow-up' is the combination of defaulted, transferred and unknown for country profiles. The Tables have distinguished 'defaulted' separately.

¹⁰ Definition applicable for the EU/EEA countries only.

2. Commentary

2. Commentary

2.1 The WHO European Region

Key conclusions for the European Region

- The joint ECDC–WHO TB surveillance network reported 329 391 new episodes of TB in 2009 and 46 241 deaths from TB in the Region in 2008, the majority of them in the 18 high priority countries (HPC) of the WHO European Region.
- TB notifications have been decreasing since 2005, and 2009 was no exception. In 2009 the crude rate was 36.8 new cases per 100 000 population, a decrease from 38.1 per 100 000 in the previous year. Mortality has also been decreasing in recent years, although in 2008 crude mortality rate increased to 6.1 deaths per 100 000 population.
- The Region has the poorest treatment outcome in the world, particularly among retreatment cases, 69.7% and 44%, compared to 87% and 72% globally. Member States need to ensure measures are in place to prevent and retrieve defaults.
- The reported percentage of HIV-infected individuals among incident TB cases rose to 3.9% from 3.0% in 2008, although this increase is due to better testing for co-infection in the eastern region.
- The percentage of MDR TB among newly detected (11.7%) and re-treatment cases (36.6%) remains at alarming high levels, with an overall absolute number of 27 765 patients with MDR TB throughout the Region. Even though DST coverage is still limited and must be expanded for the early and effective detection of drug-resistant TB, expanded use of DST in the east almost tripled the numbers of XDR TB in the Region from 132 in 2008 to 344 in 2009. Eighty per cent of these XDR TB cases are in non-EU/EEA countries.
- Better monitoring on treatment outcomes, especially among patients with drug-resistant TB, and establishing a mechanism of cross-border TB data share is needed.
- Member States and international partners must consolidate their efforts in line with their commitments to the Berlin Declaration to address the urgent needs of HPC countries.

Tuberculosis notification and trends

In 2009, the total number of TB cases notified in the WHO European Region was 396 992 (44.4 per 100 000 population), reported by 51 countries (Table 2). This represents a 17.0% decrease from the 2007 rate of 53.5 per 100 000,

and a 14.3% decrease from the rate reported in 2008 (51.8). This is largely the result of changes in the policy of notification of TB patients in Kazakhstan and Russia, that had included previously treated cases, artificially inflating the number of cases through double-counting in 2006–2007 (Kazakhstan) and 2007–2008 (Russia). However, trends in notification of new TB cases and relapses (Table 3) demonstrate a sustainable decline in the spreading of the disease, down by 18.6% from 45.2 to 36.8 cases per 100 000 population during the last decade. This may reflect a true reduction in the spread of disease after 2004 in 18 high priority countries in the Region. Before 2004 there was a sustained plateau in the notification rate of new TB and relapses. Despite encouraging trends, the notification rate of new/relapsed cases in the HPC remained twice as high as for the Region as a whole (73 compared with 36.8 cases per 100 000) and more than five and a half times higher than the rate in the EU/EEA (13.2 cases per 100 000 population). Another concern is the unchanging incidence of newly detected smear-positive TB cases (Table 8), but this might be explained by a significant expansion of DOTS among 18 HPC during 2002–2006, strengthened laboratory networks and an increase of the quality in laboratory diagnosis during this period.

The WHO European Region accounts for only 5.6% of the newly detected TB and relapses in the world, but that statistic represents 329 391 individuals, mostly (85.9%) in the eastern and central part of Region, where the 18 high-priority countries are located. The European Region also has the highest case detection rate globally, 79% (74–85), which demonstrates that, on average, countries of the Region have the most sensitive surveillance systems [14].

The notification rate of new and relapsed cases varies widely among countries, from 2.5 (Iceland) to 131.2 (Kazakhstan) per 100 000 population (Table 3). There were other three countries with notification rates of new/relapsed cases above 100 per 100 000 population: Kyrgyzstan (105.2), Georgia (111.1) and Moldova (120.6). However, according to the WHO estimates, the lowest case detection rate in the region was in Tajikistan, 44% (36–54) [14]. If Tajikistan's case detection rate were similar to the regional average, its notification rate would be well above the 100 per 100 000 threshold. Twenty-eight countries in the Region were classified as low incidence countries, defined as new and relapse notifications less than 20 cases per 100 000 [1]. All of these are high-income countries¹¹ that account about 10% of the notified burden in the Region. Seven countries reported new or relapsed case rates between 20 and 50 per 100 000 population, and 10 reported between 50 and 100 cases per 100 000 population. The latter were: Armenia (50.6), Belarus (54.5), Lithuania (56.7), Uzbekistan

¹¹ High-income countries are those with a per capita gross national income of USD 12 196 or more in 2009, as defined by the World Bank (<http://data.worldbank.org/about/country-classifications>).

(63.8), Ukraine (78.9), Azerbaijan (82.7), Tajikistan (88.1), Turkmenistan (89), Russia (89.6) and Romania (94.2). The 14 countries with new/relapsed case notifications above 50 per 100 000 account for 80% of the regional burden, with the largest contribution found in Russia: 126 227 cases and 25% of the region's population.

The percentage of cases that had been previously treated decreased slightly between 2007–2008 from 32% to 29.8% [5] and declined sharply to 17.5% in 2009, mostly due to the changes in case notification in Russia and Kazakhstan (Table 4). This, however, masks subregional differences: 13.1% for EU/EEA countries during the last three years; and 18.6% for non-EU/EEA countries of the WHO European Region. The percentage of re-treatments was 19.0% for the 18 HPC. There were 11 countries in which previously treated cases accounted for 15% or more of all cases: Kazakhstan (30.6%), Moldova (29.7%), Romania (23.2%), Azerbaijan (22.9%), Andorra (22.2%), Russia (20.8%), Estonia (19.5%), Lithuania (19.4%), Belarus (15.9%), Slovakia (15.6%) and Latvia (15.0%). Reasons for high prevalence of previous treatment among all cases include failures in treatment quality or programme strategies in previous treatment episodes and misclassification. TB cases with unknown treatment history were more often notified in the countries that are not high priority in the Region, most of them members of EU/EEA. These included three countries where more than 25% of TB cases without previous treatment were identified: France (38.9%), Italy (30.6%) and Austria (32.8%).

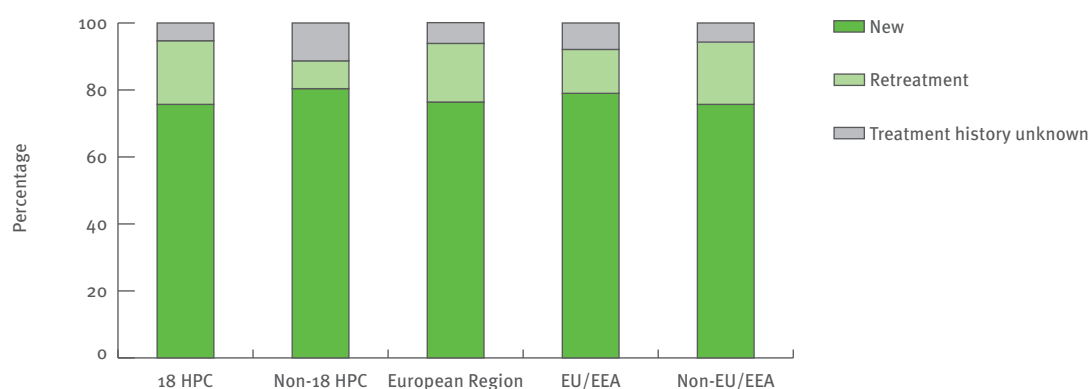
In 2009 pulmonary localisation was notified in 85.0% of the overall TB cases in the Region. In non-EU/EEA Member States, this was an increase from the previous year (from 62.2% to 86.8%), and in the EU/EEA there was little change (78.7 to 78.0%). That increase reflects improved (more complete) reporting of disease localisation by non-EU/EEA countries; the percentage of patients with unknown disease localisation dropped from 30.3% in 2008 to 1% in 2009. However, more effort is needed to strengthen notification in some countries, particularly in Kazakhstan and Kyrgyzstan, where 10.8% and 6.7% of TB cases were reported with unknown site of disease.

Confirmation of TB diagnosis by smear among newly detected pulmonary TB cases (Table 7) was lower in non-EU/EEA countries (37.6%) compared with EU/EEA (48.2%). Culture raised specificity of laboratory confirmation by 20.6% of smear-negative patients on average for the Region. There are 35 countries in the Region with less than half of new pulmonary TB cases confirmed by smear microscopy. A greater concern are the eight countries where less than one third of new pulmonary TB are confirmed by smear: Azerbaijan (32.2%), Finland (32.0%), Russia (31.4%), Hungary (31.2%), Switzerland (30.9%), Belarus (28.6%), Norway (25.1%), Austria (25.1%). However, the percentage of case confirmation by culture of smear negative is relatively high in all countries except Austria (10.3%), Hungary (18.1%) and Russia (21.7%).

There were twice as many male cases notified as female cases (Table 3), however a large variation was observed on male predominance in the gender distribution of TB cases, from almost even in Sweden (1.1) to more than three times in Malta (3.1). There were other 13 countries where the number of male TB patients was more than twice that of females: Czech Republic, Romania, Lithuania, Latvia, Moldova, Estonia, Russia, Azerbaijan, Ukraine, Georgia, Belarus, Armenia and Iceland. This reflects the overrepresentation of males in the various risk groups for TB, notably the homeless, prisoners and HIV-infected individuals.

Across the Region, the most frequently registered age group for newly detected TB cases was the 25–44 year-olds (41.4%) (Table 11). This was also the most affected age group across the EU/EEA countries, accounting for 31.1% of new TB notifications. This age group accounted for 48.8% of cases in Russia, and 56.1% in Cyprus. The overall distribution of TB cases are more concentrated in the middle age groups in the 18 HPC than in other countries, which generally have a higher proportion of older TB patients. There are 10 countries where the oldest age group (65+ years) contains more than 25% of new cases: Finland (41.2%), Bosnia and Herzegovina (39.5%), Czech Republic (34.2%), Croatia (33.3%), Serbia (32.8%), Slovakia (31.3%), Slovenia (31.1%), Germany (27.9%), Austria (27.5%) and Poland (25.2%).

Figure A: All TB cases by previous treatment history, European Region, 2009



The geographic origin of patients (Table 14) was better reported in EU/EEA countries (97.2% reported as native or foreign) than in the rest of the Region (70.7% classified as native or foreign). This lower proportion in non-EU/EEA countries is largely due to lack of notification by this criterion in Azerbaijan, Turkmenistan and Ukraine and large percentages of cases of unknown origin reported in Croatia (49.1%), Switzerland (39.9%) and Russia (25.0%). Assuming that the proportion of native-to-foreign cases in non-EU/EEA countries is similar to that in EU/EEA countries, cross-border migration accounts for approximately 25% of the TB cases in the Region.

Tuberculosis and HIV infection

The number of registered HIV co-infected TB cases increased this year to 13 821, almost doubling the prevalence of HIV among TB patients from 2.3% in 2007 to 3.9% in 2009 (Table 25). This increase is seen entirely in non-EU/EEA countries (from 2.3% in 2007 to 4.2% in 2009), and is likely due to improvements in reporting and intensified HIV-care services for TB patients rather than a true increase in co-infection prevalence. Co-infection prevalence actually decreased slightly in EU/EEA countries, from 2.4% to 2.3% during the same time period. Countries reporting higher than 5% prevalence of co-infection were: Portugal (12.2%), Ukraine (9.7%), Estonia (9.5%), Malta (9.1%), Latvia (7.5%) and Israel (6.3%). Spain (5.6%), Moldova (4.9%) and Russia (4.8%) approach the 5% threshold.

Drug-resistant tuberculosis

More than 7800 laboratories in the Region performed smear microscopy and 1835 did cultures, with 760 performing drug susceptibility testing (DST) (Table 17). A greater proportion of laboratories reported performing culture in EU/EEA Member States compared to the rest of the region. This disparity was not the case for laboratories performing DST. Only 33 countries reported having established in-country external quality assurance (EQA) systems, and 35 participated in international EQA programmes. All participating labs passed EQA testing. Of the 18 HPC, Ukraine and Russia did not participate in the international EQA. However,

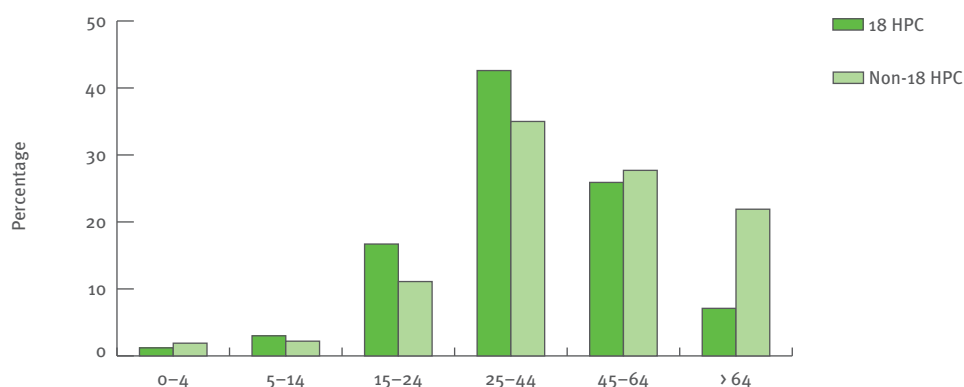
Russia has established an in-country system to ensure quality of laboratory diagnosis.

Laboratory data from 13 countries in the EU/EEA and six non-EU/EEA countries are representative based on defined criteria (national coverage of 100% or culture results available for 90% of all cases, 50% of all cases culture positive, with DST results on 75% of culture positive, and EQA results matching 95%). Out of more than 340 000 cases registered in the countries or sites where culture is routinely performed, 47.3% (161 209) was confirmed by culture. This confirmation rate did not differ substantially between EU/EEA and non-EU/EEA subregions (51.2% vs. 44.7%). Overall DST was performed in 33.8% more patients compared to 2008 (from 100 855 to 135 409) and reached 84.0% coverage of DST to first-line drugs.

Throughout the Region, the prevalence of MDR among new TB cases (Table 19) in 2009 (11.7%) did not change substantially from 2008 (11.1%). The distribution of MDR TB cases ranged from 0% in countries with high and middle income to more than 15% in low-income countries such as Kyrgyzstan (33.2%), Kazakhstan (23.7%), Moldova (22.5%), Estonia (22.0%), Uzbekistan (20.1%), Armenia (16.7%) and Russia (15.8%). Despite a decrease in the prevalence of MDR TB among previously treated compared to 2008, the level and geographical spread of MDR throughout the Region in these previously treated cases remains alarming, 36.6% in 2009 vs. 46.9% in 2008. Countries with more than half of previously treated cases infected with MDR bacilli were: Uzbekistan (73.6%), Kyrgyzstan (61.2%), Moldova (69.1%), Kazakhstan (52.8%), Estonia (51.6%) and Lithuania (51.5%).

In 2009 reported cases with extensively drug-resistant TB (XDR TB) almost tripled compared to the previous year, 344 vs. 132 (Table 21). This figure actually decreased in EU/EEA countries, from 91 cases in 2008 to 66 in 2009, but increased more than six fold in non-EU/EEA region, from 41 to 278 cases. This increase can be attributed to better detection – the expansion of DST to second-line drugs in non-EU/EEA countries, particularly in Kazakhstan, which saw its XDR case count jump from 22 to 216. The

Figure B: Age group distribution of new TB cases by priority of Stop TB at the Regional level, European Region, 2009



vast majority of XDR cases (95%) were located in seven high priority countries. The regional overall prevalence of XDR TB among all cases was 5.0%.

Treatment outcome

The treatment success rate among TB cases newly detected in 2008 with laboratory confirmation of pulmonary disease was 69.7% (Table 26), a slight decrease from the 70.7% success rate recorded in the previous year and a more substantial decrease in the 73.1% success rate for cases registered in 2006. Success rate was higher (78.1%) in the EU/EEA countries than in non-EU/EEA countries (66.9%). Nine countries met the treatment success rate of 85% and six approached this target: Malta (92.3%), Bosnia and Herzegovina (92.1%), Turkey (91.6%), Albania (90.6%), Macedonia (88.8%), Sweden (87.4%), Portugal (87.3%), Slovakia (87%), the Netherlands (85.0%), Bulgaria (85%), Serbia (84.8%), Montenegro (84.6%), Kyrgyzstan (84.6%), Romania (84.4) and Norway (83.8%). Andorra reported 100% treatment success for all 3 cases registered in 2008.

Across the whole Region, 8.5% of new pulmonary laboratory-confirmed cases were reported to have died, 6.6% defaulted and 10.0% failed treatment. The first two proportions were lower in the EU/EEA countries than outside the EU/EEA and the proportion of patients that failed treatment was considerably lower in the EU/EEA countries than in non-EU/EEA countries, which contain the majority of the HPC.

Six countries with more than 10% lethality were low-incidence countries. This higher rate is explained by older patients and later detection in this group. Explanations for higher lethality rates in middle-incidence countries (e.g. Lithuania) remain to be explored.

The high treatment failure rates in Kazakhstan (25.7%), Russia (17.7%), Ukraine (12.1%) and Georgia (12.0%) can be explained primarily by the high prevalence of MDR TB among those patients.

High default rates in some Member States reflect low adherence to anti-TB treatment. Further investigation to determine the reasons of treatment interruption should be undertaken with adjustment in the management of those patients and programmes.

Based on the available data, out of 3 823 cases from the 2007 MDR TB treatment cohort, 57.4% was successfully treated, however, treatment outcome monitoring in this category of patients remain to be strengthened.

Mortality

Notified mortality has been decreasing in recent years, although in 2008, the most recent year with reliable data, crude mortality rate increased to 6.1 deaths per 100 000 population, up from 4.4 in 2007. Mortality rates geographically follow a distribution similar to notifications, increasing from west to east across the European Region. The 18 HPC countries accounted for 92.1% of the TB deaths in the Region. Countries with a TB mortality rate more than 10

per 100 000 were: Ukraine (22.5), Russia (18.0), Kazakhstan (17.0), Moldova (15.6), Kyrgyzstan (11.6) and Lithuania (10.3).

Conclusions and surveillance recommendations

As in the previous year, surveillance of TB reveals a mixed epidemiological picture among the Member States of the WHO European Region. Member States in the east have much higher notification rates than the west. While the Region comprises only 5.6% of newly detected and relapsed TB cases in the world, it reported 329 391 new episodes of TB in 2009 and 46 241 deaths from TB in 2008, the majority of them in the 18 high priority countries (HPC) of the Region.

The trend in TB notifications has been decreasing since 2005. This decrease in notification is mainly due to decreases in the 18 HPCs since 2005. Confidence that this decrease is real is supported by a well-established surveillance system throughout the Region. Despite of this encouraging trend, notification rates of the newly-detected and relapse TB cases in the 18 HPC remained almost eight times higher (73.0 per 100 000 population) than in the rest of the region (9.2 per 100 000) and twice as high as the regional average (36.8 per 100 000 population). The Region is detecting an estimated 79% (74–85) of TB cases, which is the highest detection rate among all WHO Regions.

The percentage of previously treated cases decreased sharply in 2009, down to 17.5% from 29.8% in 2008. But this decrease is almost entirely due to changes in case definition and notification policies in Russia and Kazakhstan. However, cases with an unknown previous treatment history comprise as much as a third or more of all cases in some countries that still have difficulties with determining and collecting information on previous treatment histories. Similar positive changes for the overall Region were observed in the notification of localisation of the disease, in which 15% of cases were reported to have extra-pulmonary TB. However, more effort is needed in some countries, notably Kazakhstan and Kyrgyzstan, to reduce their percentage of patients with unknown (unrecorded) TB localisation.

The confirmation of TB by sputum smear microscopy was made in 39.7% of newly detected cases of pulmonary TB (globally, the 2009 level was 57%). The culture confirmation was conducted in 20.6% of smear-negative cases. However, concerns remain regarding eight countries where less than one third of new pulmonary TB was confirmed by sputum smear microscopy: Azerbaijan (32.2%), Finland (32.0%), Russia (31.4%), Hungary (31.2%), Switzerland (30.9%), Belarus (28.6%), Norway (25.1%) and Austria (25.1%).

Across the region, TB is twice more common in males than females, reflecting the overrepresentation of males in the various risk groups for TB, notably the homeless, prisoners and HIV-infected individuals. The most affected age group is 25–44 years (42.6%) in the 18 HPC, while other countries have higher proportion of older patients.

Based on the available data, cross-borders migrants represent approximately one quarter of TB cases in the Region, and there is little variation between EU/EEA and rest of the Region.

Treatment success rates continue to decrease in 2009, down to 69.7% and 44% among new and previously treated cases, respectively. Concerning treatment outcome for new sputum smear-positive pulmonary patients, 8.5% of cases were reported as died, 6.6% defaulted and 10.0% failed treatment. Treatment outcome for re-treated patients was worse: 12% died, 13.3% defaulted and 22% failed. In addition to a high default rate, the failure rate is alarmingly high. This means that approximately 11 000 TB patients are at increased risk of developing drug-resistant and MDR TB. Insufficient measures to prevent and retrieve treatment interruptions have resulted in 13 500 newly detected and previously treated patients who defaulted from treatment. The reported treatment success rate in the MDR TB treatment cohort was 57.4%, therefore, treatment outcome monitoring in this category of patients must be strengthened. The WHO European Region has the lowest treatment success rate in the world. There is an urgent need to address underlying and programmatic reasons for these poor outcomes, which can result in further emergence of drug-resistant TB.

The prevalence of HIV co-infection in TB patients rose to 3.9% in 2009. This increase was entirely in non-EU/EEA countries, where it grew to 4.2% (from 2.3% in 2007) due to improved HIV testing of patients. In EU/EEA countries, it actually decreased to 2.3% (from 2.4% in 2007). The prevalence of HIV infection among TB patients in Portugal, Ukraine and Estonia (12.2%, 9.7% and 9.5%, respectively) indicates the urgent need for strengthening the collaborative activities between TB and HIV/AIDS national programmes.

In 2009, the Member States reported a substantial increase of more than 30% in drug susceptibility testing (135 409 vs. 100 855 in 2008). While the proportion of MDR among new TB cases did not change significantly (11.7% compared to 11.1% in 2008), the proportion of MDR TB among previously treated TB cases decreased compared to 2008. However, rates of MDR TB throughout the Region remain alarming. The percentage of XDR TB tripled to 5.0% (344) of MDR TB cases. The substantial difference in prevalence of XDR TB among MDR cases in the EU/EEA (7.1%) and other countries (4.7%) is explained by expansion of DST to the second-line drugs in those very few non-EU/EEA countries that previously initiated detection of XDR TB. Therefore, it cannot be stated that XDR TB is less prevalent in MDR cases outside the EU/EEA. In fact, other evidence (e.g. higher failure and default rates) suggests the opposite may be true. This points to the necessity of expanding the DST in the Region.

A stronger commitment to the STOP TB Strategy, including health system strengthening, can have a significant impact on the TB epidemic in the Region. The following should continue to be promoted: (i) early TB detection by ensuring better access to TB services via primary health-care; (ii) availability of high-quality laboratory services and anti-TB drugs; and (iii) better collaboration of national TB programmes with other national programmes and departments, including HIV/AIDS, penitentiary system, social sectors and community. Expanding routine drug-resistance surveillance to include TB/HIV co-infection, computerising

the national data management tailored to local infrastructures and adopting international standards on case definition and reporting will increase the quality of data and provide more evidence for effective decision-making.

2.2 European Union and European Economic Area countries

Key conclusions for the EU/EEA

- A sustained decline in the TB epidemic continues to be recorded in the EU/EEA, with a mean annual decline between 2005 and 2009 of 3.8%. This is mainly attributable to the decline recorded in the high- and intermediate-burden countries.
- The data collected for the current surveillance report enables the assessment of TB control in the EU/EEA. A number of the epidemiologic and operational indicators included in the recently launched EU monitoring framework can be directly measured and calculated using the data collected in the TESSy. This includes the measure of overall age trends, percentage of culture confirmation and treatment success rates.
- In 2009, 3 300 children developed TB. Childhood TB remains a marker of transmission in the community, with paediatric cases increasing in the low-burden countries over the past 10 year.
- The proportion of bacteriologically confirmed TB cases remains suboptimal in the EU/EEA, with only seven Member States achieving the 80% culture-confirmation target among new pulmonary TB cases. This poses an impediment in improving rapid detection of resistance and in providing rapid and effective treatment to patients, thus impeding the prompt interruption of transmission.
- The number of countries achieving the 85% treatment success target has doubled compared to that reported last year, with six countries reporting success rates of 85% or more among the new pulmonary TB cases reported in 2008. The overall treatment success rate in the EU/EEA has, however, not improved, with rates marginally decreasing (79.5% to 78.1%) between the 2007 and 2008 cohorts.
- The low proportion of successfully treated MDR TB cases remains a concern in the EU/EEA. The low treatment success rate (32.0%) measured at 24-months among all MDR TB cases (2007 cohort) poses a threat to patient survival and to the further emergence of extensively resistant (XDR) TB.
- Treatment outcome monitoring of laboratory-confirmed TB cases has improved in the EU/EEA, with 24 countries reporting, compared to 22 in the previous year. Fifteen countries reported the treatment outcome at 24 months for laboratory-confirmed MDR TB cases.

Tuberculosis notification and trends

In 2009, 79 665 TB cases were reported by all 27 EU countries, Iceland and Norway (Table 2), showing a decrease of 3 635 cases compared with 2008. Over 75% of cases occurred in the seven countries that reported 3 000 cases or more each (France, Germany, Italy, Poland, Romania, Spain and United Kingdom).

The overall notification rate in 2009 was 15.8 per 100 000 population. Rates lower than 20 per 100 000 were reported by 22 countries and rates higher than 20 per 100 000 by Romania (108.2), the Baltic States – Lithuania (62.1), Latvia (43.2), Estonia (30.7) – Bulgaria (38.3), Portugal (27.0) and Poland (21.6). The overall notification rate was 4.5% lower than that for 2008 (for the 29 reporting countries), reflecting a net downward trend in 20 countries. The percentage decrease was similar to that seen in previous years, with the exception of 2007–2008 notification rates, in which the lowest percentage decrease in the last four years was measured (-1.2%). The overall average annual decrease in rates between 2005 and 2009 was 3.8%.

Classification and bacterial confirmation of cases

In 2009, 79.0% of the reported cases were previously untreated, with a wide variation between countries (range: 54.4–96.7%) (Table 4). This proportion has not changed markedly in the past years, but the total number of new cases has decreased progressively and is probably the main reason for the observed decline in TB notification rates in the EU/EEA countries (Figure 1).

Pulmonary TB accounted for 78.0% of all TB cases (of which 60.4% were pulmonary only) and 43.5% of these cases were sputum smear positive (Tables 5 and 6). In Malta, the Netherlands, Sweden and the United Kingdom, less than 60% of all TB cases were pulmonary.

Sputum smear-positive rates were lower than five cases per 100 000 population in 21 countries in the last three years (Table 6). The rates were consistently higher than 10.0 per 100 000 in the Baltic States, Bulgaria, Portugal and Romania. Where rates were < 2 cases per 100 000 (total seven countries), the proportion of pulmonary cases with a positive sputum smear was < 40%. However, apart from Austria, Germany and the Netherlands, countries with < 40% smear-positive pulmonary cases showed a high level of culture-confirmed TB cases (73% to 88.9%; four countries), suggesting that these countries use cultures rather than smears for diagnosis of pulmonary TB (Table 9).

Of the cases reported in 2009, 57.8% were culture-confirmed, but the level differed widely across countries (range: 44.0%–100.0%) and data were not complete for five countries (i.e. < 50% of cases culture confirmed; Table 9, Map 6). The latter is an improvement from 2008, when data were not complete for seven countries. The overall proportion of culture-confirmed cases has remained stable since 2005. The following countries reported a decline (more than 3 percentage points) in the proportion of culture-confirmed cases between 2008 and 2009: Ireland (62.8% to 51.3%), the Netherlands (73.2% to 65.5%), Portugal (70.0%

to 65.9%), Romania (59.7% to 53.1%), Slovakia (60.5% to 46.4%). Between 2005 and 2009, an improvement in culture confirmation occurred in Bulgaria, Cyprus, Greece, Hungary, Italy, Poland, Slovenia and Sweden. High culture coverage (75% or more) was reported in eight countries: Belgium, Estonia, Iceland, Latvia, Luxembourg, Norway, Slovenia and Sweden.

Species identification showed *M. tuberculosis* in 83.0% of culture-positive cases in 2009 in the 29 reporting countries, *M. bovis* (0.3%) was reported by 10 countries and *M. africanum* (0.2%) by eight countries (Table 10). Data on the other members of *M. tuberculosis* complex were not analysed for 2009.

Gender and age

Males predominated among TB cases in all countries, this feature being more marked among nationals than among cases of foreign origin (overall male:female ratio was 2:1 for nationals compared with 1.4:1 for foreign cases; Table 14).

Among previously untreated cases, the age groups 25–44 and 45–64 together accounted for more than 50% of all new cases (31.1% and 29.1%, respectively; Table 11). The age group with the highest number of new TB cases was the 25–44 year-olds with over 22 000 cases (31.1% of previously untreated cases).

The middle-aged (45–64 year-olds) and the elderly (> 64 year-olds) together represented more than half of the cases (all cases) of national origin but only 28.4% of foreign cases (Tables 15a and 15b). Most cases of foreign origin were reported among younger adults, especially in the 15–24 and 25–44 age groups (68.4%).

Cases in children (< 15 years old) accounted for 4.2% of all notified cases (Table 12). Overall, countries experienced a decline or stabilisation at low levels in paediatric notification rates since 2005 (Table 12 and Country Profiles). In Bulgaria, Latvia, Lithuania and Romania, however, rates among children remained high (12.9–29.6 per 100 000 child population) in 2009 and have increased in Bulgaria since 2000 (from 11.79 to 20.6 per 100 000) (see Country Profiles). Although rates are low in Belgium, Finland, Germany, the Netherlands, Slovenia, Sweden and the United Kingdom (< 10 per 100 000), some increase in paediatric notifications have also been recorded in these countries.

Among all notified paediatric cases, 79.7% were of national origin and 17.4% were of foreign origin (Table 13). Among all cases of national origin, 4.5% were paediatric cases and among all notified cases of foreign origin, 3.1% were paediatric cases (Tables 15a and 15b). Belgium, France, Italy, the Netherlands, Spain and the United Kingdom (all low-incidence countries) showed an elevated proportion of paediatric cases among cases of national origin (between 6.1% and 12.5% of all native-origin cases; Table 15a). This may be a reflection of children born to foreign-born parents and/or living in a foreign-born household. However, at European level no data is available to support this hypothesis.

Origin of cases

In 2009, 23.6% of reported TB cases were in people of foreign origin (Table 14). This proportion ranged from 30.1% to 89% in 18 countries and the overall proportion was much higher (35%) when excluding data from Bulgaria and Romania (Table 14 and Map 4). Overall, of the 29 countries, 28 reported area of origin of TB cases: 10.4% from non-EU/EEA European countries; 34.2% of cases of foreign origin were from non-European Asia; 9.5% from other countries of the EU/EEA; and 28.6% from Africa (Table 16). Excluding Spain, who mainly reported 'other or unknown origin' for their cases of foreign origin, the distribution remained unchanged from previous years. Between 2001 and 2008, there was a steady decline in the number of notified cases of national origin in most countries, whilst case notifications of foreign origin generally increased, especially in lower-incidence countries. In a number of countries, cases of foreign origin levelled off, or declined (see Country Profiles).

Drug-resistant tuberculosis

Data on anti-TB drug resistance surveillance (DRS) in 2009 were made available by 28 countries, all of which have national coverage (Table 18). Data from 13 of the 28 countries reporting culture and drug sensitivity testing (DST) data, or providing DST results as part of a national case-linked dataset, were considered complete¹² (Table 18) for 2009. Nationwide aggregated data were reported from France, Italy and Spain¹³.

Cases resistant to one or more first-line anti-TB drugs were reported by all 28 reporting countries (Table 18). Overall, the proportion of cases with combined MDR TB in the 28 countries was 5.3%, a 0.7 percentage point decrease from 2008, with the Baltic States and Romania reporting the highest proportions (17.4%–28.0% and 11.2%, respectively) (Table 20). Cyprus also reported a high percentage of MDR cases (12.9%), however, this represents only four cases. The Baltic States, Germany, Italy, Spain, Romania, and the United Kingdom reported 50 or more MDR cases among all TB cases (Table 20).

The overall proportion of cases with MDR among the previously untreated cases was 2.8%, ranging from 0%–22.0%, and was highest in the Baltic States (10.0%–22.0%) and Cyprus (14.8%, but representing four cases) (Tables 19 and 22, Map 7). Among previously treated cases (Table 19), the overall proportion of MDR cases was 19.8%, with the highest proportions in the Baltic States (35.8%–51.6%), Bulgaria (24.2%) and Romania (21.0%). Austria and Greece also reported a high proportion of previously untreated MDR cases, however, these only represented a few cases (Austria: 34.8%, eight cases; and Greece: 28.6%, four cases). All three Baltic States reported an increase in the

12 100% national coverage or culturing available for 90% of all cases, and 50% of all cases were culture-positive, 75% of them had reported DST results, and EQA results have 95% match.

13 Aggregated data as submitted to WHO/CISID and thus not case-based data (DST results provided to ECDC/TESSy as part of a case-based individual dataset). France and Spain link the two databases, however, Italy does not. Therefore the numbers listed in tables on resistance (Tables 17–24) may differ from other tables.

proportion of MDR TB cases among previously untreated cases as well as MDR TB among previously treated cases (see Country Profiles). In Estonia, the number of previously untreated MDR TB (primary MDR TB) has increased since 2008 (42 to 54), as has the number of previously treated MDR TB (acquired MDR TB; see Country Profile). Since 2007, the number of new MDR TB cases and previously treated MDR TB cases has increased in Latvia. The downward trend in MDR TB levels seen in Lithuania has changed and since 2007 an increase in the proportion of both primary MDR TB and acquired MDR TB have been reported (see Country Profile).

Fifteen countries reported data for 2009 on extensively drug-resistant tuberculosis (XDR TB) (Table 21). In 2009, 66 XDR TB cases were reported, with the proportion of XDR cases increasing from 6.9% of all MDR cases in 2008 to 7.1% in 2009. Estonia reported an increase in the total number and proportion of XDR cases (9.5% to 11.6%) compared with 2008, while Latvia reported decrease in the number of XDR cases in 2009 (from 19 to 16 cases, with proportion change of 14.8% to 12.2%). Estonia, Latvia and Romania had the highest numbers of XDR cases in 2009 (10, 16 and 22 cases, respectively). Romania reported a decrease in the total number of cases (from 54 in 2008 to 22 in 2009).

Tuberculosis and HIV infection

Aggregated data on HIV serostatus of TB cases reported between 2007 and 2009 were available for 20 countries, of which three countries only reported data for certain years (Cyprus, Poland and the United Kingdom; Table 25). Overall, for the EU/EEA, the proportion of reported TB cases who were also HIV-seropositive was 2.3% in 2009; a slight decrease compared with 2007 (2.4%) and a more substantial decrease compared to 2008 (3.1%).

The completeness of information varied, with only eight countries reporting complete data in 2009¹⁴. This is mainly due to differences in testing policies and in data collection. Among the eight countries with complete data, the proportion of TB cases with positive HIV serostatus in 2009

was highest in Portugal (12.2%), Estonia (9.5%), Latvia (7.5%) and Malta (9.1%, representing only four cases), and ranged between 0% and 4.2% in Belgium, Iceland, Slovakia, and Slovenia (Iceland and Slovenia reporting zero HIV-positive cases). The proportion of HIV-seropositive cases has increased since 2007 in Estonia (8.4% to 9.5%), Latvia (from 3.6% to 7.5%), Malta (from 5.3% to 9.1%) and decreased in Portugal (15.1% to 12.2%).

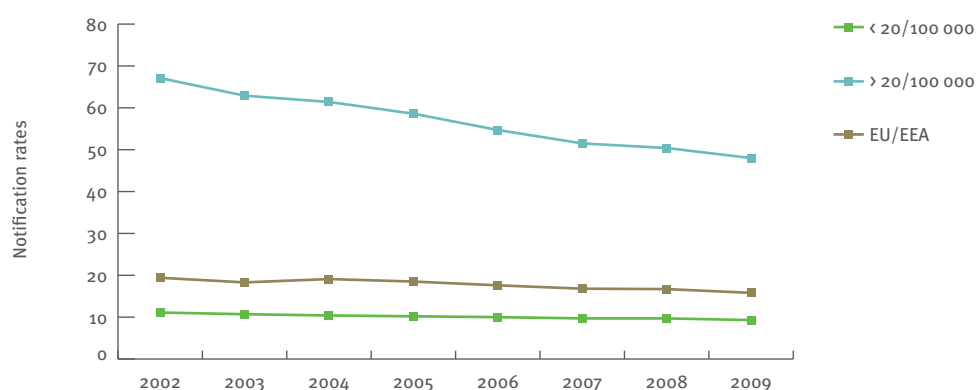
Treatment outcome and mortality

Twenty-four countries reported treatment outcome monitoring (TOM) data for culture-confirmed pulmonary TB cases reported in 2008 that were followed-up (Tables 26 to 30). The overall treatment success rate for all culture confirmed pulmonary cases was 72.8%, with four countries reporting > 85% treatment success (Malta, Portugal, Slovakia and Sweden; Table 29). Compared with the situation in 2008, treatment success decreased slightly among all culture-confirmed pulmonary TB cases of foreign origin (73.8% compared with 75.7% in 2008), as well as in cases of national origin (72.8% compared to 73.4% in 2008, Table 28). A higher proportion of cases of national origin died compared with those of foreign origin, which might reflect the older age cohort among cases of national origin (Tables 15a, 15b and 28).

Among previously untreated cases (Table 26), 78.1% had a successful outcome, 6.7% died, 1.8% failed, 5.4% defaulted from treatment, 2.9% were still on treatment, and 5.2% were transferred or had an unknown outcome. Among countries with more than 20 previously untreated laboratory-confirmed pulmonary cases, success rates varied widely from 40.5% in Denmark to 87.4% in Sweden. Six countries achieved treatment success in 85% or more of this category of cases: Bulgaria, 84.9%, the Netherlands, 85.0%, Slovakia, 87%, Portugal, 87.3%, Sweden, 87.4% and Malta, 92.3% (Malta only 13 reported cases in total). Treatment success rates below 75% were associated with a high loss to follow-up (defaulted and transferred or unknown: 4.7%–56.5%). Two countries reported a decrease of more than 5 percentage points in treatment success rates compared with the 2007 treatment cohort (Denmark and Latvia). Denmark reported treatment success in more than 85% of new pulmonary culture-confirmed cases reported in

¹⁴ Data considered complete when known HIV status is 50% or more of all reported TB cases at the latest year with data.

Figure C: TB trends by incidence grouping, 2002–2009



the 2007 treatment cohort (see Country Profile). However, at the time of the data collection, data from Denmark was incomplete.

Among previously treated laboratory-confirmed pulmonary TB cases (Table 27), the overall success rate was lower than among new cases (53.2%; range: 37.5%–100%). Death (10.6%), treatment failure (9.9%), default (15.3%) or still on treatment (7.9%) were more frequently reported for the previously treated cases than among previously untreated cases, due to the higher prevalence of drug resistance in this group and to the longer duration of re-treatment regimens. At the time of data collection, data from Denmark was incomplete.

Fifteen countries reported the treatment outcome at 24 months for all laboratory-confirmed MDR TB cases (Table 30). The overall treatment success rates was 32.0% and ranged between 22.8% and 100%, indicating a wide variation between countries with regards to successfully treating MDR TB.

Only five countries reported the number of deaths and mortality rates through the European Mortality Database or through CISID for 2009 (Table 31). Among these, the mortality rate ranged from 0.4 per 100 000 population in the Netherlands to 4.6 per 100 000 in Latvia.

Conclusions and surveillance recommendations

As for previous years, the 2009 surveillance report confirms a heterogeneous picture in terms of TB epidemiology in the 29 (out of 30) reporting EU/EEA Member States. A sustained decline in the epidemic continues to be recorded

with an annual decline (2009/2008) almost three-fold of that recorded between 2007 and 2008. As it has been the case over the past decade, the downward trend in incidence is mainly attributable to the decline recorded by high/intermediate-incidence countries (defined by using an incidence threshold of 20 per 100 000). This is accompanied by a levelling off of the epidemic in the low-incidence countries (Figure C).

This evolution of the TB epidemiological situation needs to be interpreted in full awareness of the potential limitations represented by the lack of a systematic assessment of data quality and case detection.

Feasibility of monitoring the Follow-up of the Action Plan to Fight TB in the EU

This complex epidemiological situation presents difficulties in interpreting aggregated results and in defining a monitoring approach. It was against this background that the EU Commission requested ECDC to develop a monitoring framework that would take into account the disparity in control and epidemiological settings throughout the EU. The monitoring framework was thus developed and launched on 25 November 2010.

Although the purpose of this current surveillance report does not extend to monitoring, it does provide a first opportunity to assess the feasibility of utilising the current surveillance data to further assess progress in TB control.

An overview of the four epidemiological and eight operational indicators linked to the Plan is provided in Table B. The Summary Table highlights the feasibility of monitoring 9 out of 12 indicators using the current TESSy database and

Table B: Follow-up to the TB Action Plan: monitoring feasibility overview and baseline data

Indicator	Target	Baseline 2008	2009	Data availability
Epidemiological				
Notification trend	Mean five years decline	Number of Member States reporting decline: 18 Average decline EU/EEA: -1.7%	Number of Member States reporting decline: 21 Average decline EU/EEA: -3.8%	TESSy
MDR TB notification trend	Mean five years decline	Not measured	Not measured	TESSy
Children: adults trend	Mean 10 years decline	Not calculated*	Not calculated	TESSy
Mean age trend	Increasing trend over 10 years	Not measured	Not measured	TESSy
Operational				
TB Plan availability	TB Plan available	Not collected	Not collected	Not available
TB Guidelines availability	TB Guidelines available	Not collected	Not collected	Not available
Laboratory EQA performance	100% reference TB labs achieving 80% performance (smear, cult, DST)	Not performed	Not performed	ERLN-TB EQA Scheme
Availability of a New Tool strategy	Strategy available	Not collected	Not collected	Not available
Culture confirmation & DST	80% culture confirmation in new pulmonary cases. 100% DST results to first-line drugs among new pulmonary culture-positive cases	Only reported for all cases	Member States: 7 achieving 80% Average EU/EEA: 63.1%	TESSy
% MS reporting TOM	100%	22/30	24/30	TESSy
Treatment success	85% in new pulmonary culture-positive cases 70% new pulmonary MDR TB	Member States: 3 achieving 85% EU/EEA: 79.5% MDR TB (EU/EEA): currently reported for all MDR TB cases: 30.9%	Member States: 6 achieving 85%** EU/EEA: 78.1% MDR TB (EU/EEA): currently reported for all MDR TB cases: 32.0%	TESSy
% known HIV status	100%	No Member State achieved target. Insufficient data for EU/EEA average.	No Member State achieved target. Insufficient data for EU/EEA average.	TESSy

* However, data are available in TESSy.

** Percentages rounded up to whole number.

the European Reference Laboratory Network for TB (ERLNTB) External Quality Assurance (EQA) system. A baseline for setting up monitoring can also be drawn from current data, and trends can be observed for selected indicators between 2008 and 2009.

It should be noted that, particularly for the epidemiological indicators, the reliability and interpretability of the data is dependent on the quality of surveillance. It is therefore essential that any development of monitoring should proceed in parallel with an optimisation of TB surveillance quality and coverage at Member State and EU/EEA level.

The data presented in the current surveillance report highlight some key findings in the epidemiological and operational areas emphasised in the mentioned monitoring framework.

In particular, the areas of childhood TB epidemiology, bacteriological confirmation of cases and treatment outcome monitoring, reveal fundamental findings from both a surveillance and programmatic perspective.

Childhood TB

The case notification rate of TB in children, especially infants, is an indirect measure of the level of transmission in the community. Because young children have a much higher rate of primary progression to TB, a lower transmission rate should be reflected by a decrease in the ratio of the notification rate in children to that in adults. This, in turn, is an indicator of early case-finding and effective treatment.

The current data reveals findings of interest in gaining knowledge on the current evolution of the epidemic. Particularly from an EU/EEA perspective, when data is disaggregated between high-intermediate and low-incidence countries (using a threshold of incidence of 20/100 000) the resulting trends support the picture demonstrated by analysing overall trends.

In particular, the stalling of the epidemic in the low-incidence countries seems to be accompanied by an increase in rates among all paediatric age groups (Figure D). As

mentioned in previous reports, the observed increase in childhood TB rates in this group of countries could be attributed to paediatric TB patients, born in these EU/EEA-countries, but born to foreign-born parents and/or living in a foreign-born household, and thus becoming exposed to a higher risk of TB infection in the home. The significance of this finding and its correlation to a potential reversal of the decline remains, however, unclear and requires further investigation.

On the contrary, the decline in the epidemic recorded in the high- and intermediate-burden countries is accompanied by a stable trend in paediatric cases above one year of age and a sustained decline in the infant (< 1 year of age) population (Figure E). The latter represents a valid marker for measuring recent transmission and an indication that current interventions are effective in preventing active transmission among certain groups of the population.

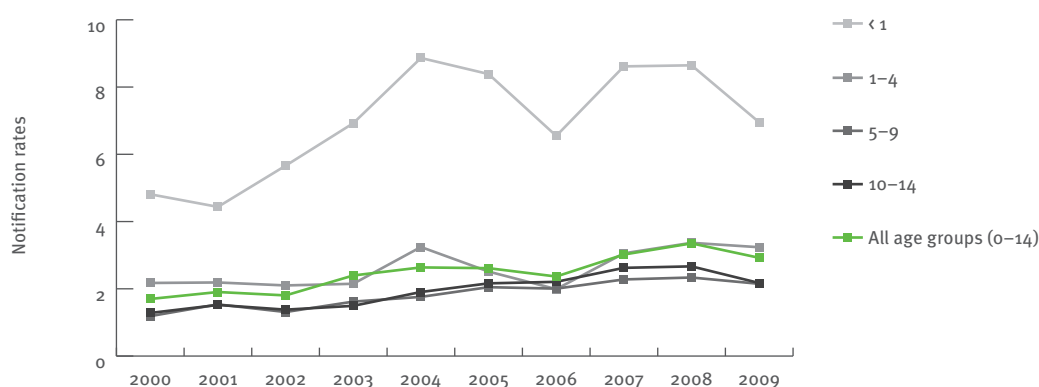
Bacteriological confirmation of cases

The monitoring framework proposes a measurement of bacteriological confirmation of new pulmonary TB cases as one of the eight core operational indicators (Indicator 5) along with drug sensitivity testing (DST) for first line drugs. The rationale for this rests in the fact that culture confirmation of specimens and identification of *M. tuberculosis* is the most accurate method of confirming active tuberculosis, and defines a confirmed case of TB as per EU case-definitions. From a programmatic perspective, the achievement of a bacteriological target (80%) among new pulmonary TB cases is of key importance in ensuring rapid detection and treatment (following DST) for MDR/XDR TB cases.

As per 2009 data, only seven EU/EEA countries (7/29, 24%) have achieved 80% or more bacteriological confirmation among new pulmonary TB cases¹⁵ (Figure F). When considering all TB cases for the EU/EEA, only 57.8% of cases had a culture confirmation, with five countries reporting 80% or more culture-confirmation. The fact that, along with this, five countries recorded a decrease in the number of culture confirmations, poses an impediment to improving

¹⁵ Data not presented in tables of this report. They have been calculated directly from TESSy data.

Figure D: Notification rates of paediatric TB in low-burden countries of EU (<20/100 000), 2000–2009



prompt detection of drug resistance and interruption of transmission.

It should however be noted that it remains to be determined whether the low bacteriological confirmation is the result of suboptimal diagnostic practices or poor linkage of laboratory and epidemiological data.

Treatment outcome monitoring (TOM)

The importance of treatment outcome monitoring (TOM) as a measure of programmatic performance and the need to achieve a high proportion of successfully treated patients to ensure an impact on the epidemic, and to prevent the emergence of resistance, were the focus of the 2010 surveillance report. It was reiterated at several instances and promoted among Member States. The monitoring framework thus fully incorporates treatment outcome monitoring as a key indicator.

Although the overall treatment success outcome for new pulmonary TB cases has shown a marginal decrease (from 79.5% to 78.1%) between the 2007 and 2008 cohorts, the number of countries achieving the 85% treatment success target has doubled, with six countries reporting success rates of 85% or more for the 2008 cohort (Figure G). This achievement is further accompanied by an increase of countries reporting TOM (22 to 24).

Concerns remain, however, in the TOM of the MDR TB cohort. The 24-month success rate among all MDR TB cases remains extremely low, at 32.0% for the 2007 cohort (with 15 countries reporting treatment outcome in this cohort). This poses a serious threat to patient survival and development of extensively resistant (XDR) TB, particularly in view of the elevated treatment failure rates.

Surveillance recommendations for the EU/EEA

Addressing 2010 recommendations

The 2010 report proposed a number of surveillance recommendations in line with the strategies for surveillance outlined in the Framework Action Plan to Fight TB in the European Union. Below follow a number of actions that

have been undertaken for each recommendation, all of which aim at improving monitoring of the evolving TB epidemiological situation [3].

- **Further discussion on how to assess underreporting and surveillance coverage in a systematic manner should be held at EU/EEA level.**

The Follow-up to the Action Plan and its monitoring framework recognise quality assurance of the TB surveillance system as a key objective. In particular, it states that the framework should only be applied when an acceptable degree of non-variability of surveillance coverage (i.e. the ability to capture all TB cases) can be assured for the years to be analysed. ECDC (along some EU Member States) has been contributing to the development of a global standard approach to assess reliability of notification and mortality trends as part of an Impact Measurement framework. Discussions are ongoing as well as a pilot analysis (i.e. trend analysis and comparability) to adapt this framework to the EU setting.

- **Optimisation of reporting bacteriological results to increase the percentage of culture-confirmed cases, thereby improving the completeness of DST data. Wider implementation of drug-resistance surveillance, including by ensuring collection and reporting of diagnostic and follow-up DST results**

No progress has been recorded on the overall culture confirmation in the EU/EEA, with a decline in the percentage of confirmed cases (from 60.0% in 2007 to 58.7% in 2009). On a positive note, an EU External Quality Assurance system for bacteriological methods and DST for first-line drugs has been put in place as of 2010. This is a step forward in ensuring quality and reliability of data.

- **Further strengthening TOM recording by increasing the number of reporting countries and improving the completeness of information at both 12 and 24 months (particularly for MDR TB cases).**

Intensive work in the form of communication with countries (through surveillance meetings, conferences,

Figure E: Notification rates of paediatric TB in high-burden countries of EU (>20/100 000), 2000–2009

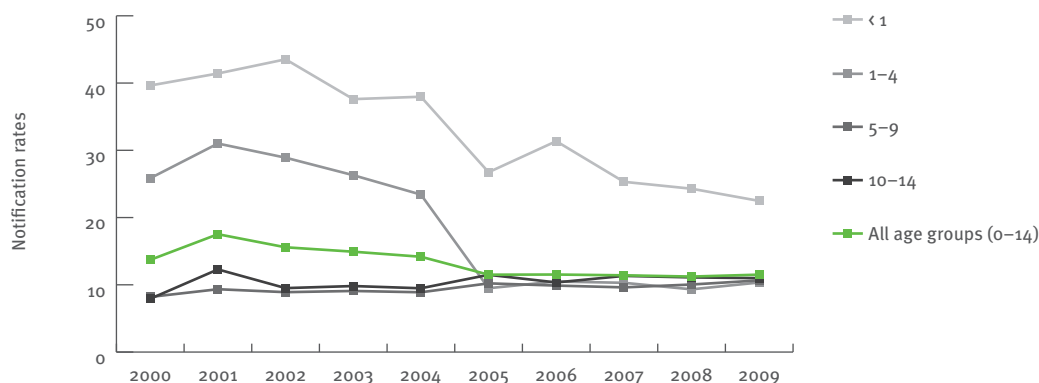


Figure F: Percentage of culture-positive cases among new pulmonary TB cases, 2009

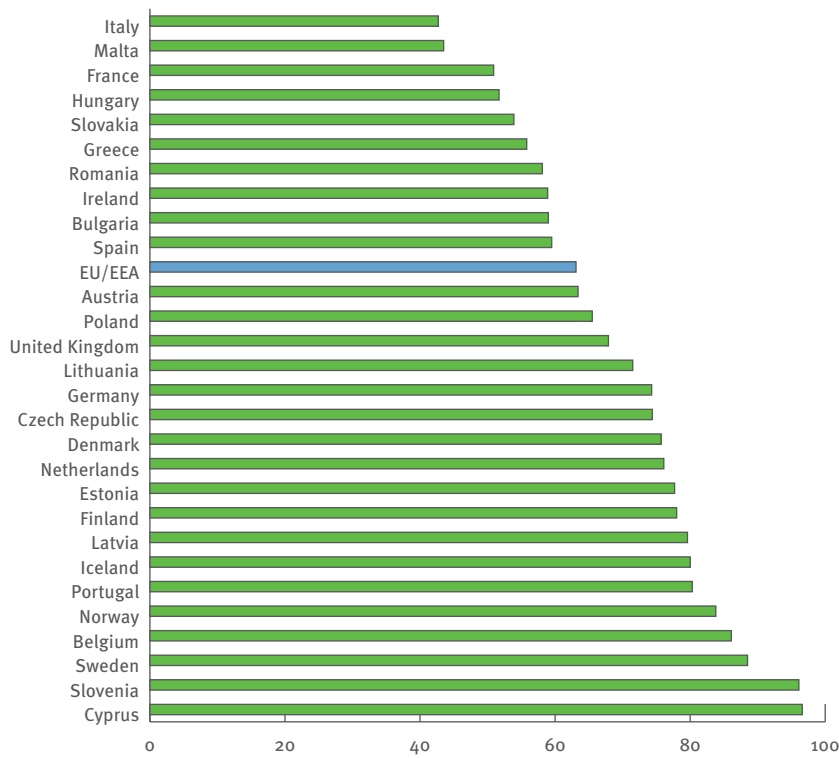
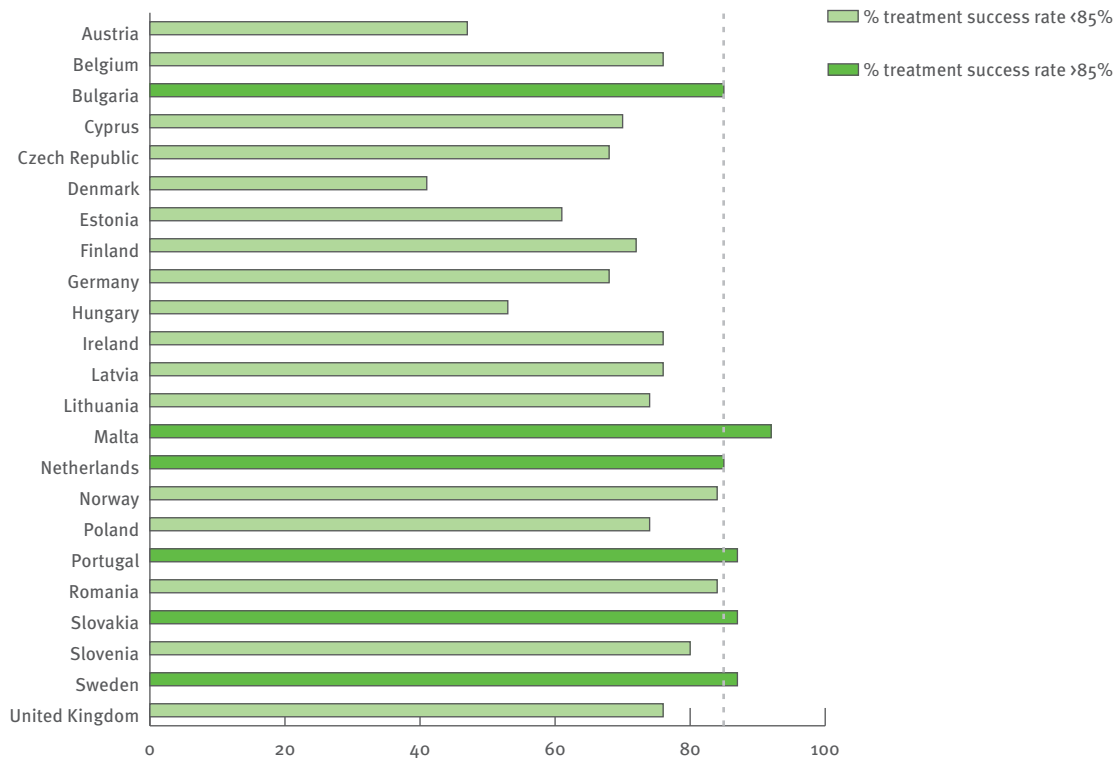


Figure G: Treatment success rate among previously untreated laboratory-confirmed pulmonary TB cases, 2008



scientific articles and media communications) have been undertaken by ECDC to highlight the importance of reporting treatment outcomes and achieving high success rates. The current report highlights improvements in the number of countries reporting TOM and in those achieving the 85% success rate target.

- **Assessment of paediatric trends and their correlation to the general TB epidemic trends.**

In the context of the development of epidemiological trend indicators, an in-depth analysis of paediatric data from the past decade has been performed for EU countries and assumptions formulated regarding their correlation to the TB epidemic. Results have been submitted for publication in a separate scientific document [10].

- **Assessment of the use and interpretation of the ‘foreign-born’ variable based on Member States’ specific epidemiological, social and demographic settings.**

Challenges remain in the definition of the ‘foreign-born’ variable.

Optimising surveillance: 2011 recommendation

- The assessment of TB surveillance quality and sensitivity (i.e. ability to capture all cases) should become a priority and standardised approaches, adaptable by countries, be developed. This should include the implementation and optimisation of linkages between laboratory and epidemiological registers at the reporting level.
- The versatility of the current TESSy dataset and surveillance report in fulfilling the needs and requirements of the developed EU TB monitoring framework should be further assessed so as to allow combining the surveillance/epidemiological and monitoring reporting.
- Prioritisation of improving TOM and treatment success rate should be continued. Urgent attention should be paid to the high failure rates among the cohort of MDR TB patients at EU/EEA level for which 24 months treatment outcome is reported.
- On the basis of the fundamental need to maximise detection of infectious cases and early identification of drug-resistant cases, improvement in the proportion of bacteriological confirmation is needed. The extent to which the underachievement in culture confirmation is a consequence of sub-optimal reporting practices should be evaluated.

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3. Tables

Summary table: Tuberculosis surveillance data by region, European Region, 2009

	Table showing data by country	Region ^a								
		EU/EEA		Non-EU/EEA		Total		18 high priority countries (HPC)		
		N ^b		N ^b		N ^b		N ^b		
Total population (millions)	-	29	504.3	24	390.2	53	894.5	18	387.5	
Notifications of TB cases, 2009										
Total number of TB cases	2	29	79,665	22	317,327	51	396,992	18	340,703	
All TB cases per 100 000 population	2	29	15.8	22	81.3	51	44.4	18	87.9	
Mean annual % change in overall notification rate (2005–2009)	2	29	-3.8%	22	-0.8%	51	-1.6%	18	-1.1%	
New TB cases and relapses per 100 000 population ^c	3	28	13.2	22	67.4	50	36.8	18	73.0	
Percentage of pulmonary TB cases among all TB cases	5	29	78.0%	22	86.8%	51	85.0%	18	86.7%	
Pulmonary sputum smear-positive TB cases per 100 000 population	6	29	5.4	22	28.8	51	15.6	18	32.4	
Percentage of laboratory-confirmed pulmonary TB cases among all pulmonary TB cases	9	29	57.8%	15	24.8%	44	31.4%	11	26.7%	
Percentage of new cases among all TB cases	4	28	79.0%	22	75.5%	50	76.2%	18	75.7%	
Mean age (age group) of new TB cases ^d	11	28	44.3	22	34.0	50	24-44	18	24-44	
Sex ratio of new and relapses cases (male to female)	3	28	1.8	22	1.9	50	1.4	18	1.7	
Foreign origin, percentage of all cases	14	29	23.6%	12	2.4%	41	2.4%	10	2.9%	
TB deaths per 100 000 population, 2008	31	23	1.2	17	11.8	40	6.1	16	12.1	
Multidrug resistance (MDR) and HIV co-infection, 2009										
Percentage of MDR TB among new TB cases	19	27	2.8%	20	14.4%	47	11.7%	17	14.3%	
Percentage of MDR TB among all TB cases	20	28	5.8%	20	24.5%	48	20.6%	17	24.3%	
Percentage of XDR TB among all MDR TB cases	21	23	7.1%	6	1.1%	29	1.3%	20	1.2%	
HIV infections, percentage of all TB cases	25	15	2.3%	16	4.0%	31	3.7%	9	3.8%	
Treatment outcome, new laboratory-confirmed pulmonary cases, 2008										
Success (cure or treatment completion)	26	23	78.1%	21	66.9%	44	69.7%	18	68.6%	
Death	26	23	6.7%	21	9.1%	44	8.5%	18	8.6%	
Failure	26	23	1.8%	21	12.9%	44	10.0%	18	11.8%	
Default	26	23	5.4%	21	7.0%	44	6.6%	18	7.0%	
Still on treatment	26	23	2.9%	21	-	44	0.7%	18	0.3%	
Lost to follow-up (transfer, unknown)	26	23	5.2%	21	4.1%	44	4.4%	18	3.7%	

^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, Latvia, Lithuania, Moldova, Romania, Russia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan.

^b Mean value unless otherwise indicated; for definition of regions see Chapter 1 Background and Technical Note.

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

^d For 14 EU/EEA countries, these data are only available for new cases.

^e Calculation based on Table 11.

Table 1: Description of the TB notification systems, European Region, 2009

Country	Electronic notification system				Population
	Data management	Web-based	Stand alone	Mixed	
EU/EEA					
Austria	Case-based	-	-	-	8 355 260
Belgium	Case-based	-	X	-	10 666 866
<i>Bulgaria</i>	<i>Case-based</i>	-	X	-	7 606 551
Cyprus	Case-based	-	-	-	796 875
Czech Republic	Case-based	X	-	-	10 467 542
Denmark	Case-based	-	X	-	5 511 451
<i>Estonia</i>	<i>Case-based</i>	-	-	X	1 340 415
Finland	Case-based	X	-	-	5 326 314
France	Case-based	-	-	X	64 350 759
Germany	Case-based	-	X	-	82 002 356
Greece	Case-based	-	-	-	11 260 402
Hungary	Case-based	-	-	X	10 030 975
Iceland	Case-based	-	X	-	319 368
Ireland	Case-based	-	X	-	4 450 030
Italy	Case-based	-	-	-	60 045 068
<i>Latvia</i>	<i>Case-based</i>	-	X	-	2 261 294
Liechtenstein	Case-based	-	-	-	35 589
<i>Lithuania</i>	<i>Case-based</i>	-	X	-	3 349 872
Luxembourg	Case-based	-	-	-	493 500
Malta	Case-based	-	X	-	413 609
Netherlands	Case-based	X	-	-	16 485 787
Norway	Case-based	-	X	-	4 799 252
Poland	Case-based	-	X	-	38 135 876
Portugal	Case-based	-	-	-	10 627 250
<i>Romania</i>	<i>Case-based</i>	X	-	-	21 498 616
Slovakia	Case-based	X	-	-	5 412 254
Slovenia	Case-based	-	-	-	2 032 362
Spain	Case-based	-	-	X	45 828 172
Sweden	Case-based	-	-	-	9 256 347
United Kingdom	Case-based	X	-	-	61 179 256
Subtotal EU/EEA	Case-based	6	11	4	504 339 268
Non-EU/EEA					
Albania	Case-based	-	X	-	3 155 271
Andorra	-	-	-	-	85 505
<i>Armenia</i>	<i>Agregated</i>	-	-	-	3 082 951
<i>Azerbaijan</i>	<i>Agregated</i>	-	-	-	8 832 172
<i>Belarus</i>	<i>Case-based</i>	-	-	X	9 633 543
Bosnia and Herzegovina	Case-based	-	X	-	3 766 579
Croatia	Case-based	-	X	-	4 416 166
<i>Georgia</i>	<i>Case-based</i>	X	-	-	4 260 333
Israel	Case-based	X	-	-	7 169 556
<i>Kazakhstan</i>	<i>Case-based</i>	-	X	-	15 636 987
<i>Kyrgyzstan</i>	<i>Case-based</i>	-	X	-	5 482 200
Macedonia, the former Yugoslav Republic of	Case-based	-	X	-	2 042 484
<i>Moldova</i>	<i>Case-based</i>	-	-	X	3 603 506
Monaco	-	-	-	-	32 812
Montenegro	Case-based	-	X	-	624 213
<i>Russia</i>	<i>Case-based</i>	-	-	X	140 873 648
San Marino	-	-	-	-	31 358
Serbia	-	-	-	-	9 849 846
Switzerland	Case-based	-	X	-	7 567 661
<i>Tajikistan</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>6 952 223</i>
<i>Turkey</i>	<i>Case-based</i>	<i>-</i>	<i>X</i>	<i>-</i>	<i>74 815 704</i>
<i>Turkmenistan</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>5 109 881</i>
<i>Ukraine</i>	<i>Agregated</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>45 708 080</i>
<i>Uzbekistan</i>	<i>Case-based</i>	<i>-</i>	<i>X</i>	<i>-</i>	<i>27 488 220</i>
Subtotal non-EU/EEA	Case-based (15)	2	10	3	390 220 899
Total European Region	Case-based (45)	8	21	7	894 560 167
Subtotal 18 HPC	Case-based (13)	2	7	4	387 536 196

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

Table 2: Tuberculosis cases, notification rates per 100 000 population and mean annual change in rates, European Region, 2005–2009

Country	2005		2006		2007		2008		2009		Mean annual % change in rate, 2005–2009
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	
EU/EEA											
Austria	998	12.1	906	11.0	874	10.5	822	9.9	707	8.5	-8.5%
Belgium	1107	10.6	1117	10.6	1020	9.6	990	9.3	1020	9.6	-2.3%
<i>Bulgaria</i>	<i>3302</i>	<i>42.7</i>	<i>3232</i>	<i>42.0</i>	<i>3038</i>	<i>39.7</i>	<i>3150</i>	<i>41.3</i>	<i>2911</i>	<i>38.3</i>	<i>-2.6%</i>
Cyprus	37	4.9	37	4.8	42	5.4	50	6.3	55	6.9	9.3%
Czech Republic	984	9.6	951	9.3	846	8.2	868	8.3	702	6.7	-8.3%
Denmark ^a	428	7.9	387	7.1	391	7.2	376	6.8	329	6.0	-6.6%
<i>Estonia</i>	<i>518</i>	<i>38.5</i>	<i>460</i>	<i>34.2</i>	<i>490</i>	<i>36.5</i>	<i>445</i>	<i>33.2</i>	<i>411</i>	<i>30.7</i>	<i>-5.3%</i>
Finland	372	7.1	297	5.6	348	6.6	344	6.5	419	7.9	4.0%
France	5374	8.5	5336	8.4	5588	8.8	5812	9.1	5308	8.2	-0.7%
Germany	6020	7.3	5378	6.5	4998	6.1	4536	5.5	4432	5.4	-7.2%
Greece	769	6.9	681	6.1	659	5.9	669	6.0	586	5.2	-6.7%
Hungary	1964	19.5	1859	18.5	1686	16.8	1620	16.1	1448	14.4	-7.2%
Iceland	11	3.7	13	4.3	14	4.5	6	1.9	9	2.8	2.9%
Ireland	450	10.8	463	10.9	480	11.0	468	10.6	472	10.6	-0.5%
Italy	4212	7.2	4503	7.6	4525	7.6	4418	7.4	3877	6.5	-2.4%
<i>Latvia</i>	<i>1443</i>	<i>62.7</i>	<i>1328</i>	<i>58.0</i>	<i>1255</i>	<i>55.1</i>	<i>1070</i>	<i>47.2</i>	<i>977</i>	<i>43.2</i>	<i>-8.8%</i>
Liechtenstein	-	-	-	-	5	14.2	-	-	-	-	-
<i>Lithuania</i>	<i>2574</i>	<i>75.4</i>	<i>2559</i>	<i>75.4</i>	<i>2408</i>	<i>71.3</i>	<i>2250</i>	<i>67.0</i>	<i>2081</i>	<i>62.1</i>	<i>-4.7%</i>
Luxembourg	37	8.0	33	7.0	39	8.1	28	5.7	27	5.5	-7.5%
Malta	25	6.2	30	7.4	38	9.3	53	12.9	44	10.6	16.6%
Netherlands	1146	7.0	1015	6.2	1004	6.1	1021	6.2	1160	7.0	0.4%
Norway	288	6.2	290	6.2	302	6.4	313	6.6	363	7.6	5.1%
Poland	9269	24.3	8587	22.5	8614	22.6	8080	21.2	8236	21.6	-2.8%
Portugal	3558	33.7	3456	32.7	3139	29.6	3002	28.3	2871	27.0	-5.4%
<i>Romania</i>	<i>29288</i>	<i>135.4</i>	<i>26600</i>	<i>123.2</i>	<i>24837</i>	<i>115.3</i>	<i>24680</i>	<i>114.7</i>	<i>23267</i>	<i>108.2</i>	<i>-5.4%</i>
Slovakia	760	14.1	730	13.5	682	12.6	633	11.7	506	9.3	-9.5%
Slovenia	278	13.9	215	10.7	218	10.8	213	10.5	188	9.3	-9.2%
Spain	7820	18.0	8029	18.2	7768	17.3	8216	18.0	7592	16.6	-2.0%
Sweden	559	6.2	497	5.5	482	5.3	546	5.9	627	6.8	2.9%
United Kingdom ^b	8317	13.8	8298	13.7	8314	13.6	8621	14.1	9040	14.8	1.7%
Subtotal EU/EEA	91 908	18.5	87 287	17.5	84 104	16.8	83 300	16.5	79 665	15.8	-3.8%
Non-EU/EEA											
Albania	540	17.4	502	16.1	447	14.3	434	13.8	447	14.2	-4.8%
Andorra	10	12.5	13	15.9	6	7.2	4	4.7	9	10.5	15.0%
Armenia	2 322	75.8	2 155	70.2	2 129	69.3	2 125	69.1	2006	65.1	-3.7%
<i>Azerbaijan</i>	<i>7 920</i>	<i>93.7</i>	<i>7 498</i>	<i>87.8</i>	<i>7 347</i>	<i>85.1</i>	<i>10 078</i>	<i>115.4</i>	<i>10 417</i>	<i>117.9</i>	<i>7.1%</i>
<i>Belarus</i>	<i>6 357</i>	<i>64.8</i>	<i>6 065</i>	<i>62.1</i>	<i>5 756</i>	<i>59.2</i>	<i>5 483</i>	<i>56.6</i>	<i>5 511</i>	<i>57.2</i>	<i>-3.0%</i>
Bosnia and Herzegovina	2 160	57.1	1 800	47.6	2 400	63.5	1 736	46.0	1 772	47.0	-2.1%
Croatia	1 141	25.7	1 135	25.6	982	22.2	980	22.2	855	19.4	-6.6%
Georgia	6 448	144.4	6 311	143.1	5 912	135.7	5 836	135.5	5 978	140.3	-0.7%
Israel	406	6.1	386	5.7	397	5.7	369	5.2	347	4.8	-5.4%
<i>Kazakhstan</i>	<i>31 187</i>	<i>205.3</i>	<i>43 204</i>	<i>282.4</i>	<i>40 279</i>	<i>261.4</i>	<i>31 809</i>	<i>204.9</i>	<i>30 578</i>	<i>195.5</i>	<i>1.0%</i>
<i>Kyrgyzstan</i>	<i>6 765</i>	<i>129.6</i>	<i>6 656</i>	<i>126.0</i>	<i>6 707</i>	<i>125.5</i>	<i>7 127</i>	<i>131.6</i>	<i>6 358</i>	<i>116.0</i>	<i>-2.5%</i>
Macedonia, the former Yugoslav Republic of	658	32.3	627	30.8	563	27.6	457	22.4	473	23.2	-7.6%
<i>Moldova</i>	<i>6 278</i>	<i>167.0</i>	<i>6 118</i>	<i>165.0</i>	<i>6 367</i>	<i>173.6</i>	<i>5 838</i>	<i>160.7</i>	<i>5 591</i>	<i>155.2</i>	<i>-1.7%</i>
Monaco	-	-	-	-	-	-	-	-	-	-	-
Montenegro	170	27.2	171	27.5	159	25.6	133	21.4	120	19.2	-8.1%
<i>Russia^c</i>	<i>156 047</i>	<i>109.0</i>	<i>152 265</i>	<i>106.8</i>	<i>214 924</i>	<i>151.4</i>	<i>214 905</i>	<i>152.0</i>	<i>156 222</i>	<i>110.9</i>	<i>3.3%</i>
San Marino	-	-	-	-	-	-	-	-	-	-	-
Serbia ^d	2 378	24.1	2 150	21.9	2 051	20.9	1 821	18.5	1 694	17.2	-8.1%
Switzerland	563	7.6	518	6.9	453	6.4	516	6.8	554	7.3	-0.7%
<i>Tajikistan</i>	<i>7 142</i>	<i>109.3</i>	<i>6 671</i>	<i>100.7</i>	<i>8 081</i>	<i>120.1</i>	<i>7 996</i>	<i>117.0</i>	<i>7 482</i>	<i>107.6</i>	<i>0.2%</i>
<i>Turkey</i>	<i>20 535</i>	<i>28.9</i>	<i>20 526</i>	<i>28.5</i>	<i>19 694</i>	<i>27.0</i>	<i>18 452</i>	<i>25.0</i>	<i>17 402</i>	<i>23.3</i>	<i>-5.2%</i>
<i>Turkmenistan</i>	<i>3 291</i>	<i>68.0</i>	<i>3 369</i>	<i>68.6</i>	<i>3 698</i>	<i>74.3</i>	<i>3 909</i>	<i>77.5</i>	<i>3 157</i>	<i>61.8</i>	<i>-1.7%</i>
<i>Ukraine</i>	<i>43 367</i>	<i>92.4</i>	<i>41 265</i>	<i>88.5</i>	<i>40 643</i>	<i>87.8</i>	<i>37 832</i>	<i>82.3</i>	<i>38 901</i>	<i>85.1</i>	<i>-2.0%</i>
<i>Uzbekistan</i>	<i>28 891</i>	<i>109.8</i>	<i>25 310</i>	<i>95.1</i>	<i>23 390</i>	<i>87.0</i>	<i>21 194</i>	<i>77.9</i>	<i>21 453</i>	<i>78.0</i>	<i>-8.0%</i>
Subtotal non-EU/EEA	334 576	86.5	334 712	86.3	392 385	101.0	379 034	97.4	317 327	81.3	-0.8%
Total European Region	426 484	48.2	421 999	47.6	476 489	53.5	462 334	51.8	396 992	44.4	-1.6%
Subtotal 18 HPC	363 675	94.4	361 592	93.7	416 955	108.0	404 179	104.5	340 703	87.9	-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.

^b Excluding Greenland (63 cases in 2009).

^c Data before 2007 differ from those published in the UK due to a revision of the UK surveillance system.

^d For 2007–2008, definition for overall notified TB included cases notified in previous years.

^e Excluding 901 cases from Kosovo (in accordance with Security Council Resolution 1244 (1999)).

Table 3: New TB cases and relapses, notification rates per 100 000 population, European Region, 2000–2009^a

Country	2000		2001		2002		2003		2004	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
EU/EEA										
Austria	1111	13.9	986	12.3	986	12.2	911	11.2	1014	12.4
Belgium	1009	9.8	977	9.5	952	9.2	695	6.7	860	8.3
Bulgaria	2966	36.3	3436	42.8	2962	37.6	2952	37.7	2923	37.6
Cyprus	-	-	-	-	19	2.7	34	4.7	28	3.8
Czech Republic	1389	13.5	1291	12.6	1156	11.3	1110	10.9	1027	10.1
Denmark ^b	509	9.5	475	8.9	386	7.2	368	6.8	355	6.6
Estonia	661	48.3	677	49.6	621	45.7	559	41.3	540	40.0
Finland	546	10.5	501	9.7	476	9.2	412	7.9	329	6.3
France	4354	7.2	4268	7.0	4315	7.0	4292	6.9	4472	7.2
Germany	-	-	4874	5.9	4956	6.0	4921	6.0	5108	6.2
Greece	655	6.0	503	4.6	281	2.6	552	5.0	600	5.4
Hungary	3056	29.9	2717	26.7	2505	24.7	2297	22.7	2087	20.6
Iceland	12	4.3	12	4.2	8	2.8	5	1.7	12	4.1
Ireland	272	7.1	248	6.4	306	7.8	288	7.2	304	7.5
Italy	3137	5.5	3553	6.2	2846	5.0	3556	6.2	3130	5.4
Latvia	1715	72.3	1986	84.3	1803	77.1	1686	72.5	1571	67.9
Liechtenstein	-	-	-	-	-	-	-	-	-	-
Lithuania	2330	66.6	2225	63.9	2097	60.4	2553	73.9	2026	59.0
Luxembourg	39	8.9	31	7.0	31	6.9	53	11.7	31	6.8
Malta	15	3.9	15	3.8	24	6.1	6	1.5	19	4.7
Netherlands	1325	8.3	1396	8.7	1188	7.4	1095	6.7	1128	6.9
Norway	201	4.5	245	5.4	207	4.6	246	5.4	240	5.2
Poland	10091	26.2	9429	24.7	9195	24.1	8890	23.3	8337	21.8
Portugal	4176	40.8	4054	39.4	4170	40.2	3870	37.1	3588	34.2
Romania	26027	116.0	28750	129.9	30065	137.9	27741	127.6	27652	127.5
Slovakia	1026	19.0	989	18.4	963	17.9	893	16.6	647	12.0
Slovenia	365	18.4	361	18.1	338	16.9	276	13.8	252	12.6
Spain	6155	15.3	4410	10.8	5229	12.7	4594	10.9	5516	12.9
Sweden	403	4.5	394	4.4	370	4.1	384	4.3	429	4.8
United Kingdom ^c	4846	8.2	4895	8.3	4945	8.3	5116	8.6	5286	8.8
Subtotal EU/EEA	78391	19.3	83698	17.1	83400	17.0	80355	16.3	79511	16.1
Non-EU/EEA										
Albania	604	19.7	555	18.1	594	19.3	543	17.6	547	17.7
Andorra	12	18.1	10	14.6	5	7.0	10	13.5	7	9.1
Armenia	1333	43.3	1389	45.3	1433	46.8	1538	50.3	1660	54.2
Azerbaijan	5187	63.9	4898	59.9	5142	62.4	3840	46.2	5404	64.5
Belarus	6799	67.6	5505	55.0	5139	51.6	5106	51.5	5443	55.2
Bosnia and Herzegovina	2476	67.0	2469	65.9	1691	44.8	1740	46.0	2353	62.2
Croatia	1630	36.2	1376	30.7	1443	32.3	1356	30.4	1170	26.3
Georgia	4397	92.7	4006	85.5	4490	97.0	4212	92.1	4011	88.8
Israel	557	9.2	546	8.8	485	7.7	505	7.8	497	7.6
Kazakhstan	25843	172.8	26224	175.9	27546	184.5	27069	180.5	26349	174.6
Kyrgyzstan	6205	125.2	6654	132.7	6613	130.5	6172	120.6	6104	118.1
Macedonia, the former Yugoslav Republic of	641	31.9	648	32.1	686	33.9	653	32.2	644	31.7
Moldova	2935	71.6	3608	89.5	3769	95.2	3619	93.1	4806	125.8
Monaco	0	0.0	0	0.0	0	0.0	-	-	-	-
Montenegro	-	-	-	-	-	-	-	-	-	-
Russia	140677	95.9	132477	90.7	128873	88.7	124041	85.8	121426	84.4
San Marino	1	3.7	0	0.0	1	3.5	1	3.5	0	0.0
Serbia ^d	-	-	-	-	-	-	-	-	-	-
Switzerland	404	5.6	392	5.4	434	6.0	402	5.5	407	5.5
Tajikistan	2779	45.0	3508	56.2	4052	64.2	4260	66.8	4529	70.2
Turkey	18038	27.1	17263	25.6	18043	26.4	17923	25.9	17543	25.0
Turkmenistan	4038	89.7	3948	86.5	3671	79.2	3771	80.2	3382	70.8
Ukraine	32945	67.4	36784	75.9	40175	83.6	37043	77.7	38403	81.2
Uzbekistan	15750	63.6	17391	69.3	20588	81.0	20700	80.5	20289	78.0
Subtotal non-EU/EEA	273251	73.1	269651	72.0	274873	73.3	264504	70.5	264974	70.5
Total European Region	351642	45.2	353349	41.0	358273	41.4	344859	39.8	344485	39.6
Subtotal 18 HPC	300625	78.0	300729	78.1	307082	79.8	294785	76.6	294061	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*.

Note: For TB cases and case rates by country and year for the period 1995–2006, see www.eurotb.org.

^b For countries that could not provide previous treatment data, only data for new cases were used.

^c Excluding Greenland (57 cases in 2009).

^d Data before 2007 differ from those published in the UK due to a revision of the UK surveillance system.

^e Excluding 254 cases from Kosovo (in accordance with Security Council Resolution 1244 (1999)).

	2005		2006		2007		2008		2009		Sex ratio (M:F)
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	
	933	11.3	852	10.3	811	9.8	738	8.9	442	5.3	1.6
	851	8.1	825	7.8	819	7.7	787	7.4	806	7.6	1.4
	3101	40.1	3011	39.1	2821	36.8	2945	38.6	2658	34.9	1.8
	33	4.4	35	4.5	41	5.2	18	2.3	43	5.4	1.4
	886	8.7	872	8.5	770	7.5	807	7.7	638	6.1	2.1
	1	0.0	341	6.3	355	6.5	327	6.0	288	5.2	1.4
	480	35.7	426	31.7	456	34.0	401	29.9	361	26.9	2.2
	354	6.7	281	5.3	333	6.3	328	6.2	405	7.6	1.5
	4453	7.1	4238	6.7	3849	6.0	3355	5.2	2890	4.5	1.4
	4818	5.8	4467	5.4	4180	5.1	3753	4.6	3652	4.5	1.5
	583	5.3	567	5.1	552	4.9	538	4.8	464	4.1	1.9
	1721	17.1	1627	16.2	1470	14.6	1434	14.3	1304	13.0	1.8
	10	3.4	13	4.3	12	3.9	5	1.6	8	2.5	3.0
	311	7.5	314	7.4	350	8.0	360	8.1	333	7.5	1.7
	3005	5.1	3295	5.6	3378	5.7	3409	5.7	2541	4.2	1.4
	1404	61.0	1285	56.2	1226	53.9	1048	46.2	948	41.9	2.2
	-	-	-	-	5	14.2	-	-	-	-	-
	2371	69.4	2365	69.7	2232	66.1	2097	62.4	1898	56.7	2.2
	36	7.7	33	7.0	-	-	-	-	-	-	-
	24	5.9	30	7.4	37	9.0	48	11.7	41	9.9	3.1
	59	0.4	45	0.3	962	5.9	991	6.0	1114	6.8	1.4
	238	5.1	223	4.8	224	4.8	236	4.9	258	5.4	1.3
	8586	22.5	7973	20.9	8033	21.1	7419	19.5	7646	20.0	2.0
	3206	30.4	3253	30.7	2962	27.9	2841	26.7	2713	25.5	1.9
	25916	119.8	23774	110.1	22128	102.7	21646	100.6	20241	94.2	2.2
	685	12.7	657	12.2	610	11.3	562	10.4	433	8.0	1.8
	271	13.5	208	10.4	214	10.6	208	10.3	187	9.2	1.3
	6185	14.3	6101	13.8	6154	13.7	6770	14.9	6687	14.6	1.7
	531	5.9	473	5.2	446	4.9	452	4.9	515	5.6	1.1
	5988	9.9	6192	10.2	5976	9.8	6510	10.6	7008	11.5	1.3
	77040	15.5	73776	14.8	71406	14.3	70033	13.9	66522	13.2	1.8
	506	16.3	469	15.0	438	14.0	427	13.6	447	14.2	1.7
	10	12.5	12	14.7	5	6.0	4	4.7	8	9.4	0.8
	2206	72.0	1767	57.6	1682	54.7	1655	53.8	1560	50.6	2.8
	6034	71.4	5705	66.8	5521	64.0	6417	73.5	7301	82.7	2.2
	5308	54.1	5142	52.6	5351	55.0	5126	53.0	5250	54.5	2.5
	2111	55.8	1778	47.0	2373	62.8	1713	45.4	1725	45.8	1.5
	1050	23.6	1029	23.2	951	21.5	980	22.2	832	18.8	1.7
	4501	100.8	4554	103.2	4310	98.9	4412	102.4	4732	111.1	2.3
	402	6.0	384	5.6	392	5.7	367	5.2	345	4.8	1.3
	25512	167.9	23796	155.5	24752	160.6	23140	149.1	20508	131.2	1.2
	6329	121.2	6174	116.9	6098	114.1	6628	122.4	5765	105.2	1.3
	598	29.4	561	27.5	526	25.8	450	22.0	450	22.0	1.3
	5141	136.8	4990	134.5	4857	132.4	4442	122.3	4347	120.6	2.2
	-	-	-	-	-	-	-	-	-	-	-
	156	25.0	167	26.9	147	23.7	131	21.0	113	18.1	1.6
	127930	89.4	124689	87.5	127338	89.7	128263	90.7	126227	89.6	2.2
	-	-	-	-	-	-	-	-	-	-	-
	3208	32.5	3146	32.0	2891	29.4	2714	27.6	1879	19.1	1.4
	383	5.2	339	4.5	314	4.2	319	4.2	333	4.4	1.2
	5460	83.5	5362	80.9	6297	93.6	6396	93.6	6125	88.1	1.4
	19744	27.7	19629	27.2	18878	25.9	17600	23.8	16757	22.4	1.4
	3191	65.9	3223	65.6	3428	68.9	3757	74.5	4550	89.0	1.5
	39608	84.4	41265	88.5	37517	81.0	37832	82.3	36075	78.9	2.3
	21513	81.7	23900	89.8	19779	73.5	17040	62.7	17540	63.8	1.4
	280901	72.6	278081	71.8	273845	70.5	269813	69.3	262869	67.4	1.92
	357941	40.5	351857	39.7	345251	38.8	339846	38.1	329391	36.8	1.88
	305749	79.3	301057	78.0	294671	76.3	290845	75.2	282843	73.0	1.94

Table 4: Tuberculosis cases by history of previous TB treatment^a, European Region, 2009

Country	New		Previously treated total		Previous treatment completed (cured)		Previous treatment failed		Previous treatment defaulted		Other retreatment		Unknown previous TB history	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA														
Austria	437	(61.8)	38	(5.4)	12	(31.6)	0	(0.0)	3	(7.9)	23	(60.5)	232	(32.8)
Belgium ^b	806	(79.0)	80	(7.8)	-	-	-	-	-	-	-	-	134	(13.1)
Bulgaria	2526	(86.8)	385	(13.2)	291	(75.6)	21	(5.5)	60	(15.6)	13	(3.4)	0	(0.0)
Cyprus	41	(74.5)	6	(10.9)	3	(50.0)	0	(0.0)	0	(0.0)	3	(50.0)	8	(14.5)
Czech Republic	638	(90.9)	64	(9.1)	0	(0.0)	0	(0.0)	0	(0.0)	64	(100.0)	0	(0.0)
Denmark ^b	288	(87.5)	41	(12.5)	-	-	-	-	-	-	-	-	0	(0.0)
Estonia	331	(80.5)	80	(19.5)	47	(58.8)	14	(17.5)	19	(23.8)	0	(0.0)	0	(0.0)
Finland	405	(96.7)	14	(3.3)	0	(0.0)	0	(0.0)	0	(0.0)	14	(100.0)	0	(0.0)
France	2890	(54.4)	352	(6.6)	0	(0.0)	0	(0.0)	0	(0.0)	352	(100.0)	2066	(38.9)
Germany	3545	(80.0)	312	(7.0)	204	(65.4)	12	(3.8)	0	(0.0)	96	(30.8)	575	(13.0)
Greece	464	(79.2)	45	(7.7)	0	(0.0)	0	(0.0)	1	(2.2)	44	(97.8)	77	(13.1)
Hungary	1230	(84.9)	211	(14.6)	185	(87.7)	0	(0.0)	4	(1.9)	22	(10.4)	7	(0.5)
Iceland	7	(77.8)	1	(11.1)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(11.1)
Ireland ^b	333	(70.6)	49	(10.4)	-	-	-	-	-	-	-	-	90	(19.1)
Italy	2541	(65.5)	150	(3.9)	0	(0.0)	0	(0.0)	0	(0.0)	150	(100.0)	1186	(30.6)
Latvia	830	(85.0)	147	(15.0)	123	(83.7)	1	(0.7)	23	(15.6)	0	(0.0)	0	(0.0)
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	1677	(80.6)	404	(19.4)	221	(54.7)	64	(15.8)	119	(29.5)	0	(0.0)	0	(0.0)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	27	(100.0)
Malta	41	(93.2)	2	(4.5)	1	(50.0)	0	(0.0)	0	(0.0)	1	(50.0)	1	(2.3)
Netherlands	1094	(94.3)	50	(4.3)	34	(68.0)	0	(0.0)	12	(24.0)	4	(8.0)	16	(1.4)
Norway ^b	258	(71.1)	31	(8.5)	-	-	-	-	-	-	-	-	74	(20.4)
Poland	7268	(88.2)	942	(11.4)	564	(59.9)	0	(0.0)	0	(0.0)	378	(40.1)	26	(0.3)
Portugal	2600	(90.6)	271	(9.4)	169	(62.4)	3	(1.1)	35	(12.9)	64	(23.6)	0	(0.0)
Romania	17866	(76.8)	5401	(23.2)	3591	(66.5)	973	(18.0)	837	(15.5)	0	(0.0)	0	(0.0)
Slovakia	406	(80.2)	79	(15.6)	66	(83.5)	6	(7.6)	7	(8.9)	0	(0.0)	21	(4.2)
Slovenia	180	(95.7)	8	(4.3)	7	(87.5)	0	(0.0)	1	(12.5)	0	(0.0)	0	(0.0)
Spain	6687	(88.1)	401	(5.3)	0	(0.0)	0	(0.0)	0	(0.0)	401	(100.0)	504	(6.6)
Sweden	515	(82.1)	46	(7.3)	0	(0.0)	0	(0.0)	0	(0.0)	46	(100.0)	66	(10.5)
United Kingdom ^b	7008	(77.5)	816	(9.0)	-	-	-	-	-	-	-	-	1216	(13.5)
Subtotal EU/EEA	62912	(79.0)	10426	(13.1)	5519	(52.9)	1094	(10.5)	1121	(10.8)	1675	(16.1)	6327	(7.9)
Non-EU/EEA														
Albania	416	(93.1)	21	(4.7)	19	(90.5)	-	-	2	(9.5)	0	(0.0)	10	(2.2)
Andorra	7	(77.8)	2	(22.2)	1	(50.0)	0	(0.0)	0	(0.0)	1	(50.0)	0	(0.0)
Armenia	1464	(73.0)	172	(8.6)	96	(55.8)	30	(17.4)	25	(14.5)	21	(12.2)	370	(18.4)
Azerbaijan	5872	(56.4)	2384	(22.9)	1429	(59.9)	92	(3.9)	166	(7.0)	697	(29.2)	2161	(20.7)
Belarus	4633	(84.1)	878	(15.9)	617	(70.3)	-	-	-	-	261	(29.7)	-	-
Bosnia and Herzegovina	1659	(93.6)	113	(6.4)	66	(58.4)	0	(0.0)	0	(0.0)	47	(41.6)	0	(0.0)
Croatia	793	(92.7)	62	(7.3)	39	(62.9)	-	-	-	-	23	(37.1)	-	-
Georgia	4457	(74.6)	566	(9.5)	275	(48.6)	91	(16.1)	137	(24.2)	63	(11.1)	955	(16.0)
Israel	339	(97.7)	8	(2.3)	6	(75.0)	-	-	-	-	2	(25.0)	0	(0.0)
Kazakhstan	16810	(55.0)	9371	(30.6)	3698	(39.5)	418	(4.5)	1022	(10.9)	4233	(45.2)	4397	(14.4)
Kyrgyzstan	5434	(85.5)	758	(11.9)	331	(43.7)	-	-	-	-	427	(56.3)	166	(2.6)
Macedonia, the former Yugoslav Republic of	417	(88.2)	48	(10.1)	33	(68.8)	0	(0.0)	0	(0.0)	15	(31.3)	8	(1.7)
Moldova	3804	(68.0)	1663	(29.7)	543	(32.7)	255	(15.3)	308	(18.5)	557	(33.5)	124	(2.2)
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	108	(90.0)	11	(9.2)	5	(45.5)	1	(9.1)	3	(27.3)	2	(18.2)	1	(0.8)
Russia	117227	(75.0)	32569	(20.8)	9000	(27.6)	5036	(15.5)	2298	(7.1)	16235	(49.8)	6426	(4.1)
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	1486	(87.7)	203	(12.0)	139	(68.5)	15	(7.4)	12	(5.9)	37	(18.2)	5	(0.3)
Switzerland	333	(60.1)	221	-	-	-	-	-	-	-	221	100	0	(0.0)
Tajikistan	5864	(78.4)	533	(7.1)	261	(49.0)	170	(31.9)	76	(14.3)	26	(4.9)	1085	(14.5)
Turkey	15943	(91.6)	1445	(8.3)	814	(56.3)	77	(5.3)	126	(8.7)	428	(29.6)	14	(0.1)
Turkmenistan	3157	(100.0)	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	33424	(85.9)	5477	(14.1)	2651	(48.4)	-	-	-	-	2826	(51.6)	-	-
Uzbekistan	16569	(77.2)	2451	(11.4)	971	(39.6)	350	(14.3)	52	(2.1)	1078	(44.0)	2433	(11.3)
Subtotal non-EU/EEA	240216	(75.7)	58956	(18.6)	20994	(35.6)	6535	(11.1)	4227	(7.2)	27200	(46.1)	18155	(5.7)
Total European Region	303128	(76.4)	69382	(17.5)	26513	(38.2)	7629	(11.0)	5348	(7.7)	28875	(41.6)	24482	(6.2)
Subtotal 18 HPC	257888	(75.7)	64684	(19.0)	24959	(38.6)	7592	(11.7)	5268	(8.1)	26865	(41.5)	18131	(5.3)

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

^b Distribution of cases by previous anti-TB treatment, except where indicated (previous diagnosis).

^c Distribution by previous diagnosis.

Table 5: Tuberculosis cases by site of disease, European Region, 2009

Country	Pulmonary						Extrapulmonary		No site reported		Total
	Pulmonary only		Pulmonary + extrapulmonary		Total pulmonary		N	(%)	N	(%)	
	N	(%)	N	(%)	N	(%)					
EU/EEA											
Austria	557	(78.8)	28	(4.0)	585	(82.7)	122	(17.3)	0	(0.0)	707
Belgium	665	(65.2)	77	(7.5)	742	(72.7)	278	(27.3)	0	(0.0)	1020
<i>Bulgaria</i>	2009	(69.0)	115	(4.0)	2124	(73.0)	787	(27.0)	0	(0.0)	2911
Cyprus	34	(61.8)	2	(3.6)	36	(65.5)	19	(34.5)	0	(0.0)	55
Czech Republic	561	(79.9)	33	(4.7)	594	(84.6)	108	(15.4)	0	(0.0)	702
Denmark	233	(70.8)	17	(5.2)	260	(79.0)	69	(21.0)	0	(0.0)	329
<i>Estonia</i>	334	(81.3)	55	(13.4)	389	(94.6)	22	(5.4)	0	(0.0)	411
Finland	301	(71.8)	0	(0.0)	301	(71.8)	118	(28.2)	0	(0.0)	419
France	3134	(59.0)	689	(13.0)	3823	(72.0)	1401	(26.4)	84	(1.6)	5308
Germany	3071	(69.3)	382	(8.6)	3453	(77.9)	928	(20.9)	51	(1.2)	4432
Greece	436	(74.4)	77	(13.1)	502	(85.7)	84	(14.3)	0	(0.0)	586
Hungary	1367	(94.4)	8	(0.6)	1375	(95.0)	73	(5.0)	0	(0.0)	1448
Iceland	6	(66.7)	1	(11.1)	7	(77.8)	2	(22.2)	0	(0.0)	9
Ireland	294	(62.3)	19	(4.0)	311	(65.9)	159	(33.7)	2	(0.4)	472
Italy	2773	(71.5)	15	(0.4)	2788	(71.9)	1089	(28.1)	0	(0.0)	3877
<i>Latvia</i>	841	(86.1)	47	(4.8)	888	(90.9)	89	(9.1)	0	(0.0)	977
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-
<i>Lithuania</i>	1845	(88.7)	0	(0.0)	1845	(88.7)	236	(11.3)	0	(0.0)	2081
Luxembourg	25	(92.6)	0	(0.0)	25	(92.6)	2	(7.4)	0	(0.0)	27
Malta	23	(52.3)	3	(6.8)	26	(59.1)	18	(40.9)	0	(0.0)	44
Netherlands	534	(46.0)	108	(9.3)	642	(55.3)	518	(44.7)	0	(0.0)	1160
Norway	192	(52.9)	37	(10.2)	229	(63.1)	134	(36.9)	0	(0.0)	363
Poland	7597	(92.2)	57	(0.7)	7654	(92.9)	582	(7.1)	0	(0.0)	8236
Portugal	1913	(66.6)	178	(6.2)	2091	(72.8)	709	(24.7)	71	(2.5)	2871
<i>Romania</i>	18538	(79.7)	1351	(5.8)	19889	(85.5)	3378	(14.5)	0	(0.0)	23267
Slovakia	383	(75.7)	31	(6.1)	414	(81.8)	92	(18.2)	0	(0.0)	506
Slovenia	141	(75.0)	21	(11.2)	162	(86.2)	26	(13.8)	0	(0.0)	188
Spain	0	(0.0)	0	(0.0)	5778	(76.1)	1814	(23.9)	0	(0.0)	7592
Sweden	315	(50.2)	43	(6.9)	358	(57.1)	269	(42.9)	0	(0.0)	627
United Kingdom	0	(0.0)	0	(0.0)	4851	(53.7)	4117	(45.5)	72	(0.8)	9040
Subtotal EU/EEA	48122	(60.4)	3394	(4.3)	62142	(78.0)	17243	(21.6)	280	(0.4)	79665
Non-EU/EEA											
Albania	-	-	-	-	305	(68.2)	137	(30.6)	5	(1.1)	447
Andorra	-	-	-	-	7	(77.8)	2	(22.2)	0	(0.0)	9
Armenia	-	-	-	-	1632	(81.4)	374	(18.6)	0	(0.0)	2006
Azerbaijan	-	-	-	-	8932	(85.7)	1485	(14.3)	0	(0.0)	10417
Belarus	-	-	-	-	5059	(91.8)	452	(8.2)	0	(0.0)	5511
Bosnia and Herzegovina	-	-	-	-	1584	(89.4)	188	(10.6)	0	(0.0)	1772
Croatia	-	-	-	-	770	(90.1)	85	(9.9)	0	(0.0)	855
Georgia	-	-	-	-	4588	(76.7)	1390	(23.3)	0	(0.0)	5978
Israel	-	-	-	-	248	(71.5)	99	(28.5)	0	(0.0)	347
<i>Kazakhstan</i>	-	-	-	-	24569	(80.3)	2701	(8.8)	3308	(10.8)	30578
<i>Kyrgyzstan</i>	-	-	-	-	4373	(68.8)	1558	(24.5)	427	(6.7)	6358
Macedonia, the former Yugoslav Republic of	-	-	-	-	351	(74.2)	122	(25.8)	0	(0.0)	473
Moldova	-	-	-	-	5054	(90.4)	537	(9.6)	0	(0.0)	5591
Monaco	-	-	-	-	-	-	-	-	-	-	-
Montenegro	-	-	-	-	107	(89.2)	13	(10.8)	0	(0.0)	120
Russia	-	-	-	-	145012	(92.8)	11210	(7.2)	0	(0.0)	156222
San Marino	-	-	-	-	-	-	-	-	-	-	0
Serbia	-	-	-	-	1482	(87.5)	212	(12.5)	0	(0.0)	1694
Switzerland	-	-	-	-	389	(70.2)	165	(29.8)	0	(0.0)	554
Tajikistan	-	-	-	-	5798	(77.5)	1684	(22.5)	0	(0.0)	7482
Turkey	-	-	-	-	11554	(66.4)	5848	(33.6)	0	(0.0)	17402
Turkmenistan	-	-	-	-	2593	(82.1)	564	(17.9)	0	(0.0)	3157
Ukraine	-	-	-	-	34681	(89.2)	4220	(10.8)	0	(0.0)	38901
Uzbekistan	-	-	-	-	16340	(76.2)	5113	(23.8)	0	(0.0)	21453
Subtotal non-EU/EEA	-	-	-	-	275428	(86.8)	38159	(12.0)	3740	(1.2)	317327
Total European Region	-	-	-	-	337570	(85.0)	55402	(14.0)	4020	(1.0)	396992
Subtotal 18 HPC	-	-	-	-	295320	(86.7)	41648	(12.2)	3735	(1.1)	340703

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

Table 6: Pulmonary sputum smear-positive TB cases, percentage of all pulmonary TB cases and cases per 100 000 population, European Region, 2007–2009

Country	2007			2008 ^a			2009		
	N	% of all pulmonary cases	Cases per 100 000 population	N	% of all pulmonary cases	Cases per 100 000 population	N	% of all pulmonary cases	Cases per 100 000 population
EU/EEA									
Austria	201	(27.5)	2.4	229	(33.5)	2.7	131	(22.4)	1.6
Belgium	352	(47.6)	3.3	368	(51.2)	3.4	360	(48.5)	3.4
<i>Bulgaria</i>	1230	(44.9)	16.1	1164	(48.4)	15.3	1080	(50.8)	14.2
Cyprus	8	(22.2)	1.0	11	(26.2)	1.4	17	(47.2)	2.1
Czech Republic	279	(38.6)	2.7	271	(36.8)	2.6	239	(40.2)	2.3
Denmark	146	(48.7)	2.7	123	(43.9)	2.2	121	(46.5)	2.2
<i>Estonia</i>	201	(44.1)	15.0	188	(45.7)	14.0	177	(45.5)	13.2
Finland	95	(40.1)	1.8	105	(47.9)	2.0	97	(32.2)	1.8
France	2092	(51.1)	3.3	2072	(51.5)	3.2	1889	(49.4)	2.9
Germany	1311	(33.4)	1.6	1191	(34.0)	1.5	1226	(35.5)	1.5
Greece	295	(53.7)	2.6	281	(48.3)	2.5	252	(50.2)	2.2
Hungary	470	(29.6)	4.7	432	(28.2)	4.3	421	(30.6)	4.2
Iceland	3	(33.3)	1.0	2	(66.7)	0.6	4	(57.1)	1.3
Ireland	153	(43.8)	3.5	158	(47.0)	3.6	136	(43.7)	3.1
Italy	1640	(47.8)	2.8	1234	(37.5)	2.1	1386	(49.7)	2.3
<i>Latvia</i>	606	(54.4)	26.6	494	(52.0)	21.8	465	(52.4)	20.6
Liechtenstein	4	(100.0)	11.3	-	-	-	-	-	-
<i>Lithuania</i>	1266	(59.5)	37.5	1167	(58.8)	34.8	1082	(58.6)	32.3
Luxembourg	-	-	-	-	-	-	16	(64.0)	3.2
Malta	9	(33.3)	2.2	18	(45.0)	4.4	12	(46.2)	2.9
Netherlands	218	(35.9)	1.3	208	(33.9)	1.3	224	(34.9)	1.4
Norway	42	(23.6)	0.9	65	(35.1)	1.4	58	(25.3)	1.2
Poland	3314	(41.5)	8.7	3083	(41.2)	8.1	3115	(40.7)	8.2
Portugal	1324	(56.7)	12.5	1208	(53.8)	11.4	1179	(56.4)	11.1
<i>Romania</i>	14 252	(66.3)	66.1	14 207	(66.5)	66.0	13 106	(65.9)	61.0
Slovakia	196	(35.8)	3.6	164	(31.4)	3.0	161	(38.9)	3.0
Slovenia	96	(53.9)	4.8	90	(50.0)	4.5	89	(54.9)	4.4
Spain	2483	(39.6)	5.5	2746	(43.5)	6.0	2496	(43.2)	5.4
Sweden	100	(33.1)	1.1	113	(36.5)	1.2	134	(37.4)	1.4
United Kingdom	1714	(38.0)	2.8	1660	(35.8)	2.7	1579	(32.5)	2.6
Subtotal EU/EEA	34 100	(50.4)	6.8	28 533	(43.5)	5.7	27 043	(43.5)	5.4
Non-EU/EEA									
Albania	183	(62.7)	5.8	195	-	6.2	192	(63.0)	6.1
Andorra	2	(66.7)	2.4	3	-	3.6	3	(42.9)	3.5
<i>Armenia</i>	784	(45.3)	25.5	730	-	23.7	591	(36.2)	19.2
<i>Azerbaijan</i>	2433	(36.9)	28.2	2 696	-	30.9	3 779	(42.3)	42.8
<i>Belarus</i>	1305	(24.2)	13.4	1552	-	16.0	1569	(31.0)	16.3
Bosnia and Herzegovina	816	(37.7)	21.6	576	-	15.3	654	(41.3)	17.4
Croatia	431	(49.4)	9.7	364	-	8.2	332	(43.1)	7.5
<i>Georgia</i>	2999	(65.9)	68.8	2434	-	56.5	2900	(63.2)	68.1
Israel	148	(46.7)	2.1	176	-	2.5	111	(44.8)	1.5
<i>Kazakhstan</i>	19 147	(53.2)	124.3	11 727	-	75.6	12 279	(50.0)	78.5
<i>Kyrgyzstan</i>	2 361	(47.4)	44.2	2 110	-	39.0	2 106	(48.2)	38.4
Macedonia, the former Yugoslav Republic of	237	(54.0)	11.6	217	-	10.6	230	(65.5)	11.3
<i>Moldova</i>	3 028	(52.2)	82.6	2 605	-	71.7	2 325	(46.0)	64.5
Monaco	-	-	-	-	-	-	-	-	-
Montenegro	46	(33.1)	7.4	73	-	11.7	63	(58.9)	10.1
<i>Russia</i>	79 864	(39.4)	56.3	41 377	-	29.3	49 626	(34.2)	35.2
San Marino	-	-	-	-	-	-	-	-	-
Serbia	1061	(58.7)	10.8	1020	-	10.4	925	(62.4)	9.4
Switzerland	111	(26.4)	1.5	64	-	0.8	110	(28.3)	1.5
<i>Tajikistan</i>	3 332	(52.5)	49.5	2 509	-	36.7	2 851	(49.2)	41.0
<i>Turkey</i>	8 797	(64.3)	12.1	8 057	-	10.9	6 932	(60.0)	9.3
<i>Turkmenistan</i>	1 637	(54.3)	32.9	1 460	-	28.9	1 370	(52.8)	26.8
<i>Ukraine</i>	13 654	(36.9)	29.5	16 667	-	36.2	16 283	(47.0)	35.6
<i>Uzbekistan</i>	7 816	(43.7)	29.1	6 622	-	24.4	7 025	(43.0)	25.6
Subtotal non-EU/EEA	150 192	(42.7)	38.7	103 234	-	26.5	112 256	(40.8)	28.8
Total European Region	184 292	(43.9)	20.7	131 767	-	14.8	139 299	(41.3)	15.6
Subtotal 18 HPC	164 712	(44.1)	42.6	117 766	-	30.4	125 546	(42.5)	32.4

^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.

^b Number of all pulmonary TB cases was not requested from non-EU/EEA.

Table 7: New pulmonary tuberculosis cases by laboratory confirmation, European Region, 2009

Country	New pulmonary TB cases													All pulmonary TB cases with previous TB history reported		All TB cases with previous TB history reported	
	N	(%)	Smear positive					Smear negative									
			Culture positive		Culture negative or unknown		Total	Culture positive		Culture negative or unknown ^a		Total					
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N		
EU/EEA																	
Austria	358	(61.2)	77	(21.5)	13	(3.6)	90	(25.1)	37	(10.3)	38	(10.6)	75	(20.9)	585	(82.7)	707
Belgium	574	(77.4)	272	(47.4)	8	(1.4)	280	(48.8)	202	(35.2)	56	(9.8)	258	(44.9)	742	(72.7)	1020
<i>Bulgaria</i>	1786	(84.1)	794	(44.5)	100	(5.6)	894	(50.1)	256	(14.3)	537	(30.1)	793	(44.4)	2124	(73.0)	2911
Cyprus	29	(80.6)	14	(48.3)	0	(0.0)	14	(48.3)	7	(24.1)	0	(0.0)	7	(24.1)	36	(65.5)	55
Czech Republic	540	(90.9)	213	(39.4)	5	(0.9)	218	(40.4)	166	(30.7)	111	(20.6)	277	(51.3)	594	(84.6)	702
Denmark	226	(86.9)	101	(44.7)	0	(0.0)	101	(44.7)	44	(19.5)	37	(16.4)	81	(35.8)	260	(79.0)	329
Estonia	310	(79.7)	133	(42.9)	2	(0.6)	135	(43.5)	108	(34.8)	63	(20.3)	171	(55.2)	389	(94.6)	411
Finland	291	(96.7)	90	(30.9)	3	(1.0)	93	(32.0)	114	(39.2)	46	(15.8)	160	(55.0)	301	(71.8)	419
France	2057	(53.8)	496	(24.1)	523	(25.4)	1019	(49.5)	494	(24.0)	406	(19.7)	900	(43.8)	3823	(72.0)	5308
Germany	2790	(80.8)	898	(32.2)	127	(4.6)	1025	(36.7)	714	(25.6)	371	(13.3)	1085	(38.9)	3453	(77.9)	4432
Greece	394	(78.5)	131	(33.2)	67	(17.0)	198	(50.3)	70	(17.8)	47	(11.9)	117	(29.7)	502	(85.7)	586
Hungary	1163	(84.6)	325	(27.9)	38	(3.3)	363	(31.2)	210	(18.1)	372	(32.0)	582	(50.0)	1375	(95.0)	1448
Iceland	5	(71.4)	3	(60.0)	0	(0.0)	3	(60.0)	0	(0.0)	0	(0.0)	0	(0.0)	7	(77.8)	9
Ireland	214	(68.8)	67	(31.3)	28	(13.1)	95	(44.4)	39	(18.2)	22	(10.3)	61	(28.5)	311	(65.9)	472
Italy	1748	(62.7)	478	(27.3)	407	(23.3)	885	(50.6)	167	(9.6)	261	(14.9)	428	(24.5)	2788	(71.9)	3877
Latvia	744	(83.8)	354	(47.6)	13	(1.7)	367	(49.3)	238	(32.0)	121	(16.3)	359	(48.3)	888	(90.9)	977
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	1444	(78.3)	742	(51.4)	0	(0.0)	742	(51.4)	291	(20.2)	411	(28.5)	702	(48.6)	1845	(88.7)	2081
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	23	(88.5)	9	(39.1)	3	(13.0)	12	(52.2)	1	(4.3)	6	(26.1)	7	(30.4)	26	(59.1)	44
Netherlands	595	(92.7)	195	(32.8)	8	(1.3)	203	(34.1)	146	(24.5)	74	(12.4)	220	(37.0)	642	(55.3)	1160
Norway	167	(72.9)	40	(24.0)	2	(1.2)	42	(25.1)	57	(34.1)	9	(5.4)	66	(39.5)	229	(63.1)	363
Poland	6705	(87.6)	2616	(39.0)	42	(0.6)	2658	(39.6)	1597	(23.8)	2122	(31.6)	3719	(55.5)	7654	(92.9)	8236
Portugal	1869	(89.4)	947	(50.7)	96	(5.1)	1043	(55.8)	263	(14.1)	82	(4.4)	345	(18.5)	2091	(72.8)	2871
<i>Romania</i>	14668	(73.7)	6645	(45.3)	2342	(16.0)	8987	(61.3)	1883	(12.8)	3537	(24.1)	5420	(37.0)	19889	(85.5)	23267
Slovakia	323	(78.0)	110	(34.1)	11	(3.4)	121	(37.5)	62	(19.2)	126	(39.0)	188	(58.2)	414	(81.8)	506
Slovenia	155	(95.7)	85	(54.8)	0	(0.0)	85	(54.8)	53	(34.2)	4	(2.6)	57	(36.8)	162	(86.2)	188
Spain	5115	(88.5)	1769	(34.6)	467	(9.1)	2236	(43.7)	1136	(22.2)	531	(10.4)	1667	(32.6)	5778	(76.1)	7592
Sweden	287	(80.2)	107	(37.3)	0	(0.0)	107	(37.3)	125	(43.6)	2	(0.7)	127	(44.3)	358	(57.1)	627
United Kingdom	3718	(76.6)	1125	(30.3)	131	(3.5)	1256	(33.8)	622	(16.7)	360	(9.7)	982	(26.4)	4851	(53.7)	9040
Subtotal EU/EEA	48298	(77.8)	18836	(39.0)	4436	(9.2)	23272	(48.2)	9102	(18.8)	9752	(20.2)	18854	(39.0)	62117	(78.0)	79638
Non-EU/EEA																	
Albania	280	(93.0)	140	(81.9)	31	(18.1)	171	(61.1)	33	(32.0)	70	(68.0)	103	(36.8)	301	(68.9)	437
Andorra	6	(85.7)	1	(50.0)	1	(50.0)	2	(33.3)	1	(25.0)	3	(75.0)	4	(66.7)	7	(77.8)	9
Armenia	1165	(88.3)	-	-	440	(100.0)	440	(37.8)	-	-	725	(100.0)	725	(62.2)	1319	(80.6)	1636
Azerbaijan	4611	(63.6)	-	-	1487	(100.0)	1487	(32.2)	-	-	3124	(100.0)	3124	(67.8)	7246	(83.0)	8731
Belarus	4203	(83.1)	1201	(100.0)	-	-	1201	(28.6)	959	(31.9)	2043	(68.1)	3002	(71.4)	5059	(91.8)	5511
Bosnia and Herzegovina	1471	(92.9)	609	(100.0)	0	(0.0)	609	(41.4)	243	(28.2)	618	(71.8)	861	(58.5)	1584	(89.4)	1772
Croatia	712	(92.5)	296	(98.0)	6	(2.0)	302	(42.4)	93	(56.0)	73	(44.0)	166	(23.3)	770	(90.1)	855
Georgia	3174	(85.2)	1633	(79.5)	422	(20.5)	2055	(64.7)	290	(27.4)	767	(72.6)	1057	(33.3)	3726	(74.1)	5026
Israel	240	(96.8)	106	(98.1)	2	(1.9)	108	(45.0)	87	(75.0)	29	(25.0)	116	(48.3)	248	(71.5)	347
<i>Kazakhstan</i>	14532	(62.1)	2821	(54.1)	2392	(45.9)	5213	(35.9)	1220	(13.3)	7956	(86.7)	9176	(63.1)	23388	(79.6)	29397
<i>Kyrgyzstan</i>	3876	(92.1)	-	-	1609	(100.0)	1609	(41.5)	-	-	2267	(100.0)	2267	(58.5)	4207	(67.9)	6192
Macedonia, the former Yugoslav Republic of	301	(87.8)	154	(77.8)	44	(22.2)	198	(65.8)	40	(43.5)	52	(56.5)	92	(30.6)	343	(73.8)	465
Moldova	3333	(66.9)	912	(69.2)	406	(30.8)	1318	(39.5)	445	(24.3)	1384	(75.7)	1829	(54.9)	4980	(90.4)	5509
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	96	(89.7)	53	(100.0)	0	(0.0)	53	(55.2)	25	(58.1)	18	(41.9)	43	(44.8)	107	(89.2)	120
<i>Russia</i>	106282	(74.5)	25032	(75.1)	8319	(24.9)	33351	(31.4)	15403	(21.7)	55723	(78.3)	71126	(66.9)	142587	(92.7)	153797
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	1289	(87.2)	757	(94.5)	44	(5.5)	801	(62.1)	327	(69.7)	142	(30.3)	469	(36.4)	1478	(87.5)	1690
Switzerland	236	(100.0)	72	(98.6)	1	(1.4)	73	(30.9)	29	(96.7)	1	(3.3)	30	(12.7)	236	(70.9)	333
Tajikistan	4180	(88.7)	-	-	1972	(100.0)	1972	(47.2)	-	-	2208	(100.0)	2208	(52.8)	4713	(73.7)	6397
Turkey	10296	(89.2)	3782	(63.0)	2225	(37.0)	6007	(58.3)	926	(36.2)	1635	(63.8)	2561	(24.9)	11540	(66.4)	17388
Turkmenistan	2593	(100.0)	-	-	1370	(100.0)	1370	(52.8)	-	-	1223	(100.0)	1223	(47.2)	2593	(82.1)	3157
Ukraine	29566	(85.3)	-	-	13632	(100.0)	13632	(46.1)	-	-	15934	(100.0)	15934	(53.9)	34681	(89.2)	38901
Uzbekistan	11902	(83.2)	-	-	4959	(100.0)	4959	(41.7)	-	-	6943	(100.0)	6943	(58.3)	14311	(74.6)	19192
Subtotal non-EU/EEA	204344	(77.0)	37569	(48.8)	39362	(51.2)	76931	(37.6)	20121	(16.4)	102938	(83.6)	123059	(60.2)	265424	(86.5)	306862
Total European Region	252642	(77.1)	56405	(56.3)	43798	(43.7)	100203	(39.7)	29223	(20.6)	112690	(79.4)	141913	(56.2)	327541	(84.7)	386500
Subtotal 18 HPC	218665	(76.6)	44049	(51.4)	41690	(48.6)	85739	(39.2)	22019	(17.1)	106601	(82.9)	128620	(58.8)	285485	(86.4)	330481

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

^bLaboratory confirmation unknown are included in smear negative, culture negative.

Table 8: New pulmonary sputum smear-positive tuberculosis cases, European Region, 2000–2009

Country	2000			2001			2002			2003			2004		
	N	% of new pulmonary cases	Cases per 100 000 population	N	% of new pulmonary cases	Cases per 100 000 population	N	% of new pulmonary cases	Cases per 100 000 population	N	% of new pulmonary cases	Cases per 100 000 population	N	% of new pulmonary cases	Cases per 100 000 population
EU/EEA															
Austria	298	(32.7)	3.7	254	(32.1)	3.2	253	(32.3)	3.1	251	(33.1)	3.1	242	(28.9)	3.0
Belgium	361	(49.1)	3.5	352	(49.4)	3.4	337	(47.1)	3.3	262	(49.7)	2.5	302	(48.0)	2.9
Bulgaria	2524	(100.0)	30.9	897	(30.3)	11.2	1007	(39.2)	12.8	1254	(49.6)	16.0	1315	(51.0)	16.9
Cyprus	-	-	-	-	-	-	8	(66.7)	1.1	14	(50.0)	1.9	10	(40.0)	1.4
Czech Republic	416	(39.7)	4.0	380	(37.7)	3.7	323	(36.7)	3.2	340	(39.4)	3.3	308	(38.5)	3.0
Denmark	137	(37.3)	2.6	127	(39.7)	2.4	135	(47.4)	2.5	141	(52.0)	2.6	146	(54.7)	2.7
Estonia	257	(44.5)	18.8	212	(44.0)	15.5	203	(45.0)	14.9	201	(45.7)	14.8	203	(47.4)	15.0
Finland	227	(60.5)	4.4	154	(48.3)	3.0	137	(45.8)	2.6	146	(50.2)	2.8	124	(54.4)	2.4
France	1815	(57.1)	3.0	1825	(58.4)	3.0	1759	(56.2)	2.9	1724	(56.2)	2.8	1682	(53.4)	2.7
Germany	-	-	-	1360	(37.1)	1.7	1339	(35.5)	1.6	1239	(33.5)	1.5	1341	(35.0)	1.6
Greece	235	(40.9)	2.2	213	(48.0)	1.9	99	(45.0)	0.9	219	(46.8)	2.0	152	(29.5)	1.4
Hungary	412	(14.9)	4.0	579	(24.3)	5.7	549	(25.3)	5.4	522	(26.4)	5.2	561	(30.9)	5.6
Iceland	2	(25.0)	0.7	3	(37.5)	1.1	2	(33.3)	0.7	1	(33.3)	0.3	2	(40.0)	0.7
Ireland	84	(45.7)	2.2	70	(37.6)	1.8	95	(41.7)	2.4	105	(49.8)	2.6	105	(49.1)	2.6
Italy	998	(42.1)	1.8	888	(34.2)	1.6	954	(44.3)	1.7	1215	(46.5)	2.1	850	(38.3)	1.5
Latvia	637	(44.5)	26.8	669	(46.9)	28.4	636	(48.0)	27.2	641	(49.4)	27.6	582	(49.8)	25.2
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	776	(42.5)	22.2	935	(52.7)	26.9	822	(49.6)	23.7	897	(49.0)	26.0	856	(52.0)	24.9
Luxembourg	22	(59.5)	5.0	11	(45.8)	2.5	17	(63.0)	3.8	31	(62.0)	6.9	20	(69.0)	4.4
Malta	4	(30.8)	1.0	3	(21.4)	0.8	5	(26.3)	1.3	2	(66.7)	0.5	2	(14.3)	0.5
Netherlands	289	(34.1)	1.8	303	(33.3)	1.9	296	(39.1)	1.8	248	(34.9)	1.5	305	(45.7)	1.9
Norway	34	(26.8)	0.8	53	(30.8)	1.2	29	(24.4)	0.6	36	(25.0)	0.8	42	(27.6)	0.9
Poland	3252	(32.7)	8.5	3228	(34.9)	8.4	2930	(35.7)	7.7	2981	(37.1)	7.8	2773	(36.6)	7.3
Portugal	1852	(64.8)	18.1	1815	(65.8)	17.6	1902	(65.2)	18.3	1613	(61.1)	15.4	1534	(60.7)	14.6
Romania	10116	(50.5)	45.1	11412	(51.2)	51.6	11600	(51.0)	53.2	10605	(51.0)	48.8	10950	(53.5)	50.5
Slovakia	242	(32.8)	4.5	226	(32.3)	4.2	200	(29.5)	3.7	199	(30.6)	3.7	155	(32.6)	2.9
Slovenia	145	(52.3)	7.3	139	(49.3)	7.0	130	(49.6)	6.5	116	(53.5)	5.8	89	(48.6)	4.5
Spain	3004	(49.5)	7.5	2237	(51.3)	5.5	2660	(51.6)	6.4	1978	(43.8)	4.7	2031	(42.0)	4.8
Sweden	109	(41.3)	1.2	105	(40.4)	1.2	109	(45.6)	1.2	109	(46.8)	1.2	120	(43.2)	1.3
United Kingdom	1108	(39.5)	1.9	1105	(38.7)	1.9	1037	(35.5)	1.7	1310	(44.3)	2.2	1296	(42.5)	2.2
Subtotal EU/EEA	29356	(43.7)	6.0	29555	(42.0)	6.0	29573	(42.9)	6.0	28400	(43.1)	5.8	28098	(43.3)	5.7
Non-EU/EEA															
Albania	171	(47.6)	5.6	171	(53.1)	5.6	225	(60.3)	7.3	211	(63.0)	6.8	201	(60.4)	6.5
Andorra	1	(10.0)	1.5	3	(37.5)	4.4	2	(50.0)	2.8	7	(87.5)	9.4	3	(60.0)	3.9
Armenia	621	(55.2)	20.2	572	(48.1)	18.7	511	(42.2)	16.7	575	(49.0)	18.8	602	(48.1)	19.7
Azerbaijan	890	(18.3)	11.0	927	(23.6)	11.3	1661	(39.2)	20.2	1161	(38.3)	14.0	1472	(40.1)	17.6
Belarus	2547	(46.0)	25.3	2341	(100.0)	23.4	-	-	-	1018	(21.5)	10.3	1109	(21.8)	11.2
Bosnia and Herzegovina	759	(37.1)	20.5	800	(40.0)	21.3	526	(38.5)	13.9	493	(34.1)	13.0	889	(43.5)	23.5
Croatia	-	-	-	421	(34.5)	9.4	437	(36.3)	9.8	438	(36.7)	9.8	416	(40.7)	9.3
Georgia	601	(21.4)	12.7	1014	(36.4)	21.6	987	(31.5)	21.3	989	(35.3)	21.6	1311	(46.7)	29.0
Israel	17	(27.0)	0.3	172	(43.1)	2.8	164	(47.1)	2.6	150	(38.5)	2.3	91	(24.6)	1.4
Kazakhstan	8903	(44.0)	59.5	9079	(41.2)	60.9	9452	(40.2)	63.3	8665	(37.8)	57.8	7927	(35.6)	52.5
Kyrgyzstan	1296	(30.7)	26.2	-	-	-	1587	(41.3)	31.3	1643	(100.0)	32.1	1761	(46.0)	34.1
Macedonia, the former Yugoslav Republic of	167	(35.2)	8.3	164	(33.7)	8.1	200	(41.5)	9.9	200	(44.4)	9.9	200	(45.5)	9.8
Moldova	651	(26.7)	15.9	1060	(37.9)	26.3	1146	(100.0)	28.9	1214	(100.0)	31.2	1536	(45.7)	40.2
Monaco	0	-	0.0	0	-	0.0	0	-	0.0	-	-	-	-	-	
Montenegro	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Russia	27467	(21.2)	18.7	26605	(21.8)	18.2	27865	(23.5)	19.2	28868	(25.3)	20.0	30890	(27.0)	21.5
San Marino	1	(100.0)	3.7	0	-	0.0	0	-	0.0	0	-	0.0	0	-	
Serbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Switzerland	118	(29.1)	1.6	116	(29.1)	1.6	123	(27.4)	1.7	107	(26.2)	1.5	119	(30.6)	1.6
Tajikistan	434	(18.5)	7.0	719	(23.5)	11.5	687	(100.0)	10.9	-	-	-	1058	(34.5)	16.4
Turkey	4315	(33.6)	6.5	4444	(100.0)	6.6	-	-	-	5816	(100.0)	8.4	5870	(97.9)	8.4
Turkmenistan	1017	(27.3)	22.6	1243	(38.2)	27.2	1254	(40.1)	27.1	1197	(43.3)	25.4	1103	(42.7)	23.1
Ukraine	10738	(38.4)	22.0	-	-	-	-	-	-	12785	(100.0)	26.8	-	-	
Uzbekistan	3825	(27.4)	15.4	4608	(81.4)	18.4	4783	(28.7)	18.8	4690	(26.7)	18.2	5119	(39.2)	19.7
Subtotal non-EU/EEA	64539	(27.4)	17.5	54459	(30.5)	17.0	51610	(28.6)	20.8	70227	(36.1)	19.0	61677	(33.1)	18.8
Total European Region	93895	(31.5)	12.1	84014	(34.3)	10.4	81183	(33.1)	11.0	98627	(38.5)	11.4	89775	(36.4)	10.9
Subtotal 18 HPC	77615	(30.1)	20.1	66737	(32.9)	20.1	64201	(31.3)	24.8	82219	(37.8)	21.7	73664	(35.5)	21.8

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

	2005			2006			2007			2008			2009		
	N	% of new pulmonary cases	Cases per 100 000 population	N	% of new pulmonary cases	Cases per 100 000 population	N	% of new pulmonary cases	Cases per 100 000 population	N	% of new pulmonary cases	Cases per 100 000 population	N	% of new pulmonary cases	Cases per 100 000 population
	232	(30.9)	2.8	206	(28.7)	2.5	189	(28.0)	2.3	215	(35.4)	2.6	90	(25.1)	1.1
	304	(50.3)	2.9	279	(49.6)	2.6	283	(47.6)	2.7	299	(51.6)	2.8	280	(48.8)	2.6
	1214	(44.6)	15.7	1307	(48.7)	17.0	1082	(44.0)	14.1	1020	(47.7)	13.4	894	(50.1)	11.8
	8	(38.1)	1.1	8	(26.7)	1.0	8	(22.9)	1.0	2	(14.3)	0.3	14	(48.3)	1.8
	310	(41.6)	3.0	290	(40.1)	2.8	261	(39.8)	2.5	249	(36.6)	2.4	218	(40.4)	2.1
	128	(47.1)	2.4	123	(48.8)	2.3	135	(49.6)	2.5	105	(43.2)	1.9	101	(44.7)	1.8
	164	(43.0)	12.2	150	(43.2)	11.2	167	(44.4)	12.4	141	(43.5)	10.5	135	(43.5)	10.1
	130	(51.0)	2.5	88	(44.4)	1.7	90	(39.8)	1.7	100	(48.8)	1.9	93	(32.0)	1.7
	1719	(55.5)	2.7	1634	(54.2)	2.6	1439	(51.9)	2.3	1222	(52.3)	1.9	1019	(49.5)	1.6
	1212	(33.8)	1.5	1169	(35.0)	1.4	1109	(34.8)	1.3	989	(35.1)	1.2	1025	(36.7)	1.2
	182	(39.8)	1.6	194	(41.5)	1.7	239	(52.8)	2.1	226	(49.0)	2.0	198	(50.3)	1.8
	412	(27.7)	4.1	434	(30.0)	4.3	385	(30.1)	3.8	344	(27.5)	3.4	363	(31.2)	3.6
	2	(40.0)	0.7	4	(57.1)	1.3	2	(28.6)	0.6	1	(50.0)	0.3	3	(60.0)	0.9
	106	(49.1)	2.5	107	(45.9)	2.5	112	(44.4)	2.6	128	(47.8)	2.9	95	(44.4)	2.1
	1028	(45.3)	1.8	1137	(47.2)	1.9	1225	(47.7)	2.1	936	(37.3)	1.6	885	(50.6)	1.5
	536	(49.2)	23.3	498	(48.8)	21.8	478	(50.7)	21.0	400	(50.0)	17.7	367	(49.3)	16.2
	-	-	-	-	-	-	4	(100.0)	11.3	-	-	-	-	-	-
	958	(54.7)	28.1	1028	(57.7)	30.3	921	(54.2)	27.3	884	(54.3)	26.3	742	(51.4)	22.2
	13	(39.4)	2.8	22	(68.8)	-	-	-	-	-	-	-	-	-	-
	5	(29.4)	1.2	4	(16.7)	1.0	8	(32.0)	2.0	15	(44.1)	3.6	12	(52.2)	2.9
	8	(27.6)	0.0	1	(8.3)	0.0	198	(34.9)	1.2	193	(33.6)	1.2	203	(34.1)	1.2
	45	(31.3)	1.0	40	(29.0)	0.9	34	(25.6)	0.7	49	(36.8)	1.0	42	(25.1)	0.9
	2822	(38.0)	7.4	2819	(40.9)	7.4	2831	(40.5)	7.4	2646	(40.8)	6.9	2658	(39.6)	7.0
	1408	(60.3)	13.3	1372	(59.0)	13.0	1191	(57.2)	11.2	1076	(53.4)	10.1	1043	(55.8)	9.8
	11069	(58.9)	51.2	10073	(60.0)	46.7	9656	(61.4)	44.8	9505	(61.1)	44.2	8987	(61.3)	41.8
	159	(32.0)	3.0	149	(30.9)	2.8	169	(37.6)	3.1	126	(30.7)	2.3	121	(37.5)	2.2
	109	(50.0)	5.4	83	(50.6)	4.1	91	(55.8)	4.5	81	(49.1)	4.0	85	(54.8)	4.2
	2330	(43.1)	5.4	1775	(35.6)	4.0	2159	(44.0)	4.8	2333	(45.0)	5.1	2236	(43.7)	4.9
	133	(39.6)	1.5	101	(33.8)	1.1	1	(33.3)	0.0	97	(37.6)	1.1	107	(37.3)	1.2
	1335	(40.5)	2.2	1337	(39.1)	2.2	1293	(40.0)	2.1	1264	(36.6)	2.1	1256	(33.8)	2.1
	28081	(45.1)	5.6	26432	(44.5)	5.3	25760	(48.9)	5.1	24646	(48.2)	4.9	23272	(48.2)	4.6
	196	(59.4)	6.3	186	(63.7)	6.0	165	(61.1)	5.3	170	(66.1)	5.4	171	(61.1)	5.4
	5	(83.3)	6.3	8	(80.0)	9.8	2	(66.7)	2.4	3	(75.0)	3.6	2	(33.3)	2.3
	581	(35.6)	19.0	580	(45.5)	18.9	497	(41.6)	16.2	487	(40.2)	15.8	440	(37.8)	14.3
	1561	(38.4)	18.5	1454	(39.0)	17.0	1356	(36.7)	15.7	1409	(34.1)	16.1	1487	(32.2)	16.8
	1235	(25.0)	12.6	1072	(22.4)	11.0	1051	(23.2)	10.8	1060	(25.6)	11.0	1201	(28.6)	12.5
	640	(36.7)	16.9	562	(38.2)	14.9	737	(37.1)	19.5	509	(35.6)	13.5	609	(41.4)	16.2
	372	(39.3)	8.4	396	(43.2)	8.9	382	(49.2)	8.6	328	(38.9)	7.4	302	(42.4)	6.8
	1509	(49.8)	33.8	1831	(59.8)	41.5	1867	(65.9)	42.8	1868	(63.7)	43.4	2055	(64.7)	48.2
	98	(32.6)	1.5	72	(23.3)	1.1	143	(46.7)	2.1	173	(63.6)	2.5	108	(45.0)	1.5
	6911	(32.3)	45.5	6205	(36.0)	40.6	6195	(33.9)	40.2	6193	(36.6)	39.9	5213	(35.9)	33.3
	1972	(47.9)	37.8	1833	(46.2)	34.7	1720	(43.7)	32.2	1712	(45.7)	31.6	1609	(41.5)	29.3
	178	(43.0)	8.7	178	(44.9)	8.7	200	(53.1)	9.8	188	(58.6)	9.2	198	(65.8)	9.7
	1696	(43.1)	45.1	1679	(44.3)	45.3	1610	(44.1)	43.9	1533	(44.1)	42.2	1318	(39.5)	36.6
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	64	(49.2)	10.2	58	(43.9)	9.3	41	(34.5)	6.6	65	(63.1)	10.4	53	(55.2)	8.5
	32605	(30.5)	22.8	32335	(30.6)	22.7	33103	(31.0)	23.3	33949	(30.9)	24.0	33351	(31.4)	23.7
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1105	(41.1)	11.2	1136	(47.4)	11.6	1146	(53.0)	11.7	1172	(56.0)	11.9	801	(62.1)	8.1
	108	(30.3)	1.5	112	(32.7)	1.5	95	(25.3)	1.3	64	(29.1)	0.8	73	(30.9)	1.0
	1745	(44.5)	26.7	2051	(56.0)	30.9	2228	(51.3)	33.1	2057	(47.4)	30.1	1972	(47.2)	28.4
	7450	(55.6)	10.5	7866	(60.8)	10.9	7527	(62.6)	10.3	6993	(61.8)	9.5	6007	(58.3)	8.0
	995	(39.9)	20.5	1155	(46.3)	23.5	1378	(51.7)	27.7	1331	(50.7)	26.4	1370	(52.8)	26.8
	-	-	-	14206	(41.3)	30.5	11028	(35.3)	23.8	14574	(45.4)	31.7	13632	(46.1)	29.8
	5695	(42.0)	21.6	7211	(41.2)	27.1	6326	(46.9)	23.5	5117	(43.5)	18.8	4959	(41.7)	18.0
	66721	(35.1)	19.6	82186	(37.2)	21.2	78797	(36.7)	20.3	80955	(37.8)	20.8	76931	(37.6)	19.7
	94802	(38.1)	11.3	108618	(39.4)	12.3	104557	(39.1)	11.8	105601	(39.8)	11.8	100203	(39.7)	11.2
	77896	(37.4)	23.0	92534	(39.0)	24.0	88190	(38.4)	22.8	90233	(39.4)	23.3	85739	(39.2)	22.1

Table 9: Tuberculosis cases confirmed by culture, European Region, 2005–2009

Country	2005		2006		2007		2008		2009	
	Culture-confirmed cases	% of all TB cases reported	Culture-confirmed cases	% of all TB cases reported	Culture-confirmed cases	% of all TB cases reported	Culture-confirmed cases	% of all TB cases reported	Culture-confirmed cases	% of all TB cases reported
EU/EEA										
Austria	651	(65.2)	565	(62.4)	538	(61.6)	488	(59.4)	446	(63.1)
Belgium	834	(75.3)	884	(79.1)	798	(78.2)	806	(81.4)	815	(79.9)
<i>Bulgaria</i>	1254	(38.0)	1360	(42.1)	1385	(45.6)	1360	(43.2)	1280	(44.0)
Cyprus	19	(51.4)	23	(62.2)	33	(78.6)	36	(72.0)	41	(74.5)
Czech Republic	644	(65.4)	619	(65.1)	557	(65.8)	561	(64.6)	477	(67.9)
Denmark	328	(76.6)	301	(77.8)	292	(74.7)	287	(76.3)	242	(73.6)
<i>Estonia</i>	389	(75.1)	352	(76.5)	384	(78.4)	348	(78.2)	309	(75.2)
Finland	324	(87.1)	272	(91.6)	252	(72.4)	249	(72.4)	307	(73.3)
France	2163	(40.2)	2369	(44.4)	2535	(45.4)	2296	(39.5)	2432	(45.8)
Germany	4108	(68.2)	3771	(70.1)	3474	(69.5)	3141	(69.2)	3011	(67.9)
Greece	214	(27.8)	210	(30.8)	209	(31.7)	254	(38.0)	306	(52.2)
Hungary	777	(39.6)	832	(44.8)	762	(45.2)	760	(46.9)	711	(49.1)
Iceland	8	(72.7)	12	(92.3)	11	(78.6)	5	(83.3)	8	(88.9)
Ireland	283	(62.9)	316	(68.3)	315	(65.6)	294	(62.8)	242	(51.3)
Italy	1662	(39.5)	1735	(38.5)	1840	(40.7)	1529	(34.6)	2511	(64.8)
<i>Latvia</i>	1109	(76.9)	995	(74.9)	994	(79.2)	838	(78.3)	773	(79.1)
Liechtenstein	-	-	-	-	5	(100.0)	-	-	-	-
<i>Lithuania</i>	1739	(67.6)	1787	(69.8)	1686	(70.0)	1616	(71.8)	1478	(71.0)
Luxembourg	37	(100.0)	33	(100.0)	26	(66.7)	-	-	27	(100.0)
Malta	11	(44.0)	15	(50.0)	19	(50.0)	25	(47.2)	20	(45.5)
Netherlands	842	(73.5)	738	(72.7)	719	(71.6)	747	(73.2)	760	(65.5)
Norway	214	(74.3)	214	(73.8)	245	(81.1)	225	(71.9)	285	(78.5)
Poland	5399	(58.2)	5229	(60.9)	5410	(62.8)	5093	(63.0)	5223	(63.4)
Portugal	2193	(61.6)	2234	(64.6)	2076	(66.1)	2102	(70.0)	1892	(65.9)
<i>Romania</i>	18483	(63.1)	16844	(63.3)	16189	(65.2)	14738	(59.7)	12351	(53.1)
Slovakia	357	(47.0)	401	(54.9)	396	(58.1)	383	(60.5)	235	(46.4)
Slovenia	245	(88.1)	184	(85.6)	189	(86.7)	201	(94.4)	179	(95.2)
Spain	3686	(47.1)	3651	(45.5)	3950	(50.8)	4493	(54.7)	4095	(53.9)
Sweden	444	(79.4)	397	(79.9)	365	(75.7)	436	(79.9)	515	(82.1)
United Kingdom	5063	(60.9)	5251	(63.3)	4780	(57.5)	4848	(56.2)	5075	(56.1)
Subtotal EU/EEA	53480	(58.2)	51594	(59.1)	50434	(60.0)	48159	(57.8)	46046	(57.8)
Non-EU/EEA										
Albania	196	(36.3)	166	(33.1)	187	(41.8)	214	(49.3)	209	(46.8)
Andorra	9	(90.0)	8	(61.5)	3	(50.0)	3	(75.0)	3	(33.3)
<i>Armenia</i>	-	-	-	-	-	-	607	(28.6)	-	-
<i>Azerbaijan</i>	-	-	-	-	-	-	-	-	-	-
<i>Belarus</i>	2295	(36.1)	2126	(35.1)	2751	(47.8)	-	-	2811	(51.0)
Bosnia and Herzegovina	1142	(52.9)	1086	(60.3)	1423	(59.3)	834	(48.0)	920	(51.9)
Croatia	647	(56.7)	696	(61.3)	688	(70.1)	-	-	517	(60.5)
<i>Georgia</i>	-	-	-	-	2182	(36.9)	2409	(41.3)	2711	(45.3)
Israel	217	(53.4)	267	(69.2)	273	(68.8)	225	(61.0)	265	(76.4)
<i>Kazakhstan</i>	5955	(19.1)	8470	(19.6)	6883	(17.1)	20139	(63.3)	9741	(31.9)
<i>Kyrgyzstan</i>	-	-	-	-	-	-	2062	(28.9)	-	-
Macedonia, the former Yugoslav Republic of	160	(24.3)	208	(33.2)	225	(40.0)	205	(44.9)	238	(50.3)
<i>Moldova</i>	-	-	-	-	2297	(36.1)	2547	(43.6)	2229	(39.9)
Monaco	-	-	-	-	-	-	-	-	-	-
Montenegro	107	(62.9)	119	(69.6)	89	(56.0)	83	(62.4)	89	(74.2)
<i>Russia</i>	31224	(20.0)	60240	(39.6)	94878	(44.1)	-	-	51503	(33.0)
San Marino	-	-	-	-	-	-	-	-	-	-
Serbia	1365	(57.4)	1271	(59.1)	1397	(68.1)	1316	(72.3)	1273	(75.1)
Switzerland	463	(81.7)	449	(86.3)	393	(82.2)	419	(81.2)	454	(81.9)
<i>Tajikistan</i>	-	-	-	-	4231	(52.4)	-	-	-	-
<i>Turkey</i>	5793	(28.2)	6786	(33.1)	6988	(35.5)	6730	(36.5)	5835	(33.5)
<i>Turkmenistan</i>	-	-	-	-	3698	(100.0)	-	-	-	-
<i>Ukraine</i>	-	-	-	-	-	-	-	-	-	-
<i>Uzbekistan</i>	-	-	-	-	-	-	-	-	-	-
Subtotal non-EU/EEA	49830	(14.9)	81986	(24.5)	129110	(32.9)	38716	(39.6)	78798	(24.8)
Total European Region	103310	(24.2)	133580	(31.7)	179544	(37.7)	86875	(48.0)	124844	(31.4)
Subtotal 18 HPC	68498	(18.8)	99054	(27.4)	145070	(34.8)	54317	(43.8)	91021	(26.7)

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

Table 10: Tuberculosis cases by *M. tuberculosis* complex species, EU/EEA, 2009^a

Country	<i>M. tuberculosis</i>		<i>M. bovis</i>		<i>M. africanum</i>		Unknown or not done		Total culture-positive
	N	(%)	N	(%)	N	(%)	N	(%)	
Austria	123	(27.6)	2	(0.4)	4	(0.9)	317	(71.1)	446
Belgium	812	(99.6)	3	(0.4)	0	(0.0)	0	(0.0)	815
<i>Bulgaria</i>	1280	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	1280
Cyprus	39	(95.1)	0	(0.0)	0	(0.0)	2	(4.9)	41
Czech Republic	476	(99.8)	0	(0.0)	0	(0.0)	1	(0.2)	477
Denmark	240	(99.2)	0	(0.0)	2	(0.8)	0	(0.0)	242
<i>Estonia</i>	309	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	309
Finland	307	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	307
France	0	(0.0)	0	(0.0)	0	(0.0)	2432	(100.0)	2432
Germany	2599	(86.3)	48	(1.6)	17	(0.6)	347	(11.5)	3011
Greece	306	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	306
Hungary	711	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	711
Iceland	8	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	8
Ireland	221	(91.3)	4	(1.7)	0	(0.0)	17	(7.0)	242
Italy	301	(23.9)	0	(0.0)	7	(0.6)	951	(75.5)	1259
<i>Latvia</i>	772	(99.9)	0	(0.0)	0	(0.0)	1	(0.1)	773
Liechtenstein	-	-	-	-	-	-	-	-	-
<i>Lithuania</i>	1478	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	1478
Luxembourg	27	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	27
Malta	19	(95.0)	0	(0.0)	0	(0.0)	1	(5.0)	20
Netherlands	739	(97.2)	11	(1.4)		(0.0)	10	(1.3)	760
Norway	282	(98.9)	1	(0.4)	1	(0.4)	1	(0.4)	285
Poland	5223	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	5223
Portugal	1541	(81.4)	1	(0.1)	0	(0.0)	350	(18.5)	1892
<i>Romania</i>	12351	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	12351
Slovakia	235	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	235
Slovenia	179	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	179
Spain	1091	(26.6)	17	(0.4)	3	(0.1)	2984	(72.9)	4095
Sweden	498	(96.7)	5	(1.0)	1	(0.2)	11	(2.1)	515
United Kingdom	5015	(98.8)	24	(0.5)	36	(0.7)	0	(0.0)	5075
Total EU/EEA	37182	(83.0)	116	(0.3)	71	(0.2)	7425	(16.6)	44794

WHO European Region TB High Priority Countries presented in italics.

^a *M. tuberculosis* subclassification data have been reported only to TESSy – the numbers differ for other tables reported from Italy.

Table 11: New TB cases by age group, European Region, 2009

Country	0-4		5-14		15-24		25-44		45-64		> 64		Unknown		Total
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	
EU/EEA															
Austria	5	(1.1)	11	(2.5)	45	(10.3)	129	(29.5)	127	(29.1)	120	(27.5)	0	(0.0)	437
Belgium	29	(3.6)	30	(3.7)	116	(14.4)	290	(36.0)	188	(23.3)	153	(19.0)	0	(0.0)	806
<i>Bulgaria</i>	64	(2.5)	138	(5.5)	279	(11.0)	701	(27.8)	821	(32.5)	523	(20.7)	0	(0.0)	2526
Cyprus	1	(2.4)	0	(0.0)	7	(17.1)	23	(56.1)	4	(9.8)	5	(12.2)	1	(2.4)	41
Czech Republic	2	(0.3)	5	(0.8)	38	(6.0)	152	(23.8)	223	(35.0)	218	(34.2)	0	(0.0)	638
Denmark	11	(3.8)	9	(3.1)	41	(14.2)	116	(40.3)	84	(29.2)	27	(9.4)	0	(0.0)	288
Estonia	1	(0.3)	2	(0.6)	23	(6.9)	119	(36.0)	138	(41.7)	48	(14.5)	0	(0.0)	331
Finland	4	(1.0)	3	(0.7)	49	(12.1)	81	(20.0)	101	(24.9)	167	(41.2)	0	(0.0)	405
France	80	(2.8)	65	(2.2)	368	(12.7)	1051	(36.4)	638	(22.1)	688	(23.8)	0	(0.0)	2890
Germany	84	(2.4)	54	(1.5)	321	(9.1)	1086	(30.6)	1011	(28.5)	988	(27.9)	1	(0.0)	3545
Greece	15	(3.2)	15	(3.2)	61	(13.1)	148	(31.9)	104	(22.4)	115	(24.8)	6	(1.3)	464
Hungary	2	(0.2)	3	(0.2)	41	(3.3)	274	(22.3)	604	(49.1)	306	(24.9)	0	(0.0)	1230
Iceland	0	(0.0)	1	(14.3)	3	(42.9)	2	(28.6)	1	(14.3)	0	(0.0)	0	(0.0)	7
Ireland	9	(2.7)	8	(2.4)	40	(12.0)	145	(43.5)	82	(24.6)	49	(14.7)	0	(0.0)	333
Italy	65	(2.6)	65	(2.6)	340	(13.4)	1039	(40.9)	466	(18.3)	551	(21.7)	15	(0.6)	2541
Latvia	15	(1.8)	25	(3.0)	99	(11.9)	313	(37.7)	288	(34.7)	90	(10.8)	0	(0.0)	830
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	16	(1.0)	58	(3.5)	141	(8.4)	588	(35.1)	628	(37.4)	246	(14.7)	0	(0.0)	1677
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	0	(0.0)	0	(0.0)		(36.6)	17	(41.5)	4	(9.8)	5	(12.2)	0	(0.0)	41
Netherlands	24	(2.2)	33	(3.0)	212	(19.4)	426	(38.9)	236	(21.6)	163	(14.9)	0	(0.0)	1094
Norway	4	(1.6)	8	(3.1)	67	(26.0)	136	(52.7)	23	(8.9)	20	(7.8)	0	(0.0)	258
Poland	28	(0.4)	71	(1.0)	381	(5.2)	1794	(24.7)	3166	(43.6)	1828	(25.2)	0	(0.0)	7268
Portugal	28	(1.1)	44	(1.7)	245	(9.4)	1069	(41.1)	720	(27.7)	494	(19.0)	0	(0.0)	2600
Romania	388	(2.2)	567	(3.2)	2942	(16.5)	6110	(34.2)	5535	(31.0)	2324	(13.0)	0	(0.0)	17866
Slovakia	1	(0.2)	8	(2.0)	18	(4.4)	93	(22.9)	159	(39.2)	127	(31.3)	0	(0.0)	406
Slovenia	2	(1.1)	4	(2.2)	12	(6.7)	56	(31.1)	50	(27.8)	56	(31.1)	0	(0.0)	180
Spain	270	(4.0)	247	(3.7)	842	(12.6)	2817	(42.1)	1377	(20.6)	1121	(16.8)	13	(0.2)	6687
Sweden	6	(1.2)	20	(3.9)	104	(20.2)	215	(41.7)	90	(17.5)	80	(15.5)	0	(0.0)	515
United Kingdom	143	(2.0)	209	(3.0)	1074	(15.3)	3244	(46.3)	1422	(20.3)	916	(13.1)	0	(0.0)	7008
Subtotal EU/EEA	1297	(2.1)	1703	(2.7)	7924	(12.6)	22234	(31.1)	18290	(29.1)	11428	(18.2)	36	(0.1)	62912
Non-EU/EEA															
Albania	5	(1.2)	12	(2.9)	74	(17.8)	97	(23.3)	131	(31.5)	97	(23.3)	0	(0.0)	416
Andorra	0	(0.0)	0	(0.0)	0	(0.0)	3	(42.9)	3	(42.9)	1	(14.3)	0	(0.0)	7
Armenia	27	(1.8)	38	(2.6)	317	(21.7)	493	(33.7)	451	(30.8)	138	(9.4)	0	(0.0)	1464
Azerbaijan	66	(1.1)	189	(3.2)	337	(5.7)	484	(8.2)	269	(4.6)	49	(0.8)	4478	(76.3)	5872
Belarus	6	(0.1)	5	(0.1)	142	(3.1)	629	(13.6)	643	(13.9)	206	(4.4)	3002	(64.8)	4633
Bosnia and Herzegovina	2	(0.1)	12	(0.7)	129	(7.8)	352	(21.2)	503	(30.3)	655	(39.5)	6	(0.4)	1659
Croatia	2	(0.3)	23	(2.9)	61	(7.7)	179	(22.6)	264	(33.3)	264	(33.3)	0	(0.0)	793
Georgia	58	(1.3)	223	(5.0)	983	(22.1)	1853	(41.6)	981	(22.0)	359	(8.1)	0	(0.0)	4457
Israel	3	(0.9)	8	(2.4)	29	(8.6)	142	(41.9)	73	(21.5)	84	(24.8)	0	(0.0)	339
Kazakhstan	190	(1.1)	628	(3.7)	5238	(31.2)	7119	(42.3)	3069	(18.3)	566	(3.4)	0	(0.0)	16810
Kyrgyzstan	98	(1.8)	443	(8.2)	1619	(29.8)	1993	(36.7)	974	(17.9)	307	(5.6)	0	(0.0)	5434
Macedonia, the former Yugoslav Republic of	9	(2.2)	22	(5.3)	86	(20.6)	145	(34.8)	89	(21.3)	66	(15.8)	0	(0.0)	417
Moldova	70	(1.8)	91	(2.4)	664	(17.5)	1573	(41.4)	1215	(31.9)	191	(5.0)	0	(0.0)	3804
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	1	(0.9)	1	(0.9)	10	(9.3)	34	(31.5)	41	(38.0)	21	(19.4)	0	(0.0)	108
Russia	1168	(1.0)	1943	(1.7)	17399	(14.8)	57149	(48.8)	33156	(28.3)	6412	(5.5)	0	(0.0)	117227
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	9	(0.6)	13	(0.9)	130	(8.7)	352	(23.7)	494	(33.2)	488	(32.8)	0	(0.0)	1486
Switzerland	7	(2.1)	9	(2.7)	54	(16.2)	143	(42.9)	76	(22.8)	44	(13.2)	0	(0.0)	333
Tajikistan	104	(1.8)	352	(6.0)	1945	(33.2)	2265	(38.6)	905	(15.4)	293	(5.0)	0	(0.0)	5864
Turkey	220	(1.4)	720	(4.5)	3410	(21.4)	5673	(35.6)	4027	(25.3)	1893	(11.9)	0	(0.0)	15943
Turkmenistan	0	(0.0)	0	(0.0)	324	(10.3)	653	(20.7)	326	(10.3)	62	(2.0)	1792	(56.8)	3157
Ukraine	211	(0.6)	369	(1.1)	4286	(12.8)	16195	(48.5)	9637	(28.8)	2726	(8.2)	0	(0.0)	33424
Uzbekistan	421	(2.5)	1842	(11.1)	3031	(18.3)	5882	(35.5)	3631	(21.9)	1762	(10.6)	0	(0.0)	16569
Subtotal non-EU/EEA	2677	(1.1)	6943	(2.9)	40268	(16.8)	103408	(43.0)	60958	(25.4)	16684	(6.9)	9278	(3.9)	240216
Total European Region	3974	(1.3)	8646	(2.9)	48192	(15.9)	125642	(41.4)	79248	(26.1)	28112	(9.3)	9314	(3.1)	303128
Subtotal 18 HPC	3123	(1.2)	7633	(3.0)	43179	(16.7)	109792	(42.6)	66694	(25.9)	18195	(7.1)	9272	(3.6)	257888

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

Table 12: Tuberculosis cases in children (< 15 age old), European Region, 2005–2009

Country	2005			2006			2007			2008			2009		
	N	(%) ^a	Rate ^b	N	(%) ^a	Rate ^b	N	(%) ^a	Rate ^b	N	(%) ^a	Rate ^b	N	(%) ^a	Rate ^b
EU/EEA															
Austria	42	(4.2)	3.2	61	(6.7)	4.7	25	(2.9)	1.9	39	(4.7)	3.1	19	(2.7)	1.5
Belgium	73	(6.6)	4.1	63	(5.6)	3.5	67	(6.6)	3.7	52	(5.3)	2.9	65	(6.4)	3.6
<i>Bulgaria</i>	<i>180</i>	<i>(5.5)</i>	<i>17.0</i>	<i>197</i>	<i>(6.1)</i>	<i>19.0</i>	<i>196</i>	<i>(6.5)</i>	<i>19.1</i>	<i>227</i>	<i>(7.2)</i>	<i>22.2</i>	<i>210</i>	<i>(7.2)</i>	<i>20.6</i>
Cyprus	3	(8.1)	2.1	3	(8.1)	2.1	1	(2.4)	0.7	3	(6.0)	2.2	2	(3.6)	1.5
Czech Republic	5	(0.5)	0.3	4	(0.4)	0.3	4	(0.5)	0.3	4	(0.5)	0.3	7	(1.0)	0.5
Denmark	39	(9.1)	3.8	26	(6.7)	2.6	27	(6.9)	2.7	22	(5.9)	2.2	20	(6.1)	2.0
Estonia	1	(0.2)	0.5	8	(1.7)	4.0	1	(0.2)	0.5	2	(0.4)	1.0	3	(0.7)	1.5
Finland	5	(1.3)	0.5	1	(0.3)	0.1	4	(1.1)	0.4	4	(1.2)	0.4	7	(1.7)	0.8
France	302	(5.6)	2.6	306	(5.7)	2.6	345	(6.2)	2.9	336	(5.8)	2.8	254	(4.8)	2.1
Germany	228	(3.8)	1.9	192	(3.6)	1.7	180	(3.6)	1.6	125	(2.8)	1.1	143	(3.2)	1.3
Greece	62	(8.1)	3.9	45	(6.6)	2.8	45	(6.8)	2.8	37	(5.5)	2.3	36	(6.1)	2.2
Hungary	5	(0.3)	0.3	9	(0.5)	0.6	7	(0.4)	0.5	4	(0.2)	0.3	5	(0.3)	0.3
Iceland	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(11.1)	1.5
Ireland	28	(6.2)	3.3	21	(4.5)	2.4	41	(8.5)	4.6	15	(3.2)	1.6	19	(4.0)	2.0
Italy	191	(4.5)	2.3	170	(3.8)	2.0	154	(3.4)	1.8	229	(5.2)	2.7	171	(4.4)	2.0
<i>Latvia</i>	<i>68</i>	<i>(4.7)</i>	<i>20.3</i>	<i>84</i>	<i>(6.3)</i>	<i>26.0</i>	<i>57</i>	<i>(4.5)</i>	<i>18.1</i>	<i>48</i>	<i>(4.5)</i>	<i>15.4</i>	<i>40</i>	<i>(4.1)</i>	<i>12.9</i>
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Lithuania</i>	<i>90</i>	<i>(3.5)</i>	<i>15.7</i>	<i>106</i>	<i>(4.1)</i>	<i>19.3</i>	<i>85</i>	<i>(3.5)</i>	<i>16.1</i>	<i>100</i>	<i>(4.4)</i>	<i>19.6</i>	<i>74</i>	<i>(3.6)</i>	<i>14.7</i>
Luxembourg	1	(2.7)	1.2	0	(0.0)	0.0	2	(5.1)	2.3	0	(0.0)	0.0	1	(3.7)	1.1
Malta	0	(0.0)	0.0	1	(3.3)	1.4	2	(5.3)	3.0	0	(0.0)	0.0	1	(2.3)	1.5
Netherlands	55	(4.8)	1.8	46	(4.5)	1.5	50	(5.0)	1.7	51	(5.0)	1.7	58	(5.0)	2.0
Norway	18	(6.3)	2.0	23	(7.9)	2.5	19	(6.3)	2.1	23	(7.3)	2.5	13	(3.6)	1.4
Poland	99	(1.1)	1.6	69	(0.8)	1.1	74	(0.9)	1.2	76	(0.9)	1.3	99	(1.2)	1.7
Portugal	86	(2.4)	5.2	94	(2.7)	5.7	71	(2.3)	4.3	60	(2.0)	3.7	75	(2.6)	4.6
<i>Romania</i>	<i>1105</i>	<i>(3.8)</i>	<i>32.5</i>	<i>1055</i>	<i>(4.0)</i>	<i>31.6</i>	<i>1007</i>	<i>(4.1)</i>	<i>30.5</i>	<i>924</i>	<i>(3.7)</i>	<i>28.2</i>	<i>967</i>	<i>(4.2)</i>	<i>29.6</i>
Slovakia	22	(2.9)	2.4	23	(3.2)	2.6	16	(2.3)	1.9	14	(2.2)	1.7	11	(2.2)	1.3
Slovenia	7	(2.5)	2.5	8	(3.7)	2.8	6	(2.8)	2.1	3	(1.4)	1.1	6	(3.2)	2.1
Spain	498	(6.4)	7.9	544	(6.8)	8.5	477	(6.1)	7.3	600	(7.3)	9.0	537	(7.1)	7.9
Sweden	37	(6.6)	2.4	29	(5.8)	1.9	36	(7.5)	2.3	27	(4.9)	1.8	33	(5.3)	2.1
United Kingdom	456	(5.5)	4.2	388	(4.7)	3.6	490	(5.9)	4.6	495	(5.7)	4.6	431	(4.8)	4.0
Subtotal EU/EEA	3706	(4.0)	4.6	3576	(4.1)	4.5	3489	(4.1)	4.4	3520	(4.2)	4.5	3308	(4.2)	4.2
Non-EU/EEA															
Albania	-	-	-	42	(9.0)	5.2	27	(6.4)	3.5	19	(4.7)	2.5	17	(4.1)	2.3
Andorra	-	-	-	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0
Armenia	-	-	-	92	(5.8)	14.0	41	(2.7)	6.4	85	(5.6)	13.5	65	(4.4)	10.4
<i>Azerbaijan</i>	-	-	-	<i>217</i>	<i>(4.9)</i>	<i>9.8</i>	-	-	-	-	-	-	<i>255</i>	<i>(4.3)</i>	<i>11.9</i>
<i>Belarus</i>	-	-	-	<i>62</i>	<i>(1.2)</i>	<i>4.1</i>	<i>31</i>	<i>(0.6)</i>	<i>2.1</i>	<i>38</i>	<i>(0.8)</i>	<i>2.6</i>	<i>20</i>	<i>(0.4)</i>	<i>1.4</i>
Bosnia and Herzegovina	-	-	-	24	(1.4)	3.9	0	(0.0)	0.0	17	(1.0)	2.9	14	(0.8)	2.4
Croatia	-	-	-	28	(2.7)	4.0	0	(0.0)	0.0	27	(2.9)	4.0	25	(3.2)	3.7
<i>Georgia</i>	-	-	-	<i>347</i>	<i>(8.0)</i>	<i>44.0</i>	<i>306</i>	<i>(7.5)</i>	<i>40.3</i>	<i>267</i>	<i>(6.4)</i>	<i>36.3</i>	<i>281</i>	<i>(6.3)</i>	<i>39.2</i>
Israel	-	-	-	39	(10.2)	2.1	30	(7.8)	1.6	16	(4.4)	0.8	11	(3.2)	0.6
<i>Kazakhstan</i>	-	-	-	-	-	-	<i>1884</i>	<i>(8.7)</i>	<i>51.5</i>	<i>981</i>	<i>(5.0)</i>	<i>26.7</i>	<i>818</i>	<i>(4.9)</i>	<i>22.1</i>
<i>Kyrgyzstan</i>	-	-	-	<i>16</i>	<i>(0.3)</i>	<i>1.0</i>	<i>14</i>	<i>(0.2)</i>	<i>0.9</i>	<i>630</i>	<i>(10.1)</i>	<i>39.1</i>	<i>541</i>	<i>(10.0)</i>	<i>33.6</i>
Macedonia, the former Yugoslav Republic of	-	-	-	78	(14.7)	19.7	55	(11.1)	14.3	40	(9.4)	10.6	31	(7.4)	8.4
<i>Moldova</i>	-	-	-	-	-	-	<i>176</i>	<i>(4.2)</i>	<i>27.2</i>	<i>160</i>	<i>(4.0)</i>	<i>25.6</i>	<i>161</i>	<i>(4.2)</i>	<i>26.5</i>
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	-	-	-	1	(0.7)	0.8	2	(1.5)	1.6	1	(0.8)	0.8	2	(1.9)	1.7
<i>Russia</i>	-	-	-	-	-	-	<i>3422</i>	<i>(2.9)</i>	<i>16.4</i>	<i>3203</i>	<i>(2.7)</i>	<i>15.4</i>	<i>3111</i>	<i>(2.7)</i>	<i>14.9</i>
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	28	(1.0)	1.6	28	(1.0)	1.6	21	(0.8)	1.2	22	(1.5)	1.3
Switzerland	-	-	-	15	(3.3)	1.3	19	(4.5)	1.6	3	(0.9)	0.3	16	(4.8)	1.4
<i>Tajikistan</i>	-	-	-	-	-	-	-	-	-	<i>547</i>	<i>(8.9)</i>	<i>21.3</i>	<i>456</i>	<i>(7.8)</i>	<i>17.8</i>
<i>Turkey</i>	-	-	-	<i>1113</i>	<i>(6.0)</i>	<i>5.5</i>	<i>952</i>	<i>(5.3)</i>	<i>4.7</i>	<i>949</i>	<i>(5.7)</i>	<i>4.7</i>	<i>940</i>	<i>(5.9)</i>	<i>4.7</i>
<i>Turkmenistan</i>	-	-	-	-	-	-	<i>8</i>	<i>(0.2)</i>	<i>0.5</i>	-	-	-	<i>5</i>	<i>(0.2)</i>	<i>0.3</i>
<i>Ukraine</i>	-	-	-	-	-	-	<i>34</i>	<i>(0.1)</i>	<i>0.5</i>	<i>581</i>	<i>(1.6)</i>	<i>9.1</i>	<i>580</i>	<i>(1.7)</i>	<i>9.1</i>
<i>Uzbekistan</i>	-	-	-	<i>2833</i>	<i>(12.3)</i>	<i>33.4</i>	<i>2583</i>	<i>(13.8)</i>	<i>31.0</i>	<i>2008</i>	<i>(12.6)</i>	<i>24.5</i>	<i>2263</i>	<i>(13.7)</i>	<i>28.1</i>
Subtotal non-EU/EEA	-	-	-	4935	(7.0)	11.5	9612	(4.0)	13.0	9593	(4.0)	12.9	9634	(4.0)	12.4

^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.

^b For EU/EEA countries percentages calculated from all cases and for other countries from new cases notified in a particular year.

^c For EU/EEA countries rate has been calculated from EUROSTAT population numbers under 15 age in respective year and for other countries from UN World Population Prospects (revision 2009).

Table 13: Tuberculosis cases in children (< 15 years old), by age group and origin, European Region, 2009

Country	Native origin				Foreign origin ^a				Unknown				Total	
	0-4		5-14		0-4		5-14		0-4		5-14		N	(%) ^a
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)		
EU/EEA														
Austria	1	(5.3)	7	(36.8)	4	(21.1)	5	(26.3)	1	(5.3)	1	(5.3)	19	(2.7)
Belgium	16	(24.6)	17	(26.2)	15	(23.1)	17	(26.2)	0	(0.0)	0	(0.0)	65	(6.4)
Bulgaria	65	(31.0)	145	(69.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	210	(7.2)
Cyprus	0	(0.0)	0	(0.0)	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(3.6)
Czech Republic	2	(28.6)	4	(57.1)	0	(0.0)	1	(14.3)	0	(0.0)	0	(0.0)	7	(1.0)
Denmark	5	(25.0)	1	(5.0)	6	(30.0)	8	(40.0)	0	(0.0)	0	(0.0)	20	(6.1)
Estonia	1	(33.3)	2	(66.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	3	(0.7)
Finland	2	(28.6)	1	(14.3)	2	(28.6)	2	(28.6)	0	(0.0)	0	(0.0)	7	(1.7)
France	103	(40.6)	58	(22.8)	28	(11.0)	52	(20.5)	6	(2.4)	7	(2.8)	254	(4.8)
Germany	71	(49.7)	27	(18.9)	10	(7.0)	23	(16.1)	4	(2.8)	8	(5.6)	143	(3.2)
Greece	9	(25.0)	7	(19.4)	9	(25.0)	10	(27.8)	1	(2.8)	0	(0.0)	36	(6.1)
Hungary	2	(40.0)	3	(60.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	5	(0.3)
Iceland	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(11.1)
Ireland	8	(42.1)	3	(15.8)	1	(5.3)	5	(26.3)	1	(5.3)	1	(5.3)	19	(4.0)
Italy	64	(37.4)	46	(26.9)	15	(8.8)	31	(18.1)	7	(4.1)	8	(4.7)	171	(4.4)
Latvia	13	(32.5)	25	(62.5)	2	(5.0)	0	(0.0)	0	(0.0)	0	(0.0)	40	(4.1)
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	16	(21.6)	58	(78.4)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	74	(3.6)
Luxembourg	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(3.7)
Malta	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(2.3)
Netherlands	21	(36.2)	17	(29.3)	3	(5.2)	17	(29.3)	0	(0.0)	0	(0.0)	58	(5.0)
Norway	2	(15.4)	1	(7.7)	2	(15.4)	8	(61.5)	0	(0.0)	0	(0.0)	13	(3.6)
Poland	28	(28.3)	69	(69.7)	0	(0.0)	2	(2.0)	0	(0.0)	0	(0.0)	99	(1.2)
Portugal	23	(30.7)	41	(54.7)	6	(8.0)	5	(6.7)	0	(0.0)	0	(0.0)	75	(2.6)
Romania	383	(39.6)	576	(59.6)	5	(0.5)	3	(0.3)	0	(0.0)	0	(0.0)	967	(4.2)
Slovakia	2	(18.2)	9	(81.8)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	11	(2.2)
Slovenia	2	(33.3)	4	(66.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	6	(3.2)
Spain	229	(42.6)	156	(29.1)	37	(6.9)	90	(16.8)	12	(2.2)	13	(2.4)	537	(7.1)
Sweden	5	(15.2)	4	(12.1)	2	(6.1)	22	(66.7)	0	(0.0)	0	(0.0)	33	(5.3)
United Kingdom	142	(32.9)	138	(32.0)	22	(5.1)	103	(23.9)	10	(2.3)	16	(3.7)	431	(4.8)
Subtotal EU/EEA	1215	(36.7)	1422	(43.0)	171	(5.2)	404	(12.2)	42	(1.3)	54	(1.6)	3308	(4.2)
Non-EU/EEA														
Albania	5	(29.4)	12	(70.6)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	17	(4.1)
Andorra	0	-	0	-	0	-	0	-	0	-	0	-	0	(0.0)
Armenia	27	(41.5)	38	(58.5)	-	-	-	-	-	-	-	-	65	(4.4)
Azerbaijan	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Belarus	6	(30.0)	14	(70.0)	-	-	-	-	-	-	-	-	20	(0.4)
Bosnia and Herzegovina	1	(7.1)	13	(92.9)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	14	(0.8)
Croatia	1	(4.0)	11	(44.0)	0	(0.0)	0	(0.0)	1	(4.0)	12	(48.0)	25	(3.2)
Georgia	58	(20.2)	229	(79.8)	-	-	-	-	-	-	-	-	287	(6.3)
Israel	3	(27.3)	3	(27.3)	0	(0.0)	5	(45.5)	0	(0.0)	0	(0.0)	11	(3.2)
Kazakhstan	210	(25.7)	601	(73.5)	1	(0.1)	6	(0.7)	0	(0.0)	0	(0.0)	818	(4.9)
Kyrgyzstan	98	(18.1)	443	(81.9)	-	-	-	-	-	-	-	-	541	(10.0)
Macedonia, the former Yugoslav Republic of	9	(29.0)	22	(71.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	31	(7.4)
Moldova	70	(41.7)	97	(57.7)	0	(0.0)	1	(0.6)	0	(0.0)	0	(0.0)	168	(4.2)
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	1	(50.0)	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(1.9)
Russia	1152	(37.0)	1900	(61.1)	16	(0.5)	43	(1.4)	0	(0.0)	0	(0.0)	3111	(2.7)
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	9	(40.9)	13	(59.1)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	22	(1.5)
Switzerland	2	(12.5)	0	(0.0)	5	(31.3)	9	(56.3)	0	(0.0)	0	(0.0)	16	(4.8)
Tajikistan	104	(22.8)	352	(77.2)	-	-	-	-	-	-	-	-	456	(7.8)
Turkey	218	(23.2)	720	(76.6)	0	(0.0)	2	(0.2)	0	(0.0)	0	(0.0)	940	(5.9)
Turkmenistan	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	212	(36.6)	368	(63.4)	580	(1.7)
Uzbekistan	413	(18.3)	1850	(81.7)	-	-	-	-	-	-	-	-	2263	(13.7)
Subtotal non-EU/EEA	2387	(25.4)	6319	(67.3)	22	(0.2)	66	(0.7)	213	(2.3)	380	(4.0)	9387	(4.1)
Total European Region	3602	(28.4)	7741	(61.0)	193	(1.5)	470	(3.7)	255	(2.0)	434	(3.4)	12695	(5.2)
Subtotal 18 HPC	2834	(26.9)	7050	(66.9)	24	(0.2)	55	(0.5)	212	(2.0)	368	(3.5)	10543	(4.6)

^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.

^a Foreign origin is defined as foreign-born cases for all countries, except: Austria, Belgium, Poland, Greece, Armenia, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Montenegro, Russia, Serbia, Tajikistan, Ukraine, Uzbekistan. These countries used 'foreign citizen'.

Table 14: Tuberculosis cases by geographical origin and sex ratio, European Region, 2009

Country	Criterion	Native			Foreign			Unknown			Total	
		N	(%)	Sex ratio (M:F) ^a	N	(%)	Sex ratio (M:F) ^a	N	(%)	Sex ratio (M:F) ^a	N	Sex ratio (M:F) ^a
EU/EEA												
Austria	citizenship	392	(55.4)	1.9	234	(33.1)	1.6	81	(11.5)	1.3	707	1.7
Belgium	citizenship	524	(51.4)	1.4	496	(48.6)	1.5	0	(0.0)	-	1020	1.4
Bulgaria	birthplace	2903	(99.7)	1.8	8	(0.3)	7.0	0	(0.0)	-	2911	1.8
Cyprus	birthplace	9	(16.4)	8.0	46	(83.6)	1.2	0	(0.0)	-	55	1.5
Czech Republic	birthplace	566	(80.6)	2.0	136	(19.4)	2.7	0	(0.0)	-	702	2.1
Denmark ^b	birthplace	114	(34.7)	2.4	214	(65.0)	1.1	1	(0.3)	N/F	329	1.4
Estonia	birthplace	333	(81.0)	2.6	78	(19.0)	1.6	0	(0.0)	-	411	2.4
Finland	birthplace	287	(68.5)	1.5	126	(30.1)	1.5	6	(1.4)	1.0	419	1.5
France	birthplace	2393	(45.1)	1.3	2488	(46.9)	1.6	427	(8.0)	1.4	5308	1.5
Germany	birthplace	2347	(53.0)	1.6	1877	(42.4)	1.3	208	(4.7)	1.4	4432	1.5
Greece	birthplace	319	(54.4)	1.9	254	(43.3)	2.5	13	(2.2)	5.5	586	2.2
Hungary	birthplace	1396	(96.4)	1.8	33	(2.3)	1.8	19	(1.3)	1.1	1448	1.7
Iceland	birthplace	4	(44.4)	3.0	5	(55.6)	1.5	0	(0.0)	-	9	2.0
Ireland	birthplace	267	(56.6)	1.8	191	(40.5)	1.5	14	(3.0)	1.2	472	1.7
Italy	birthplace	1793	(46.2)	1.4	1838	(47.4)	1.6	246	(6.3)	1.8	3877	1.5
Latvia	birthplace	917	(93.9)	2.3	60	(6.1)	1.6	0	(0.0)	-	977	2.2
Liechtenstein	citizenship	-	-	-	-	-	-	-	-	-	-	-
Lithuania	birthplace	2020	(97.1)	2.4	61	(2.9)	2.2	0	(0.0)	-	2081	2.4
Luxembourg	birthplace	11	(40.7)	4.5	16	(59.3)	1.3	0	(0.0)	-	27	2.0
Malta	birthplace	10	(22.7)	2.3	34	(77.3)	3.3	0	(0.0)	-	44	3.0
Netherlands	birthplace	308	(26.6)	1.6	842	(72.6)	1.3	10	(0.9)	1.0	1160	1.4
Norway	birthplace	40	(11.0)	2.1	323	(89.0)	1.4	0	(0.0)	-	363	1.5
Poland	citizenship	8183	(99.4)	2.1	53	(0.6)	3.8	0	(0.0)	-	8236	2.1
Portugal	birthplace	2434	(84.8)	1.9	437	(15.2)	1.8	0	(0.0)	-	2871	1.9
Romania	birthplace	23232	(99.8)	2.3	35	(0.2)	2.5	0	(0.0)	-	23267	2.3
Slovakia	birthplace	499	(98.6)	1.8	7	(1.4)	6.0	0	(0.0)	-	506	1.8
Slovenia	birthplace	133	(70.7)	1.0	55	(29.3)	2.9	0	(0.0)	-	188	1.4
Spain	birthplace	4895	(64.5)	1.7	2330	(30.7)	1.6	367	(4.8)	2.2	7592	1.7
Sweden	birthplace	114	(18.2)	1.2	513	(81.8)	1.1	0	(0.0)	-	627	1.1
United Kingdom	birthplace	2240	(24.8)	1.4	5994	(66.3)	1.2	806	(8.9)	1.5	9040	1.2
Subtotal EU/EEA		58 683	(73.7)	2.0	18 784	(23.6)	1.4	2 198	(2.8)	1.6	79 665	1.8
Non-EU/EEA												
Albania	citizenship	443	(99.1)	1.8	4	(0.9)	0.3	0	(0.0)	-	447	1.8
Andorra	citizenship	2	(22.2)	1.0	5	(55.6)	0.7	2	(22.2)	-	9	0.8
Armenia	citizenship	2006	(100.0)	3.3	0	(0.0)	-	0	(0.0)	-	2006	3.3
Azerbaijan	-	-	-	-	-	-	-	10 417	(100.0)	-	10 417	-
Belarus	citizenship	5511	(100.0)	2.6	0	(0.0)	-	0	(0.0)	-	5511	2.6
Bosnia and Herzegovina	citizenship	1772	(100.0)	1.5	0	(0.0)	-	0	(0.0)	-	1772	1.5
Croatia	citizenship	336	(39.3)	2.3	99	(11.6)	1.4	420	(49.1)	1.7	855	1.8
Georgia	citizenship	5978	(100.0)	2.9	0	(0.0)	-	0	(0.0)	-	5978	2.9
Israel	birthplace	48	(13.8)	1.1	294	(84.7)	1.5	5	(1.4)	1.5	347	1.4
Kazakhstan	citizenship	30416	(99.5)	1.6	162	(0.5)	1.2	0	(0.0)	-	30578	1.6
Kyrgyzstan	citizenship	5434	(85.5)	1.3	0	(0.0)	-	924	(14.5)	-	6358	1.3
Macedonia, the former Yugoslav Republic of	birthplace	457	(96.6)	1.5	16	(3.4)	0.3	0	(0.0)	-	473	1.4
Moldova	citizenship	5562	(99.5)	2.7	29	(0.5)	3.1	0	(0.0)	-	5591	2.7
Monaco	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	citizenship	119	(99.2)	1.7	1	(0.8)	-	0	(0.0)	-	120	1.7
Russia	citizenship	115 010	(73.6)	2.3	2 217	(1.4)	3.6	38 995	(25.0)	-	156 222	2.3
San Marino	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	citizenship	1686	(99.5)	1.6	6	(0.4)	0.5	2	(0.1)	1.0	1694	1.6
Switzerland	citizenship	75	(13.5)	1.3	258	(46.6)	1.2	221	(39.9)	-	554	1.2
Tajikistan	citizenship	7482	(100.0)	1.4	0	(0.0)	-	0	(0.0)	-	7482	1.4
Turkey	birthplace	17 239	(99.1)	1.5	163	(0.9)	1.3	0	(0.0)	-	17 402	1.5
Turkmenistan	-	-	-	-	-	-	-	3 157	(100.0)	-	3 157	-
Ukraine	citizenship	-	-	-	-	-	-	38 901	(100.0)	2.4	38 901	2.4
Uzbekistan	citizenship	21415	(99.8)	1.5	38	(0.2)	1.1	0	(0.0)	-	21453	1.5
Subtotal non-EU/EEA		220 991	(69.6)	1.9	3 292	(1.0)	2.4	93 044	(29.3)	2.43	317 327	2.02
Total European Region		279 674	(70.4)	1.9	22 076	(5.6)	2.4	95 242	(24.0)	2.43	396 992	1.96
Subtotal 18 HPC		245 458	(72.0)	2.0	2 851	(0.8)	2.9	92 394	(27.1)	2.44	340 703	2.05

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 Ratio calculated on cases with available information on sex. N/F = no females in subgroup; N/M = no males in subgroup.

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

Table 15a: Tuberculosis cases of national origin, by age group, European Region, 2009

Country	0-4		5-14		15-24		25-44		45-64		> 64		Unknown		Total
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	
EU/EEA															
Austria	1	(0.3)	7	(1.8)	15	(3.8)	70	(17.9)	135	(34.4)	164	(41.8)	0	(0.0)	392
Belgium	16	(3.1)	17	(3.2)	51	(9.7)	120	(22.9)	167	(31.9)	153	(29.2)	0	(0.0)	524
<i>Bulgaria</i>	65	(2.2)	145	(5.0)	293	(10.1)	858	(29.6)	962	(33.1)	580	(20.0)	0	(0.0)	2903
Cyprus	0	(0.0)	0	(0.0)	3	(33.3)	1	(11.1)	1	(11.1)	3	(33.3)	1	(11.1)	9
Czech Republic	2	(0.4)	4	(0.7)	18	(3.2)	90	(15.9)	222	(39.2)	230	(40.6)	0	(0.0)	566
Denmark ^a	5	(4.4)	1	(0.9)	6	(5.3)	28	(24.6)	44	(38.6)	30	(26.3)	0	(0.0)	114
Estonia	1	(0.3)	2	(0.6)	22	(6.6)	141	(42.3)	131	(39.3)	36	(10.8)	0	(0.0)	333
Finland	2	(0.7)	1	(0.3)	7	(2.4)	24	(8.4)	91	(31.7)	162	(56.4)	0	(0.0)	287
France	103	(4.3)	58	(2.4)	215	(9.0)	562	(23.5)	574	(24.0)	880	(36.8)	1	(0.0)	2393
Germany	71	(3.0)	27	(1.2)	120	(5.1)	437	(18.6)	732	(31.2)	959	(40.9)	1	(0.0)	2347
Greece	9	(2.8)	7	(2.2)	17	(5.3)	48	(15.0)	97	(30.4)	138	(43.3)	3	(0.9)	319
Hungary	2	(0.1)	3	(0.2)	36	(2.6)	294	(21.1)	701	(50.2)	360	(25.8)	0	(0.0)	1396
Iceland	0	(0.0)	1	(25.0)	0	(0.0)	1	(25.0)	1	(25.0)	1	(25.0)	0	(0.0)	4
Ireland	8	(3.0)	3	(1.1)	26	(9.7)	61	(22.8)	84	(31.5)	85	(31.8)	0	(0.0)	267
Italy	64	(3.6)	46	(2.6)	108	(6.0)	318	(17.7)	394	(22.0)	829	(46.2)	34	(1.9)	1793
Latvia	13	(1.4)	25	(2.7)	101	(11.0)	361	(39.4)	323	(35.2)	94	(10.3)	0	(0.0)	917
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	16	(0.8)	58	(2.9)	147	(7.3)	717	(35.5)	800	(39.6)	282	(14.0)	0	(0.0)	2020
Luxembourg	0	(0.0)	1	(9.1)	0	(0.0)	2	(18.2)	6	(54.5)	2	(18.2)	0	(0.0)	11
Malta	0	(0.0)	1	(10.0)	-	(0.0)	2	(20.0)	3	(30.0)	4	(40.0)	0	(0.0)	10
Netherlands	21	(6.8)	17	(5.5)	35	(11.4)	66	(21.4)	72	(23.4)	97	(31.5)	0	(0.0)	308
Norway	2	(5.0)	1	(2.5)	1	(2.5)	2	(5.0)	10	(25.0)	24	(60.0)	0	(0.0)	40
Poland	28	(0.3)	69	(0.8)	392	(4.8)	1948	(23.8)	3698	(45.2)	2048	(25.0)	0	(0.0)	8183
Portugal	23	(0.9)	41	(1.7)	192	(7.9)	948	(38.9)	713	(29.3)	517	(21.2)	0	(0.0)	2434
Romania	383	(1.6)	576	(2.5)	3171	(13.6)	8093	(34.8)	8221	(35.4)	2788	(12.0)	0	(0.0)	23232
Slovakia	2	(0.4)	9	(1.8)	20	(4.0)	101	(20.2)	209	(41.9)	158	(31.7)	0	(0.0)	499
Slovenia	2	(1.5)	4	(3.0)	8	(6.0)	36	(27.1)	32	(24.1)	51	(38.3)	0	(0.0)	133
Spain	229	(4.7)	156	(3.2)	419	(8.6)	1658	(33.9)	1237	(25.3)	1182	(24.1)	14	(0.3)	4895
Sweden	5	(4.4)	4	(3.5)	6	(5.3)	12	(10.5)	28	(24.6)	59	(51.8)	0	(0.0)	114
United Kingdom	142	(6.3)	138	(6.2)	343	(15.3)	606	(27.1)	502	(22.4)	509	(22.7)	0	(0.0)	2240
Subtotal EU/EEA	1215	(2.1)	1422	(2.4)	5772	(9.8)	17605	(30.0)	20190	(34.4)	12425	(21.2)	54	(0.1)	58683
Non-EU/EEA															
Albania	5	(1.1)	12	(2.7)	75	(16.9)	107	(24.2)	138	(31.2)	106	(23.9)	0	(0.0)	443
Andorra	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)	1	(50.0)	0	(0.0)	0	(0.0)	2
Armenia	27	(1.3)	41	(2.0)	363	(18.1)	675	(33.6)	704	(35.1)	196	(9.8)	0	(0.0)	2006
Azerbaijan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Belarus	7	(0.1)	15	(0.3)	485	(8.8)	2284	(41.4)	2137	(38.8)	583	(10.6)	0	(0.0)	5511
Bosnia and Herzegovina	2	(0.1)	15	(0.8)	131	(7.4)	370	(20.9)	557	(31.4)	697	(39.3)	0	(0.0)	1772
Croatia	1	(0.3)	11	(3.3)	23	(6.8)	84	(25.0)	113	(33.6)	104	(31.0)	0	(0.0)	336
Georgia	58	(1.0)	229	(3.8)	1119	(18.7)	2590	(43.3)	1482	(24.8)	500	(8.4)	0	(0.0)	5978
Israel	3	(6.3)	3	(6.3)	4	(8.3)	13	(27.1)	11	(22.9)	14	(29.2)	0	(0.0)	48
Kazakhstan	210	(0.7)	712	(2.3)	7589	(24.9)	13557	(44.6)	6976	(22.9)	1382	(4.5)	0	(0.0)	30426
Kyrgyzstan	98	(1.8)	443	(8.2)	1619	(29.8)	1993	(36.7)	974	(17.9)	307	(5.6)	0	(0.0)	5434
Macedonia, the former Yugoslav Republic of	9	(2.0)	22	(4.8)	89	(19.5)	166	(36.3)	102	(22.3)	69	(15.1)	0	(0.0)	457
Moldova	70	(1.3)	97	(1.7)	821	(14.8)	2406	(43.3)	1913	(34.4)	255	(4.6)	0	(0.0)	5562
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	1	(0.8)	1	(0.8)	11	(9.2)	38	(31.9)	42	(35.3)	26	(21.8)	0	(0.0)	119
Russia	1152	(1.0)	1900	(1.7)	16901	(14.7)	55869	(48.6)	32799	(28.5)	6389	(5.6)	0	(0.0)	115010
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	9	(0.5)	13	(0.8)	134	(7.9)	389	(23.1)	587	(34.8)	554	(32.9)	0	(0.0)	1686
Switzerland	2	(2.7)	0	(0.0)	3	(4.0)	12	(16.0)	29	(38.7)	29	(38.7)	0	(0.0)	75
Tajikistan	104	(1.4)	352	(4.7)	1945	(26.0)	2265	(30.3)	905	(12.1)	293	(3.9)	1618	(21.6)	7482
Turkey	223	(1.3)	733	(4.3)	3514	(20.4)	6200	(36.0)	4520	(26.2)	2049	(11.9)	0	(0.0)	17239
Turkmenistan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Uzbekistan	433	(2.0)	1938	(9.0)	3627	(16.9)	8047	(37.6)	5112	(23.9)	2258	(10.5)	0	(0.0)	21415
Subtotal non-EU/EEA	2414	(1.1)	6537	(3.0)	38453	(17.4)	97066	(43.9)	59102	(26.7)	15811	(7.2)	1618	(0.7)	221001
Total European Region	3629	(1.3)	7959	(2.8)	44225	(15.8)	114671	(41.0)	79292	(28.4)	28236	(10.1)	1672	(0.6)	279684
Subtotal 18 HPC	2860	(1.2)	7266	(3.0)	41717	(17.0)	106056	(43.2)	67959	(27.7)	17992	(7.3)	1618	(0.7)	245468

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 Excluding native cases < 26 years old whose parents were born outside Denmark.

Table 15b: Tuberculosis cases of foreign origin, by age group, European Region, 2009

Country	0-4		5-14		15-24		25-44		45-64		> 64		Unknown		Total
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	
EU/EEA															
Austria	4	(1.7)	5	(2.1)	50	(21.4)	111	(47.4)	48	(20.5)	16	(6.8)	0	(0.0)	234
Belgium	15	(3.0)	17	(3.4)	87	(17.5)	252	(50.8)	71	(14.3)	54	(10.9)	0	(0.0)	496
<i>Bulgaria</i>	0	(0.0)	0	(0.0)	0	(0.0)	2	(25.0)	6	(75.0)	0	(0.0)	0	(0.0)	8
Cyprus	2	(4.3)	0	(0.0)	6	(13.0)	29	(63.0)	5	(10.9)	3	(6.5)	1	(2.2)	46
Czech Republic	0	(0.0)	1	(0.7)	21	(15.4)	73	(53.7)	30	(22.1)	11	(8.1)	0	(0.0)	136
Denmark ^a	6	(2.8)	8	(3.7)	35	(16.4)	102	(47.7)	54	(25.2)	9	(4.2)	0	(0.0)	214
Estonia	0	(0.0)	0	(0.0)	2	(2.6)	10	(12.8)	44	(56.4)	22	(28.2)	0	(0.0)	78
Finland	2	(1.6)	2	(1.6)	42	(33.3)	59	(46.8)	13	(10.3)	8	(6.3)	0	(0.0)	126
France	28	(1.1)	52	(2.1)	344	(13.8)	1144	(46.0)	563	(22.6)	356	(14.3)	1	(0.0)	2488
Germany	10	(0.5)	23	(1.2)	239	(12.7)	828	(44.1)	489	(26.1)	288	(15.3)	0	(0.0)	1877
Greece	9	(3.5)	10	(3.9)	53	(20.9)	137	(53.9)	33	(13.0)	8	(3.1)	4	(1.6)	254
Hungary	0	(0.0)	0	(0.0)	5	(15.2)	16	(48.5)	9	(27.3)	3	(9.1)	0	(0.0)	33
Iceland	0	(0.0)	0	(0.0)	3	(60.0)	2	(40.0)	0	(0.0)	0	(0.0)	0	(0.0)	5
Ireland	1	(0.5)	5	(2.6)	25	(13.1)	129	(67.5)	27	(14.1)	2	(1.0)	2	(1.0)	191
Italy	15	(0.8)	31	(1.7)	335	(18.2)	1101	(59.9)	295	(16.1)	37	(2.0)	24	(1.3)	1838
Latvia	2	(3.3)	0	(0.0)	1	(1.7)	11	(18.3)	32	(53.3)	14	(23.3)	0	(0.0)	60
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	0	(0.0)	0	(0.0)	0	(0.0)	15	(24.6)	33	(54.1)	13	(21.3)	0	(0.0)	61
Luxembourg	0	(0.0)	0	(0.0)	2	(12.5)	8	(50.0)	4	(25.0)	2	(12.5)	0	(0.0)	16
Malta	0	(0.0)	0	(0.0)	1	(47.1)	16	(47.1)	1	(2.9)	1	(2.9)	0	(0.0)	34
Netherlands	3	(0.4)	17	(2.0)	187	(22.2)	384	(45.6)	180	(21.4)	71	(8.4)	0	(0.0)	842
Norway	2	(0.6)	8	(2.5)	89	(27.6)	181	(56.0)	31	(9.6)	12	(3.7)	0	(0.0)	323
Poland	0	(0.0)	2	(3.8)	8	(15.1)	34	(64.2)	6	(11.3)	3	(5.7)	0	(0.0)	53
Portugal	6	(1.4)	5	(1.1)	56	(12.8)	239	(54.7)	110	(25.2)	21	(4.8)	0	(0.0)	437
Romania	5	(14.3)	3	(8.6)	7	(20.0)	4	(11.4)	6	(17.1)	10	(28.6)	0	(0.0)	35
Slovakia	0	(0.0)	0	(0.0)	1	(14.3)	5	(71.4)	1	(14.3)	0	(0.0)	0	(0.0)	7
Slovenia	0	(0.0)	0	(0.0)	4	(7.3)	22	(40.0)	20	(36.4)	9	(16.4)	0	(0.0)	55
Spain	37	(1.6)	90	(3.9)	442	(19.0)	1411	(60.6)	314	(13.5)	33	(1.4)	3	(0.1)	2330
Sweden	2	(0.4)	22	(4.3)	117	(22.8)	243	(47.4)	80	(15.6)	49	(9.6)	0	(0.0)	513
United Kingdom	22	(0.4)	103	(1.7)	923	(15.4)	3174	(53.0)	1157	(19.3)	615	(10.3)	0	(0.0)	5994
Subtotal EU/EEA	171	(0.9)	404	(2.2)	3100	(16.5)	9742	(51.9)	3662	(19.5)	1670	(8.9)	35	(0.2)	18784
Non-EU/EEA															
Albania	0	(0.0)	0	(0.0)	2	(50.0)	1	(25.0)	1	(25.0)	0	(0.0)	0	(0.0)	4
Andorra	0	(0.0)	0	(0.0)	0	(0.0)	2	(40.0)	2	(40.0)	1	(20.0)	0	(0.0)	5
Armenia	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
Azerbaijan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Belarus	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
Bosnia and Herzegovina	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
Croatia	0	(0.0)	0	(0.0)	8	(8.1)	18	(18.2)	33	(33.3)	40	(40.4)	0	(0.0)	99
Georgia	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
Israel	0	(0.0)	5	(1.7)	25	(8.5)	129	(43.9)	64	(21.8)	71	(24.1)	0	(0.0)	294
Kazakhstan	1	(0.6)	6	(3.7)	44	(27.2)	78	(48.1)	26	(16.0)	7	(4.3)	0	(0.0)	162
Kyrgyzstan	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
Macedonia, the former Yugoslav Republic of	0	(0.0)	0	(0.0)	0	(0.0)	4	(25.0)	4	(25.0)	8	(50.0)	0	(0.0)	16
Moldova	0	(0.0)	1	(3.4)	4	(13.8)	13	(44.8)	11	(37.9)	0	(0.0)	0	(0.0)	29
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	1
Russia	16	(0.7)	43	(1.9)	498	(22.5)	1280	(57.7)	357	(16.1)	23	(1.0)	0	(0.0)	2217
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	0	(0.0)	0	(0.0)	1	(16.7)	1	(16.7)	2	(33.3)	2	(33.3)	0	(0.0)	6
Switzerland	5	(1.9)	9	(3.5)	51	(19.8)	131	(50.8)	47	(18.2)	15	(5.8)	0	(0.0)	258
Tajikistan	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0
Turkey	0	(0.0)	2	(1.2)	48	(29.4)	84	(51.5)	13	(8.0)	16	(9.8)	0	(0.0)	163
Turkmenistan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Uzbekistan	0	(0.0)	0	(0.0)	8	(21.1)	19	(50.0)	8	(21.1)	3	(7.9)	0	(0.0)	38
Subtotal non-EU/EEA	22	(0.7)	66	(2.0)	689	(20.9)	1760	(53.5)	569	(17.3)	186	(5.7)	0	(0.0)	3292
Total European Region	193	(0.9)	470	(2.1)	3789	(17.2)	11502	(52.1)	4231	(19.2)	1856	(8.4)	35	(0.2)	22076
Subtotal 18 HPC	24	(0.8)	55	(1.9)	612	(21.5)	1516	(53.2)	536	(18.8)	108	(3.8)	0	(0.0)	2851

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 Including native cases < 26 years old whose parents were born outside Denmark.

Table 16: Tuberculosis cases of foreign origin by country and geographical area of origin, EU/EEA, 2009^a

Country	Criterion	European Region				Rest of Asia		Africa		Other ^b / unknown		Total
		EU/EEA		Other European Region		N	(%)	N	(%)	N	(%)	
		N	(%)	N	(%)							
Austria	citizenship	67	(28.6)	101	(43.2)	38	(16.2)	22	(9.4)	6	(2.6)	234
Belgium	citizenship	81	(16.3)	54	(10.9)	76	(15.3)	252	(50.8)	33	(6.7)	496
<i>Bulgaria</i>	<i>birthplace</i>	3	(37.5)	2	(25.0)	0	(0.0)	2	(25.0)	1	(12.5)	8
Cyprus	birthplace	19	(41.3)	4	(8.7)	16	(34.8)	3	(6.5)	4	(8.7)	46
Czech Republic	birthplace	31	(22.8)	50	(36.8)	51	(37.5)	3	(2.2)	1	(0.7)	136
Denmark ^c	birthplace	10	(4.7)	12	(5.6)	87	(40.7)	59	(27.6)	46	(21.5)	214
<i>Estonia</i>	<i>birthplace</i>	4	(5.1)	73	(93.6)	0	(0.0)	0	(0.0)	1	(1.3)	78
Finland	birthplace	5	(4.0)	2	(1.6)	38	(30.2)	63	(50.0)	18	(14.3)	126
France	birthplace	-	-	-	-	-	-	-	-	-	-	-
Germany	birthplace	268	(14.3)	774	(41.2)	493	(26.3)	294	(15.7)	48	(2.6)	1877
Greece	citizenship	47	(18.5)	71	(28.0)	90	(35.4)	23	(9.1)	23	(9.1)	254
Hungary	birthplace	19	(57.6)	10	(30.3)	1	(3.0)	1	(3.0)	2	(6.1)	33
Iceland	birthplace	0	(0.0)	0	(0.0)	4	(80.0)	1	(20.0)	0	(0.0)	5
Ireland	birthplace	24	(12.6)	2	(1.0)	72	(37.7)	56	(29.3)	37	(19.4)	191
Italy	birthplace	497	(27.0)	121	(6.6)	436	(23.7)	537	(29.2)	247	(13.4)	1838
<i>Latvia</i>	<i>birthplace</i>	5	(8.3)	50	(83.3)	1	(1.7)	1	(1.7)	3	(5.0)	60
Liechtenstein	birthplace	-	-	-	-	-	-	-	-	-	-	-
<i>Lithuania</i>	<i>birthplace</i>	0	(0.0)	61	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	61
Luxembourg	birthplace	7	(43.8)	1	(6.3)	0	(0.0)	2	(12.5)	6	(37.5)	16
Malta	birthplace	1	(2.9)	1	(2.9)	0	(0.0)	32	(94.1)	0	(0.0)	34
Netherlands	birthplace	45	(5.3)	64	(7.6)	186	(22.1)	455	(54.0)	92	(10.9)	842
Norway	birthplace	8	(2.5)	11	(3.4)	115	(35.6)	184	(57.0)	5	(1.5)	323
Poland	citizenship	6	(11.3)	31	(58.5)	9	(17.0)	5	(9.4)	2	(3.8)	53
Portugal	birthplace	41	(9.4)	17	(3.9)	21	(4.8)	307	(70.3)	51	(11.7)	437
<i>Romania</i>	<i>birthplace</i>	13	(37.1)	13	(37.1)	3	(8.6)	6	(17.1)	0	(0.0)	35
Slovakia	birthplace	0	(0.0)	4	(57.1)	2	(28.6)	1	(14.3)	0	(0.0)	7
Slovenia	birthplace	0	(0.0)	53	(96.4)	1	(1.8)	1	(1.8)	0	(0.0)	55
Spain	birthplace	78	(3.3)	18	(0.8)	121	(5.2)	292	(12.5)	1821	(78.2)	2330
Sweden	birthplace	18	(3.5)	44	(8.6)	135	(26.3)	291	(56.7)	25	(4.9)	513
United Kingdom	birthplace	247	(4.1)	58	(1.0)	3575	(59.6)	1764	(29.4)	350	(5.8)	5994
Total EU/EEA		1544	(9.5)	1702	(10.4)	5571	(34.2)	4657	(28.6)	2822	(17.3)	16296

WHO European Region TB High Priority Countries presented in italics.

^a Countries with case-based data on country of origin.

^b Of these, 621 were from the Americas and 218 from Western Pacific countries.

^c Including native cases < 26 years old whose parents were born outside Denmark.

Table 17: Laboratory practices and quality assurance for anti-TB drug susceptibility testing, European Region, 2009

Country	No. of labs performing			DST methodology					External quality assurance for DST					
	Microscopy	Culture	DST	Non-radiometric proportion	Radiometric proportion	Resistance ratio	Absolute concentr.	Other	National ^a		International			
									No. labs	Year	% agreement of results for:		Year	Isoniazid	Rifampicin
EU/EEA														
Austria	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Belgium	152	148	16	Yes	Yes	.	.	Yes	Yes	16	Yes	2009	100	100
Bulgaria	36	33	22	.	.	.	.	Yes	Yes	1	Yes	2007	100	100
Cyprus	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Czech Republic	44	44	14	Yes	Yes	Yes	Yes	.	Yes	14	Yes	2009	100	93
Denmark	12	1	1	Yes	Yes	.	.	Yes	Yes	1	Yes	2010	100	100
Estonia	8	2	2	.	.	.	.	Yes	Yes	2	Yes	2009	90	100
Finland	14	11	1	Yes	.	.	.	Yes	Yes	1	Yes	2009	100	100
France	290	290	80	Yes	.	.	.	Yes	Yes	35	Yes	2010	100	100
Germany	250	191	73	Yes	.	.	.	Yes	-	-	Yes	2010	100	100
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	14	13	7	Yes	.	.	.	Yes	Yes	4	Yes	2010	100	100
Iceland	1	1	1	.	.	.	.	-	-	-	No	-	-	-
Ireland	13	13	3	.	Yes	.	.	Yes	Yes	2	Yes	2009	100	100
Italy	-	37	37	Yes	.	.	.	Yes	Yes	30	Yes	2009	100	100
Latvia	26	5	1	.	.	.	Yes	Yes	Yes	1	Yes	2009	98	100
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	13	4	4	Yes	.	.	.	Yes	Yes	4	Yes	2008	100	100
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	1	1	-	.	.	.	.	-	-	-	No	-	-	-
Netherlands	-	-	-	Yes	.	.	Yes	.	-	-	Yes	-	-	-
Norway	17	10	3	.	Yes	.	.	Yes	Yes	3	Yes	2009	100	100
Poland	85	85	47	Yes	Yes	.	.	Yes	Yes	47	Yes	2010	100	100
Portugal	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Romania	124	99	43	Yes	Yes	.	Yes	Yes	Yes	43	Yes	2010	100	100
Slovakia	9	9	2	Yes	.	.	.	Yes	Yes	2	Yes	2009	100	100
Slovenia	4	4	1	Yes	.	.	.	Yes	Yes	1	Yes	2009	100	100
Spain	-	-	-	Yes	.	.	.	Yes	-	-	Yes	2009	100	100
Sweden	-	-	-	-	-	-	-	-	-	-	-	-	-	-
United Kingdom	215	138	7	.	.	.	.	-	Yes	6	Yes	2009	100	100
Subtotal EU/EEA	1328	1139	365	15	7	1	4	18	18	213	21	-	-	-
Non-EU/EEA														
Albania	17	1	1	Yes	-	-	-	-	-	-	Yes	2008	100	100
Andorra	8	8	8	Yes	-	-	-	Yes	-	-	-	-	-	-
Armenia	57	1	1	Yes	-	-	-	-	Yes	1	Yes	2009	100	100
Azerbaijan	69	2	2	Yes	-	-	-	Yes	Yes	1	Yes	2009	-	-
Belarus	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	3	13	5	Yes	-	-	-	-	-	-	Yes	2008	-	-
Croatia	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Georgia	30	2	1	Yes	-	-	-	-	Yes	1	Yes	2009	-	-
Israel	20	20	2	-	-	Yes	-	-	Yes	2	Yes	2009	100	100
Kazakhstan	458	89	22	Yes	-	-	Yes	-	Yes	22	Yes	2009	90	100
Kyrgyzstan	122	11	3	Yes	-	-	-	-	Yes	3	Yes	2009	97	100
Macedonia, the former Yugoslav Republic of	10	3	1	Yes	-	-	-	-	Yes	1	-	-	-	-
Moldova	59	4	4	-	-	-	Yes	-	Yes	4	Yes	2009	94	100
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	1	1	0	Yes	-	-	-	-	-	-	-	-	-	-
Russia	3999	397	272	Yes	-	-	Yes	-	Yes	150	-	-	-	-
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Switzerland	-	-	-	-	Yes	-	-	Yes	Yes	9	Yes	2009	100	100
Tajikistan	97	1	1	Yes	-	-	-	-	Yes	1	Yes	2009	100	100
Turkey	161	37	23	Yes	-	-	-	Yes	Yes	18	Yes	2009	97	99
Turkmenistan	61	1	1	Yes	-	-	Yes	-	Yes	1	Yes	2009	100	100
Ukraine	1011	103	46	Yes	-	-	-	-	Yes	1	-	-	-	-
Uzbekistan	317	2	2	Yes	-	-	-	-	Yes	2	Yes	2009	100	100
Subtotal Non-EU/EEA	6500	696	395	16	1	1	4	4	15	436	14	-	-	-
Total European Region	7828	1835	760	31	8	2	8	22	33	649	35	-	-	-
Subtotal 18 HPC	6648	793	450	13	1	0	6	7	17	256	15	-	-	-

^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 For countries with more than one DST laboratory.

Table 18: Characteristics of anti-TB drug resistance surveillance, European Region, 2009

Country	Source of data	Coverage ¹	Culture-confirmed cases (%) ²	Cases included			Cases resistant to any anti-TB drug ³		Data completeness ⁴
				Total culture-positive ⁵	DST results (isoniazid and rifampicin)		N	(%)	
					N	(%)			
EU/EEA									
Austria	case-base	national	63.1%	446	439	(98.4)	52	(11.8)	N
Belgium	case-base	national	79.9%	815	774	(95.0)	41	(5.3)	Y
<i>Bulgaria</i>	<i>case-base</i>	<i>national</i>	44.0%	1280	844	(65.9)	152	(18.0)	N
Cyprus	case-base	national	74.5%	41	31	(75.6)	8	(25.8)	N
Czech Republic	case-base	national	67.9%	477	452	(94.8)	25	(5.5)	N
Denmark	case-base	national	73.6%	242	242	(100.0)	18	(7.4)	Y
<i>Estonia</i>	<i>case-base</i>	<i>national</i>	75.2%	309	307	(99.4)	118	(38.4)	Y
Finland	case-base	national	73.3%	307	302	(98.4)	22	(7.3)	Y
France	NRL-CISID	national	45.8%	2432	1564	(64.3)	178	(11.4)	N
Germany	case-base	national	67.9%	3011	2702	(89.7)	261	(9.7)	Y
Greece	case-base	national	52.2%	306	174	(56.9)	32	(18.4)	N
Hungary	case-base	national	49.1%	711	542	(76.2)	75	(13.8)	N
Iceland	case-base	national	88.9%	8	8	(100.0)	2	(25.0)	Y
Ireland	case-base	national	51.3%	242	206	(85.1)	10	(4.9)	Y
Italy	NRL-CISID	national	64.8%	2511	2511	(100.0)	381	(15.2)	Y
<i>Latvia</i>	<i>case-base</i>	<i>national</i>	79.1%	773	752	(97.3)	243	(32.3)	Y
Liechtenstein	case-base	-	-	-	-	-	-	-	-
<i>Lithuania</i>	<i>case-base</i>	<i>national</i>	71.0%	1478	1478	(100.0)	519	(35.1)	Y
Luxembourg	case-base	national	100.0%	27	27	(100.0)	3	(11.1)	N
Malta	case-base	national	45.5%	20	17	(85.0)	2	(11.8)	N
Netherlands	case-base	national	65.5%	760	760	(100.0)	68	(8.9)	N
Norway	case-base	national	78.5%	285	283	(99.3)	41	(14.5)	Y
Poland	case-base	-	-	-	-	-	-	-	-
Portugal	case-base	national	65.9%	1892	1539	(81.3)	212	(13.8)	N
<i>Romania</i>	<i>case-base</i>	<i>national</i>	53.1%	12351	3867	(31.3)	708	(18.3)	N
Slovakia	case-base	national	46.4%	235	235	(100.0)	9	(3.8)	N
Slovenia	case-base	national	95.2%	179	175	(97.8)	5	(2.9)	Y
Spain	NRL-CISID	national	53.9%	4095	1750	(42.7)	178	(10.2)	N
Sweden	case-base	national	82.1%	515	515	(100.0)	58	(11.3)	N
United Kingdom ⁶	case-base	national	56.1%	5075	4991	(98.3)	449	(9.0)	Y
Subtotal EU/EEA			51.2%	40823	27487	(66.4)	3870	(14.1)	13
Non-EU/EEA									
Albania	NRL-CISID	national	46.8%	209	128	(61.2)	20	(15.6)	N
Andorra	NRL-CISID	national	100.0%	3	3	(100.0)	0	(0.0)	Y
<i>Armenia</i>	<i>NRL-CISID</i>	<i>national</i>	33.9%	680	680	(100.0)	339	(49.9)	N
<i>Azerbaijan</i>	-	-	-	-	-	-	-	-	-
<i>Belarus</i>	<i>NRL-CISID</i>	-	39.7%	2188	3985	(182.1)	1225	(30.7)	N
Bosnia and Herzegovina	NRL-CISID	national	51.9%	920	920	(100.0)	22	(2.4)	Y
Croatia	NRL-CISID	national	60.8%	517	517	(100.0)	42	(8.1)	Y
<i>Georgia</i>	<i>NRL-CISID</i>	<i>national</i>	56.3%	2584	2372	(91.8)	1291	(54.4)	Y
Israel	NRL-CISID	national	76.4%	265	265	(100.0)	47	(17.7)	Y
<i>Kazakhstan</i>	<i>NRL-CISID</i>	<i>national</i>	32.0%	9774	9578	(98.0)	-	-	N
<i>Kyrgyzstan</i>	<i>NRL-CISID</i>	<i>partial national</i>	57.4%	1930	1930	(100.0)	1427	(73.9)	N
Macedonia, the former Yugoslav Republic of	NRL-CISID	national	50.3%	238	219	(92.0)	16	(7.3)	Y
<i>Moldova</i>	<i>NRL-CISID</i>	<i>national</i>	43.2%	2416	2413	(99.9)	1335	(55.3)	N
Monaco	-	-	-	-	-	-	-	-	-
Montenegro	NRL-CISID	national	95.7%	89	89	(100.0)	3	(3.4)	Y
<i>Russia</i>	<i>NRL-CISID</i>	-	46.0%	68963	58716	(85.1)	-	-	N
San Marino	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-	-
Switzerland	NRL-CISID	national	84.8%	470	448	(95.3)	34	(7.6)	Y
<i>Tajikistan</i>	<i>NRL-CISID</i>	<i>partial national</i>	79.7%	1413	1413	(100.0)	458	(32.4)	N
Turkey	NRL-CISID	national	33.5%	5835	4313	(73.9)	827	(19.2)	N
<i>Turkmenistan</i>	<i>NRL-CISID</i>	<i>unknown</i>	-	275	275	(100.0)	-	-	-
<i>Ukraine</i>	<i>NRL-CISID</i>	<i>unknown</i>	47.8%	19035	18355	(96.4)	8102	(44.1)	N
<i>Uzbekistan</i>	<i>NRL-CISID</i>	<i>partial national</i>	48.6%	2579	1303	(50.5)	754	(57.9)	N
Subtotal non-EU/EEA			44.7%	120386	107922	(89.6)	15942	(14.8)	6
Total European Region			47.3%	161209	135409	(84.0)	19812	(14.6)	19
Subtotal 18 HPC			45.3%	133863	112581	(84.1)	17498	(15.5)	4

¹ 'European Region' comprises the 53 countries of the WHO European Region and Liechtenstein. WHO European Region 18 TB High Priority Countries presented in italics.

DST: Drug Susceptibility Testing; NRL: National Reference Laboratory

² Case-base data means DST results provided to ECDC/TESSy as part of a case-based individual dataset; otherwise submitted as aggregate tables to WHO/CISID.

³ In areas included in drug-resistance surveillance; may differ from data shown elsewhere in this report.

⁴ Any resistance to isoniazid, rifampicin, ethambutol or streptomycin; expressed as a percentage of cases with DST results available at least to isoniazid and rifampicin. Testing for ethambutol and streptomycin not routine in all countries.

⁵ Data considered complete when national coverage was 100% or culturing available for 90% of all cases, and 50% of all cases were culture-positive, and 75% of them had reported DST results, and EQA results matched 95%.

⁶ Streptomycin is not used as a first-line drug in the UK and therefore not assessed for all culture-confirmed cases. 7.8% of cases had any resistance against isoniazid, rifampicin, pyrazinamide, and/or ethambutol in the UK in 2009.

Table 19: Multidrug-resistant TB cases by previous history of TB treatment^a, European Region, 2009

Country	Source of data / coverage	Year	New			Previously treated			Previous treatment unknown		
			Cases with DST results	Multidrug-resistant		Cases with DST results	Multidrug-resistant		Cases with DST results	Multidrug-resistant	
				N	(%)		N	(%)		N	(%)
EU/EEA											
Austria	case-base / national	2009	265	5	(1.9)	23	8	(34.8)	151	9	(6.0)
Belgium ^b	case-base / national	2009	621	4	(0.6)	56	3	(5.4)	97	3	(3.1)
Bulgaria	case-base / national	2009	716	12	(1.7)	128	31	(24.2)	0	0	-
Cyprus	case-base / national	2009	27	4	(14.8)	4	0	(0.0)	0	0	-
Czech Republic	case-base / national	2009	413	5	(1.2)	39	3	(7.7)	0	0	-
Denmark ^b	case-base / national	2009	209	1	(0.5)	33	1	(3.0)	0	0	-
Estonia	case-base / national	2009	245	54	(22.0)	62	32	(51.6)	0	0	-
Finland	case-base / national	2009	295	6	(2.0)	7	0	(0.0)	0	0	-
France	NRL-CISID / national	2009	1304	13	(1.0)	106	14	(13.2)	154	3	(1.9)
Germany	case-base / national	2009	2261	36	(1.6)	142	15	(10.6)	299	5	(1.7)
Greece	case-base / national	2009	140	9	(6.4)	14	4	(28.6)	20	1	(5.0)
Hungary	case-base / national	2009	486	16	(3.3)	55	4	(7.3)	1	0	(0.0)
Iceland	case-base / national	2009	6	0	(0.0)	1	0	(0.0)	1	0	(0.0)
Ireland ^b	case-base / national	2009	160	0	(0.0)	12	0	(0.0)	34	0	(0.0)
Italy	NRL-CISID / national	2009	1051	34	(3.2)	264	33	(12.5)	1196	15	(1.3)
Latvia	case-base / national	2009	618	83	(13.4)	134	48	(35.8)	0	0	-
Liechtenstein	case-base / national	2009	-	-	-	-	-	-	-	-	-
Lithuania	case-base / national	2009	1074	114	(10.6)	404	208	(51.5)	0	0	-
Luxembourg	case-base / national	2009	-	-	-	-	-	-	-	-	-
Malta	case-base / national	2009	17	0	(0.0)	0	0	-	0	0	-
Netherlands	case-base / national	2009	720	16	(2.2)	30	3	(10.0)	10	1	(10.0)
Norway ^b	case-base / national	2009	210	8	(3.8)	20	0	(0.0)	53	0	(0.0)
Poland	case-base / national	2009	-	-	-	-	-	-	-	-	-
Portugal	case-base / national	2009	1391	13	(0.9)	148	9	(6.1)	0	0	-
Romania	case-base / national	2009	2226	91	(4.1)	1641	344	(21.0)	0	0	-
Slovakia	case-base / national	2009	191	0	(0.0)	36	1	(2.8)	8	0	(0.0)
Slovenia	case-base / national	2009	167	1	(0.6)	8	0	(0.0)	0	0	-
Spain	NRL-CISID / national	2009	1147	6	(0.5)	383	45	(11.7)	220	5	(2.3)
Sweden	case-base / national	2009	424	8	(1.9)	35	4	(11.4)	56	1	(1.8)
United Kingdom ^b	case-base / national	2009	3957	37	(0.9)	364	12	(3.3)	670	9	(1.3)
Subtotal EU/EEA			20341	576	(2.8)	4149	822	(19.8)	2970	52	(1.8)
Non-EU/EEA											
Albania	NRL-CISID/national	2009	119	0	(0.0)	9	0	(0.0)	0	-	-
Andorra	NRL-CISID/national	2009	2	0	(0.0)	1	0	(0.0)	0	-	-
Armenia	NRL-CISID/national	2009	480	80	(16.7)	200	76	(38.0)	0	-	-
Azerbaijan	-	-	-	-	-	-	-	-	-	-	-
Belarus	NRL-CISID/-	2009	2071	280	(13.5)	1754	558	(31.8)	160	29	(18.1)
Bosnia and Herzegovina	NRL-CISID/partial national	2009	854	0	(0.0)	66	2	(3.0)	0	-	-
Croatia	NRL-CISID/national	2009	476	7	(1.5)	41	0	(0.0)	0	-	-
Georgia	NRL-CISID/national	2009	1777	183	(10.3)	594	185	(31.1)	1	1	(100.0)
Israel	NRL-CISID/national	2009	259	5	(1.9)	6	2	(33.3)	0	-	-
Kazakhstan	NRL-CISID/national	2009	4140	981	(23.7)	4413	2329	(52.8)	1025	334	(32.6)
Kyrgyzstan	NRL-CISID/partial national	2009	677	225	(33.2)	263	161	(61.2)	990	399	(40.3)
Macedonia, the former Yugoslav Republic of	NRL-CISID/national	2009	191	0	(0.0)	28	1	(3.6)	-	-	-
Moldova	NRL-CISID/national	2009	1284	289	(22.5)	1129	780	(69.1)	-	-	-
Monaco	-	-	-	-	-	-	-	-	-	-	-
Montenegro	NRL-CISID/national	2009	80	0	(0.0)	9	1	(11.1)	0	-	-
Russia	NRL-CISID/-	2009	36888	5816	(15.8)	6798	2314	(34.0)	15030	6556	(43.6)
San Marino	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-	-	-	-
Switzerland	NRL-CISID/national	2009	267	2	(0.7)	41	1	(2.4)	140	2	(1.4)
Tajikistan	NRL-CISID/partial national	2009	833	62	(7.4)	580	257	(44.3)	0	-	-
Turkey	NRL-CISID/national	2009	3714	99	(2.7)	599	123	(20.5)	0	-	-
Turkmenistan	NRL-CISID/unknown	2009	164	21	(12.8)	111	18	(16.2)	0	-	-
Ukraine	NRL-CISID/unknown	2009	12007	1437	(12.0)	6348	2045	(32.2)	0	-	-
Uzbekistan	NRL-CISID/partial national	2009	571	115	(20.1)	732	539	(73.6)	0	-	-
Subtotal non-EU/EEA			66854	9602	(14.4)	23722	9392	(39.6)	17346	7321	(42.2)
Total European Region			87195	10178	(11.7)	27871	10214	(36.6)	20316	7373	(36.3)
Subtotal 18 HPC			69485	9942	(14.3)	25890	10048	(38.8)	17206	7319	(42.5)

^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 DST: Drug Susceptibility Testing; NRL: National Reference Laboratory

^c Distribution by previous diagnosis.

Table 20: Anti-TB drug resistance among all TB cases, European Region, 2009

Country	Cases with DST results	Cases resistant to at least ^a :									
		Isoniazid		Rifampicin		Isoniazid and rifampicin (multidrug resistant)		Ethambutol		Streptomycin	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA											
Austria	439	42	(9.6)	22	(5.0)	22	(5.0)	9	(2.1)	36	(8.2)
Belgium	774	37	(4.8)	12	(1.6)	10	(1.3)	11	(1.4)	0	(0.0)
<i>Bulgaria</i>	844	101	(12.0)	64	(7.6)	43	(5.1)	50	(5.9)	56	(6.6)
Cyprus	31	6	(19.4)	4	(12.9)	4	(12.9)	1	(3.2)	2	(6.5)
Czech Republic	452	16	(3.5)	11	(2.4)	8	(1.8)	7	(1.5)	16	(3.5)
Denmark	242	18	(7.4)	2	(0.8)	2	(0.8)	0	(0.0)	3	(1.2)
<i>Estonia</i>	307	99	(32.2)	88	(28.7)	86	(28.0)	79	(25.7)	110	(35.8)
Finland	302	18	(6.0)	6	(2.0)	6	(2.0)	3	(1.0)	11	(3.6)
France	1564	106	(6.8)	34	(2.2)	30	(1.9)	20	(1.3)	115	(7.4)
Germany	2702	181	(6.7)	64	(2.4)	56	(2.1)	41	(1.5)	177	(6.6)
Greece	174	25	(14.4)	15	(8.6)	14	(8.0)	18	(10.3)	20	(11.5)
Hungary	542	51	(9.4)	22	(4.1)	20	(3.7)	15	(2.8)	37	(6.8)
Iceland	8	2	(25.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Ireland	206	8	(3.9)	0	(0.0)	0	(0.0)	2	(1.0)	4	(1.9)
Italy	2511	248	(9.9)	101	(4.0)	82	(3.3)	56	(2.2)	236	(9.4)
<i>Latvia</i>	752	230	(30.6)	133	(17.7)	131	(17.4)	92	(12.2)	207	(27.5)
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-
<i>Lithuania</i>	1478	479	(32.4)	330	(22.3)	322	(21.8)	193	(13.1)	448	(30.3)
Luxembourg	27	3	(11.1)	0	(0.0)	0	(0.0)	0	(0.0)	1	(3.7)
Malta	17	1	(5.9)	0	(0.0)	0	(0.0)	0	(0.0)	1	(5.9)
Netherlands	760	66	(8.7)	22	(2.9)	20	(2.6)	10	(1.3)	0	(0.0)
Norway	283	24	(8.5)	9	(3.2)	8	(2.8)	1	(0.4)	25	(8.8)
Poland	-	-	-	-	-	-	-	-	-	-	-
Portugal	1539	108	(7.0)	23	(1.5)	22	(1.4)	18	(1.2)	172	(11.2)
<i>Romania</i>	3867	654	(16.9)	485	(12.5)	435	(11.2)	139	(3.6)	192	(5.0)
Slovakia	235	8	(3.4)	2	(0.9)	1	(0.4)	0	(0.0)	0	(0.0)
Slovenia	175	4	(2.3)	1	(0.6)	1	(0.6)	0	(0.0)	5	(2.9)
Spain	1750	149	(8.5)	63	(3.6)	56	(3.2)	34	(1.9)	88	(5.0)
Sweden	515	51	(9.9)	14	(2.7)	13	(2.5)	7	(1.4)	15	(2.9)
United Kingdom ^b	4991	344	(6.9)	69	(1.4)	58	(1.2)	29	(0.6)	191	(3.8)
Subtotal EU/EEA	27487	3079	(11.2)	1596	(5.8)	1450	(5.3)	835	(3.0)	2168	(7.9)
Non-EU/EEA											
Albania	128	4	(3.1)	2	(1.6)	0	(0.0)	3	(2.3)	15	(11.7)
Andorra	3	0	(0.0)	0	(0.00)	0	(0.00)	0	(0.00)	0	(0.0)
Armenia	680	292	(42.9)	165	(24.3)	156	(22.9)	123	(18.1)	271	(39.9)
<i>Azerbaijan</i>	-	-	-	-	-	-	-	-	-	-	-
<i>Belarus</i>	3985	1025	(25.7)	958	(24.0)	867	(21.8)	539	(13.5)	998	(25.0)
Bosnia and Herzegovina	920	13	(1.4)	2	(0.2)	2	(0.2)	2	(0.2)	10	(1.1)
Croatia	520	23	(4.4)	14	(2.7)	7	(1.3)	13	(2.5)	15	(2.9)
<i>Georgia</i>	2372	688	(29.0)	384	(16.2)	369	(15.6)	375	(15.8)	1134	(47.8)
Israel	265	30	(11.3)	7	(2.6)	7	(2.6)	7	(2.6)	38	(14.3)
<i>Kazakhstan</i>	9578	3780	(39.5)	3697	(38.6)	3644	(38.0)	2945	(30.7)	3848	(40.2)
<i>Kyrgyzstan</i>	1930	1278	(66.2)	826	(42.8)	785	(40.7)	626	(32.4)	1302	(67.5)
Macedonia, the former Yugoslav Republic of	219	6	(2.7)	4	(1.8)	1	(0.5)	5	(2.3)	4	(1.8)
<i>Moldova</i>	2413	1157	(47.9)	1020	(42.3)	1069	(44.3)	827	(34.3)	1295	(53.7)
Monaco	-	-	-	-	-	-	-	-	-	-	-
Montenegro	89	2	(2.2)	2	(2.2)	1	(1.1)	0	(0.0)	0	(0.0)
<i>Russia</i>	58716	0	(0.0)	0	(0.0)	14686	(25.0)	0	(0.0)	0	(0.0)
San Marino	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-	-	-	-
Switzerland	448	26	(5.8)	7	(1.6)	5	(1.1)	4	(0.9)	-	-
<i>Tajikistan</i>	1413	382	(27.0)	345	(24.4)	319	(22.6)	220	(15.6)	397	(28.1)
Turkey	4313	564	(13.1)	282	(6.5)	222	(5.1)	202	(4.7)	369	(8.6)
<i>Turkmenistan</i>	275	41	(14.9)	37	(13.5)	39	(14.2)	17	(6.2)	25	(9.1)
<i>Ukraine</i>	18355	4857	(26.5)	5419	(29.5)	3482	(19.0)	3385	(18.4)	5365	(29.2)
<i>Uzbekistan</i>	1303	523	(40.1)	341	(26.2)	654	(50.2)	676	(51.9)	1045	(80.2)
Subtotal non-EU/EEA	107925	14691	(13.6)	13512	(12.5)	26315	(24.4)	9969	(9.2)	16131	(14.9)
Total European Region	135412	17770	(13.1)	15108	(11.2)	27765	(20.5)	10804	(8.0)	18299	(13.5)
Subtotal 18 HPC	112581	16150	(14.3)	14574	(12.9)	27309	(24.3)	10488	(9.3)	17062	(15.2)

^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.

DST: Drug Susceptibility Testing

^b Any resistance to isoniazid, rifampicin, ethambutol or streptomycin; expressed as a percentage of cases with DST results available at least to isoniazid and rifampicin. Testing for ethambutol and streptomycin not routine in all countries.

^c Streptomycin is not used as a first-line drug in the UK and therefore not assessed for all culture-confirmed cases. Pyrazinamide resistance was 3.8% in the UK in 2009.

Table 21: Anti-TB drug resistance among all XDR TB cases, European Region, 2008–2009^a

Country	2008					2009				
	Total Number of TB cases	Total culture positive	Total MDR TB	Total XDR TB	XDR/MDR	Total Number of TB cases	Total culture positive	Total MDR TB	Total XDR TB	XDR/MDR ^b
EU/EEA										
Austria	822	488	15	3	(20.0)	707	446	22	2	(9.1)
Belgium	990	806	21	2	(9.5)	1020	815	10	3	(30.0)
<i>Bulgaria</i>	<i>3150</i>	<i>1360</i>	<i>31</i>	<i>0</i>	<i>(0.0)</i>	-	-	-	-	-
Cyprus	50	36	1	0	(0.0)	55	41	4	0	(0.0)
Czech Republic	868	561	11	1	(9.1)	702	477	8	1	(12.5)
Denmark	-	-	-	-	-	-	-	-	-	-
Estonia	445	348	74	7	(9.5)	411	309	86	10	(11.6)
Finland	-	-	-	-	-	-	-	-	-	-
France	-	-	-	-	-	-	-	-	-	-
Germany	-	-	-	-	-	-	-	-	-	-
Greece	-	-	-	-	-	586	306	14	4	(28.6)
Hungary	-	-	-	-	-	-	-	-	-	-
Iceland	6	5	1	0	(0.0)	9	8	0	0	(0.0)
Ireland	-	-	-	-	-	-	-	-	-	-
Italy	4 418	1 529	71	0	(0.0)	3 877	2 511	82	1	(1.2)
Latvia	1 070	838	128	19	(14.8)	977	773	131	16	(12.2)
Liechtenstein	-	-	-	-	-	-	-	-	-	-
Lithuania	-	-	-	-	-	-	-	-	-	-
Luxembourg	-	-	-	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	-	-	-	-
Netherlands	-	-	-	-	-	-	-	-	-	-
Norway	313	225	4	0	(0.0)	363	285	8	0	(0.0)
Poland	-	-	-	-	-	-	-	-	-	-
Portugal	-	-	-	-	-	-	-	-	-	-
Romania	24 680	14 738	816	54	(6.6)	23 267	12 351	435	22	(5.1)
Slovakia	633	383	4	0	(0.0)	506	235	1	0	(0.0)
Slovenia	-	-	-	-	-	-	-	-	-	-
Spain	8 214	4 493	76	3	(3.9)	7 592	4 095	56	5	(8.9)
Sweden	546	436	11	1	(9.1)	627	515	13	0	(0.0)
United Kingdom	8 621	4 848	53	1	(1.9)	9 040	5 075	58	2	(3.4)
Subtotal EU/EEA	54 826	31 094	1 317	91	(6.9)	49 739	28 242	928	66	(7.1)
Non-EU/EEA										
Albania	-	-	-	-	-	447	209	0	-	-
Andorra	-	-	-	-	-	9	3	0	-	-
Armenia	2 125	607	128	10	(7.81)	2 006	680	156	0	(0.0)
Azerbaijan	-	-	-	-	-	-	-	-	-	-
Belarus	-	-	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	-	-	-	-	-	-	-	-	-	-
Croatia	-	-	-	-	-	-	-	-	-	-
Georgia	-	-	-	-	-	5 978	2 584	369	32	(8.7)
Israel	369	225	9	1	(11.11)	-	-	-	-	-
Kazakhstan	31 809	20 139	7 100	22	(0.31)	30 578	9 774	3 644	216	(5.9)
Kyrgyzstan	-	-	-	-	-	6 358	1 930	785	6	(0.8)
Macedonia, the former Yugoslav Republic of	-	-	-	-	-	-	-	-	-	-
Moldova	-	-	-	-	-	-	-	-	-	-
Monaco	-	-	-	-	-	-	-	-	-	-
Montenegro	-	-	-	-	-	-	-	-	-	-
Russia	-	-	-	-	-	156 222	68 963	14 686	-	-
San Marino	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-	-	-
Switzerland	-	-	-	-	-	-	-	-	-	-
Tajikistan	-	-	-	-	-	7 482	1 413	319	11	(3.4)
Turkey	-	-	-	-	-	-	-	-	-	-
Turkmenistan	-	-	-	-	-	-	-	-	-	-
Ukraine	-	-	-	-	-	-	-	-	-	-
Uzbekistan	21 194	923	342	8	(2.34)	21 453	2 579	654	13	(2.0)
Subtotal non-EU/EEA	55 497	21 894	7 579	41	(0.54)	317 327	120 386	5 927	278	(4.7)
Total European Region	110 323	52 988	8 896	132	(1.48)	367 066	148 628	6 855	344	(5.0)
Subtotal 18 HPC	84 473	38 953	8 619	120	(1.39)	335 711	131 105	6 579	326	(5.0)

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

WHO European Region TB High Priority Countries presented in italics.

^b Includes only countries reporting second-line anti-TB drug susceptibility testing.

^c Percentages calculated for countries who reported any second line testing, from all MDR TB cases (not only from cases with tested susceptibility for second-line drug).

Table 22: Anti-TB drug resistance among new TB cases^a, European Region, 2009

Country	Cases with DST results	Cases resistant to at least ^b :									
		Isoniazid		Rifampicin		Isoniazid and rifampicin (multidrug-resistant)		Ethambutol		Streptomycin	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA											
Austria	265	13	(4.9)	5	(1.9)	5	(1.9)	4	(1.5)	14	(5.3)
Belgium	621	24	(3.9)	5	(0.8)	4	(0.6)	5	(0.8)	0	(0.0)
Bulgaria	716	57	(8.0)	28	(3.9)	12	(1.7)	29	(4.1)	30	(4.2)
Cyprus	27	6	(22.2)	4	(14.8)	4	(14.8)	1	(3.7)	1	(3.7)
Czech Republic	413	12	(2.9)	8	(1.9)	5	(1.2)	6	(1.5)	13	(3.1)
Denmark	209	14	(6.7)	1	(0.5)	1	(0.5)	0	(0.0)	2	(1.0)
Estonia	245	66	(26.9)	56	(22.9)	54	(22.0)	48	(19.6)	76	(31.0)
Finland	295	18	(6.1)	6	(2.0)	6	(2.0)	3	(1.0)	11	(3.7)
France	1304	39	(3.0)	1	(0.1)	13	(1.0)	4	(0.3)	48	(3.7)
Germany	2261	138	(6.1)	41	(1.8)	36	(1.6)	25	(1.1)	134	(5.9)
Greece	140	16	(11.4)	9	(6.4)	9	(6.4)	11	(7.9)	15	(10.7)
Hungary	486	41	(8.4)	18	(3.7)	16	(3.3)	12	(2.5)	32	(6.6)
Iceland	6	2	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Ireland	160	7	(4.4)	0	(0.0)	0	(0.0)	1	(0.6)	3	(1.9)
Italy	1051	88	(8.4)	40	(3.8)	34	(3.2)	18	(1.7)	95	(9.0)
Latvia	618	161	(26.1)	85	(13.8)	83	(13.4)	53	(8.6)	144	(23.3)
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-
Lithuania	1074	230	(21.4)	119	(11.1)	114	(10.6)	59	(5.5)	219	(20.4)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-
Malta	17	1	(5.9)	0	(0.0)	0	(0.0)	0	(0.0)	1	(5.9)
Netherlands	720	58	(8.1)	17	(2.4)	16	(2.2)	8	(1.1)	0	(0.0)
Norway	210	19	(9.0)	9	(4.3)	8	(3.8)	1	(0.5)	17	(8.1)
Poland	-	-	-	-	-	-	-	-	-	-	-
Portugal	1391	95	(6.8)	14	(1.0)	13	(0.9)	11	(0.8)	151	(10.9)
Romania	2226	190	(8.5)	105	(4.7)	91	(4.1)	21	(0.9)	40	(1.8)
Slovakia	191	6	(3.1)	1	(0.5)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	167	4	(2.4)	1	(0.6)	1	(0.6)	0	(0.0)	5	(3.0)
Spain	1147	62	(5.4)	10	(0.9)	6	(0.5)	1	(0.1)	29	(2.5)
Sweden	424	40	(9.4)	8	(1.9)	8	(1.9)	5	(1.2)	12	(2.8)
United Kingdom ^c	3957	262	(6.6)	43	(1.1)	37	(0.9)	18	(0.5)	141	(3.6)
Subtotal EU/EEA	20341	1669	(8.2)	634	(3.1)	576	(2.8)	344	(1.7)	1233	(6.1)
Non-EU/EEA											
Albania	119	3	(2.5)	2	(1.68)	0	(0.0)	3	(2.5)	13	(10.9)
Andorra	2	0	(0.0)	0	(0.00)	0	(0.0)	0	(0.0)	0	(0.0)
Armenia	480	178	(37.1)	86	(17.92)	80	(16.7)	71	(14.8)	170	(35.4)
Azerbaijan	-	-	-	-	-	-	-	-	-	-	-
Belarus	2071	362	(17.5)	322	(15.55)	280	(13.5)	167	(8.1)	360	(17.4)
Bosnia and Herzegovina	854	5	(0.6)	0	(0.00)	0	(0.0)	0	(0.0)	0	(0.0)
Croatia	478	21	(4.4)	14	(2.93)	7	(1.5)	13	(2.7)	15	(3.1)
Georgia	1777	417	(23.5)	194	(10.92)	183	(10.3)	208	(11.7)	776	(43.7)
Israel	259	28	(10.8)	5	(1.93)	5	(1.9)	7	(2.7)	35	(13.5)
Kazakhstan	4140	1054	(25.5)	994	(24.01)	981	(23.7)	813	(19.6)	1135	(27.4)
Kyrgyzstan	677	396	(58.5)	240	(35.45)	225	(33.2)	188	(27.8)	417	(61.6)
Macedonia, the former Yugoslav Republic of	191	4	(2.1)	3	(1.57)	0	(0.0)	4	(2.1)	2	(1.0)
Moldova	1284	403	(31.4)	312	(24.30)	289	(22.5)	227	(17.7)	457	(35.6)
Monaco	-	-	-	-	-	-	-	-	-	-	-
Montenegro	80	1	(1.3)	0	(0.00)	0	(0.0)	0	(0.0)	0	(0.0)
Russia	36888	5816	(15.8)	5816	(15.77)	5816	(15.8)	0	(0.0)	0	(0.0)
San Marino	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-	-	-	-
Switzerland	267	11	(4.1)	2	(0.7)	2	(0.7)	2	(0.7)	-	-
Tajikistan	833	93	(11.2)	77	(9.24)	62	(7.4)	49	(5.9)	113	(13.6)
Turkey	3714	381	(10.3)	143	(3.85)	99	(2.7)	131	(3.5)	259	(7.0)
Turkmenistan	164	29	(17.7)	25	(15.24)	21	(12.8)	6	(3.7)	12	(7.3)
Ukraine	12007	2186	(18.2)	2740	(22.82)	1437	(12.0)	1669	(13.9)	2571	(21.4)
Uzbekistan	571	190	(33.3)	167	(29.25)	115	(20.1)	123	(21.5)	269	(47.1)
Subtotal non-EU/EEA	66856	11578	(17.3)	11142	(16.7)	9602	(14.4)	3681	(5.5)	6604	(9.9)
Total European Region	87197	13247	(15.2)	11776	(13.5)	10178	(11.7)	4025	(4.6)	7837	(9.0)
Subtotal 18 HPC	69485	12209	(17.6)	11509	(16.6)	9942	(14.3)	3862	(5.6)	7048	(10.1)

^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.

DST: Drug Susceptibility Testing

^b Cases classified according to previous TB treatment history (see Chapter 1).

^c Any resistance to isoniazid, rifampicin, ethambutol or streptomycin; expressed as a percentage of cases with DST results available at least to isoniazid and rifampicin. Testing for ethambutol and streptomycin not routine in all countries.

^d Streptomycin is not used as a first-line drug in the UK and therefore not assessed for all culture-confirmed cases. Pyrazinamide resistance was 3.8% in the UK in 2009.

Table 23: Anti-TB drug resistance among all TB cases of national origin, EU/EEA, 2009

Country	Criterion	Cases with DST results	Cases resistant to at least ^a :									
			Isoniazid		Rifampicin		Isoniazid and rifampicin (multidrug resistant)		Ethambutol ^b		Streptomycin ^b	
			N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Austria	citizenship	233	8	(3.4)	1	(0.4)	1	(0.4)	1	(0.4)	5	(2.1)
Belgium	citizenship	403	14	(3.5)	1	(0.2)	1	(0.2)	2	(0.5)	0	(0.0)
<i>Bulgaria</i>	<i>birthplace</i>	<i>839</i>	<i>100</i>	<i>(11.9)</i>	<i>64</i>	<i>(7.6)</i>	<i>43</i>	<i>(5.1)</i>	<i>49</i>	<i>(5.8)</i>	<i>56</i>	<i>(6.7)</i>
Cyprus	birthplace	4	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Czech Republic	birthplace	357	4	(1.1)	1	(0.3)	1	(0.3)	1	(0.3)	3	(0.8)
Denmark	birthplace	88	5	(5.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
<i>Estonia</i>	<i>birthplace</i>	<i>252</i>	<i>77</i>	<i>(30.6)</i>	<i>71</i>	<i>(28.2)</i>	<i>69</i>	<i>(27.4)</i>	<i>63</i>	<i>(25.0)</i>	<i>88</i>	<i>(34.9)</i>
Finland	birthplace	198	5	(2.5)	2	(1.0)	2	(1.0)	2	(1.0)	5	(2.5)
France	birthplace	-	-	-	-	-	-	-	-	-	-	-
Germany	birthplace	1395	45	(3.2)	13	(0.9)	9	(0.6)	7	(0.5)	42	(3.0)
Greece	citizenship	85	13	(15.3)	6	(7.1)	6	(7.1)	8	(9.4)	10	(11.8)
Hungary	birthplace	520	51	(9.8)	22	(4.2)	20	(3.8)	15	(2.9)	35	(6.7)
Iceland	birthplace	3	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Ireland	birthplace	123	1	(0.8)	0	(0.0)	0	(0.0)	1	(0.8)	1	(0.8)
Italy	birthplace	961	66	(6.9)	21	(2.2)	14	(1.5)	17	(1.8)	83	(8.6)
<i>Latvia</i>	<i>birthplace</i>	<i>702</i>	<i>213</i>	<i>(30.3)</i>	<i>122</i>	<i>(17.4)</i>	<i>121</i>	<i>(17.2)</i>	<i>83</i>	<i>(11.8)</i>	<i>193</i>	<i>(27.5)</i>
Liechtenstein	birthplace	-	-	-	-	-	-	-	-	-	-	-
<i>Lithuania</i>	<i>birthplace</i>	<i>1441</i>	<i>462</i>	<i>(32.1)</i>	<i>316</i>	<i>(21.9)</i>	<i>308</i>	<i>(21.4)</i>	<i>183</i>	<i>(12.7)</i>	<i>431</i>	<i>(29.9)</i>
Luxembourg	birthplace	11	2		0	(0.0)	0	(0.0)	0	(0.0)	1	(9.1)
Malta	birthplace	1	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Netherlands	birthplace	187	7	(3.7)	2	(1.1)	2	(1.1)	2	(1.1)	0	(0.0)
Norway	birthplace	21	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Poland	citizenship	-	-	-	-	-	-	-	-	-	-	-
Portugal	birthplace	1303	82	(6.3)	17	(1.3)	16	(1.2)	16	(1.2)	148	(11.4)
<i>Romania</i>	<i>birthplace</i>	<i>3864</i>	<i>654</i>	<i>(16.9)</i>	<i>485</i>	<i>(12.6)</i>	<i>435</i>	<i>(11.3)</i>	<i>139</i>	<i>(3.6)</i>	<i>192</i>	<i>(5.0)</i>
Slovakia	birthplace	230	8	(3.5)	2	(0.9)	1	(0.4)	0	(0.0)	0	(0.0)
Slovenia	birthplace	123	3	(2.4)	0	(0.0)	0	(0.0)	0	(0.0)	4	(3.3)
Spain	birthplace	-	-	-	-	-	-	-	-	-	-	-
Sweden	birthplace	91	6	(6.6)	0	(0.0)	0	(0.0)	0	(0.0)	2	(2.2)
United Kingdom ^c	birthplace	1133	71	(6.3)	11	(1.0)	7	(0.6)	5	(0.4)	23	(2.0)
Total EU/EEA		14568	1897	(13.0)	1157	(7.9)	1056	(7.2)	594	(4.1)	1322	(9.1)

WHO European Region TB High Priority Countries presented in italics.

DST: Drug Susceptibility Testing

^a Any resistance to isoniazid, rifampicin, ethambutol or streptomycin; expressed as a percentage of cases with DST results available at least to isoniazid and rifampicin. Testing for ethambutol and streptomycin not routine in all countries.

^b DST shown, if tested also to isoniazid and rifampicin.

^c Streptomycin is not used as a first-line drug in the UK and therefore not assessed for all culture-confirmed cases. Pyrazinamide resistance was 0.4% among cases of national origin in the UK in 2009.

Table 24: Anti-TB drug resistance among all TB cases of foreign origin, EU/EEA, 2009

Country	Criterion	Cases with DST results	Cases resistant to at least ^a :									
			Isoniazid		Rifampicin		Isoniazid and rifampicin (multidrug resistant)		Ethambutol ^b		Streptomycin ^b	
			N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Austria	citizenship	153	32	(20.9)	20	(13.1)	20	(13.1)	8	(5.2)	27	(17.6)
Belgium	citizenship	371	23	(6.2)	11	(3.0)	9	(2.4)	9	(2.4)	0	(0.0)
<i>Bulgaria</i>	<i>birthplace</i>	<i>5</i>	<i>1</i>	<i>(20.0)</i>	<i>0</i>	<i>(0.0)</i>	<i>0</i>	<i>(0.0)</i>	<i>1</i>	<i>(20.0)</i>	<i>0</i>	<i>(0.0)</i>
Cyprus	birthplace	27	6	(22.2)	4	(14.8)	4	(14.8)	1	(3.7)	2	(7.4)
Czech Republic	birthplace	95	12	(12.6)	10	(10.5)	7	(7.4)	6	(6.3)	13	(13.7)
Denmark	birthplace	153	13	(8.5)	2	(1.3)	2	(1.3)	0	(0.0)	3	(2.0)
<i>Estonia</i>	<i>birthplace</i>	<i>55</i>	<i>22</i>	<i>(40.0)</i>	<i>17</i>	<i>(30.9)</i>	<i>17</i>	<i>(30.9)</i>	<i>16</i>	<i>(29.1)</i>	<i>22</i>	<i>(40.0)</i>
Finland	birthplace	100	12	(12.0)	3	(3.0)	3	(3.0)	1	(1.0)	5	(5.0)
France	birthplace	-	-	-	-	-	-	-	-	-	-	-
Germany	birthplace	1226	132	(10.8)	51	(4.2)	47	(3.8)	34	(2.8)	133	(10.8)
Greece	citizenship	85	12	(14.1)	9	(10.6)	8	(9.4)	10	(11.8)	10	(11.8)
Hungary	birthplace	17	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(5.9)
Iceland	birthplace	5	2	(40.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Ireland	birthplace	77	7	(9.1)	0	(0.0)	0	(0.0)	1	(1.3)	3	(3.9)
Italy	birthplace	1528	182	(11.9)	79	(5.2)	68	(4.5)	39	(2.6)	153	(10.0)
<i>Latvia</i>	<i>birthplace</i>	<i>50</i>	<i>17</i>	<i>(34.0)</i>	<i>11</i>	<i>(22.0)</i>	<i>10</i>	<i>(20.0)</i>	<i>9</i>	<i>(18.0)</i>	<i>14</i>	<i>(28.0)</i>
Liechtenstein	birthplace	-	-	-	-	-	-	-	-	-	-	-
<i>Lithuania</i>	<i>birthplace</i>	<i>37</i>	<i>17</i>	<i>(45.9)</i>	<i>14</i>	<i>(37.8)</i>	<i>14</i>	<i>(37.8)</i>	<i>10</i>	<i>(27.0)</i>	<i>17</i>	<i>(45.9)</i>
Luxembourg	birthplace	16	1	(6.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Malta	birthplace	16	1	(6.3)	0	(0.0)	0	(0.0)	0	(0.0)	1	(6.3)
Netherlands	birthplace	565	58	(10.3)	20	(3.5)	18	(3.2)	7	(1.2)	0	(0.0)
Norway	birthplace	262	24	(9.2)	9	(3.4)	8	(3.1)	1	(0.4)	25	(9.5)
Poland	citizenship	-	-	-	-	-	-	-	-	-	-	-
Portugal	birthplace	236	26	(11.0)	6	(2.5)	6	(2.5)	2	(0.8)	24	(10.2)
<i>Romania</i>	<i>birthplace</i>	<i>3</i>	<i>0</i>	<i>(0.0)</i>	<i>0</i>	<i>(0.0)</i>	<i>0</i>	<i>(0.0)</i>	<i>0</i>	<i>(0.0)</i>	<i>0</i>	<i>(0.0)</i>
Slovakia	birthplace	5	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	birthplace	52	1	(1.9)	1	(1.9)	1	(1.9)	0	(0.0)	1	(1.9)
Spain	birthplace	-	-	-	-	-	-	-	-	-	-	-
Sweden	birthplace	424	45	(10.6)	14	(3.3)	13	(3.1)	7	(1.7)	13	(3.1)
United Kingdom ^c	birthplace	3 421	254	(7.4)	55	(1.6)	49	(1.4)	23	(0.7)	158	(4.6)
Total EU/EEA		8 984	900	(10.0)	336	(3.7)	304	(3.4)	185	(2.1)	625	(7.0)

WHO European Region TB High Priority Countries presented in italics.

DST: Drug Susceptibility Testing

^a Any resistance to isoniazid, rifampicin, ethambutol or streptomycin; expressed as a percentage of cases with DST results available at least to isoniazid and rifampicin. Testing for ethambutol and streptomycin not routine in all countries.

^b DST shown, if tested also to isoniazid and rifampicin.

^c Streptomycin is not used as a first-line drug in the UK and therefore not assessed for all culture-confirmed cases. Pyrazinamide resistance was 1.3% among cases of foreign origin in the UK in 2009.

Table 25: Tuberculosis cases with HIV infection^a, European Region, 2007–2009

Country	% known HIV status (2009)	2007			2008			2009			Data completeness ^c
		TB cases	HIV positive		TB cases	HIV positive		TB cases	HIV positive		
			N	(%) ^b		N	(%) ^b		N	(%) ^b	
EU/EEA											
Austria	Unknown	874	-	-	822	-	-	707	-	-	-
Belgium	(91.2)	1020	55	(5.4)	990	56	(5.7)	1020	43	(4.2)	Y
Bulgaria	(39.7)	3038	6	(0.2)	3150	0	(0.0)	2911	1	(0.0)	N
Cyprus	Unknown	42	0	(0.0)	50	-	-	55	-	-	-
Czech Republic	(22.9)	846	4	(0.5)	868	7	(0.8)	702	5	(0.7)	N
Denmark	(1.8)	391	11	(2.8)	376	11	(2.9)	329	6	(1.8)	N
Estonia	(92.5)	490	41	(8.4)	445	42	(9.4)	411	39	(9.5)	Y
Finland	Unknown	348	10	(2.9)	344	6	(1.7)	419	6	(1.4)	N
France	Unknown	5588	-	-	5812	-	-	5308	-	-	-
Germany	Unknown	4998	-	-	4536	-	-	4432	-	-	-
Greece	Unknown	659	-	-	669	-	-	586	-	-	-
Hungary	Unknown	1686	-	-	1620	-	-	1448	-	-	-
Iceland	(77.8)	14	2	(14.3)	6	1	(16.7)	9	0	(0.0)	Y
Ireland	(11.0)	480	15	(3.1)	479	18	(3.8)	472	6	(1.3)	N
Italy	Unknown	4525	-	-	4418	-	-	3877	-	-	-
Latvia	(85.0)	1255	45	(3.6)	1070	72	(6.7)	977	73	(7.5)	Y
Liechtenstein	Unknown	5	-	-	-	-	-	-	-	-	-
Lithuania	Unknown	2408	13	(0.5)	2250	21	(0.9)	2081	14	(0.7)	N
Luxembourg	Unknown	39	-	-	28	-	-	27	-	-	-
Malta	(84.1)	38	2	(5.3)	53	5	(9.4)	44	4	(9.1)	Y
Netherlands	(30.7)	1004	41	(4.1)	1021	39	(3.8)	1160	42	(3.6)	N
Norway	Unknown	302	-	-	313	-	-	363	-	-	-
Poland	Unknown	8614	-	-	8080	35	(0.4)	8236	27	(0.3)	N
Portugal	(52.9)	3139	474	(15.1)	3002	442	(14.7)	2871	349	(12.2)	Y
Romania	(24.7)	24837	60	(0.2)	24680	202	(0.8)	23267	209	(0.9)	N
Slovakia	(96.8)	682	0	(0.0)	633	0	(0.0)	506	1	(0.2)	Y
Slovenia	(71.3)	218	1	(0.5)	213	0	(0.0)	188	0	(0.0)	Y
Spain	(47.4)	7768	354	(4.6)	8216	508	(6.2)	7592	425	(5.6)	N
Sweden	Unknown	482	-	-	546	-	-	627	-	-	-
United Kingdom ^d	Unknown	8314	-	-	8621	553	(6.4)	9040	-	-	-
Subtotal EU/EEA	(36.3)	48018	1134	(2.4)	64497	2018	(3.1)	53195	1250	(2.3)	8
Non-EU/EEA											
Albania	(47.2)	447	1	(0.2)	434	4	(0.9)	447	6	(1.3)	N
Andorra	Unknown	6	0	(0.0)	4	0	(0.0)	9	0	(0.0)	-
Armenia	(26.0)	2129	8	(0.4)	2125	12	(0.6)	2006	17	(0.8)	N
Azerbaijan	Unknown	7347	-	-	10078	-	-	10417	-	-	-
Belarus	Unknown	5756	0	(0.0)	5483	156	(2.8)	5511	190	(3.4)	-
Bosnia and Herzegovina	Unknown	2400	0	(0.0)	1736	1	(0.1)	1772	-	-	-
Croatia	Unknown	982	3	(0.3)	980	0	(0.0)	855	-	-	-
Georgia	(20.6)	5912	32	(0.5)	5836	20	(0.3)	5978	28	(0.5)	N
Israel	(83.0)	397	18	(4.7)	369	25	(6.8)	347	22	(6.3)	Y
Kazakhstan	(96.8)	40279	213	(0.5)	31809	238	(0.7)	30578	325	(1.1)	Y
Kyrgyzstan	(100.0)	6707	-	-	7127	-	-	6358	88	(1.4)	Y
Macedonia, the former Yugoslav Republic of	(9.1)	563	1	(0.2)	457	2	(0.4)	473	0	(0.0)	N
Moldova	(93.7)	6367	194	(3.2)	5838	258	(4.4)	5591	275	(4.9)	Y
Monaco	-	-	-	-	-	-	-	-	-	-	-
Montenegro	(75.8)	159	0	(0.0)	133	0	(0.0)	120	0	(0.0)	Y
Russia	(100.0)	214924	4828	(3.2)	214905	6083	(2.8)	156222	7442	(4.8)	Y
San Marino	-	-	-	-	-	-	-	-	-	-	-
Serbia	Unknown	2051	9	(0.4)	1821	5	(0.3)	1694	-	-	-
Switzerland	Unknown	478	-	-	516	-	-	554	-	-	-
Tajikistan	(49.6)	8081	43	(0.6)	7996	48	(0.6)	7482	49	(0.7)	N
Turkey	Unknown	19694	-	-	18452	-	-	17402	1	(0.0)	-
Turkmenistan	-	3698	-	-	3909	-	-	3157	-	-	-
Ukraine	(85.9)	40643	2345	(5.7)	37832	2902	(7.7)	38901	3771	(9.7)	Y
Uzbekistan	(100.0)	23390	371	(1.5)	21194	256	(1.2)	21453	357	(1.7)	Y
Subtotal non-EU/EEA	(88.1)	354486	8066	(2.3)	338952	10010	(3.0)	298878	12571	(4.2)	8
Total European Region	(81.5)	402504	9200	(2.3)	403449	12028	(3.0)	352073	13821	(3.9)	16
Subtotal 18 HPC	(83.2)	416955	8199	(2.0)	404179	10310	(2.6)	340703	12879	(3.8)	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 Aggregate data; HIV prevalence may be underestimated due to incomplete HIV testing and/or reporting of HIV serostatus.

^c Percentages calculated from all reported TB cases.

^d Data considered complete when known HIV status is 50% or more of all reported TB cases at the latest year with data.

^e HIV-positive cases exclude cases from Scotland and cases below age 15.

Table 26: Treatment outcome of new laboratory-confirmed pulmonary TB cases, European Region, 2008

Country	Cases notified in 2007	Success		Died		Failed		Defaulted		Still on treatment		Transferred or unknown	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA^a													
Austria	380	179	(47.1)	37	(9.7)	0	(0.0)	35	(9.2)	48	(12.6)	81	(21.3)
Belgium ^b	502	380	(75.7)	36	(7.2)	0	(0.0)	44	(8.8)	22	(4.4)	20	(4.0)
Bulgaria	1193	1013	(84.9)	71	(6.0)	15	(1.3)	66	(5.5)	13	(1.1)	15	(1.3)
Cyprus	10	7	(70.0)	0	(0.0)	0	(0.0)	2	(20.0)	0	(0.0)	1	(10.0)
Czech Republic	468	320	(68.4)	99	(21.2)	3	(0.6)	26	(5.6)	13	(2.8)	7	(1.5)
Denmark ^{b,c}	200	81	(40.5)	2	(1.0)	0	(0.0)	2	(1.0)	2	(1.0)	113	(56.5)
Estonia	257	156	(60.7)	38	(14.8)	4	(1.6)	15	(5.8)	43	(16.7)	1	(0.4)
Finland	170	123	(72.4)	27	(15.9)	1	(0.6)	2	(1.2)	9	(5.3)	8	(4.7)
France	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	2126	1441	(67.8)	247	(11.6)	1	(0.0)	37	(1.7)	157	(7.4)	243	(11.4)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	602	317	(52.7)	69	(11.5)	60	(10.0)	40	(6.6)	60	(10.0)	56	(9.3)
Iceland	-	-	-	-	-	-	-	-	-	-	-	-	-
Ireland ^b	187	143	(76.5)	13	(7.0)	0	(0.0)	3	(1.6)	0	(0.0)	28	(15.0)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	641	484	(75.5)	59	(9.2)	6	(0.9)	26	(4.1)	63	(9.8)	3	(0.5)
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	1211	892	(73.7)	125	(10.3)	21	(1.7)	130	(10.7)	38	(3.1)	5	(0.4)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	13	12	(92.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(7.7)
Netherlands ^b	467	397	(85.0)	32	(6.9)	0	(0.0)	7	(1.5)	0	(0.0)	31	(6.6)
Norway ^b	105	88	(83.8)	6	(5.7)	0	(0.0)	0	(0.0)	4	(3.8)	7	(6.7)
Poland	4228	3128	(74.0)	287	(6.8)	2	(0.0)	426	(10.1)	18	(0.4)	367	(8.7)
Portugal	1683	1470	(87.3)	0	(0.0)	0	(0.0)	37	(2.2)	55	(3.3)	121	(7.2)
Romania	10082	8513	(84.4)	467	(4.6)	387	(3.8)	554	(5.5)	106	(1.1)	55	(0.5)
Slovakia	269	234	(87.0)	26	(9.7)	3	(1.1)	4	(1.5)	1	(0.4)	1	(0.4)
Slovenia	159	127	(79.9)	24	(15.1)	0	(0.0)	3	(1.9)	2	(1.3)	3	(1.9)
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden ^b	222	194	(87.4)	13	(5.9)	0	(0.0)	3	(1.4)	3	(1.4)	9	(4.1)
United Kingdom ^b	2314	1759	(76.0)	151	(6.5)	0	(0.0)	16	(0.7)	127	(5.5)	261	(11.3)
Subtotal EU/EEA	27489	21458	(78.1)	1829	(6.7)	503	(1.8)	1478	(5.4)	784	(2.9)	1437	(5.2)
Non-EU/EEA^d													
Albania	170	154	(90.6)	6	(3.5)	1	(0.6)	3	(1.8)	-	-	6	(3.5)
Andorra	3	3	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Armenia	484	357	(73.8)	23	(4.8)	27	(5.6)	47	(9.7)	-	-	30	(6.2)
Azerbaijan	1368	782	(57.2)	35	(2.6)	31	(2.3)	146	(10.7)	-	-	374	(27.3)
Belarus	1902	1355	(71.2)	171	(9.0)	132	(6.9)	59	(3.1)	-	-	185	(9.7)
Bosnia and Herzegovina	757	697	(92.1)	34	(4.5)	8	(1.1)	7	(0.9)	-	-	11	(1.5)
Croatia	494	347	(70.2)	106	(21.5)	20	(4.0)	15	(3.0)	-	-	6	(1.2)
Georgia	2196	1596	(72.7)	60	(2.7)	264	(12.0)	186	(8.5)	-	-	90	(4.1)
Israel	160	130	(81.3)	14	(8.8)	1	(0.6)	2	(1.3)	-	-	13	(8.1)
Kazakhstan	6167	3949	(64.0)	271	(4.4)	1583	(25.7)	236	(3.8)	-	-	128	(2.1)
Kyrgyzstan	1637	1385	(84.6)	49	(3.0)	93	(5.7)	81	(4.9)	-	-	29	(1.8)
Macedonia, the former Yugoslav Republic of	188	167	(88.8)	14	(7.4)	1	(0.5)	4	(2.1)	-	-	2	(1.1)
Moldova	1418	943	(66.5)	169	(11.9)	115	(8.1)	188	(13.3)	-	-	3	(0.2)
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	65	55	(84.6)	3	(4.6)	0	(0.0)	1	(1.5)	-	-	6	(9.2)
Russia	32356	18579	(57.4)	3838	(11.9)	5731	(17.7)	2769	(8.6)	-	-	1439	(4.4)
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	1111	942	(84.8)	76	(6.8)	24	(2.2)	55	(5.0)	-	-	14	(1.3)
Switzerland	-	-	-	-	-	-	-	-	-	-	-	-	-
Tajikistan	2041	1682	(82.4)	79	(3.9)	152	(7.4)	108	(5.3)	-	-	20	(1.0)
Turkey	6993	6408	(91.6)	206	(2.9)	42	(0.6)	199	(2.8)	-	-	138	(2.0)
Turkmenistan	1331	1107	(83.2)	77	(5.8)	74	(5.6)	64	(4.8)	-	-	9	(0.7)
Ukraine	14407	8927	(62.0)	1785	(12.4)	1740	(12.1)	1270	(8.8)	-	-	685	(4.8)
Uzbekistan	5108	4158	(81.4)	316	(6.2)	290	(5.7)	210	(4.1)	-	-	134	(2.6)
Subtotal non-EU/EEA	80356	53723	(66.9)	7332	(9.1)	10329	(12.9)	5650	(7.0)	-	-	3322	(4.1)
Total European Region	107845	75181	(69.7)	9161	(8.5)	10832	(10.0)	7128	(6.6)	784	(0.7)	4759	(4.4)
Subtotal 18 HPC	90792	62286	(68.6)	7839	(8.6)	10707	(11.8)	6354	(7.0)	263	(0.3)	3343	(3.7)

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

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

^b New pulmonary culture-positive for EU/EEA countries.

^c Not previously diagnosed cases.

^d Reporting of treatment outcome results was not complete at the data collection period.

^e New pulmonary smear-positive (and/or culture-positive) have been reported for non-EU/EEA countries.

Table 27: Treatment outcome, retreatment laboratory-confirmed pulmonary TB cases, European Region, 2008

Country	Cases notified in 2007	Success		Died		Failed		Defaulted		Still on treatment		Transferred or unknown	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA^a													
Austria	8	3	(37.5)	0	(0.0)	0	(0.0)	0	(0.0)	4	(50.0)	1	(12.5)
Belgium ^b	42	23	(54.8)	4	(9.5)	0	(0.0)	8	(19.0)	6	(14.3)	1	(2.4)
Bulgaria	152	87	(57.2)	21	(13.8)	8	(5.3)	23	(15.1)	8	(5.3)	5	(3.3)
Cyprus	3	3	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Czech Republic	39	26	(66.7)	9	(23.1)	0	(0.0)	1	(2.6)	2	(5.1)	1	(2.6)
Denmark ^{b,c}	23	12	(52.2)	0	(0.0)	0	(0.0)	1	(4.3)	0	(0.0)	10	(43.5)
Estonia	76	30	(39.5)	8	(10.5)	2	(2.6)	18	(23.7)	18	(23.7)	0	(0.0)
Finland	9	6	(66.7)	3	(33.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
France	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	155	93	(60.0)	16	(10.3)	1	(0.6)	1	(0.6)	16	(10.3)	28	(18.1)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	126	55	(43.7)	13	(10.3)	21	(16.7)	11	(8.7)	14	(11.1)	12	(9.5)
Iceland	0	0	-	0	-	0	-	0	-	0	-	0	-
Ireland ^b	15	8	(53.3)	2	(13.3)	0	(0.0)	1	(6.7)	0	(0.0)	4	(26.7)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	147	82	(55.8)	20	(13.6)	0	(0.0)	7	(4.8)	38	(25.9)	0	(0.0)
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	354	143	(40.4)	79	(22.3)	27	(7.6)	68	(19.2)	35	(9.9)	2	(0.6)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	3	2	(66.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(33.3)
Netherlands ^b	22	18	(81.8)	3	(13.6)	0	(0.0)	1	(4.5)	0	(0.0)	0	(0.0)
Norway ^b	12	7	(58.3)	0	(0.0)	0	(0.0)	0	(0.0)	3	(25.0)	2	(16.7)
Poland	635	407	(64.1)	43	(6.8)	0	(0.0)	103	(16.2)	9	(1.4)	73	(11.5)
Portugal	176	135	(76.7)	0	(0.0)	0	(0.0)	12	(6.8)	9	(5.1)	20	(11.4)
Romania	4 656	2 348	(50.4)	482	(10.4)	632	(13.6)	805	(17.3)	367	(7.9)	22	(0.5)
Slovakia	58	47	(81.0)	9	(15.5)	0	(0.0)	1	(1.7)	1	(1.7)	0	(0.0)
Slovenia	14	8	(57.1)	2	(14.3)	0	(0.0)	0	(0.0)	3	(21.4)	1	(7.1)
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden ^b	24	18	(75.0)	1	(4.2)	0	(0.0)	0	(0.0)	2	(8.3)	3	(12.5)
United Kingdom ^b	213	144	(67.6)	24	(11.3)	0	(0.0)	1	(0.5)	15	(7.0)	29	(13.6)
Subtotal EU/EEA	6 962	3 705	(53.2)	739	(10.6)	691	(9.9)	1 062	(15.3)	550	(7.9)	215	(3.1)
Non-EU/EEA^d													
Albania	25	18	(72.0)	4	(16.0)	1	(4.0)	1	(4.0)	-	-	1	(4.0)
Andorra	0	-	-	-	-	-	-	-	-	-	-	-	-
Armenia	243	92	(37.9)	23	(9.5)	73	(30.0)	41	(16.9)	-	-	14	(5.8)
Azerbaijan	3 084	1 557	(50.5)	123	(4.0)	173	(5.6)	694	(22.5)	-	-	537	(17.4)
Belarus	492	259	(52.6)	57	(11.6)	55	(11.2)	14	(2.8)	-	-	107	(21.7)
Bosnia and Herzegovina	77	58	(75.3)	17	(22.1)	1	(1.3)	1	(1.3)	-	-	0	(0.0)
Croatia	-	-	-	-	-	-	-	-	-	-	-	-	-
Georgia	1 084	453	(41.8)	68	(6.3)	337	(31.1)	148	(13.7)	-	-	78	(7.2)
Israel	3	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	3	(100.0)
Kazakhstan	5 596	2 096	(37.5)	699	(12.5)	2 205	(39.4)	432	(7.7)	-	-	164	(2.9)
Kyrgyzstan	539	346	(64.2)	37	(6.9)	82	(15.2)	58	(10.8)	-	-	16	(3.0)
Macedonia, the former Yugoslav Republic of	30	22	(73.3)	1	(3.3)	1	(3.3)	5	(16.7)	-	-	1	(3.3)
Moldova	922	264	(28.6)	205	(22.2)	163	(17.7)	276	(29.9)	-	-	14	(1.5)
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	8	6	(75.0)	1	(12.5)	0	(0.0)	1	(12.5)	-	-	0	(0.0)
Russia	18 070	6 562	(36.3)	2 401	(13.3)	5 269	(29.2)	2 486	(13.8)	-	-	1 352	(7.5)
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	162	116	(71.6)	18	(11.1)	1	(0.6)	13	(8.0)	-	-	14	(8.6)
Switzerland	-	-	-	-	-	-	-	-	-	-	-	-	-
Tajikistan	1 039	692	(66.6)	125	(12.0)	137	(13.2)	70	(6.7)	-	-	15	(1.4)
Turkey	1 495	1 109	(74.2)	62	(4.1)	35	(2.3)	144	(9.6)	-	-	145	(9.7)
Turkmenistan	599	488	(81.5)	37	(6.2)	46	(7.7)	27	(4.5)	-	-	1	(0.2)
Ukraine	6 560	2 613	(39.8)	1 120	(17.1)	1 411	(21.5)	860	(13.1)	-	-	556	(8.5)
Uzbekistan	2 305	1 393	(60.4)	324	(14.1)	284	(12.3)	200	(8.7)	-	-	104	(4.5)
Subtotal non-EU/EEA	42 333	18 144	(43)	5 322	(13)	10 274	(24)	5 471	(12.9)	-	-	3 122	(7.4)
Total European Region	49 295	21 849	(44)	6 061	(12)	10 965	(22)	6 533	(13.3)	550	(1.1)	3 337	(6.8)
Subtotal 18 HPC	47 413	20 614	(43)	5 891	(12)	10 939	(23)	6 371	(13.4)	466	(1.0)	3 132	(6.6)

^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 New pulmonary culture-positive for EU/EEA countries.

^c Not previously diagnosed cases.

^d Reporting of treatment outcome results was not complete at the data collection period.

^e New pulmonary smear-positive (and/or culture-positive) have been reported for non-EU/EEA countries.

Table 28: Treatment outcome of all culture-confirmed pulmonary cases by geographical origin, EU/EEA, 2008**A) National origin**

Country	Cases	Success		Died		Failed		Defaulted		Still on treatment		Transferred or unknown	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Austria	211	124	(58.8)	31	(14.7)	0	(0.0)	2	(0.9)	21	(10.0)	33	(15.6)
Belgium	342	256	(74.9)	38	(11.1)	0	(0.0)	19	(5.6)	13	(3.8)	16	(4.7)
<i>Bulgaria</i>	1341	1097	(81.8)	92	(6.9)	23	(1.7)	88	(6.6)	21	(1.6)	20	(1.5)
Cyprus	3	2	(66.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(33.3)
Czech Republic	382	261	(68.3)	101	(26.4)	3	(0.8)	6	(1.6)	10	(2.6)	1	(0.3)
Denmark ^{a,b}	116	49	(42.2)	2	(1.7)	0	(0.0)	0	(0.0)	0	(0.0)	65	(56.0)
<i>Estonia</i>	263	151	(57.4)	31	(11.8)	5	(1.9)	27	(10.3)	49	(18.6)	0	(0.0)
Finland	151	108	(71.5)	29	(19.2)	1	(0.7)	2	(1.3)	6	(4.0)	5	(3.3)
France	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	1404	873	(62.2)	247	(17.6)	2	(0.1)	23	(1.6)	104	(7.4)	155	(11.0)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	715	369	(51.6)	81	(11.3)	79	(11.0)	48	(6.7)	73	(10.2)	65	(9.1)
Iceland	-	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	133	94	(70.7)	15	(11.3)	0	(0.0)	4	(3.0)	0	(0.0)	20	(15.0)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Latvia</i>	745	533	(71.5)	77	(10.3)	6	(0.8)	30	(4.0)	96	(12.9)	3	(0.4)
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Lithuania</i>	1528	1015	(66.4)	196	(12.8)	45	(2.9)	193	(12.6)	72	(4.7)	7	(0.5)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Netherlands	161	132	(82.0)	25	(15.5)	0	(0.0)	2	(1.2)	0	(0.0)	2	(1.2)
Norway	21	16	(76.2)	4	(19.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(4.8)
Poland	4868	3548	(72.9)	328	(6.7)	3	(0.1)	530	(10.9)	28	(0.6)	431	(8.9)
Portugal	1615	1400	(86.7)	0	(0.0)	0	(0.0)	44	(2.7)	54	(3.3)	117	(7.2)
<i>Romania</i>	14738	10861	(73.7)	949	(6.4)	1019	(6.9)	1359	(9.2)	473	(3.2)	77	(0.5)
Slovakia	342	291	(85.1)	40	(11.7)	3	(0.9)	5	(1.5)	2	(0.6)	1	(0.3)
Slovenia	122	92	(75.4)	24	(19.7)	0	(0.0)	2	(1.6)	4	(3.3)	0	(0.0)
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	47	35	(74.5)	9	(19.1)	0	(0.0)	0	(0.0)	0	(0.0)	3	(6.4)
United Kingdom	986	710	(72.0)	114	(11.6)	0	(0.0)	10	(1.0)	52	(5.3)	100	(10.1)
Total EU/EEA	30235	22018	(72.8)	2433	(8.0)	1189	(3.9)	2394	(7.9)	1078	(3.6)	1123	(3.7)

B) Foreign origin

Country	Cases	Success		Died		Failed		Defaulted		Still on treatment		Transferred or unknown	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
Austria	154	58	(37.7)	7	(4.5)	0	(0.0)	31	(20.1)	28	(18.2)	30	(19.5)
Belgium	277	202	(72.9)	10	(3.6)	0	(0.0)	41	(14.8)	16	(5.8)	8	(2.9)
<i>Bulgaria</i>	4	3	(75.0)	0	(0.0)	0	(0.0)	1	(25.0)	0	(0.0)	0	(0.0)
Cyprus	31	19	(61.3)	0	(0.0)	0	(0.0)	3	(9.7)	0	(0.0)	9	(29.0)
Czech Republic	125	85	(68.0)	7	(5.6)	0	(0.0)	21	(16.8)	5	(4.0)	7	(5.6)
Denmark ^{b,c}	111	45	(40.5)	0	(0.0)	0	(0.0)	3	(2.7)	2	(1.8)	61	(55.0)
<i>Estonia</i>	70	35	(50.0)	15	(21.4)	1	(1.4)	6	(8.6)	12	(17.1)	1	(1.4)
Finland	27	21	(77.8)	1	(3.7)	0	(0.0)	0	(0.0)	3	(11.1)	2	(7.4)
France	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	1107	782	(70.6)	71	(6.4)	0	(0.0)	21	(1.9)	82	(7.4)	151	(13.6)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	21	8	(38.1)	1	(4.8)	3	(14.3)	3	(14.3)	2	(9.5)	4	(19.0)
Iceland	2	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)
Ireland	96	72	(75.0)	4	(4.2)	0	(0.0)	0	(0.0)	0	(0.0)	20	(20.8)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Latvia</i>	43	33	(76.7)	2	(4.7)	0	(0.0)	3	(7.0)	5	(11.6)	0	(0.0)
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Lithuania</i>	38	20	(52.6)	9	(23.7)	3	(7.9)	5	(13.2)	1	(2.6)	0	(0.0)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	15	13	(86.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(13.3)
Netherlands	335	288	(86.0)	11	(3.3)	0	(0.0)	6	(1.8)	0	(0.0)	30	(9.0)
Norway	120	98	(81.7)	4	(3.3)	0	(0.0)	0	(0.0)	7	(5.8)	11	(9.2)
Poland	23	7	(30.4)	2	(8.7)	1	(4.3)	1	(4.3)	1	(4.3)	11	(47.8)
Portugal	243	204	(84.0)	0	(0.0)	0	(0.0)	5	(2.1)	10	(4.1)	24	(9.9)
<i>Romania</i>	-	-	-	-	-	-	-	-	-	-	-	-	-
Slovakia	5	5	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	51	43	(84.3)	2	(3.9)	0	(0.0)	1	(2.0)	1	(2.0)	4	(7.8)
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	208	190	(91.3)	4	(1.9)	0	(0.0)	3	(1.4)	4	(1.9)	7	(3.4)
United Kingdom	1848	1425	(77.1)	89	(4.8)	0	(0.0)	10	(0.5)	97	(5.2)	227	(12.3)
Total EU/EEA	4954	3657	(73.8)	239	(4.8)	8	(0.2)	164	(3.3)	276	(5.6)	610	(12.3)

WHO European Region TB High Priority Countries presented in italics.

^a Excluding native cases < 26 years old whose parents were born outside Denmark.^b Reporting of treatment outcome results was not complete at the data collection period.^c Including native cases < 26 years old whose parents were born outside Denmark.

Table 29: Treatment outcome of all laboratory-confirmed pulmonary cases, European Region, 2008

Country	Cases	Success		Died		Failed		Defaulted		Still on treatment		Transferred or unknown	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA^a													
Austria	419	195	(46.5)	41	(9.8)	0	(0.0)	35	(8.4)	59	(14.1)	89	(21.2)
Belgium	619	458	(74.0)	48	(7.8)	0	(0.0)	60	(9.7)	29	(4.7)	24	(3.9)
Bulgaria	1345	1100	(81.8)	92	(6.8)	23	(1.7)	89	(6.6)	21	(1.6)	20	(1.5)
Cyprus	34	21	(61.8)	0	(0.0)	0	(0.0)	3	(8.8)	0	(0.0)	10	(29.4)
Czech Republic	507	346	(68.2)	108	(21.3)	3	(0.6)	27	(5.3)	15	(3.0)	8	(1.6)
Denmark ^b	227	94	(41.4)	2	(0.9)	0	(0.0)	3	(1.3)	2	(0.9)	126	(55.5)
Estonia	333	186	(55.9)	46	(13.8)	6	(1.8)	33	(9.9)	61	(18.3)	1	(0.3)
Finland	179	129	(72.1)	30	(16.8)	1	(0.6)	2	(1.1)	9	(5.0)	8	(4.5)
France	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	2573	1690	(65.7)	327	(12.7)	2	(0.1)	46	(1.8)	189	(7.3)	319	(12.4)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	736	377	(51.2)	82	(11.1)	82	(11.1)	51	(6.9)	75	(10.2)	69	(9.4)
Iceland	2	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)
Ireland	229	166	(72.5)	19	(8.3)	0	(0.0)	4	(1.7)	0	(0.0)	40	(17.5)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	788	566	(71.8)	79	(10.0)	6	(0.8)	33	(4.2)	101	(12.8)	3	(0.4)
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	1566	1035	(66.1)	205	(13.1)	48	(3.1)	198	(12.6)	73	(4.7)	7	(0.4)
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	16	14	(87.5)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(12.5)
Netherlands	497	420	(84.5)	37	(7.4)	0	(0.0)	8	(1.6)	0	(0.0)	32	(6.4)
Norway	141	114	(80.9)	8	(5.7)	0	(0.0)	0	(0.0)	7	(5.0)	12	(8.5)
Poland	4891	3555	(72.7)	330	(6.7)	4	(0.1)	531	(10.9)	29	(0.6)	442	(9.0)
Portugal	1859	1605	(86.3)	0	(0.0)	0	(0.0)	49	(2.6)	64	(3.4)	141	(7.6)
Romania	14 738	10 861	(73.7)	949	(6.4)	1 019	(6.9)	1 359	(9.2)	473	(3.2)	77	(0.5)
Slovakia	347	296	(85.3)	40	(11.5)	3	(0.9)	5	(1.4)	2	(0.6)	1	(0.3)
Slovenia	173	135	(78.0)	26	(15.0)	0	(0.0)	3	(1.7)	5	(2.9)	4	(2.3)
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	265	230	(86.8)	14	(5.3)	0	(0.0)	3	(1.1)	5	(1.9)	13	(4.9)
United Kingdom	3 052	2 269	(74.3)	238	(7.8)	0	(0.0)	21	(0.7)	156	(5.1)	368	(12.1)
Subtotal EU/EEA	35 536	25 863	(72.8)	2 721	(7.7)	1 197	(3.4)	2 563	(7.2)	1 375	(3.9)	1 817	(5.1)
Non-EU/EEA^c													
Albania	195	172	(88.2)	10	(5.1)	2	(1.0)	4	(2.1)	-	-	7	(3.6)
Andorra	3	3	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Armenia	727	449	(61.8)	46	(6.3)	100	(13.8)	88	(12.1)	-	-	44	(6.1)
Azerbaijan	4 452	2 339	(52.5)	158	(3.5)	204	(4.6)	840	(18.9)	-	-	911	(20.5)
Belarus	2 394	1 614	(67.4)	228	(9.5)	187	(7.8)	73	(3.0)	-	-	292	(12.2)
Bosnia and Herzegovina	834	755	(90.5)	51	(6.1)	9	(1.1)	8	(1.0)	-	-	11	(1.3)
Croatia	494	347	(70.2)	106	(21.5)	20	(4.0)	15	(3.0)	-	-	6	(1.2)
Georgia	3 280	2 049	(62.5)	128	(3.9)	601	(18.3)	334	(10.2)	-	-	168	(5.1)
Israel	163	130	(79.8)	14	(8.6)	1	(0.6)	2	(1.2)	-	-	16	(9.8)
Kazakhstan	11 763	6 045	(51.4)	970	(8.2)	3 788	(32.2)	668	(5.7)	-	-	292	(2.5)
Kyrgyzstan	2 176	1 731	(79.5)	86	(4.0)	175	(8.0)	139	(6.4)	-	-	45	(2.1)
Macedonia, the former Yugoslav Republic of	218	189	(86.7)	15	(6.9)	2	(0.9)	9	(4.1)	-	-	3	(1.4)
Moldova	2 340	1 207	(51.6)	374	(16.0)	278	(11.9)	464	(19.8)	-	-	17	(0.7)
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	73	61	(83.6)	4	(5.5)	0	(0.0)	2	(2.7)	-	-	6	(8.2)
Russia	50 426	25 141	(49.9)	6 239	(12.4)	11 000	(21.8)	5 255	(10.4)	-	-	2 791	(5.5)
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	1 273	1 058	(83.1)	94	(7.4)	25	(2.0)	68	(5.3)	-	-	28	(2.2)
Switzerland	-	-	-	-	-	-	-	-	-	-	-	-	-
Tajikistan	3 080	2 374	(77.1)	204	(6.6)	289	(9.4)	178	(5.8)	-	-	35	(1.1)
Turkey	8 488	7 517	(88.6)	268	(3.2)	77	(0.9)	343	(4.0)	-	-	283	(3.3)
Turkmenistan	1 930	1 595	(82.6)	114	(5.9)	120	(6.2)	91	(4.7)	-	-	10	(0.5)
Ukraine	20 967	11 540	(55.0)	2 905	(13.9)	3 151	(15.0)	2 130	(10.2)	-	-	1 241	(5.9)
Uzbekistan	7 413	5 551	(74.9)	640	(8.6)	574	(7.7)	410	(5.5)	-	-	238	(3.2)
Subtotal non-EU/EEA	122 689	71 867	(58.6)	12 654	(10.3)	20 603	(16.8)	11 121	(9.1)	-	-	6 444	(5.3)
Total European Region	158 225	97 730	(61.8)	15 375	(9.7)	21 800	(13.8)	13 684	(8.6)	1 375	(0.9)	8 261	(5.2)
Subtotal 18 HPC	138 206	82 900	(60.0)	13 731	(9.9)	21 646	(15.7)	12 725	(9.2)	729	(0.5)	6 475	(4.7)

^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.

^bAll pulmonary culture-positive for EU/EEA countries.

^cReporting of treatment outcome results was not complete at the data collection period.

^dAll pulmonary smear-positive (and/or culture-positive) have been reported for non-EU/EEA countries.

Table 30: Treatment outcome after 24 months of all MDR TB cases, European Region, 2007

Country	Total number of MDR cases	Success		Died		Failed		Defaulted		Still on treatment		Transferred or unknown	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	-	-	-	-	-	-	-	-	-	-	-	-	-
Belgium	14	5	(35.7)	1	(7.1)	1	(7.1)	1	(7.1)	6	(42.9)	0	(0.0)
Bulgaria	76	19	(25.0)	34	(44.7)	13	(17.1)	6	(7.9)	0	(0.0)	4	(5.3)
Cyprus	-	-	-	-	-	-	-	-	-	-	-	-	-
Czech Republic	8	3	(37.5)	4	(50.0)	0	(0.0)	1	(12.5)	0	(0.0)	0	(0.0)
Denmark	-	-	-	-	-	-	-	-	-	-	-	-	-
Estonia	81	40	(49.4)	11	(13.6)	6	(7.4)	19	(23.5)	5	(6.2)	0	(0.0)
Finland	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
France	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	64	35	(54.7)	3	(4.7)	2	(3.1)	1	(1.6)	7	(10.9)	16	(25.0)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	12	4	(33.3)	3	(25.0)	5	(41.7)	0	(0.0)	0	(0.0)	0	(0.0)
Iceland	-	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	-	-	-	-	-	-	-	-	-	-	-	-	-
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	99	60	(60.6)	15	(15.2)	5	(5.1)	14	(14.1)	4	(4.0)	1	(1.0)
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	-
Lithuania	-	-	-	-	-	-	-	-	-	-	-	-	-
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Netherlands	-	-	-	-	-	-	-	-	-	-	-	-	-
Norway	3	2	(66.7)	0	(0.0)	0	(0.0)	0	(0.0)	1	(33.3)	0	(0.0)
Poland	22	13	(59.1)	4	(18.2)	0	(0.0)	3	(13.6)	2	(9.1)	0	(0.0)
Portugal	-	-	-	-	-	-	-	-	-	-	-	-	-
Romania	707	161	(22.8)	139	(19.7)	224	(31.7)	133	(18.8)	40	(5.7)	10	(1.4)
Slovakia	7	2	(28.6)	3	(42.9)	0	(0.0)	0	(0.0)	1	(14.3)	1	(14.3)
Slovenia	0	0	-	0	-	0	-	0	-	0	-	0	-
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	15	8	(53.3)	0	(0.0)	0	(0.0)	0	(0.0)	2	(13.3)	5	(33.3)
United Kingdom	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal EU/EEA	1111	355	(32.0)	217	(19.5)	256	(23.0)	178	(16.0)	68	(6.1)	37	(3.3)
Non-EU/EEA													
Albania	0	0	-	0	-	0	-	0	-	0	-	0	-
Andorra	0	0	-	0	-	0	-	0	-	0	-	0	-
Armenia	57	30	(52.6)	6	(10.5)	5	(8.8)	14	(24.6)	0	(0.0)	2	(3.5)
Azerbaijan	-	-	-	-	-	-	-	-	-	-	-	-	-
Belarus	-	-	-	-	-	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	-	-	-	-	-	-	-	-	-	-	-	-	-
Croatia	-	-	-	-	-	-	-	-	-	-	-	-	-
Georgia	61	23	(37.7)	12	(19.7)	2	(3.3)	15	(24.6)	9	(14.8)	0	(0.0)
Israel	16	13	(81.3)	2	(12.5)	0	(0.0)	0	(0.0)	1	(6.3)	0	(0.0)
Kazakhstan	1609	1237	(76.9)	72	(4.5)	64	(4.0)	57	(3.5)	77	(4.8)	102	(6.3)
Kyrgyzstan	132	66	(50.0)	7	(5.3)	11	(8.3)	47	(35.6)	0	(0.0)	1	(0.8)
Macedonia, the former Yugoslav Republic of	9	2	(22.2)	4	(44.4)	0	(0.0)	0	(0.0)	0	(0.0)	3	(33.3)
Moldova	254	133	(52.4)	21	(8.3)	21	(8.3)	75	(29.5)	0	(0.0)	4	(1.6)
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	4	0	(0.0)	2	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(50.0)
Russia	-	-	-	-	-	-	-	-	-	-	-	-	-
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-	-	-	-	-	-
Switzerland	-	-	-	-	-	-	-	-	-	-	-	-	-
Tajikistan	-	-	-	-	-	-	-	-	-	-	-	-	-
Turkey	240	155	(64.6)	20	(8.3)	27	(11.3)	23	(9.6)	1	(0.4)	14	(5.8)
Turkmenistan	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	-	-	-	-	-	-	-	-	-	-	-	-	-
Uzbekistan	330	180	(54.5)	32	(9.7)	33	(10.0)	76	(23.0)	2	(0.6)	5	(1.5)
Subtotal non-EU/EEA	2712	1839	(67.8)	178	(6.6)	163	(6.0)	307	(11.3)	90	(3.3)	133	(4.9)
Total European Region	3823	2194	(57.4)	395	(10.3)	419	(11.0)	485	(12.7)	158	(4.1)	170	(4.4)
Subtotal 18 HPC	3646	2104	(57.7)	369	(10.1)	411	(11.3)	479	(13.1)	138	(3.8)	143	(3.9)

European Region comprises the 53 countries of the WHO European Region and Liechtenstein.
WHO European Region 18 TB High Priority Countries presented in italics.
DST: Drug susceptibility testing

Table 31: Tuberculosis deaths and mortality rates per 100 000 population^a, European Region, 2006–2009

Country	2006		2007		2008		2009	
	N	Rate	N	Rate	N	Rate	N	Rate
EU/EEA								
Austria	56	0.7	47	0.6	49	0.6	-	-
Belgium	-	-	-	-	-	-	-	-
Bulgaria	270	3.5	275	2.9	231	3.0	-	-
Cyprus	2	0.3	1	0.1	1	0.1	-	-
Czech Republic	61	0.6	70	0.5	53	0.5	-	-
Denmark	21	0.4	-	-	-	-	-	-
Estonia	67	5.0	63	4.2	55	4.1	-	-
Finland	60	1.1	56	0.6	60	1.1	-	-
France	727	1.1	667	0.6	642	1.0	-	-
Germany	433	0.5	446	0.3	363	0.4	-	-
Greece	81	0.7	95	0.5	80	0.7	-	-
Hungary	188	1.9	220	1.8	194	1.9	-	-
Iceland	2	0.7	5	1.2	1	0.3	7	2.2
Ireland	41	1.0	53	1.1	37	0.8	36	0.8
Italy	407	0.7	394	0.4	-	-	-	-
Latvia	182	8.0	144	5.8	114	5.0	104	4.6
Liechtenstein	-	-	-	-	-	-	-	-
Lithuania	369	10.9	352	9.8	347	10.3	-	-
Luxembourg	1	0.2	2	0.3	-	-	-	-
Malta	1	0.2	6	1.1	-	-	-	-
Netherlands	76	0.5	54	0.2	51	0.3	62	0.4
Norway	38	0.8	34	0.4	25	0.5	-	-
Poland	759	2.0	775	1.8	827	2.2	-	-
Portugal	224	2.1	258	1.8	237	2.2	-	-
Romania	1704	7.9	1606	7.0	1639	7.6	-	-
Slovakia	47	0.9	35	0.6	42	0.8	42	0.8
Slovenia	18	0.9	29	1.0	35	1.7	-	-
Spain	396	0.9	409	0.6	349	0.8	-	-
Sweden	64	0.7	61	0.3	-	-	-	-
United Kingdom	476	0.8	386	0.4	433	0.7	-	-
Subtotal EU/EEA	6771	1.4	6543	1	5865	1.2	251	0.9
Non-EU/EEA								
Albania	-	-	-	-	-	-	-	-
Andorra	-	-	-	-	-	-	1	1.2
Armenia	175	5.7	175	5.7	172	5.6	127	4.1
Azerbaijan	-	-	112	1.3	-	-	-	-
Belarus	-	-	890	9.2	831	8.6	765	7.9
Bosnia and Herzegovina	-	-	-	-	45	1.2	51	1.4
Croatia	142	3.2	100	2.3	101	2.3	-	-
Georgia	-	-	-	-	185	4.3	143	3.4
Israel	34	0.5	38	0.5	28	0.4	26	0.4
Kazakhstan	3107	20.4	2800	18.2	2644	17.0	2055	13.1
Kyrgyzstan	840	16.1	712	13.3	627	11.6	439	8.0
Macedonia, the former Yugoslav Republic of	-	-	37	1.8	31	1.5	17	0.8
Moldova	629	16.7	635	17.3	568	15.6	736	20.4
Monaco	-	-	-	-	-	-	-	-
Montenegro	5	0.8	7	1.1	3	0.5	-	-
Russia	28474	19.9	25900	18.2	25388	18.0	23363	16.6
San Marino	-	-	-	-	-	-	-	-
Serbia	203	2.1	220	2.2	168	1.7	-	-
Switzerland	33	0.4	28	0.4	-	-	-	-
Tajikistan	-	-	-	-	404	5.9	440	6.3
Turkey	-	-	382	0.5	452	0.6	-	-
Turkmenistan	-	-	-	-	378	7.5	-	-
Ukraine	10417	22.2	10506	22.7	10357	22.5	8381	18.3
Uzbekistan	-	-	-	-	-	-	1713	6.2
Subtotal non-EU/EEA	44 059	17.9	42 004	12.4	40 376	11.8	38 257	9.8
Total European Region	50 830	6.9	48 547	4.4	46 241	6.1	38 508	9.2
Subtotal 18 HPC	46 234	18.3	44 058	12.7	42 594	12.1	38 266	10.8

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

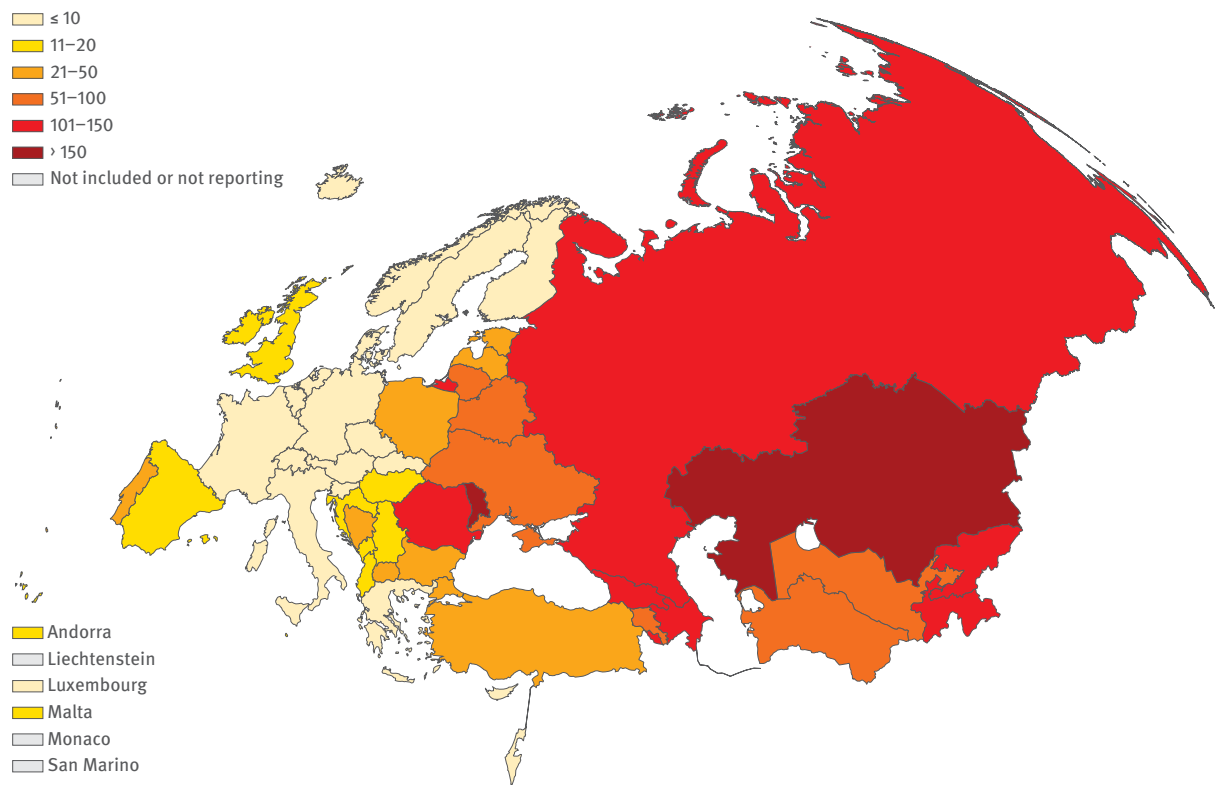
WHO European Region 18 TB High Priority Countries presented in italics.

Figures presented in green: secondary data source for 2008 or 2009: CISID.

^a Source of the data for 30 EU/EEA countries: EuroStat – deaths with ICD-10 codes A15–A19, B90 (updated in October 2010).

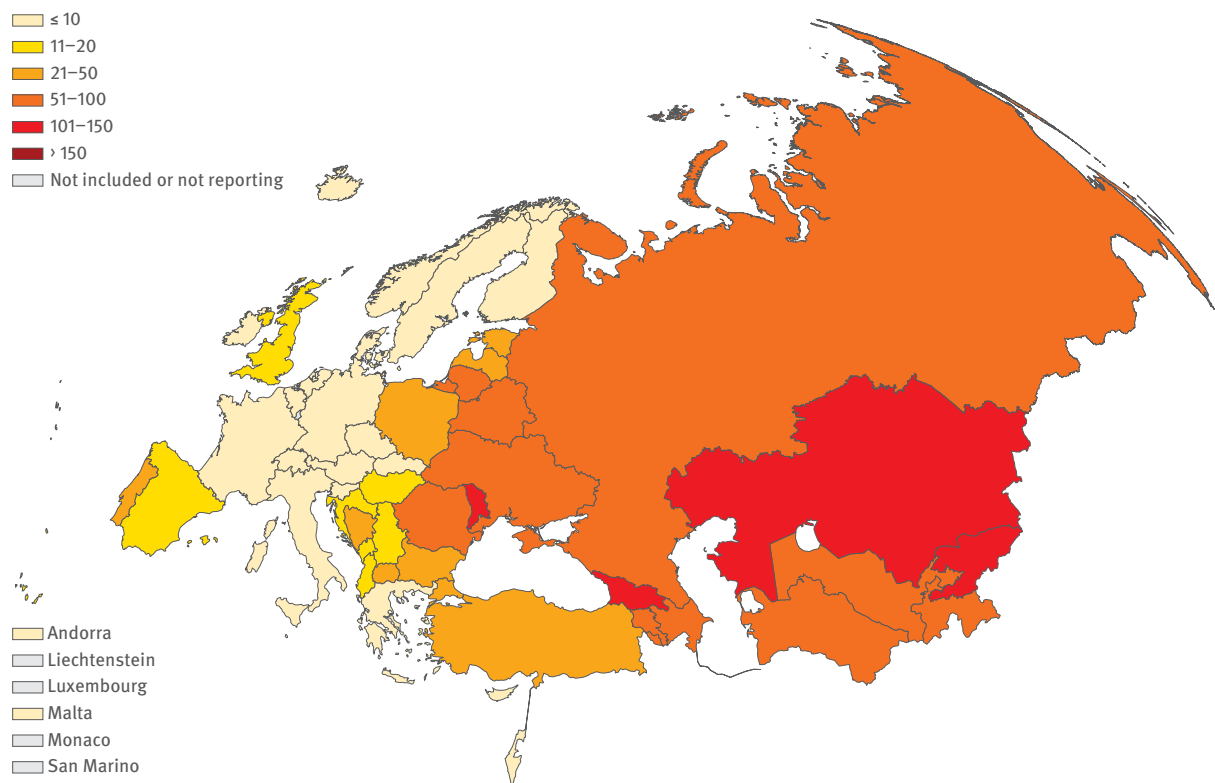
4. Maps & figures

Map 1: Total TB notification rates per 100 000 population, Europe, 2009^a



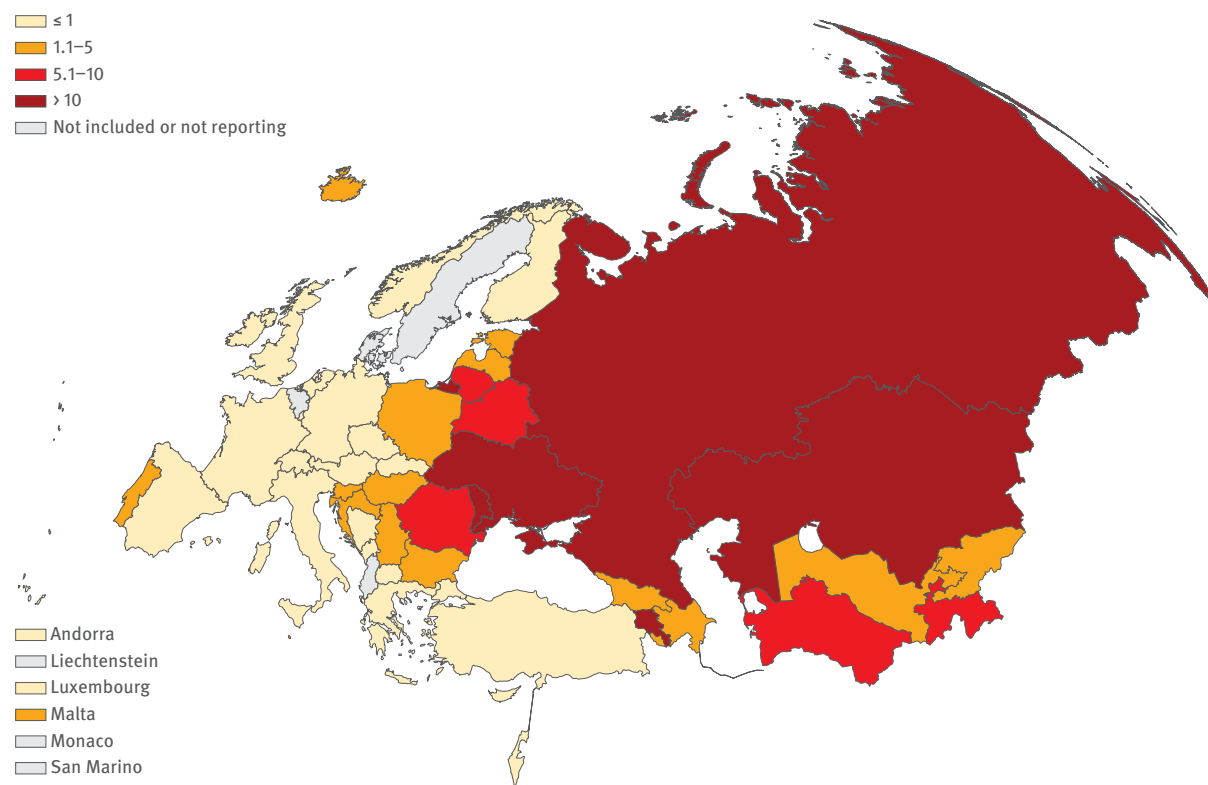
^a Data from Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 2: New TB cases and relapses, notification rates per 100 000 population, Europe, 2009^a



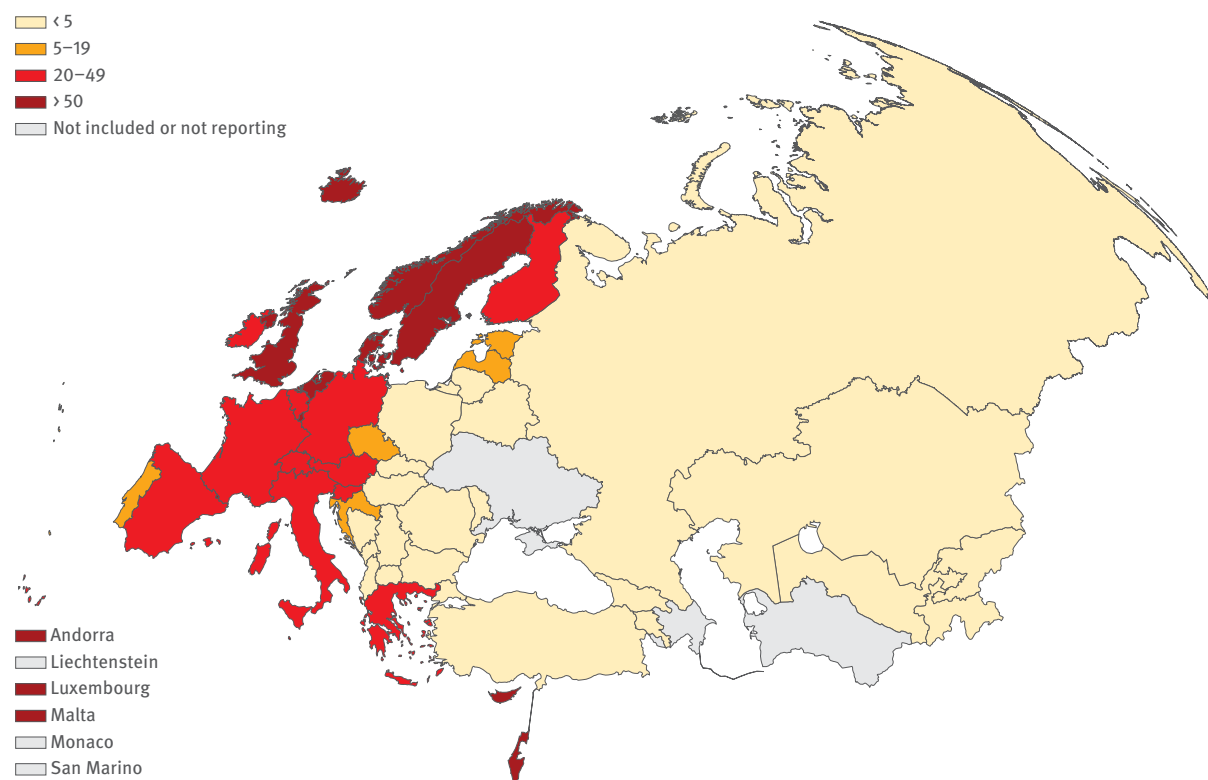
^a Data from Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 3: TB mortality rates per 100 000 population, Europe, 2007–2009^a



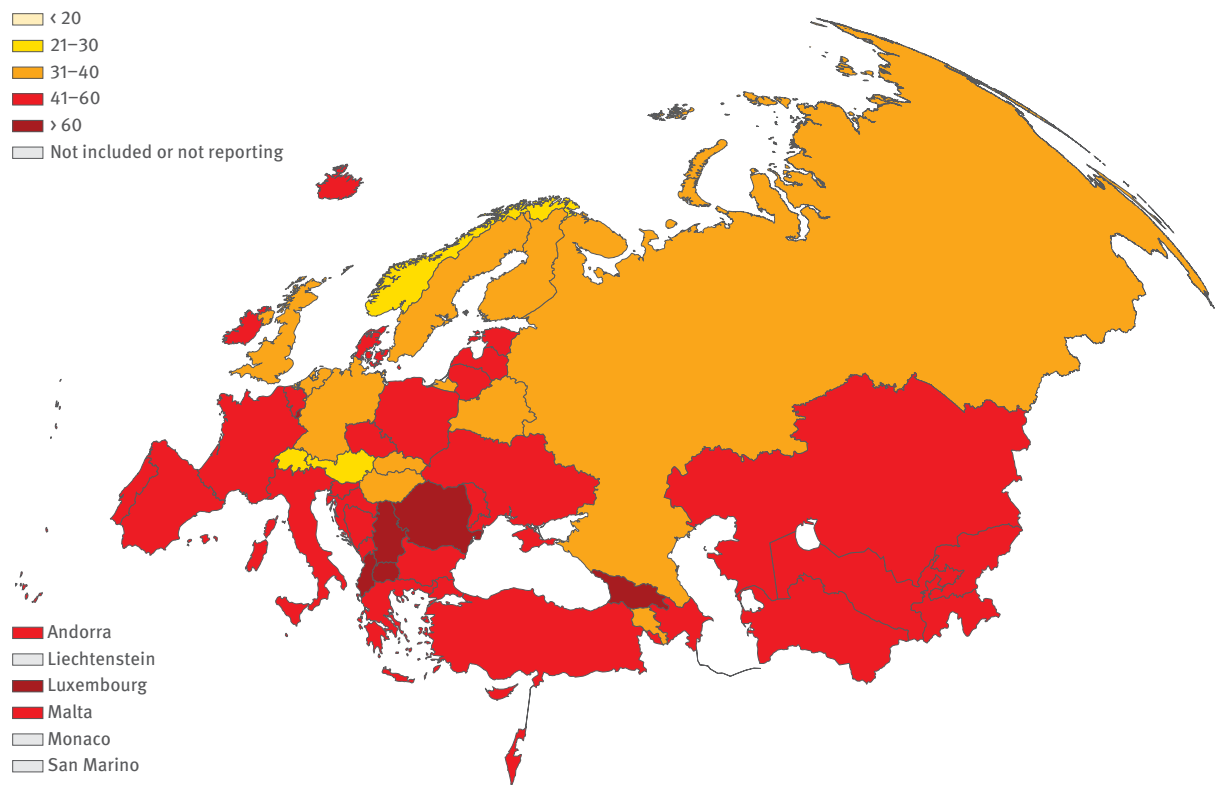
^a Data from Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 4: Percentage of notified TB cases of foreign origin, Europe, 2009^a



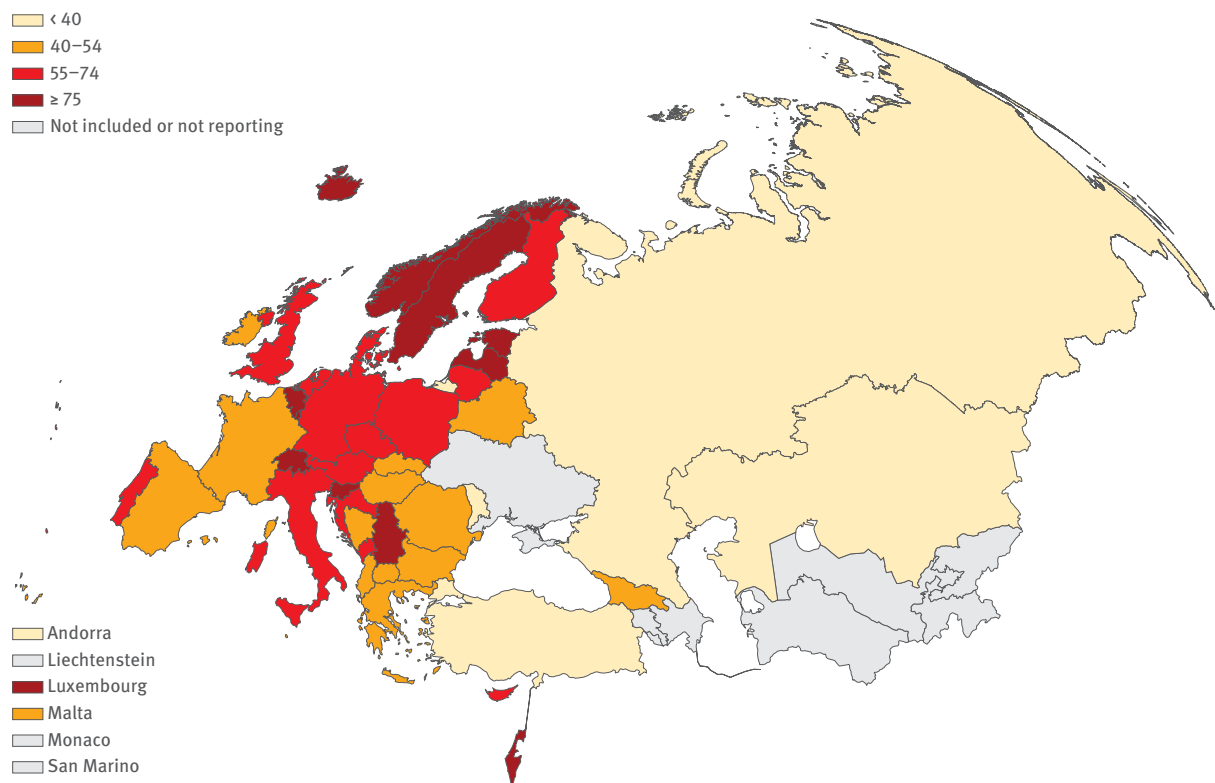
^a Data from Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 5: Percentage of smear-positive cases among pulmonary TB cases, Europe, 2009^a



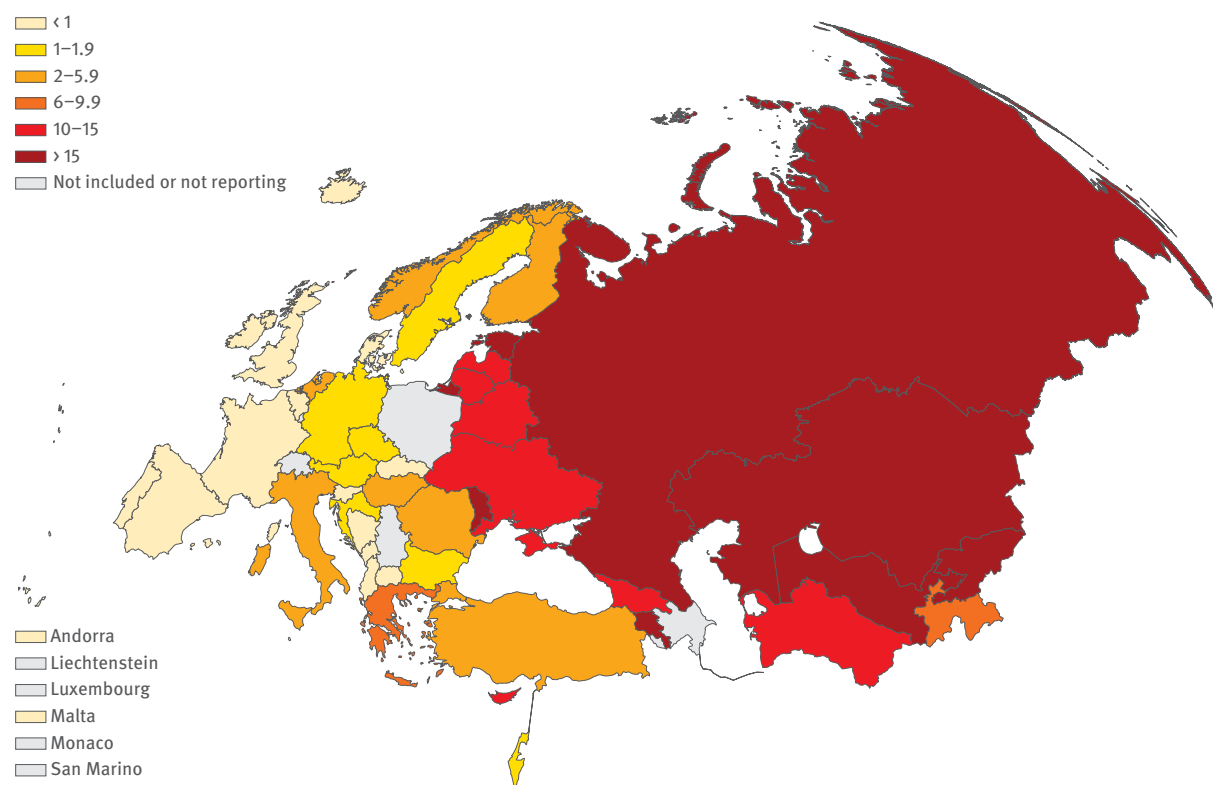
^a Data from Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 6: Percentage of TB cases confirmed by culture, Europe, 2009^a



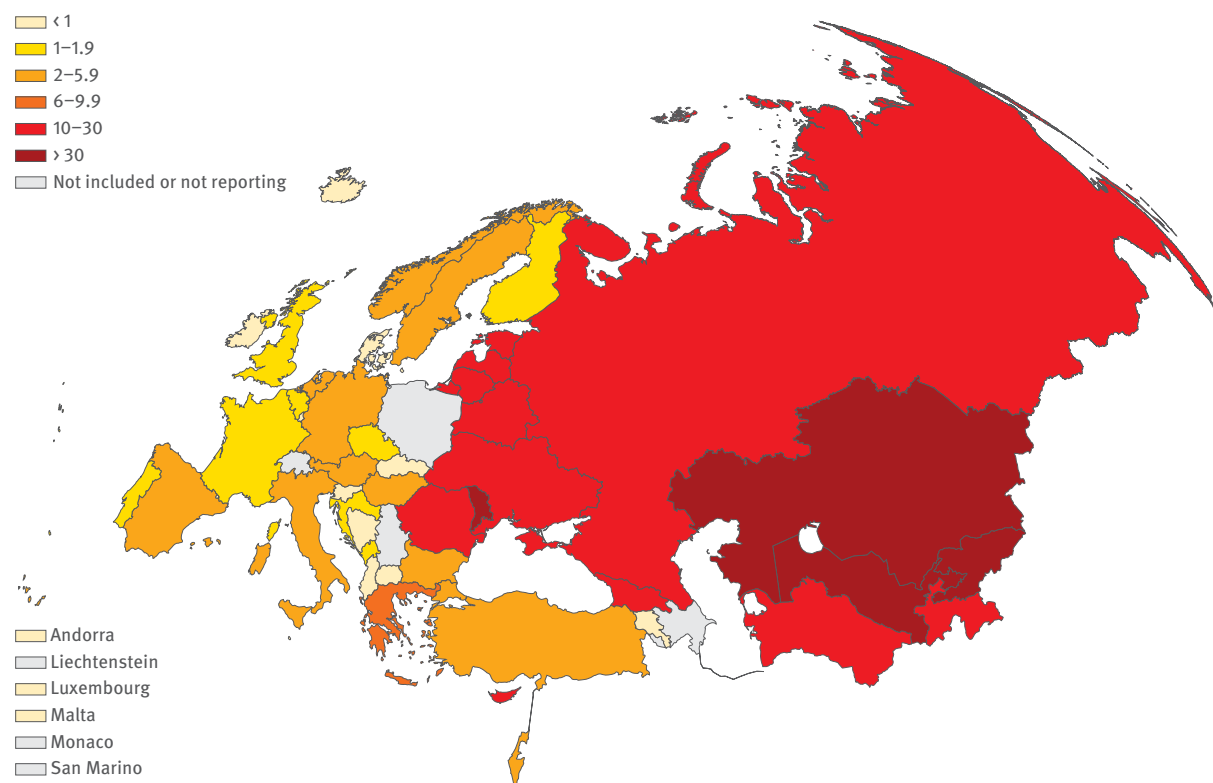
^a Data from Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 7: Percentage of notified TB cases with primary multidrug resistance, Europe, 2009^a



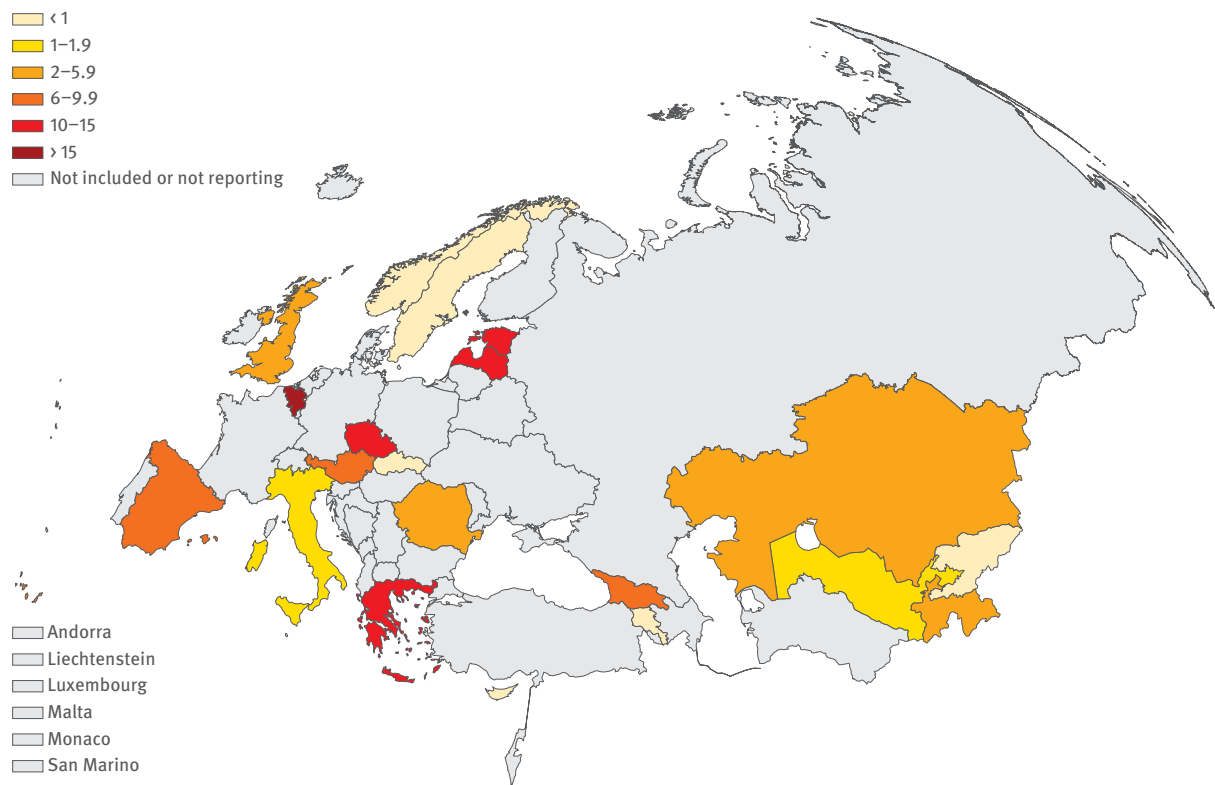
^a Data from Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 8: Percentage of notified TB cases with multidrug resistance among all TB cases with DST, Europe, 2009^a



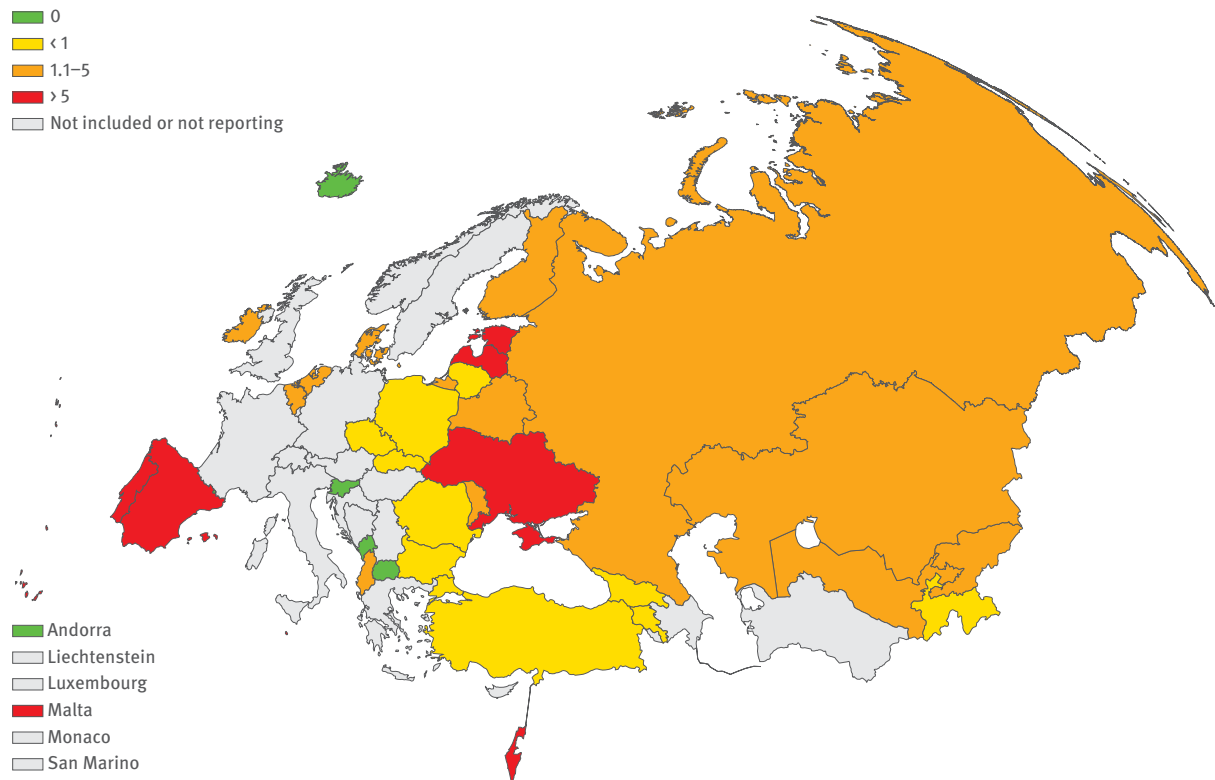
^a Data from Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 9: Percentage of notified TB cases with extensively drug resistance among MDR-TB cases, Europe, 2009^a



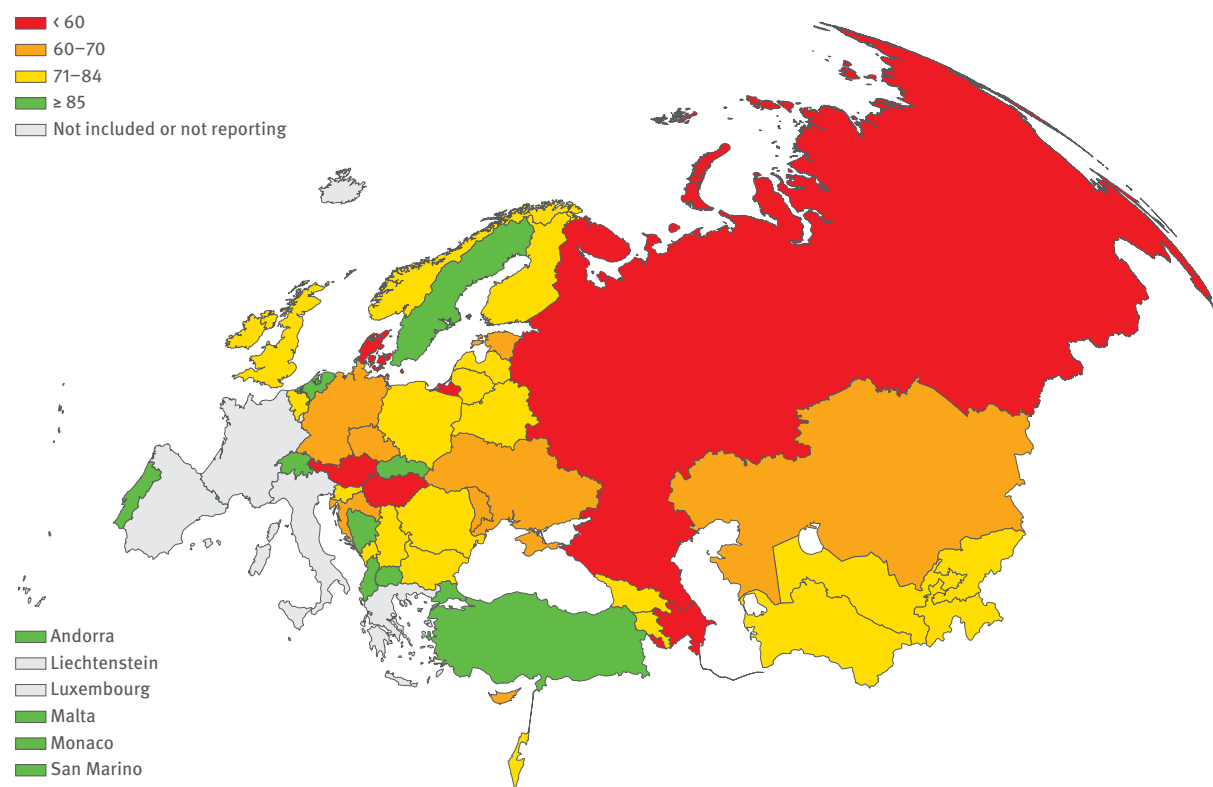
^a Data from Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 10: Percentage of HIV positive TB cases, Europe, 2009^a



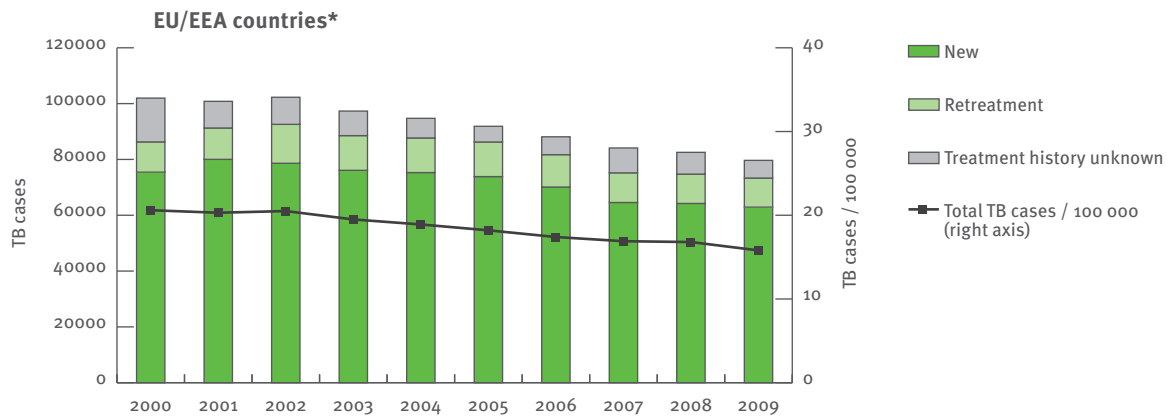
^a Data from Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 11: Percentage success rate among laboratory-confirmed new pulmonary TB cases, Europe, 2008^a

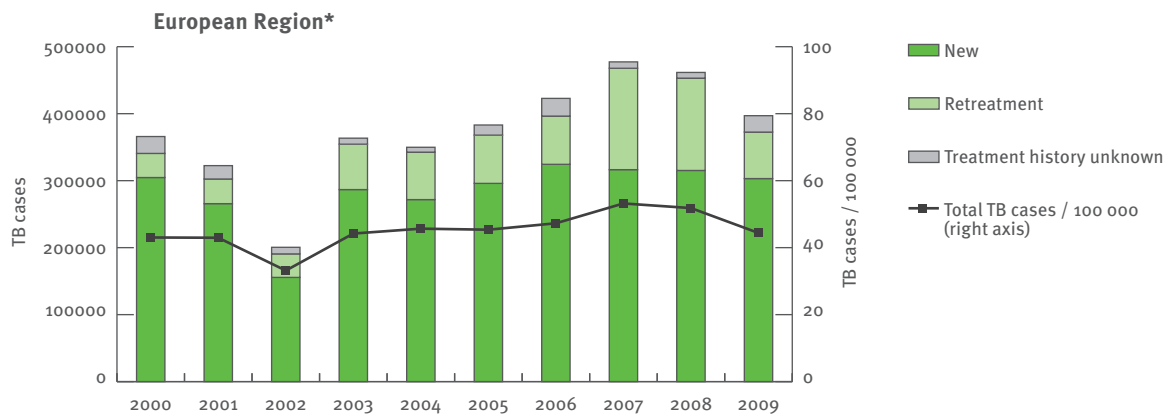


^a Data from Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

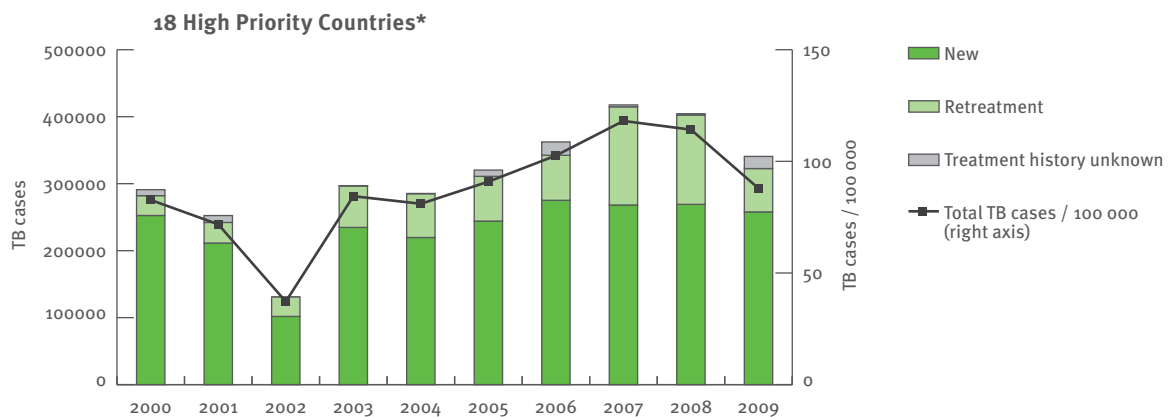
Figure 1: Total TB notifications by previous treatment history and total TB case rates, Europe, 2000–2009



* Excluded: 2000: Cyprus, Liechtenstein; 2001: Cyprus, Liechtenstein; 2002: Liechtenstein; 2003: Liechtenstein; 2004: Liechtenstein; 2005: Liechtenstein; 2006: Liechtenstein; 2008: Austria, Liechtenstein; 2009: Liechtenstein



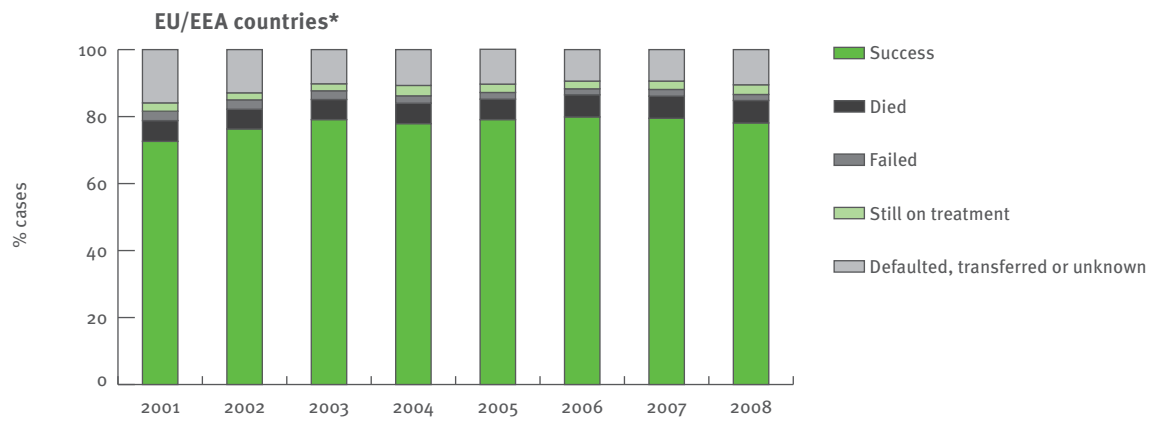
* Excluded: 2000: Cyprus, Liechtenstein, Montenegro, Turkmenistan, Uzbekistan; 2001: Belarus, Cyprus, Kyrgyzstan, Liechtenstein, Montenegro, Turkey, Ukraine; 2002: Belarus, Liechtenstein, Montenegro, Russia, Tajikistan, Turkey, Ukraine; 2003: Belarus, Liechtenstein, Monaco, Montenegro, Tajikistan, Ukraine; 2004: Kyrgyzstan, Liechtenstein, Monaco, Montenegro, Turkey, Ukraine; 2005: Liechtenstein, Monaco, San Marino, Ukraine; 2006: Liechtenstein, Monaco, San Marino; 2007: San Marino; 2008: Austria, San Marino, Liechtenstein, Monaco; 2009: San Marino, Liechtenstein, Monaco



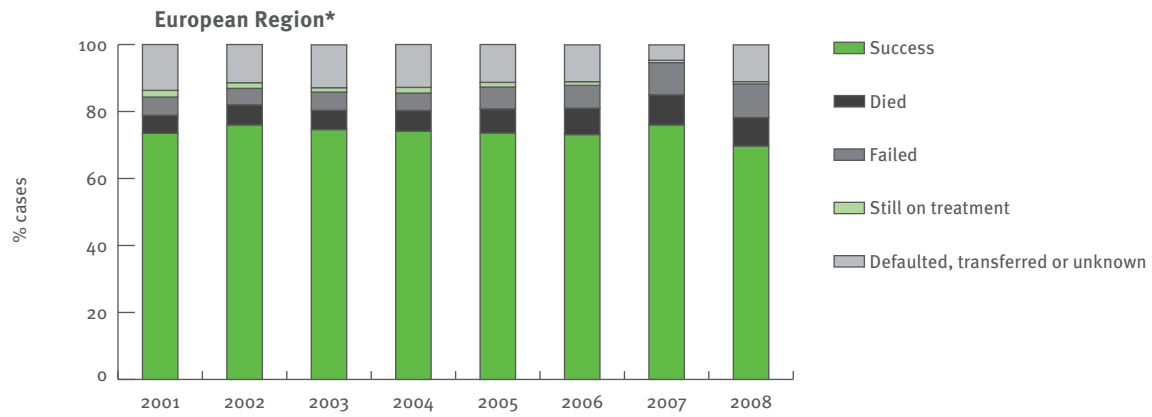
* Excluded: 2000: Turkmenistan, Uzbekistan; 2001: Belarus, Kyrgyzstan, Turkey, Ukraine; 2002: Belarus, Russia, Tajikistan, Turkey, Ukraine; 2003: Belarus, Tajikistan, Ukraine; 2004: Kyrgyzstan, Turkey, Ukraine; 2005: Ukraine

Data sources: TESSy, CISID, EuroTB historical database: Sitebac.

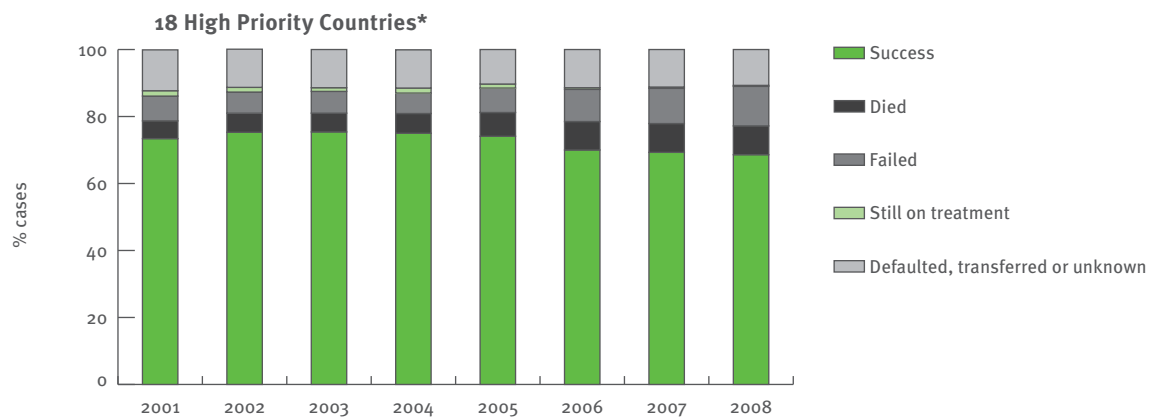
Figure 2: Treatment outcome by area, new culture-confirmed pulmonary cases, Europe, 2001–2008



* Excluded: France, Greece, Iceland, Italy, Liechtenstein, Luxembourg, Spain

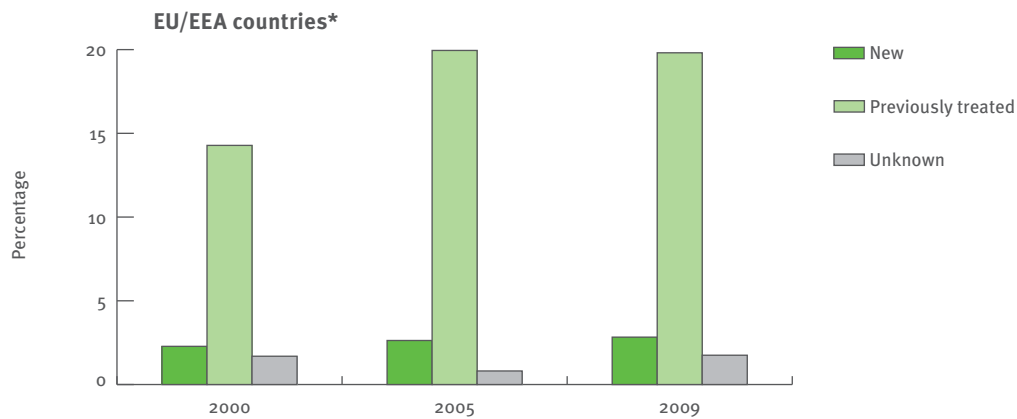


* Excluded: France, Greece, Iceland, Italy, Liechtenstein, Luxembourg, Spain

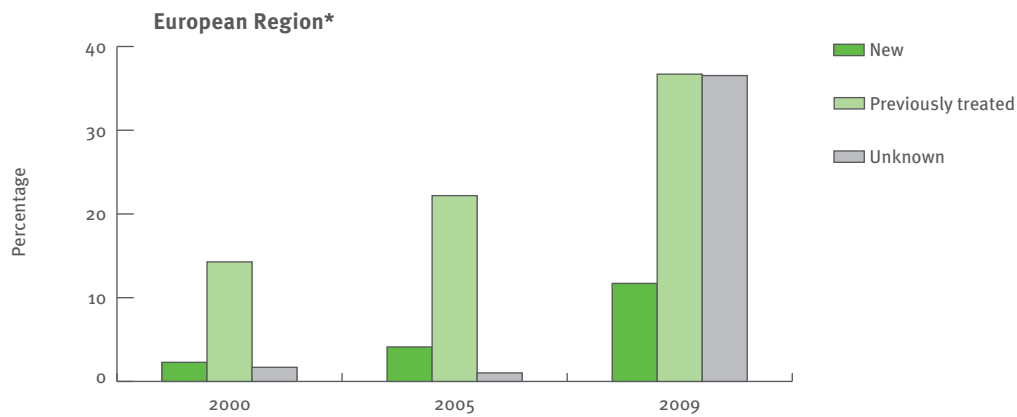


* Excluded: France, Greece, Iceland, Italy, Liechtenstein, Luxembourg, Spain

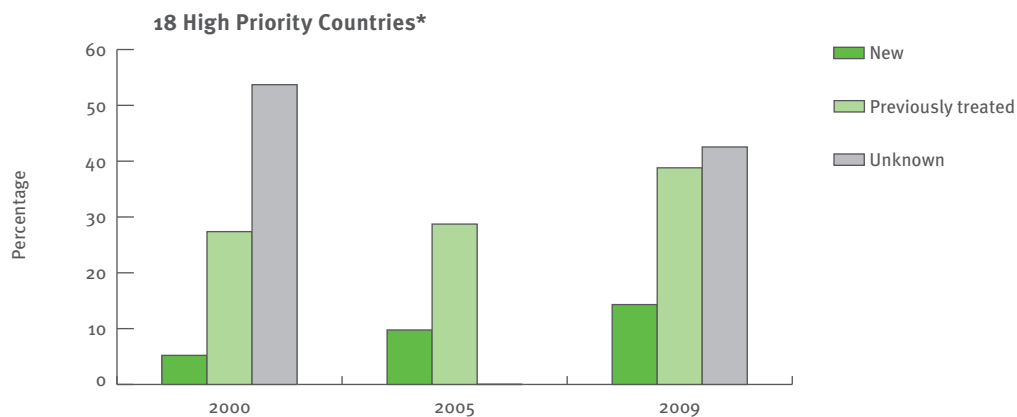
Figure 3: Percentage of MDR among tested TB cases, Europe, 2001–2008



* Excluded: 2000: Bulgaria, Cyprus, Greece, Liechtenstein, Poland, Spain; 2005: Iceland, Italy, Liechtenstein, Luxembourg, Malta, Spain; 2009: Liechtenstein, Luxembourg, Poland

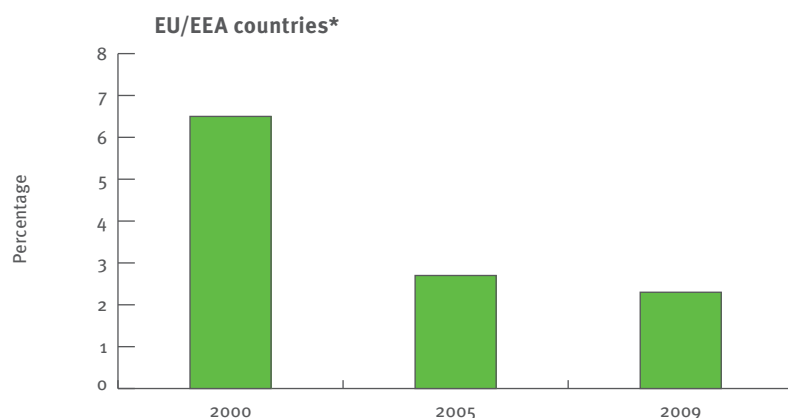


* Excluded: 2000: Albania, Andorra, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Georgia, Greece, Israel, Kazakhstan, Kyrgyzstan, Liechtenstein, the former Yugoslav Republic of Macedonia, Moldova, Monaco, Montenegro, Poland, Russia, San Marino, Serbia, Spain, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan; 2005: Belarus, Iceland, Israel, Italy, Kazakhstan, Liechtenstein, Luxembourg, Malta, Monaco, Russia, San Marino, Spain, Tajikistan, Turkmenistan, Ukraine; 2009: Azerbaijan, Liechtenstein, Luxembourg, Monaco, Poland, San Marino, Serbia, Switzerland

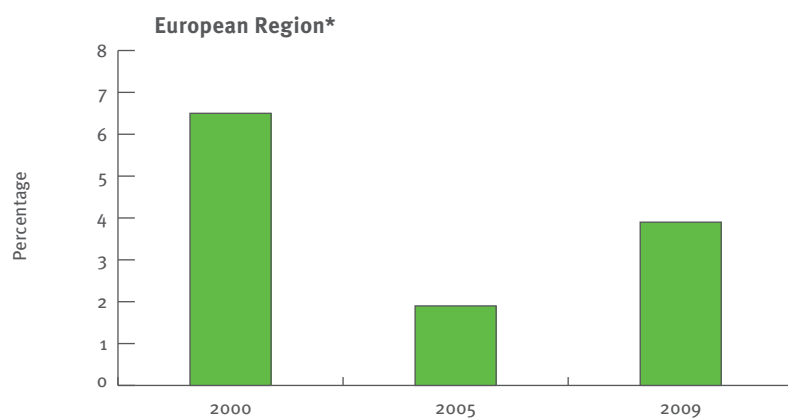


* Excluded: 2000: Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan; 2005: Belarus, Kazakhstan, Russia, Tajikistan, Turkmenistan, Ukraine; 2009: Azerbaijan

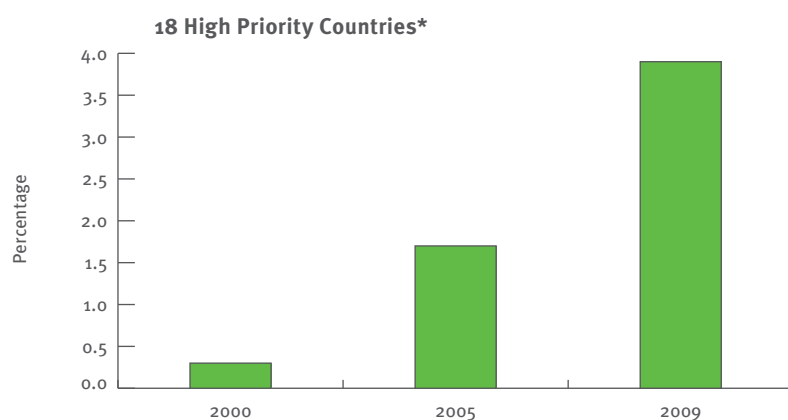
Figure 4: Percentage of TB cases with HIV infection among all TB cases, Europe, 2000–2009



* Excluded: 2000: Austria, Bulgaria, Cyprus, Czech Republic, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Liechtenstein, Luxembourg, Norway, Poland, Romania; 2005: Austria, Bulgaria, Cyprus, Czech Republic, France, Germany, Greece, Hungary, Iceland, Italy, Liechtenstein, Luxembourg, Norway, Poland; 2009: Austria, Cyprus, France, Germany, Greece, Hungary, Italy, Liechtenstein, Luxembourg, Norway



* Excluded: 2000: Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Israel, Italy, Kazakhstan, Kyrgyzstan, Liechtenstein, Luxembourg, the former Yugoslav Republic of Macedonia, Monaco, Montenegro, Norway, Poland, Republic of Moldova, Romania, Russia, San Marino, Serbia, Sweden, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan; 2005: Andorra, Austria, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, France, Germany, Greece, Hungary, Iceland, Italy, Kyrgyzstan, Liechtenstein, Luxembourg, Monaco, Norway, Poland, San Marino, Sweden, Switzerland, Turkmenistan, United Kingdom; 2009: Austria, Azerbaijan, Bosnia and Herzegovina, Croatia, Monaco, Cyprus, France, Germany, Greece, Hungary, Italy, Liechtenstein, Luxembourg, Norway, San Marino, Serbia, Sweden, Switzerland, Turkmenistan, United Kingdom



* Excluded: 2000: Bulgaria, Romania, Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan; 2005: Bulgaria, Azerbaijan, Kyrgyzstan, Turkmenistan; 2009: Azerbaijan, Turkmenistan

5. Country profiles



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

For all country profiles, on the table 'Drug resistance surveillance and TB-HIV co-infection', DST data were considered complete when national coverage was 100% or culturing available for 90% of all cases, and 50% of all cases were culture-positive, and 75% of them had reported DST results, and EQA results matched 95%. Data for TB-HIV co-infection were considered complete when more than 50% of notified TB cases were tested for HIV.

Albania

Population estimate 2009 by UN Statistical Database: 3155271

Tuberculosis case notifications, 2009

Total number of cases	447
Notification rate per 100 000	14.2
New & relapses (lab+) number	435
New & relapses (lab+) notification rate per 100 000	14.2
Pulmonary of which smear-positive	305 (68.2%) 192 (63.0%)
Culture positive of all TB cases	209 (46.8%)
Mean age (age group) of new TB cases, nationals	45-64 years
Mean age (age group) of new TB cases, non-nationals	15-24 years
Foreign born of all TB cases	4 (0.9%)
New (not previously treated)	416 (93.1%)
TB deaths per 100 000 (2008)	-

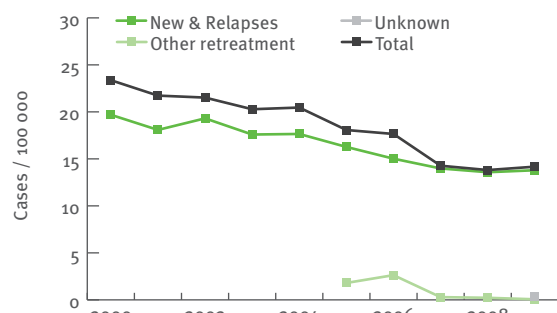
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	No
Case-linked data reporting	Yes
Cases with DST results	128 (61.2%)
Cases resistant to isoniazid	4 (3.1%)
Cases resistant to rifampicin	2 (1.6%)
MDR cases of which XDR cases	0 (0.0%) -
Cases resistant to ethambutol	3 (2.3%)
Cases resistant to streptomycin	15 (11.7%)
TB cases tested for HIV	211 (47%)
HIV-positive TB cases	6 (2.8%)

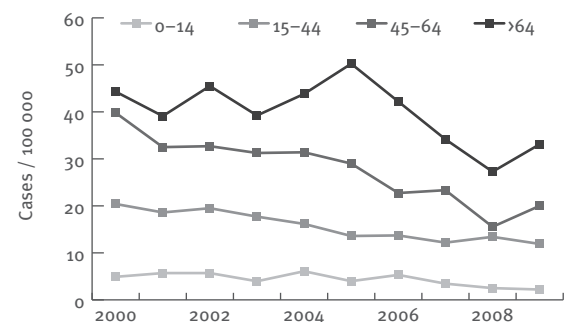
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear positive
Case-linked data reporting	Yes
Notified in 2008	170
Success	154 (90.6%)
Died	6 (3.5%)
Failed	1 (0.6%)
Defaulted	3 (1.8%)
Still on treatment	-
Transferred or unknown	6 (3.5%)

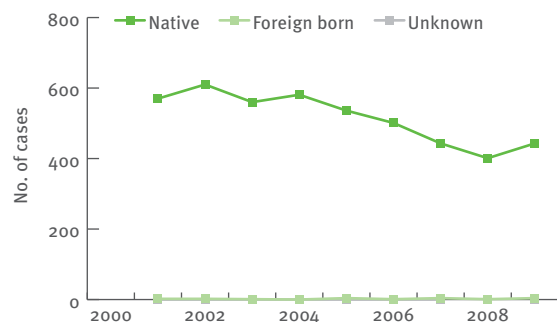
Tuberculosis notification rates by treatment history, 2000-2009



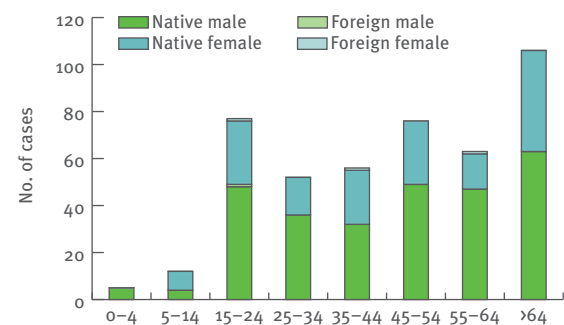
Tuberculosis notification rates by age group, 2000-2009



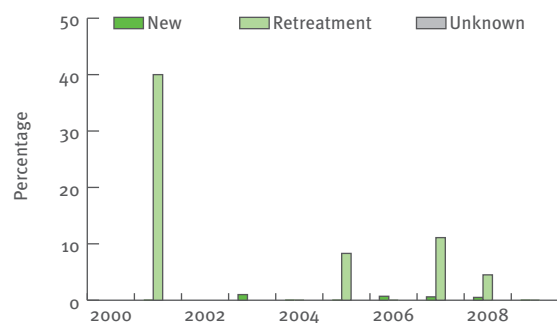
Tuberculosis cases by geographical origin, 2000-2009



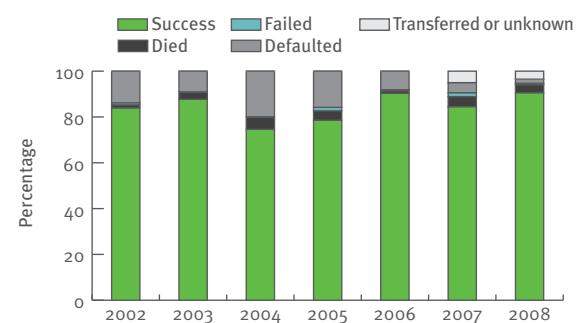
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000-2009



Treatment outcome, new pulmonary smear-positive cases, 2002-2008



Andorra

Population estimate 2009 by UN Statistical Database: 85505

Tuberculosis case notifications, 2009

Total number of cases	9
Notification rate per 100 000	10.5
New & relapses (lab+) number	8
New & relapses (lab+) notification rate per 100 000	9.4
Pulmonary of which smear-positive	7 (77.8%) 3 (42.9%)
Culture positive of all TB cases	3 (33.3%)
Mean age (age group) of new TB cases, nationals	45-64 years
Mean age (age group) of new TB cases, non-nationals	15-24 years
Foreign born of all TB cases	5 (55.6%)
New (not previously treated)	7 (77.8%)
TB deaths per 100 000 (2008)	-

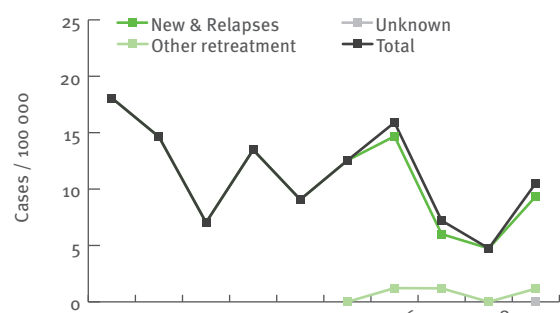
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	-
Case-linked data reporting	No
Cases with DST results	3 (100.0%)
Cases resistant to isoniazid	0 (0.0%)
Cases resistant to rifampicin	0 (0.0%)
MDR cases of which XDR cases	0 (0.0%) - -
Cases resistant to ethambutol	0 (0.0%)
Cases resistant to streptomycin	0 (0.0%)
TB cases tested for HIV	- -
HIV-positive TB cases	- -

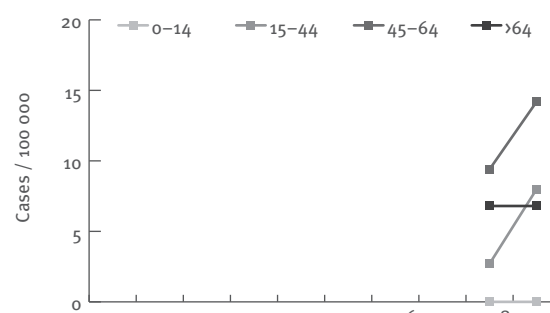
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	No
Notified in 2008	3
Success	3 (100.0%)
Died	- (0.0%)
Failed	0 (0.0%)
Defaulted	0 (0.0%)
Still on treatment	- -
Transferred or unknown	0 (0.0%)

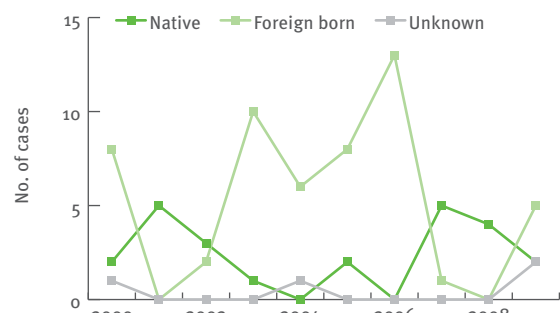
Tuberculosis notification rates by treatment history, 2000-2009



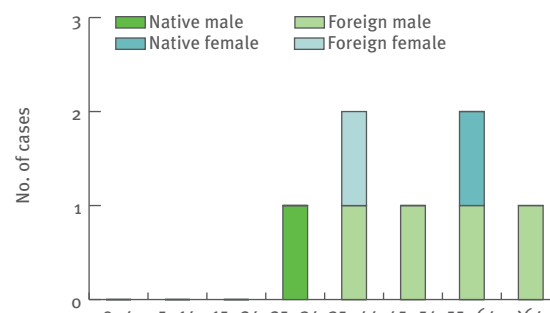
Tuberculosis notification rates by age group, 2000-2009



Tuberculosis cases by geographical origin, 2000-2009



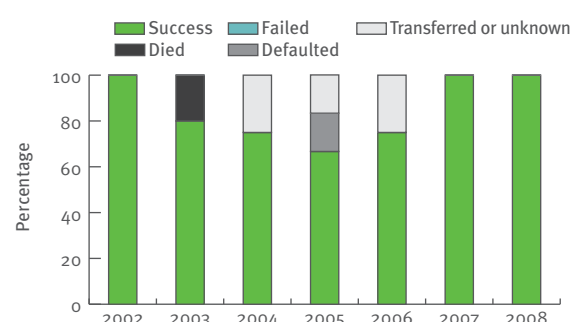
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000-2009

No MDR cases reported

Treatment outcome, new pulmonary culture-positive cases, 2002-2008



Armenia

Population estimate 2009 by UN Statistical Database: 3082951

Tuberculosis case notifications, 2009

Total number of cases	2006
Notification rate per 100 000	65.1
New & relapses (lab+) number	1560
New & relapses (lab+) notification rate per 100 000	50.6
Pulmonary	1632 (81.4%)
of which smear-positive	591 (36.2%)
Culture positive of all TB cases	- -
Mean age (age group) of new TB cases, nationals	45-64 years
Mean age (age group) of new TB cases, non-nationals	-
Foreign citizens of all TB cases	- -
New (not previously treated)	1464 (73.0%)
TB deaths per 100 000 (2008)	5.6

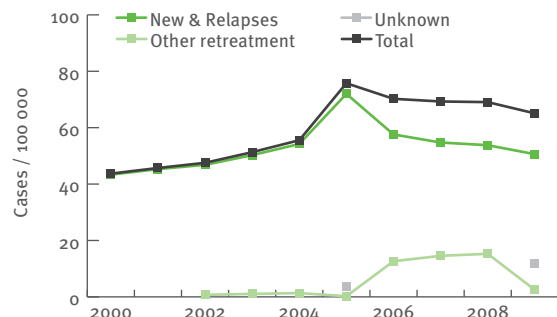
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	No
Case-linked data reporting	No
Cases with DST results	680 -
Cases resistant to isoniazid	292 (42.9%)
Cases resistant to rifampicin	165 (24.3%)
MDR cases	156 (22.9%)
of which XDR cases	- -
Cases resistant to ethambutol	123 (18.1%)
Cases resistant to streptomycin	271 (39.9%)
TB cases tested for HIV	521 (26%)
HIV-positive TB cases	17 (3.3%)

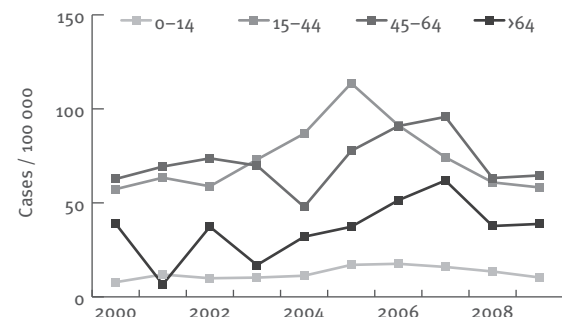
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear positive
Case-linked data reporting	No
Notified in 2008	484
Success	357 (73.8%)
Died	23 (4.8%)
Failed	27 (5.6%)
Defaulted	47 (9.7%)
Still on treatment	- -
Transferred or unknown	30 (6.2%)

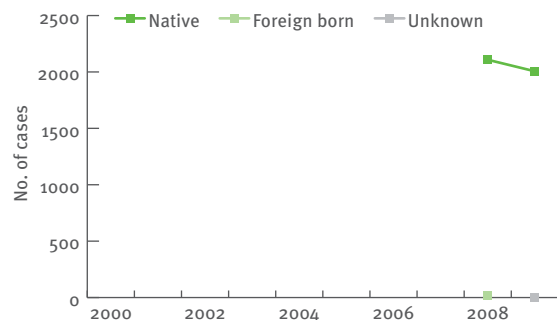
Tuberculosis notification rates by treatment history, 2000-2009



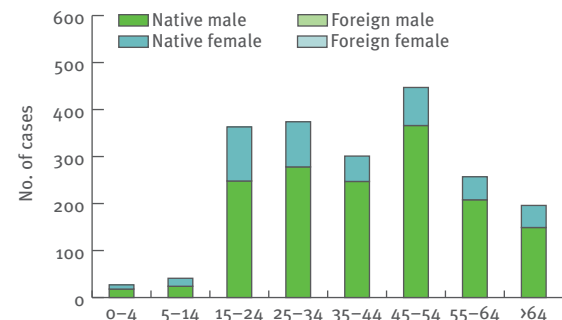
Tuberculosis notification rates by age group, 2000-2009



Tuberculosis cases by geographical origin, 2000-2009



Tuberculosis cases by origin, age group and sex, 2009

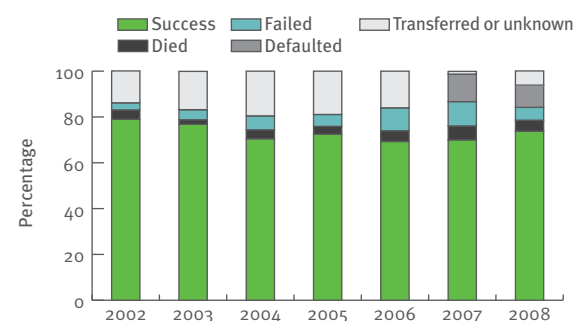


MDR TB cases by previous treatment history, 2000-2009*



* Data completeness unknown

Treatment outcome, new pulmonary smear-positive cases, 2002-2008*



* Data completeness unknown (2002-2004)

Austria

Total population at 1 January 2009 by EUROSTAT: 8 355 260

Tuberculosis case notifications, 2009

Total number of cases	707
Notification rate per 100 000	8.5
New & relapses (lab+) number	442
New & relapses (lab+) notification rate per 100 000	5.3
Pulmonary of which smear-positive	585 (82.7%) 131 (22.4%)
Culture positive of all TB cases	446 (63.1%)
Mean age of new TB cases, nationals	56.8 years
Mean age of new TB cases, non-nationals	35.3 years
Foreign citizens of all TB cases	234 (33.1%)
New (not previously treated)	437 (61.8%)
TB deaths per 100 000 (2008)	0.4

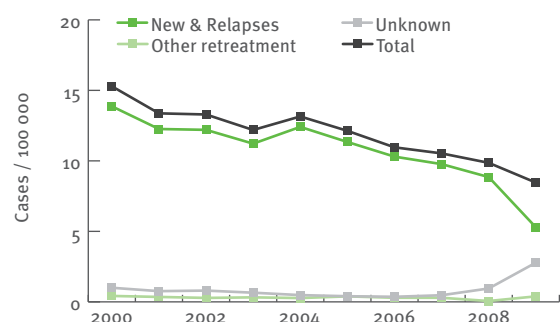
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	-
Case-linked data reporting	Yes
Cases with DST results	439 (98.4%)
Cases resistant to isoniazid	42 (9.6%)
Cases resistant to rifampicin	22 (5.0%)
MDR cases of which XDR cases	22 (5.0%) 2 (9.1%)
Cases resistant to ethambutol	9 (2.1%)
Cases resistant to streptomycin	36 (8.2%)
TB cases tested for HIV	-
HIV-positive TB cases	-

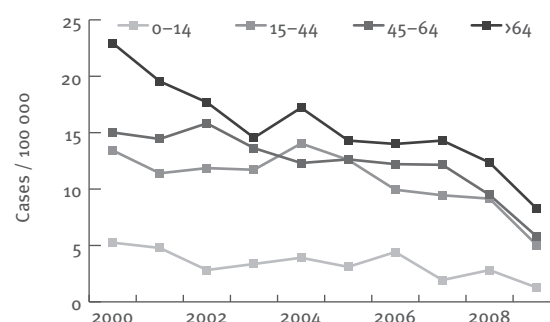
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	380
Success	179 (47.1%)
Died	37 (9.7%)
Failed	0 (0.0%)
Defaulted	35 (9.2%)
Still on treatment	48 (12.6%)
Transferred or unknown	81 (21.3%)

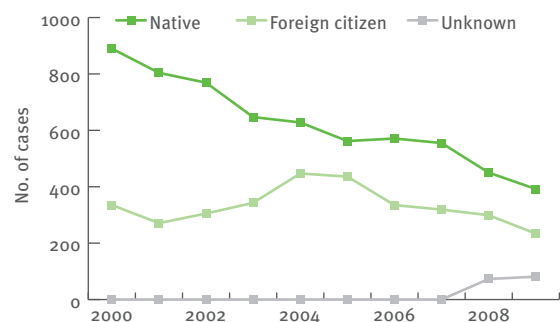
Tuberculosis notification rates by treatment history, 2000–2009



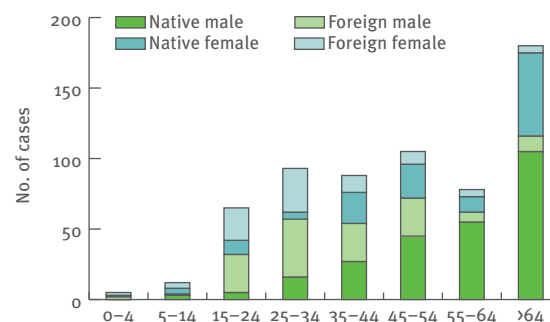
Tuberculosis notification rates by age group, 2000–2009



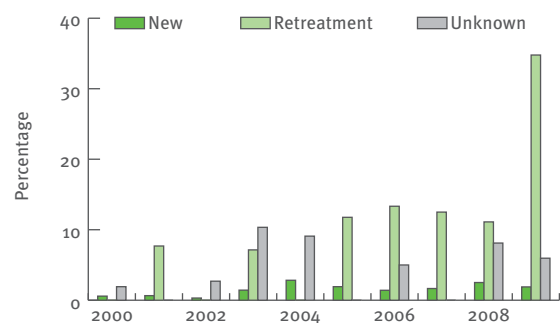
Tuberculosis cases by geographical origin, 2000–2009



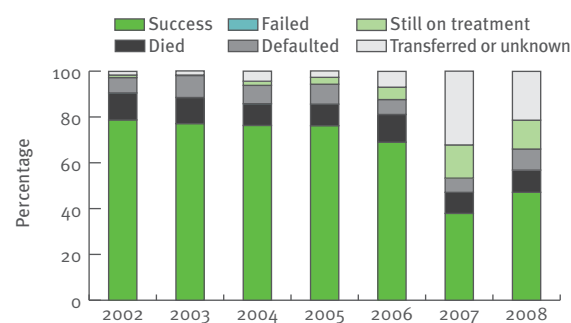
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009



Treatment outcome, new pulmonary culture-positive cases, 2002–2008



Azerbaijan

Population estimate 2009 by UN Statistical Database: 8 832 172

Tuberculosis case notifications, 2009

Total number of cases	10 417
Notification rate per 100 000	117.9
New & relapses (lab+) number	7 301
New & relapses (lab+) notification rate per 100 000	82.7
Pulmonary	8 932 (85.7%)
of which smear-positive	3 779 (42.3%)
Culture positive of all TB cases	-
Mean age (age group) of new TB cases, nationals	-
Mean age (age group) of new TB cases, non-nationals	-
Foreign citizens of all TB cases	-
New (not previously treated)	5 872 (56.4%)
TB deaths per 100 000 (2008)	-

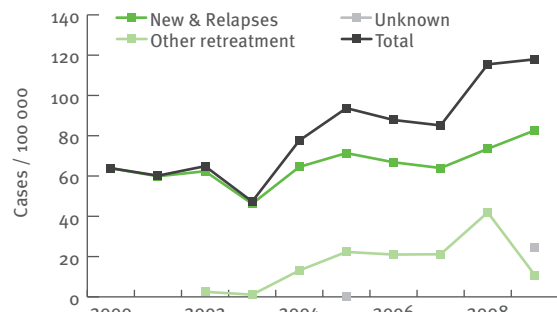
Drug resistance surveillance & TB-HIV co-infection, 2009

Not available

Treatment outcome monitoring, 2008

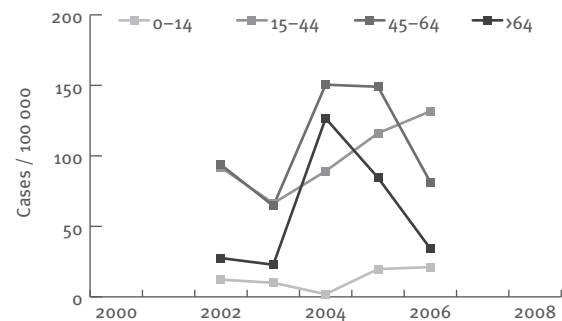
Geographical coverage	National
Outcome cohort	New pulmonary smear positive
Case-linked data reporting	No
Notified in 2008	1368
Success	782 (57.2%)
Died	35 (2.6%)
Failed	31 (2.3%)
Defaulted	146 (10.7%)
Still on treatment	-
Transferred or unknown	374 (27.3%)

Tuberculosis notification rates by treatment history, 2000–2009*



* Expansion of treatment programme in 2004

Tuberculosis notification rates by age group, 2000–2009*



* Expansion of treatment programme in 2004

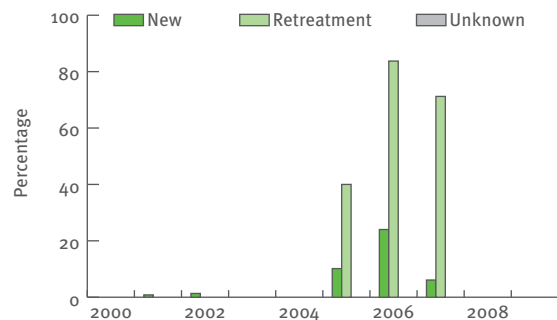
Tuberculosis cases by geographical origin, 2000–2009

Foreign citizens not reported

Tuberculosis cases by origin, age group and sex, 2009

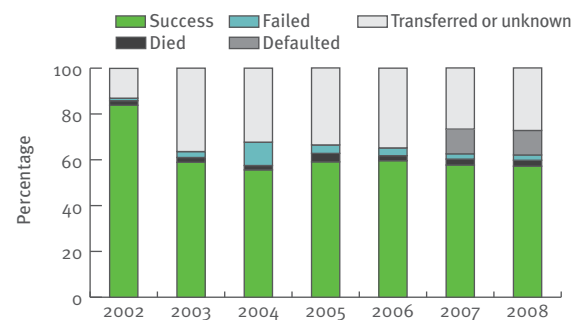
Data not available

MDR TB cases by previous treatment history, 2000–2009*



* Data completeness unknown

Treatment outcome, new pulmonary smear-positive cases, 2002–2008*



* Data completeness unknown in 2002 and 2005

Belarus

Population estimate 2009 by UN Statistical Database: 9633543

Tuberculosis case notifications, 2009

Total number of cases	5511
Notification rate per 100 000	57.2
New & relapses (lab+) number	5250
New & relapses (lab+) notification rate per 100 000	54.5
Pulmonary	5059 (91.8%)
of which smear-positive	1569 (31.0%)
Culture positive of all TB cases	2811 (51.0%)
Mean age of new TB cases, nationals	25-44 years
Mean age of new TB cases, non-nationals	-
Foreign citizens of all TB cases	0 (0.0%)
New (not previously treated)	4633 (84.1%)
TB deaths per 100 000 (2008)	8.6

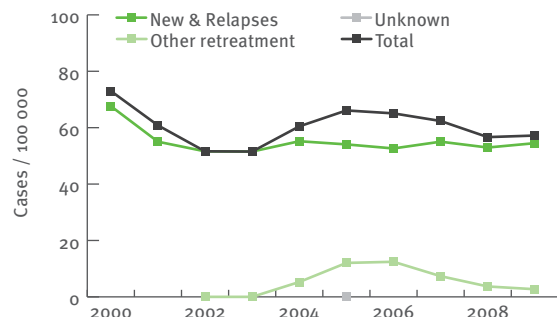
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	No
Case-linked data reporting	Yes
Cases with DST results	3985 -
Cases resistant to isoniazid	1025 (25.7%)
Cases resistant to rifampicin	958 (24.0%)
MDR cases	867 (21.8%)
of which XDR cases	- -
Cases resistant to ethambutol	539 (13.5%)
Cases resistant to streptomycin	998 (25.0%)
TB cases tested for HIV	- -
HIV-positive TB cases	190 -

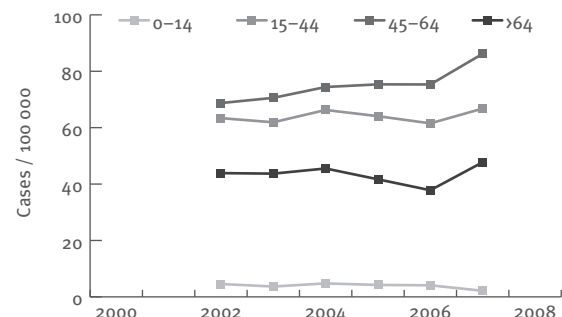
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear positive
Case-linked data reporting	Yes
Notified in 2008	1902
Success	1355 (71.2%)
Died	171 (9.0%)
Failed	132 (6.9%)
Defaulted	59 (3.1%)
Still on treatment	- -
Transferred or unknown	185 (9.7%)

Tuberculosis notification rates by treatment history, 2000-2009



Tuberculosis notification rates by age group, 2000-2009*

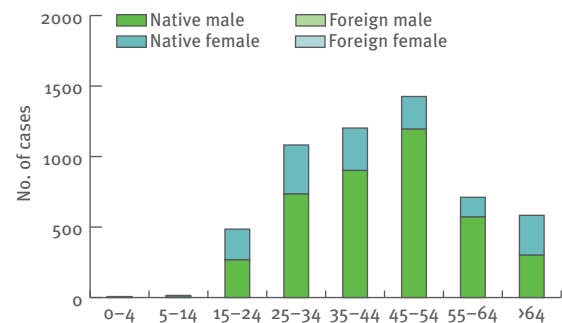


* Re-treated cases not included 2003-2005

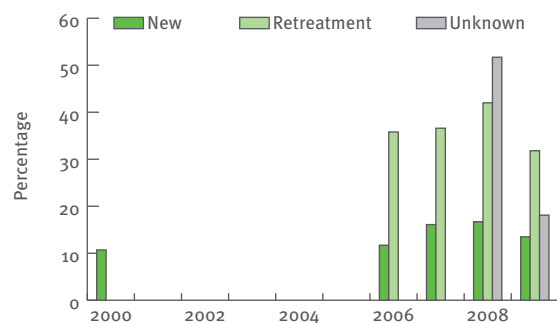
Tuberculosis cases by geographical origin, 2000-2009

Foreign citizens not reported

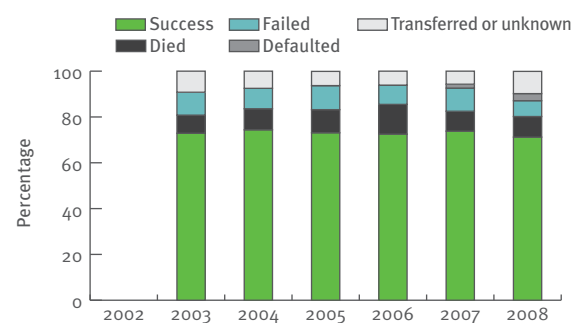
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000-2009



Treatment outcome, new pulmonary definite cases, 2002-2008*



* Data completeness unknown (2003-2004)

Belgium

Total population at 1 January 2008 by EUROSTAT: 10 666 866 (data for 2009 not available at the moment of the response)

Tuberculosis case notifications, 2009

Total number of cases	1020
Notification rate per 100 000	9.6
New & relapses (lab+) number*	806
New & relapses (lab+) notification rate per 100 000*	7.6
Pulmonary	742 (72.7%)
of which smear-positive	360 (48.5%)
Culture positive of all TB cases	815 (79.9%)
Mean age of new TB cases, nationals	48.7 years
Mean age of new TB cases, non-nationals	36.0 years
Foreign citizens of all TB cases	496 (48.6%)
New (not previously treated)	806 (79.0%)
TB deaths per 100 000 (2008)	-

* For countries used previous diagnosis data – only new cases included

Drug resistance surveillance & TB-HIV co-infection, 2009

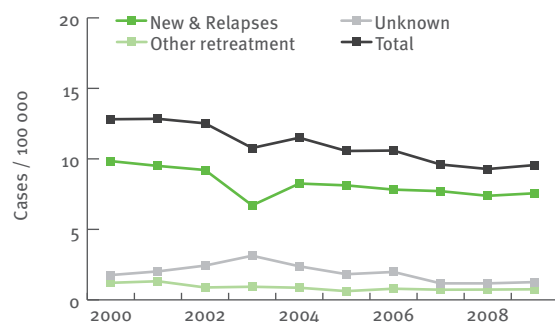
Completeness of DRS data	Yes
Completeness of TB-HIV data	Yes
Case-linked data reporting	Yes
Cases with DST results	774 (95.0%)
Cases resistant to isoniazid	37 (4.8%)
Cases resistant to rifampicin	12 (1.6%)
MDR cases	10 (1.3%)
of which XDR cases	3 (30.0%)
Cases resistant to ethambutol	11 (1.4%)
Cases resistant to streptomycin*	0 (0.0%)
TB cases tested for HIV	930 (91.2%)
HIV-positive TB cases	43 (4.6%)

* Not tested systematically – Streptomycin is not available on the Belgian market

Treatment outcome monitoring, 2008

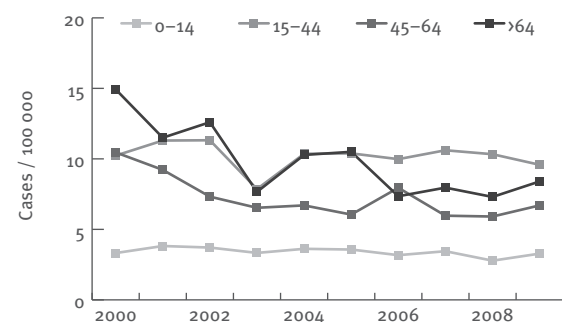
Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	502
Success	380 (75.7%)
Died	36 (7.2%)
Failed	0 (0.0%)
Defaulted	44 (8.8%)
Still on treatment	22 (4.4%)
Transferred or unknown	20 (4.0%)

Tuberculosis notification rates by treatment history, 2000–2009*

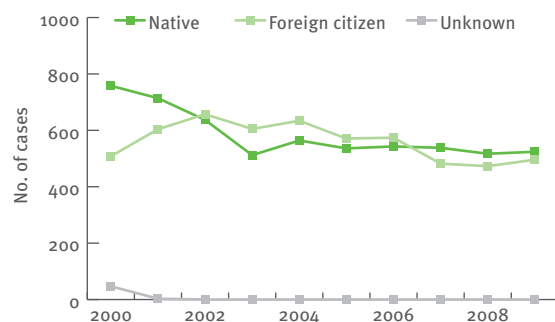


* Distribution of cases by previous diagnosis

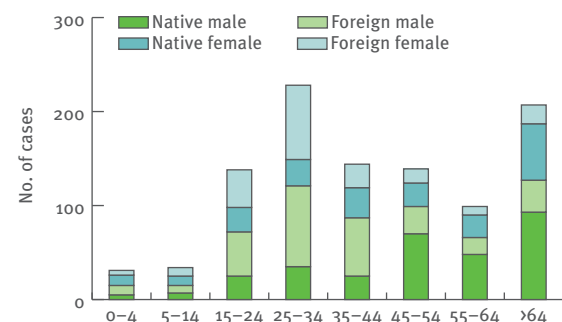
Tuberculosis notification rates by age group, 2000–2009



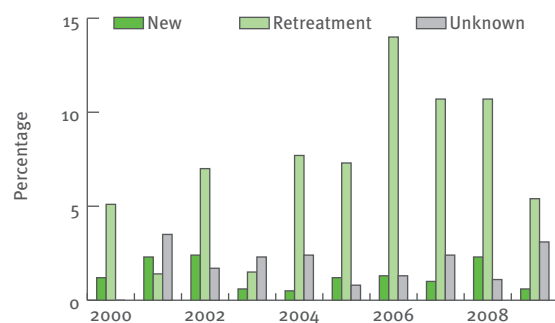
Tuberculosis cases by geographical origin, 2000–2009



Tuberculosis cases by origin, age group and sex, 2009

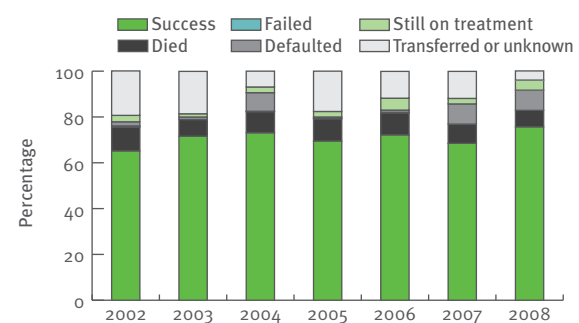


MDR TB cases by previous treatment history, 2000–2009*



* Distribution of cases by previous diagnosis

Treatment outcome, new pulmonary culture-positive cases, 2002–2008



Bosnia and Herzegovina

Population estimate 2009 by UN Statistical Database: 3766579

Tuberculosis case notifications, 2009

Total number of cases	1772
Notification rate per 100 000	47.0
New & relapses (lab+) number	1725
New & relapses (lab+) notification rate per 100 000	45.8
Pulmonary	1584 (89.4%)
of which smear-positive	654 (41.3%)
Culture positive of all TB cases	920 (51.9%)
Mean age (age group) of new TB cases, nationals	> 64 years
Mean age (age group) of new TB cases, non-nationals	-
Foreign citizens of all TB cases	0 (0.0%)
New (not previously treated)	1659 (93.6%)
TB deaths per 100 000 (2008)	1.2

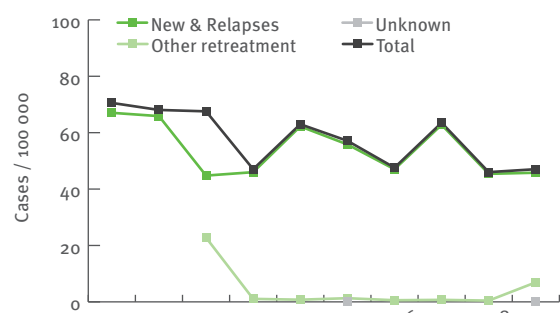
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	No
Case-linked data reporting	Yes
Cases with DST results	920 (100.0%)
Cases resistant to isoniazid	13 (1.4%)
Cases resistant to rifampicin	2 (0.2%)
MDR cases	2 (0.2%)
of which XDR cases	-
Cases resistant to ethambutol	2 (0.2%)
Cases resistant to streptomycin	10 (1.1%)
TB cases tested for HIV	-
HIV-positive TB cases	-

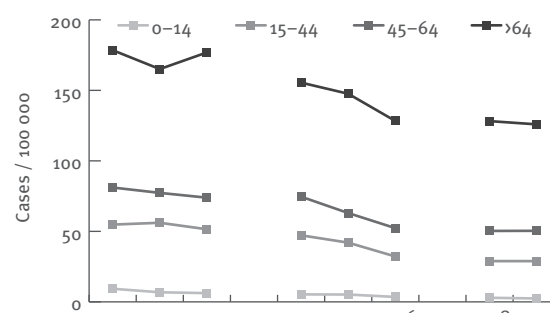
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear and/or culture positive
Case-linked data reporting	Yes
Notified in 2008	757
Success	697 (92.1%)
Died	34 (4.5%)
Failed	8 (1.1%)
Defaulted	7 (0.9%)
Still on treatment	-
Transferred or unknown	11 (1.5%)

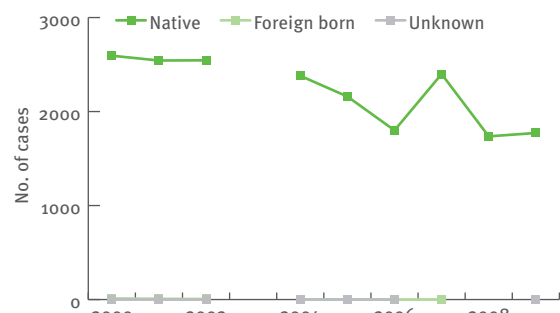
Tuberculosis notification rates by treatment history, 2000–2009



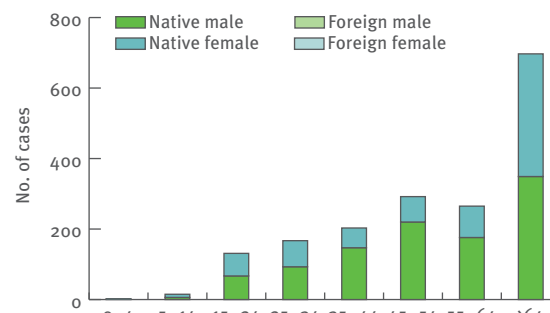
Tuberculosis notification rates by age group, 2000–2009



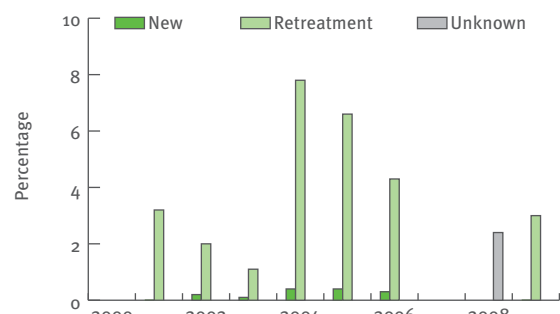
Tuberculosis cases by geographical origin, 2000–2009



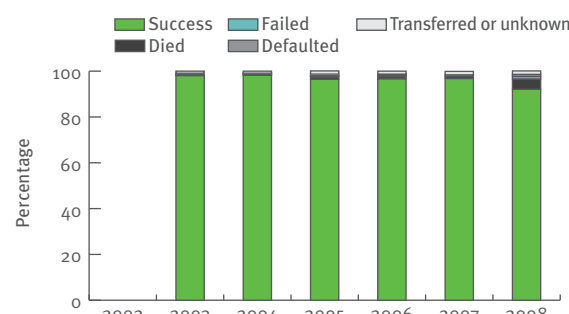
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009*



Treatment outcome, new pulmonary smear/culture-positive cases, 2002–2008*



* Federation of Bosnia only in 2002–2004

* Data completeness unknown; nationwide representative data in 2001 and 2005

Bulgaria

Total population at 1 January 2009 by EUROSTAT: 7 606 551

Tuberculosis case notifications, 2009

Total number of cases	2911
Notification rate per 100 000	38.3
New & relapses (lab+) number	2658
New & relapses (lab+) notification rate per 100 000	34.9
Pulmonary	2124 (73.0%)
of which smear-positive	1080 (50.8%)
Culture positive of all TB cases	1280 (44.0%)
Mean age of new TB cases, nationals	45.3 years
Mean age of new TB cases, non-nationals	49.1 years
Foreign citizens of all TB cases	8 (0.3%)
New (not relapses) number	2526 (86.8%)
TB deaths per 100 000 (2008)	2.4

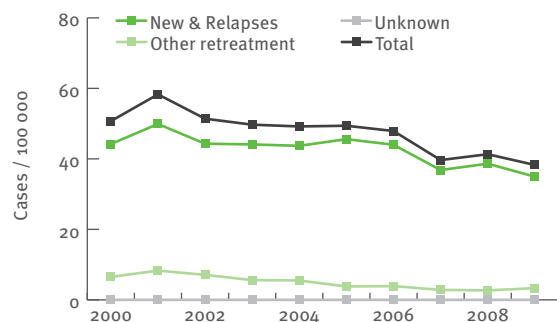
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	No
Case-linked data reporting	Yes
Cases with DST results	844 (65.9%)
Cases resistant to isoniazid	101 (12.0%)
Cases resistant to rifampicin	64 (7.6%)
MDR cases	43 (5.1%)
of which XDR cases	0 (0.0%)
Cases resistant to ethambutol	50 (5.9%)
Cases resistant to streptomycin	56 (6.6%)
TB cases tested for HIV	1155 (39.7%)
HIV-positive TB cases	1 (0.1%)

Treatment outcome monitoring, 2008

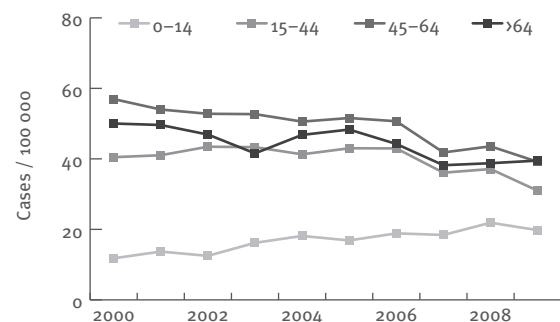
Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	1193
Success	1013 (84.9%)
Died	71 (6.0%)
Failed	15 (1.3%)
Defaulted	66 (5.5%)
Still on treatment	13 (1.1%)
Transferred or unknown	15 (1.3%)

Tuberculosis notification rates by treatment history, 2000–2009*



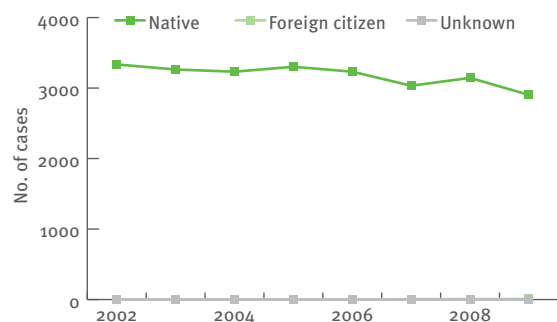
* Historical data used for the period 2002–2006

Tuberculosis notification rates by age group, 2000–2009*



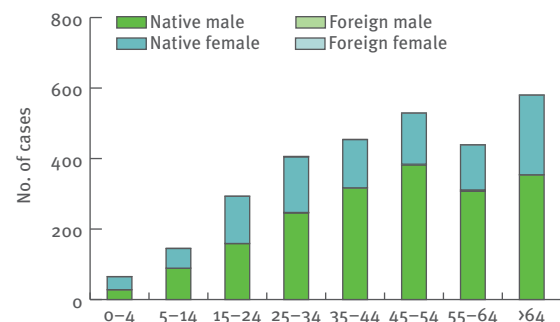
* Historical data used for the period 2002–2006

Tuberculosis cases by geographical origin, 2002–2009*

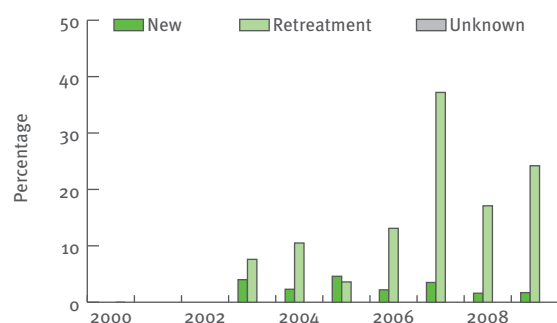


* Historical data used for the period 2002–2006

Tuberculosis cases by origin, age group and sex, 2009

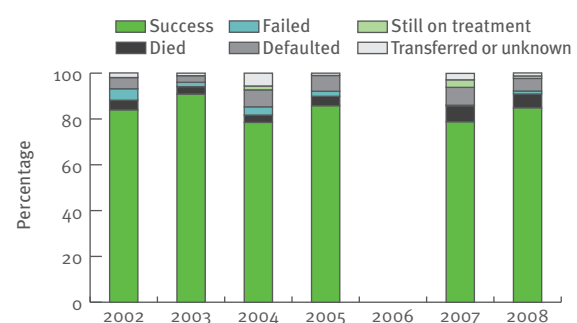


MDR TB cases by previous treatment history, 2000–2009*



* No case-based data for 2000–2002

Treatment outcome, new pulmonary definite cases, 2002–2008*



* No case-based data for 2006

Croatia

Population estimate 2009 by UN Statistical Database: 4 416 166

Tuberculosis case notifications, 2009

Total number of cases	855
Notification rate per 100 000	19.4
New & relapses (lab+) number	832
New & relapses (lab+) notification rate per 100 000	18.8
Pulmonary of which smear-positive	770 (90.1%) 332 (43.1%)
Culture positive of all TB cases	517 (60.5%)
Mean age (age group) of new TB cases, nationals	45-64 years
Mean age (age group) of new TB cases, non-nationals	> 64 years
Foreign citizens of all TB cases	99 (11.6%)
New (not previously treated)	793 (92.7%)
TB deaths per 100 000 (2008)	2.3

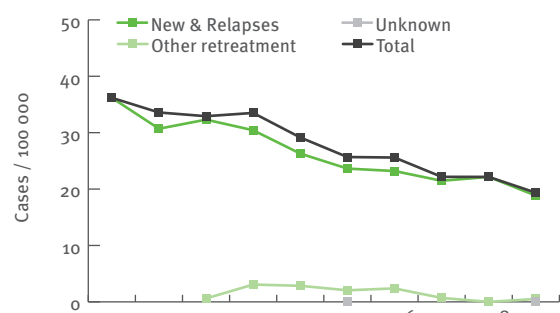
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	-
Case-linked data reporting	Yes
Cases with DST results	517 (100.0%)
Cases resistant to isoniazid	23 (4.4%)
Cases resistant to rifampicin	14 (2.7%)
MDR cases of which XDR cases	7 (1.4%) -
Cases resistant to ethambutol	13 (2.5%)
Cases resistant to streptomycin	15 (2.9%)
TB cases tested for HIV	-
HIV-positive TB cases	4

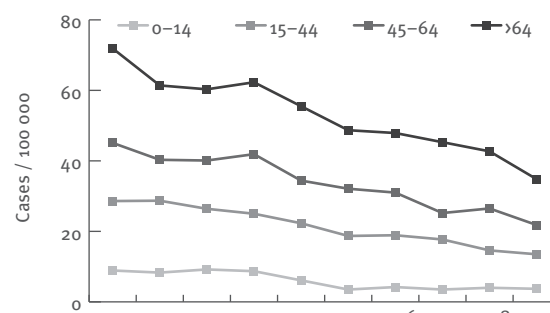
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear and/or culture positive
Case-linked data reporting	Yes
Notified in 2008	494
Success	347 (70.2%)
Died	106 (21.5%)
Failed	20 (4.0%)
Defaulted	15 (3.0%)
Still on treatment	-
Transferred or unknown	6 (1.2%)

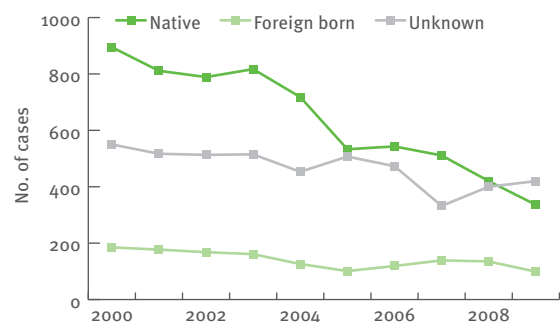
Tuberculosis notification rates by treatment history, 2000-2009



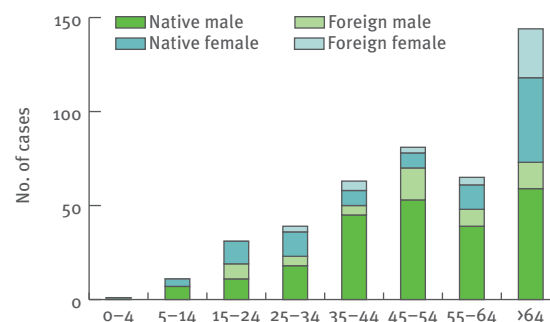
Tuberculosis notification rates by age group, 2000-2009



Tuberculosis cases by geographical origin, 2000-2009



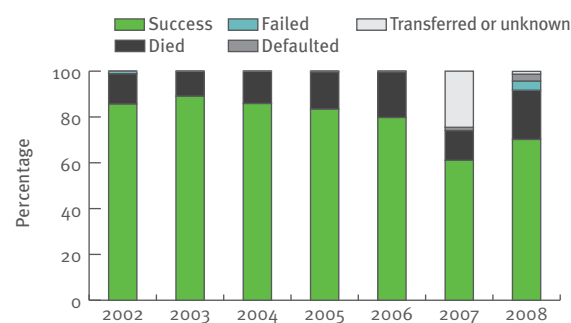
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000-2009



Treatment outcome, new pulmonary culture-positive cases, 2002-2008*



* Data completeness unknown

Cyprus

Total population at 1 January 2009 by EUROSTAT: 796 875

Tuberculosis case notifications, 2009

Total number of cases	55
Notification rate per 100 000	6.9
New & relapses (lab+) number	43
New & relapses (lab+) notification rate per 100 000	5.4
Pulmonary of which smear-positive	36 (65.5%) 17 (47.2%)
Culture positive of all TB cases	41 (74.5%)
Mean age of new TB cases, nationals	45.7 years
Mean age of new TB cases, non-nationals	35.9 years
Foreign citizens of all TB cases	46 (83.6%)
New (not previously treated)	41 (74.5%)
TB deaths per 100 000 (2008)	0.1

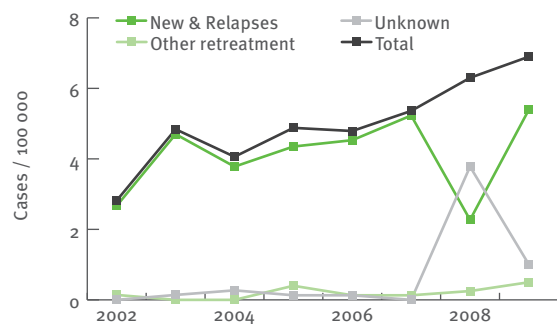
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	-
Case-linked data reporting	Yes
Cases with DST results	31 (75.6%)
Cases resistant to isoniazid	6 (19.4%)
Cases resistant to rifampicin	4 (12.9%)
MDR cases of which XDR cases	4 (12.9%) 0 (0.0%)
Cases resistant to ethambutol	1 (3.2%)
Cases resistant to streptomycin	2 (6.5%)
TB cases tested for HIV	-
HIV-positive TB cases	-

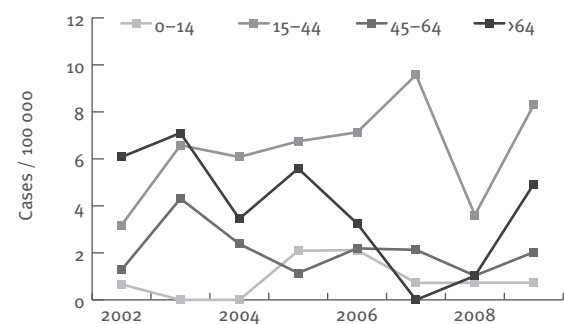
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	10
Success	7 (70.0%)
Died	0 (0.0%)
Failed	0 (0.0%)
Defaulted	2 (20.0%)
Still on treatment	0 (0.0%)
Transferred or unknown	1 (10.0%)

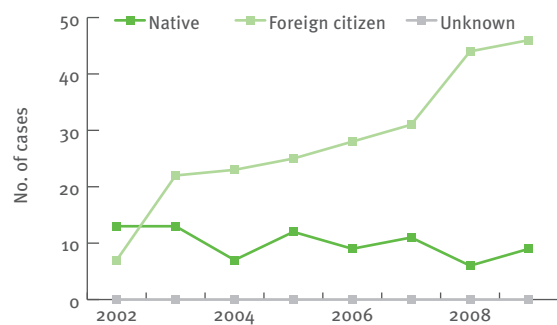
Tuberculosis notification rates by treatment history, 2002–2009



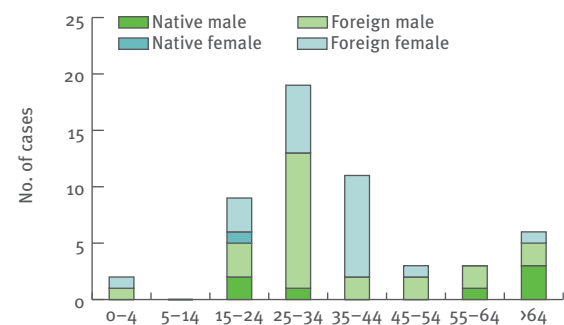
Tuberculosis notification rates by age group, 2002–2009



Tuberculosis cases by geographical origin, 2002–2009



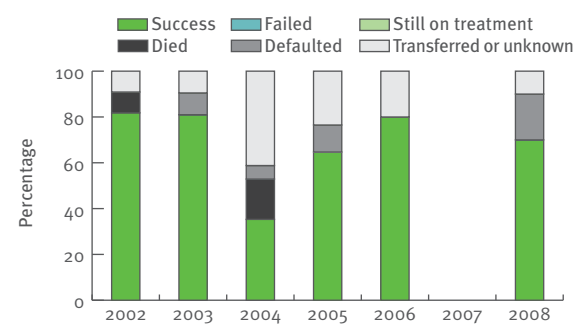
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009



Treatment outcome, new pulmonary smear-positive cases, 2002–2008*



* Data completeness unknown (2002–2004), no data available for 2007

Czech Republic

Total population at 1 January 2009 by EUROSTAT: 10 467 542

Tuberculosis case notifications, 2009

Total number of cases	702
Notification rate per 100 000	6.7
New & relapses (lab+) number	638
New & relapses (lab+) notification rate per 100 000	6.1
Pulmonary	594 (84.6%)
of which smear-positive	239 (40.2%)
Culture positive of all TB cases	477 (67.9%)
Mean age of new TB cases, nationals	58.9 years
Mean age of new TB cases, non-nationals	38.3 years
Foreign citizens of all TB cases	136 (19.4%)
New (not previously treated)	638 (90.9%)
TB deaths per 100 000 (2008)	0.4

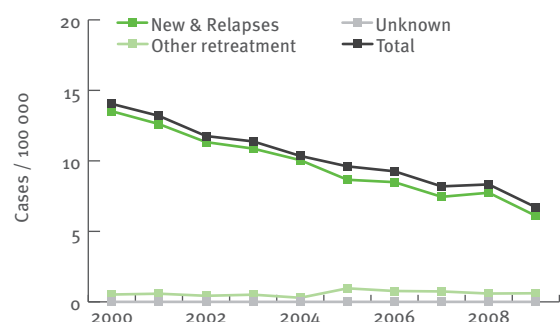
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	No
Case-linked data reporting	Yes
Cases with DST results	452 (94.8%)
Cases resistant to isoniazid	16 (3.5%)
Cases resistant to rifampicin	11 (2.4%)
MDR cases	8 (1.8%)
of which XDR cases	1 (12.5%)
Cases resistant to ethambutol	7 (1.5%)
Cases resistant to streptomycin	16 (3.5%)
TB cases tested for HIV	161 (22.9%)
HIV-positive TB cases	5 (3.1%)

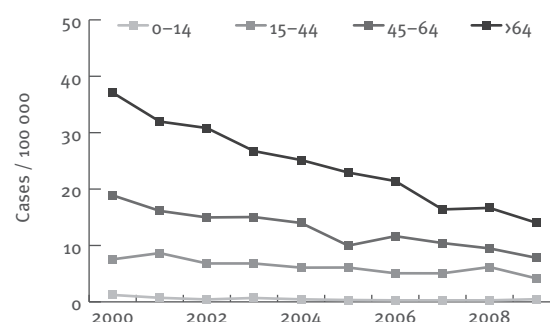
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	468
Success	320 (68.4%)
Died	99 (21.2%)
Failed	3 (0.6%)
Defaulted	26 (5.6%)
Still on treatment	13 (2.8%)
Transferred or unknown	7 (1.5%)

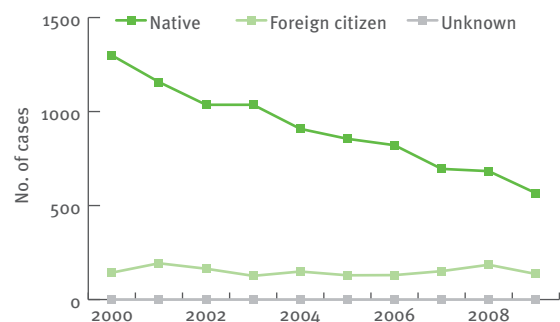
Tuberculosis notification rates by treatment history, 2000–2009



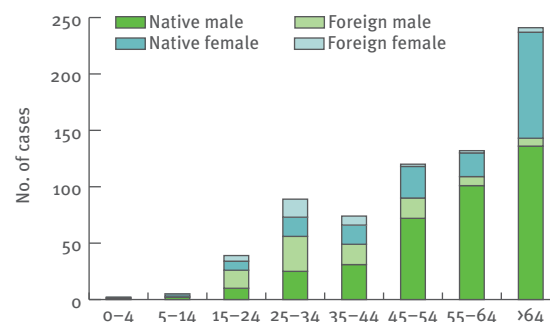
Tuberculosis notification rates by age group, 2000–2009



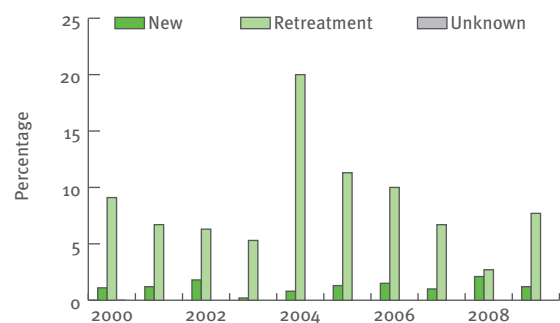
Tuberculosis cases by geographical origin, 2000–2009



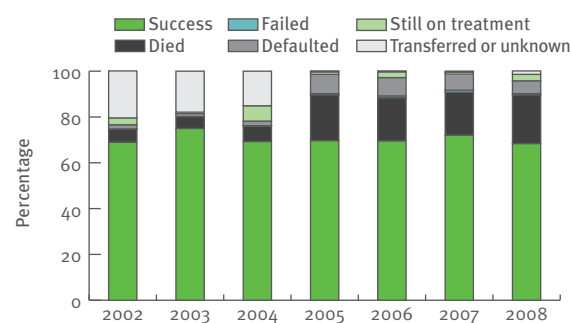
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009*



Treatment outcome, new pulmonary culture-positive cases, 2002–2008



* Data completeness unknown in 2004 and 2008

Denmark

Total population at 1 January 2009 by EUROSTAT: 5511451

Tuberculosis case notifications, 2009

Total number of cases	329
Notification rate per 100 000	6.0
New & relapses (lab+)* number	288
New & relapses (lab+)* notification rate per 100 000	5.2
Pulmonary of which smear-positive	260 (79.0%) 121 (46.5%)
Culture positive of all TB cases	242 (73.6%)
Mean age of new TB cases, nationals	47.5 years
Mean age of new TB cases, non-nationals	35.2 years
Foreign citizens of all TB cases	214 (65.0%)
New (not previously treated)	288 (87.5%)
TB deaths per 100 000 (2008)	0.3

* For countries used previous diagnosis data – only new cases included

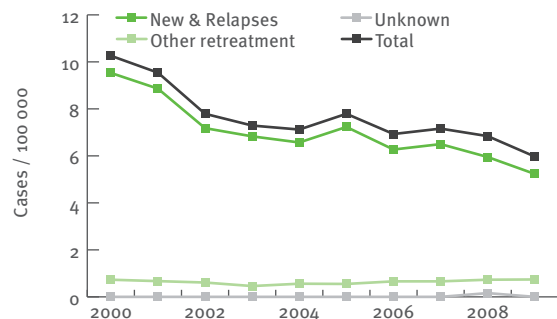
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	No
Case-linked data reporting	Yes
Cases with DST results	242 (100.0%)
Cases resistant to isoniazid	18 (7.4%)
Cases resistant to rifampicin	2 (0.8%)
MDR cases of which XDR cases	2 (0.8%) 0 (0.0%)
Cases resistant to ethambutol	0 (0.0%)
Cases resistant to streptomycin	3 (1.2%)
TB cases tested for HIV	6 (1.8%)
HIV-positive TB cases	6 (100.0%)

Treatment outcome monitoring, 2008

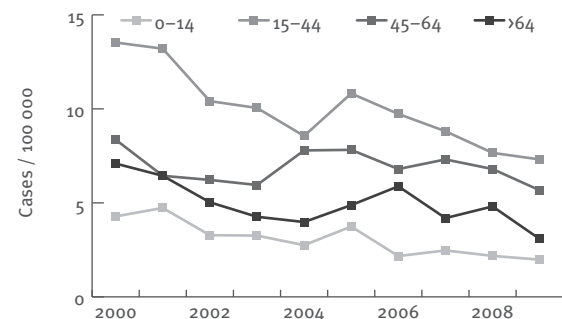
Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	200
Success	81 (40.5%)
Died	2 (1.0%)
Failed	0 (0.0%)
Defaulted	2 (1.0%)
Still on treatment	2 (1.0%)
Transferred or unknown	113 (56.5%)

Tuberculosis notification rates by treatment history, 2000–2009*

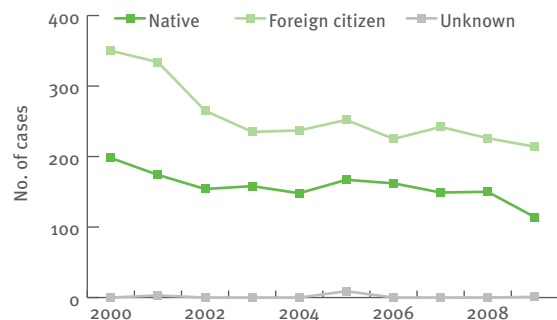


* Distribution of cases by previous diagnosis

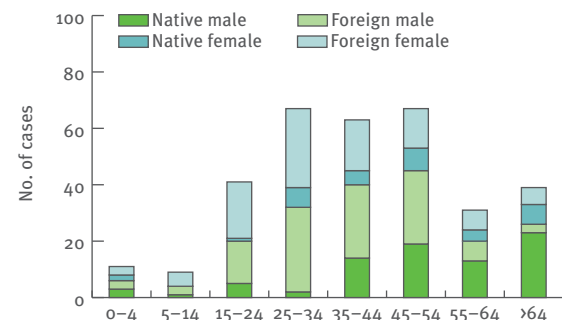
Tuberculosis notification rates by age group, 2000–2009



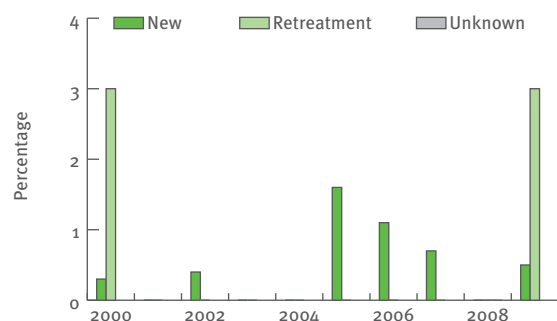
Tuberculosis cases by geographical origin, 2000–2009



Tuberculosis cases by origin, age group and sex, 2009

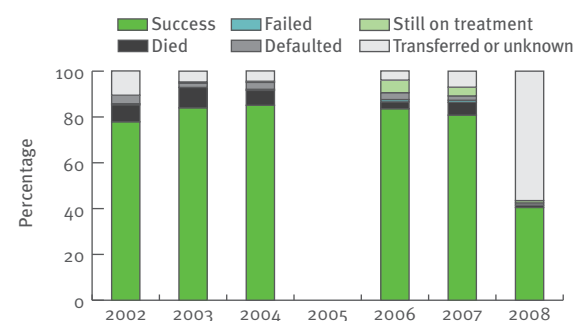


MDR TB cases by previous treatment history, 2000–2009*



* Distribution of cases by previous diagnosis

Treatment outcome, new pulmonary culture-positive cases, 2002–2008*



* No data available for 2005, and provisional data reported for 2008

Estonia

Total population at 1 January 2008 by EUROSTAT: 1340 415

Tuberculosis case notifications, 2009

Total number of cases	411
Notification rate per 100 000	30.7
New & relapses (lab+) number	361
New & relapses (lab+) notification rate per 100 000	26.9
Pulmonary	389 (94.6%)
of which smear-positive	177 (45.5%)
Culture positive of all TB cases	309 (75.2%)
Mean age of new TB cases, nationals	44.8 years
Mean age of new TB cases, non-nationals	57.3 years
Foreign citizens of all TB cases	78 (19.0%)
New (not previously treated)	331 (80.5%)
TB deaths per 100 000 (2008)	3.5

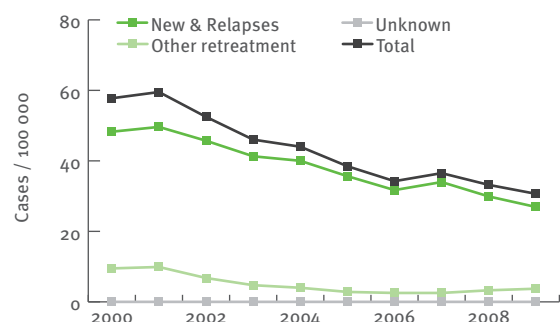
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	Yes
Case-linked data reporting	Yes
Cases with DST results	307 (99.4%)
Cases resistant to isoniazid	99 (32.2%)
Cases resistant to rifampicin	88 (28.7%)
MDR cases	86 (28.0%)
of which XDR cases	10 (11.6%)
Cases resistant to ethambutol	79 (25.7%)
Cases resistant to streptomycin	110 (35.8%)
TB cases tested for HIV	380 (92.5%)
HIV-positive TB cases	39 (10.3%)

Treatment outcome monitoring, 2008

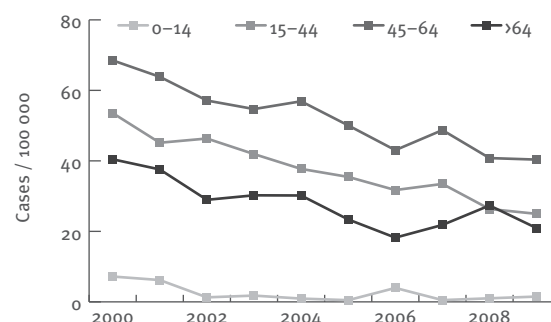
Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	257
Success	156 (60.7%)
Died	38 (14.8%)
Failed	4 (1.6%)
Defaulted	15 (5.8%)
Still on treatment	43 (16.7%)
Transferred or unknown	1 (0.4%)

Tuberculosis notification rates by treatment history, 2000–2009*

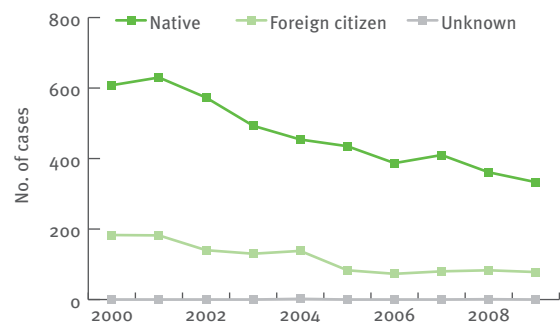


* Retreated cases other than relapses included since 2001

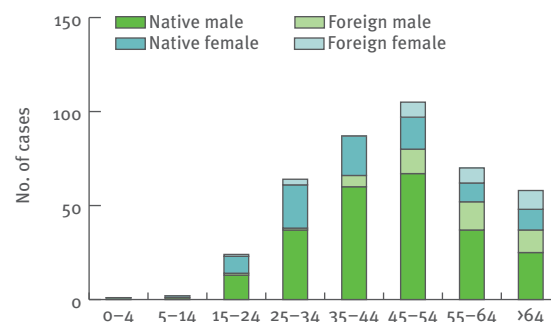
Tuberculosis notification rates by age group, 2000–2009



Tuberculosis cases by geographical origin, 2000–2009



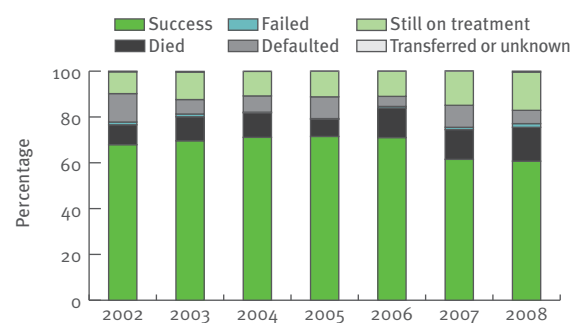
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009



Treatment outcome, new pulmonary culture-positive cases, 2002–2008



Finland

Total population at 1 January 2009 by EUROSTAT: 5 326 314

Tuberculosis case notifications, 2009

Total number of cases	419
Notification rate per 100 000	7.9
New & relapses (lab+) number	405
New & relapses (lab+) notification rate per 100 000	7.6
Pulmonary of which smear-positive	301 (71.8%) 97 (32.2%)
Culture positive of all TB cases	307 (73.3%)
Mean age of new TB cases, nationals	65.6 years
Mean age of new TB cases, non-nationals	31.5 years
Foreign citizens of all TB cases	126 (30.1%)
New (not previously treated)	405 (96.7%)
TB deaths per 100 000 (2008)	0.6

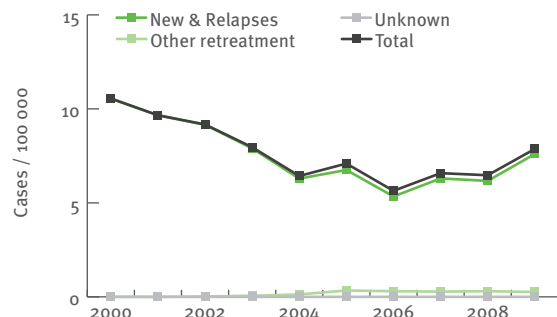
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	No
Case-linked data reporting	Yes
Cases with DST results	302 (98.4%)
Cases resistant to isoniazid	18 (6.0%)
Cases resistant to rifampicin	6 (2.0%)
MDR cases of which XDR cases	6 (2.0%) 0 (0.0%)
Cases resistant to ethambutol	3 (1.0%)
Cases resistant to streptomycin	11 (3.6%)
TB cases tested for HIV	-
HIV-positive TB cases	6 (1.4%)

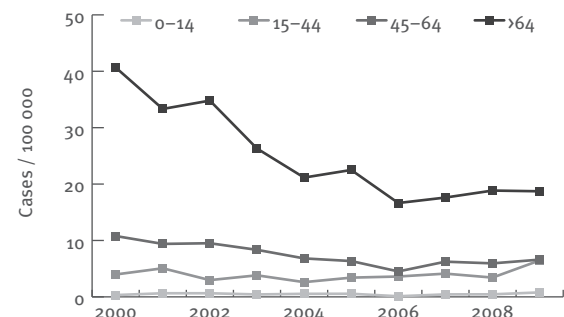
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	170
Success	123 (72.4%)
Died	27 (15.9%)
Failed	1 (0.6%)
Defaulted	2 (1.2%)
Still on treatment	9 (5.3%)
Transferred or unknown	8 (4.7%)

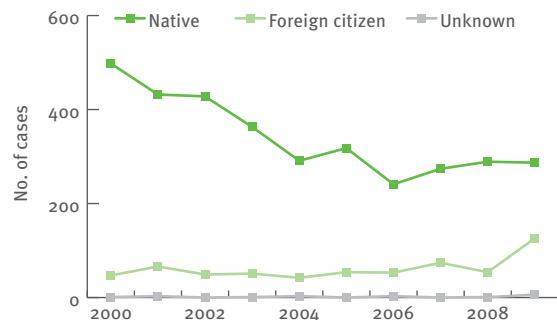
Tuberculosis notification rates by treatment history, 2000–2009



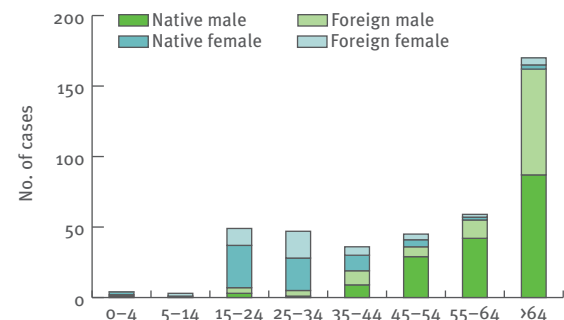
Tuberculosis notification rates by age group, 2000–2009



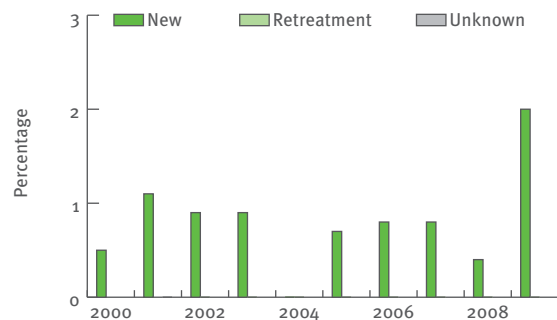
Tuberculosis cases by geographical origin, 2000–2009



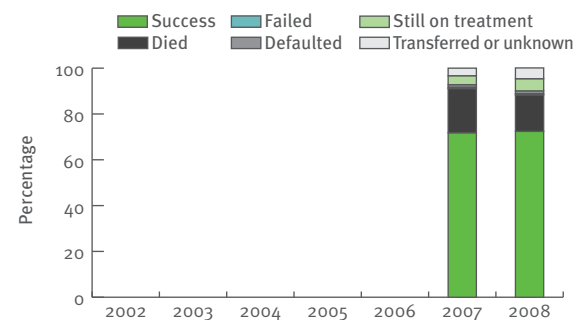
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009



Treatment outcome, new pulmonary culture-positive cases, 2002–2008*



* No data available for 2002–2006

France

Total population at 1 January 2009 by EUROSTAT: 64 350 759

Tuberculosis case notifications, 2009

Total number of cases	5308
Notification rate per 100 000	8.2
New & relapses (lab+) number	2890
New & relapses (lab+) notification rate per 100 000	4.5
Pulmonary	3823 (72.0%)
of which smear-positive	1889 (49.4%)
Culture positive of all TB cases	2432 (45.8%)
Mean age of new TB cases, nationals	51.0 years
Mean age of new TB cases, non-nationals	40.3 years
Foreign citizens of all TB cases	2488 (46.9%)
New (not previously treated)	2890 (54.4%)
TB deaths per 100 000 (2008)	0.6

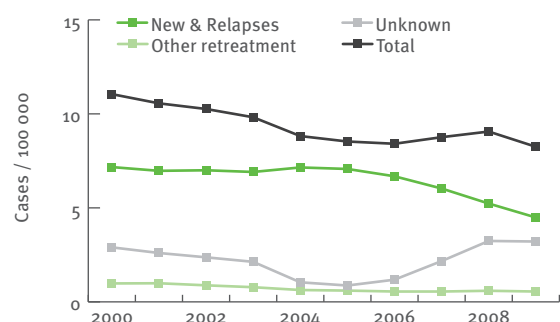
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	-
Case-linked data reporting	No
Cases with DST results	2432 (100.0%)
Cases resistant to isoniazid	106 (4.4%)
Cases resistant to rifampicin	34 (1.4%)
MDR cases	30 (1.2%)
of which XDR cases	-
Cases resistant to ethambutol	20 (0.8%)
Cases resistant to streptomycin	115 (4.7%)
TB cases tested for HIV	-
HIV-positive TB cases	-

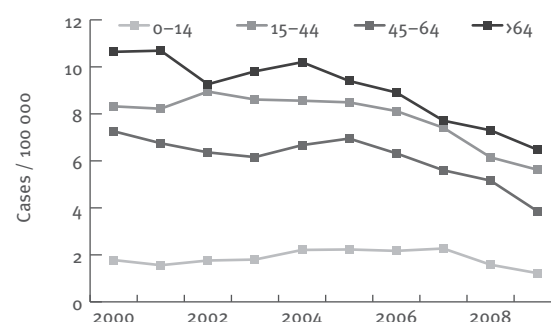
Treatment outcome monitoring, 2008

Not available

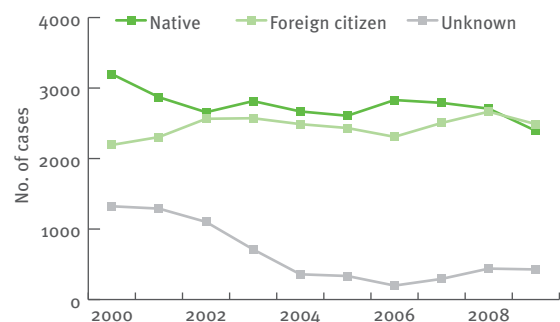
Tuberculosis notification rates by treatment history, 2000–2009



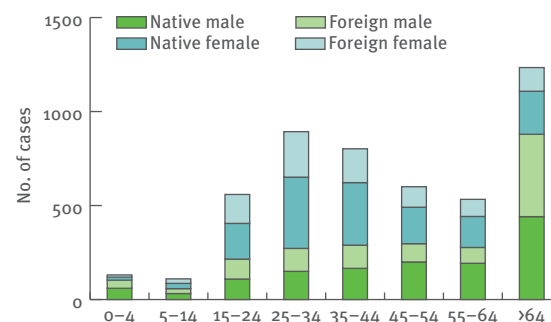
Tuberculosis notification rates by age group, 2000–2009



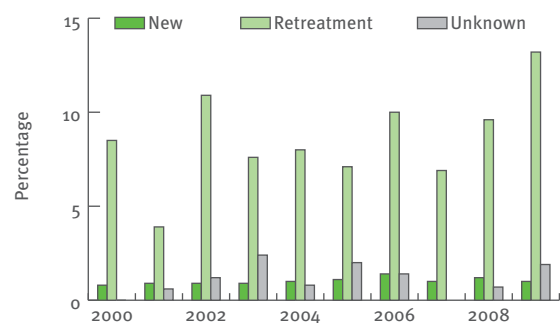
Tuberculosis cases by geographical origin, 2000–2009



Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009*



Treatment outcome, new pulmonary culture-positive cases, 2002–2008

Not available

* Data from sentinel laboratory network

Georgia

Population estimate 2009 by UN Statistical Database: 4 260 333

Tuberculosis case notifications, 2009

Total number of cases	5978
Notification rate per 100 000	140.3
New & relapses (lab+) number	4732
New & relapses (lab+) notification rate per 100 000	111.1
Pulmonary of which smear-positive	4588 (76.7%) 2900 (63.2%)
Culture positive of all TB cases	2711 (45.3%)
Mean age (age group) of new TB cases, nationals	25-44 years
Mean age (age group) of new TB cases, non-nationals	-
Foreign citizens of all TB cases	0 (0.0%)
New (not previously treated)	4457 (74.6%)
TB deaths per 100 000 (2008)	4.3

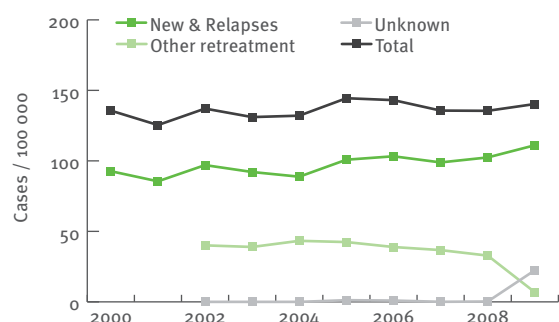
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	No
Case-linked data reporting	Yes
Cases with DST results	2372 (87.5%)
Cases resistant to isoniazid	688 (29.0%)
Cases resistant to rifampicin	384 (16.2%)
MDR cases of which XDR cases	369 (15.6%) 32 (8.7%)
Cases resistant to ethambutol	375 (15.8%)
Cases resistant to streptomycin	1134 (47.8%)
TB cases tested for HIV	1229 (21.0%)
HIV-positive TB cases	28 (2.3%)

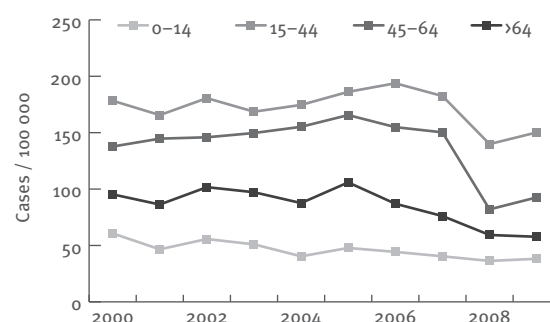
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear and/or culture positive
Case-linked data reporting	Yes
Notified in 2008	2196
Success	1596 (72.7%)
Died	60 (2.7%)
Failed	264 (12.0%)
Defaulted	186 (8.5%)
Still on treatment	-
Transferred or unknown	90 (4.1%)

Tuberculosis notification rates by treatment history, 2000-2009



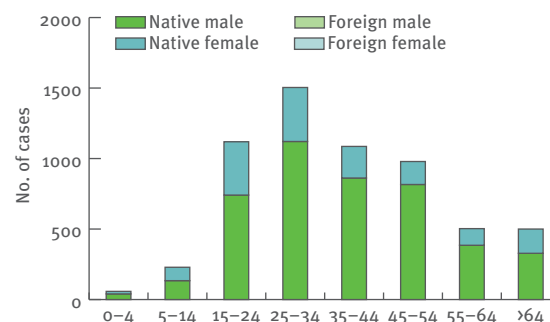
Tuberculosis notification rates by age group, 2000-2009



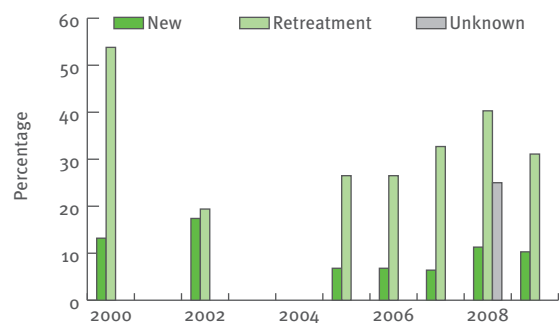
Tuberculosis cases by geographical origin, 2000-2009

Foreign citizens not reported

Tuberculosis cases by origin, age group and sex, 2009

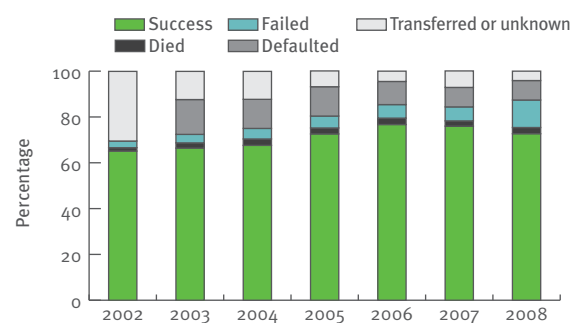


MDR TB cases by previous treatment history, 2000-2009*



* No data in 2001-2004; nationwide representative survey in 2005

Treatment outcome, new pulmonary smear-positive cases, 2002-2008*



* Data completeness unknown in 2002

Germany

Total population at 1 January 2009 by EUROSTAT: 82 002 356

Tuberculosis case notifications, 2009

Total number of cases	4 432
Notification rate per 100 000	5.4
New & relapses (lab+) number	3 652
New & relapses (lab+) notification rate per 100 000	4.5
Pulmonary	3 453 (77.9%)
of which smear-positive	1 226 (35.5%)
Culture positive of all TB cases	3 011 (67.9%)
Mean age of new TB cases, nationals	54.1 years
Mean age of new TB cases, non-nationals	42.4 years
Foreign citizens of all TB cases	1 877 (42.4%)
New (not previously treated)	3 545 (80.0%)
TB deaths per 100 000 (2008)	0.3

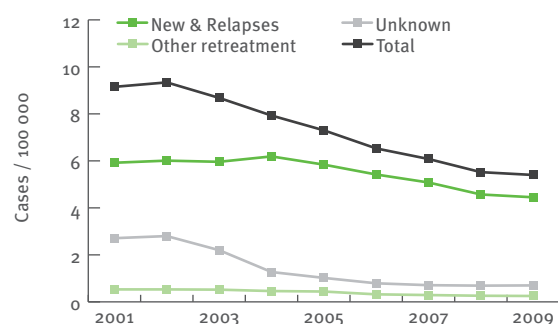
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	-
Case-linked data reporting	Yes
Cases with DST results	2 702 (89.7%)
Cases resistant to isoniazid	181 (6.7%)
Cases resistant to rifampicin	64 (2.4%)
MDR cases	56 (2.1%)
of which XDR cases	-
Cases resistant to ethambutol	41 (1.5%)
Cases resistant to streptomycin	177 (6.6%)
TB cases tested for HIV	-
HIV-positive TB cases	-

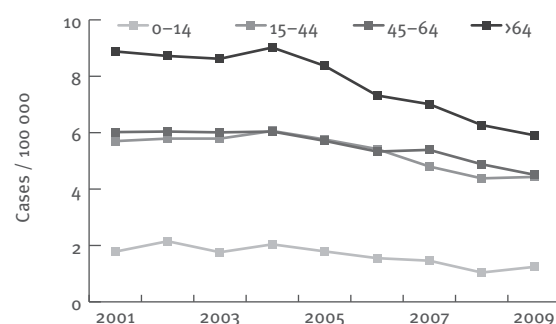
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	2 126
Success	1 441 (67.8%)
Died	247 (11.6%)
Failed	1 (0.0%)
Defaulted	37 (1.7%)
Still on treatment	157 (7.4%)
Transferred or unknown	243 (11.4%)

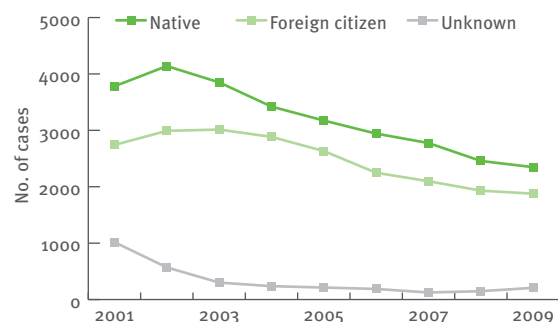
Tuberculosis notification rates by treatment history, 2001–2009



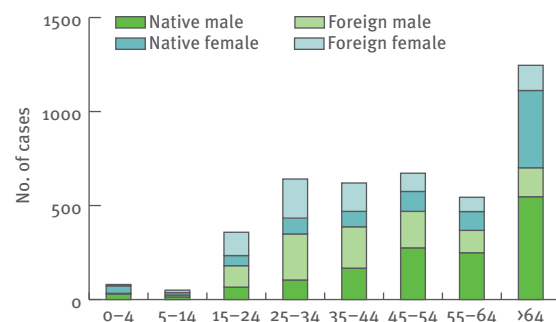
Tuberculosis notification rates by age group, 2001–2009



Tuberculosis cases by geographical origin, 2001–2009



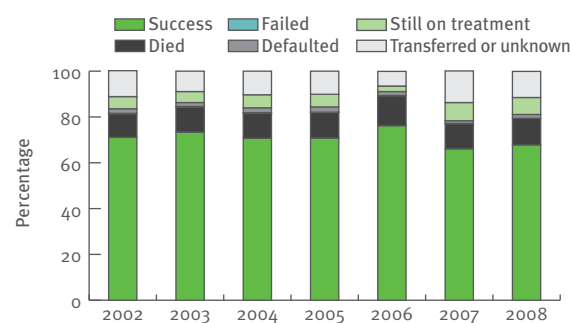
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009



Treatment outcome, new pulmonary culture-positive cases, 2002–2008



Greece

Total population at 1 January 2009 by EUROSTAT: 11260402

Tuberculosis case notifications, 2009

Total number of cases	586
Notification rate per 100 000	5.2
New & relapses (lab+) number	464
New & relapses (lab+) notification rate per 100 000	4.1
Pulmonary of which smear-positive	502 (85.7%) 252 (50.2%)
Culture positive of all TB cases	306 (52.2%)
Mean age of new TB cases, nationals	55.9 years
Mean age of new TB cases, non-nationals	31.3 years
Foreign citizens of all TB cases	254 (43.3%)
New (not previously treated)	464 (79.2%)
TB deaths per 100 000 (2008)	0.4

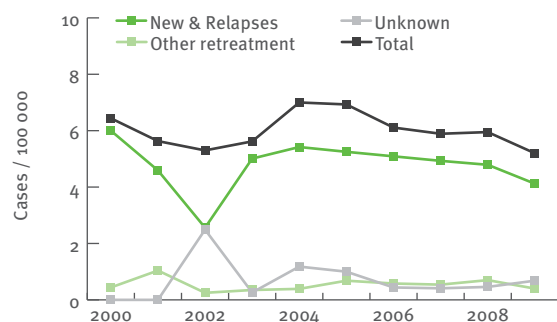
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	-
Case-linked data reporting	Yes
Cases with DST results	174 (56.9%)
Cases resistant to isoniazid	25 (14.4%)
Cases resistant to rifampicin	15 (8.6%)
MDR cases of which XDR cases	14 (8.0%) 4 (28.6%)
Cases resistant to ethambutol	18 (10.3%)
Cases resistant to streptomycin	20 (11.5%)
TB cases tested for HIV	-
HIV-positive TB cases	-

Treatment outcome monitoring, 2008

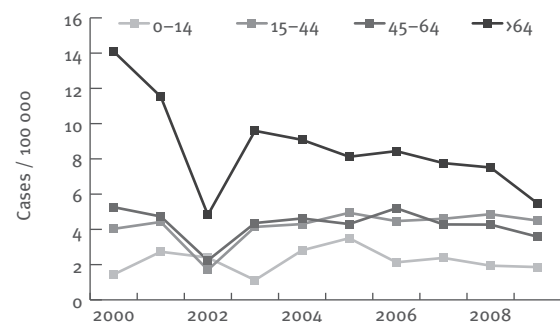
Not available

Tuberculosis notification rates by treatment history, 2000–2009*



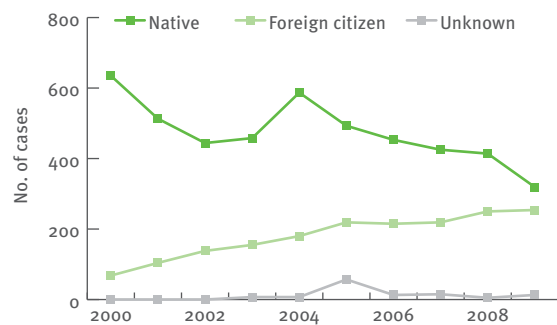
* Historical data used for 2000 and 2001

Tuberculosis notification rates by age group, 2000–2009*



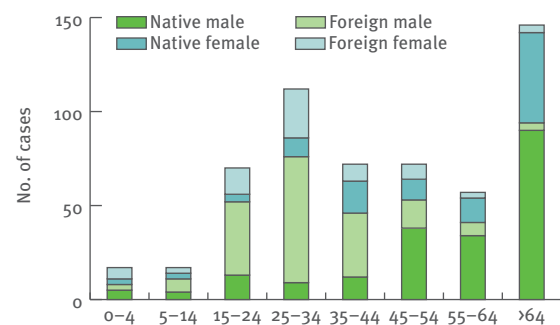
* Historical data used for 2000 and 2001

Tuberculosis cases by geographical origin, 2000–2009*

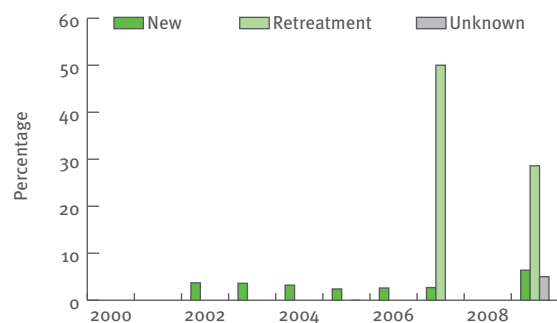


* Historical data used for 2000–2006

Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009*



* No data for 2000, 2001 and 2008

Treatment outcome, new pulmonary culture-positive cases, 2002–2008

Not available

Hungary

Total population at 1 January 2009 by EUROSTAT: 10 030 975

Tuberculosis case notifications, 2009

Total number of cases	1448
Notification rate per 100 000	14.4
New & relapses (lab+) number	1304
New & relapses (lab+) notification rate per 100 000	13.0
Pulmonary	1375 (95.0%)
of which smear-positive	421 (30.6%)
Culture positive of all TB cases	711 (49.1%)
Mean age of new TB cases, nationals	54.0 years
Mean age of new TB cases, non-nationals	37.0 years
Foreign citizens of all TB cases	33 (2.3%)
New (not previously treated)	1230 (84.9%)
TB deaths per 100 000 (2008)	1.5

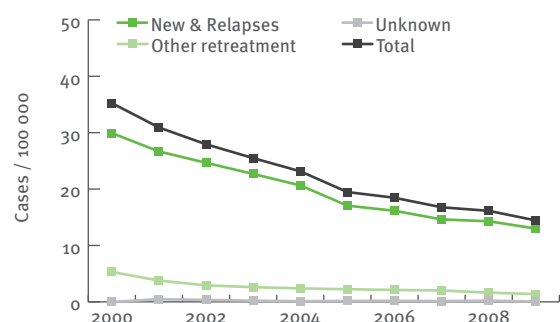
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	-
Case-linked data reporting	Yes
Cases with DST results	542 (76.2%)
Cases resistant to isoniazid	51 (9.4%)
Cases resistant to rifampicin	22 (4.1%)
MDR cases	20 (3.7%)
of which XDR cases	0 (0.0%)
Cases resistant to ethambutol	15 (2.8%)
Cases resistant to streptomycin	37 (6.8%)
TB cases tested for HIV	-
HIV-positive TB cases	-

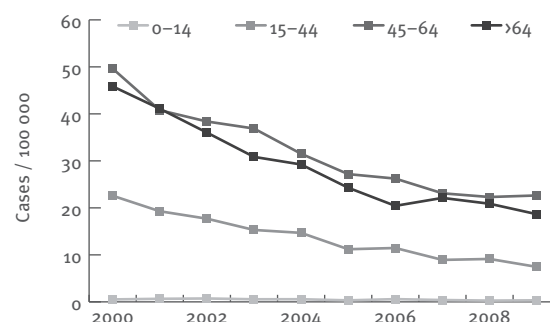
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	602
Success	317 (52.7%)
Died	69 (11.5%)
Failed	60 (10.0%)
Defaulted	40 (6.6%)
Still on treatment	60 (10.0%)
Transferred or unknown	56 (9.3%)

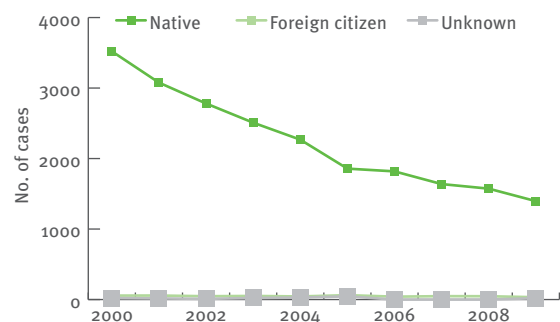
Tuberculosis notification rates by treatment history, 2000–2009



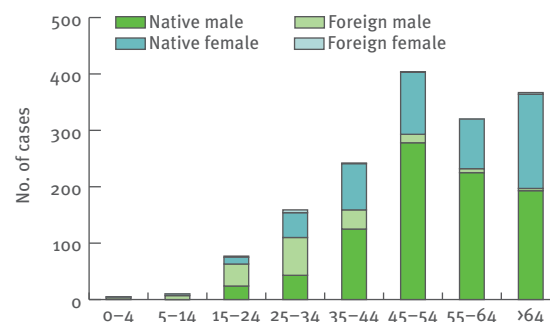
Tuberculosis notification rates by age group, 2000–2009



Tuberculosis cases by geographical origin, 2000–2009



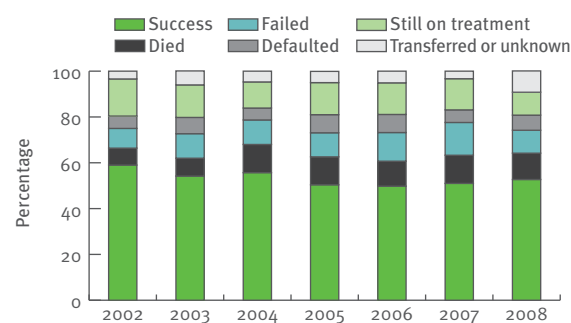
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009



Treatment outcome, new pulmonary culture-positive cases, 2002–2008



Iceland

Total population at 1 January 2009 by EUROSTAT: 319368

Tuberculosis case notifications, 2009

Total number of cases	9
Notification rate per 100 000	2.8
New & relapses (lab+) number	8
New & relapses (lab+) notification rate per 100 000	2.5
Pulmonary of which smear-positive	7 (77.8%) 4 (57.1%)
Culture positive of all TB cases	8 (88.9%)
Mean age of new TB cases, nationals	32.5 years
Mean age of new TB cases, non-nationals	25.8 years
Foreign citizens of all TB cases	5 (55.6%)
New (not previously treated)	7 (77.8%)
TB deaths per 100 000 (2008)	2.2

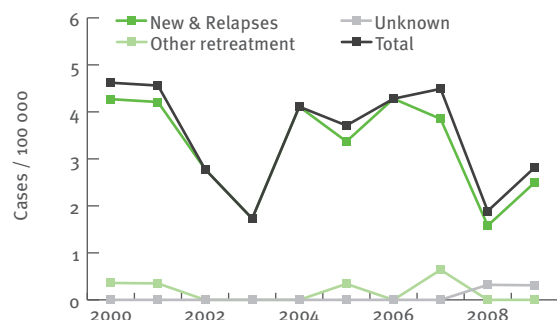
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	Yes
Case-linked data reporting	Yes
Cases with DST results	8 (100.0%)
Cases resistant to isoniazid	2 (25.0%)
Cases resistant to rifampicin	0 (0.0%)
MDR cases of which XDR cases	0 (0.0%) 0 (0.0%)
Cases resistant to ethambutol	0 (0.0%)
Cases resistant to streptomycin	0 (0.0%)
TB cases tested for HIV	7 (77.8%)
HIV-positive TB cases	0 (0.0%)

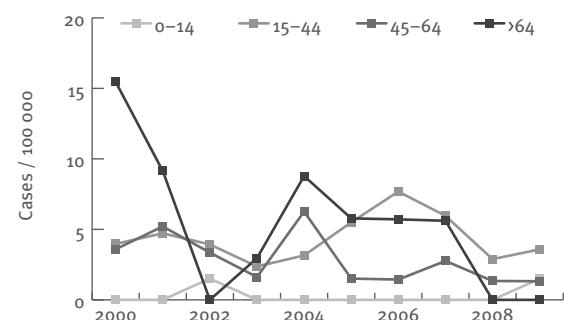
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	1
Success	0 (0.0%)
Died	0 (0.0%)
Failed	0 (0.0%)
Defaulted	0 (0.0%)
Still on treatment	0 (0.0%)
Transferred or unknown	1 (100.0%)

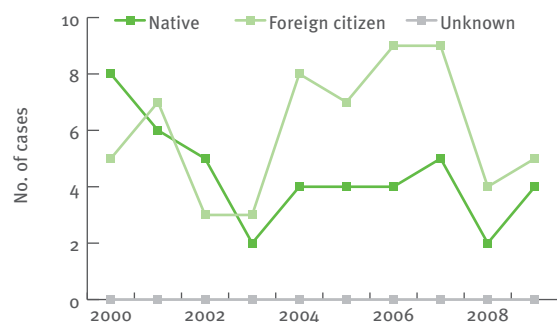
Tuberculosis notification rates by treatment history, 2000–2009



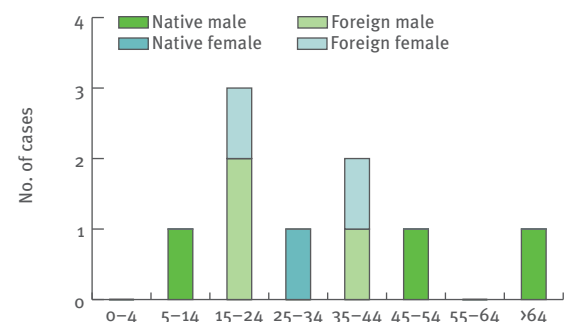
Tuberculosis notification rates by age group, 2000–2009



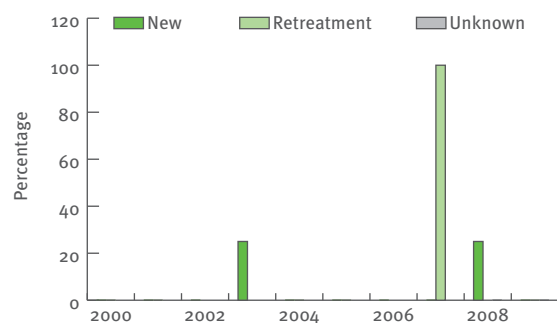
Tuberculosis cases by geographical origin, 2000–2009



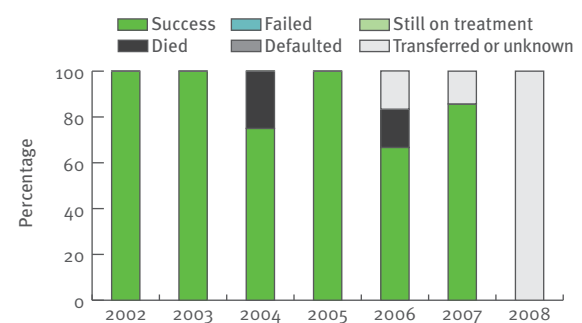
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009



Treatment outcome, new pulmonary culture-positive cases, 2002–2008



Ireland

Total population at 1 January 2009 by EUROSTAT: 4 450 030

Tuberculosis case notifications, 2009

Total number of cases	472
Notification rate per 100 000	10.6
New & relapses (lab+)* number	333
New & relapses (lab+)* notification rate per 100 000	7.5
Pulmonary	311 (65.9%)
of which smear-positive	136 (43.7%)
Culture positive of all TB cases	242 (51.3%)
Mean age of new TB cases, nationals	47.5 years
Mean age of new TB cases, non-nationals	33.7 years
Foreign citizens of all TB cases	191 (40.5%)
New (not previously treated)	333 (70.6%)
TB deaths per 100 000 (2008)	0.8

* For countries used previous diagnosis data – only new cases included

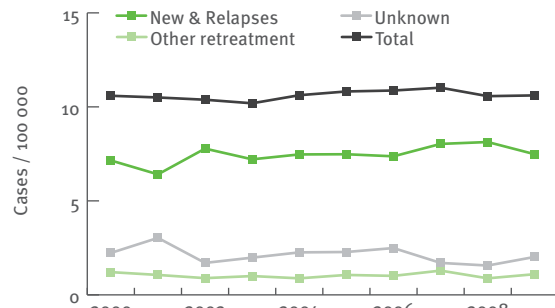
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	No
Case-linked data reporting	Yes
Cases with DST results	206 (85.1%)
Cases resistant to isoniazid	8 (3.9%)
Cases resistant to rifampicin	0 (0.0%)
MDR cases	0 (0.0%)
of which XDR cases	0 (0.0%)
Cases resistant to ethambutol	2 (1.0%)
Cases resistant to streptomycin	4 (1.9%)
TB cases tested for HIV	52 (11.0%)
HIV-positive TB cases	6 (11.5%)

Treatment outcome monitoring, 2008

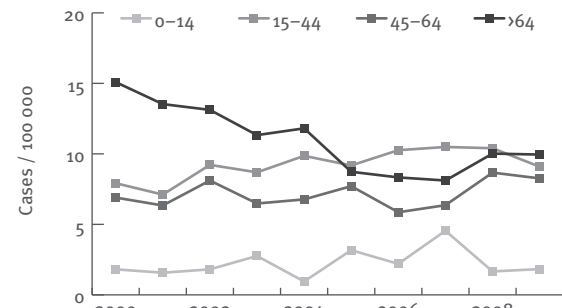
Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	187
Success	143 (76.5%)
Died	13 (7.0%)
Failed	0 (0.0%)
Defaulted	3 (1.6%)
Still on treatment	0 (0.0%)
Transferred or unknown	28 (15.0%)

Tuberculosis notification rates by treatment history, 2000–2009*

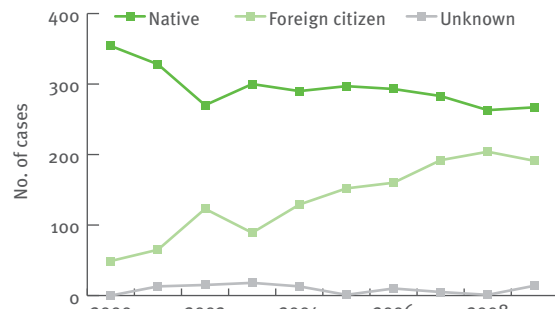


* Distribution of cases by previous diagnosis

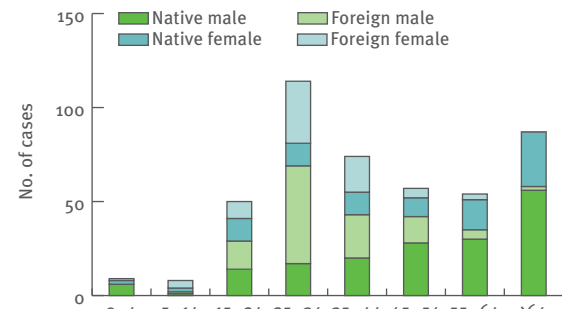
Tuberculosis notification rates by age group, 2000–2009



Tuberculosis cases by geographical origin, 2000–2009



Tuberculosis cases by origin, age group and sex, 2009

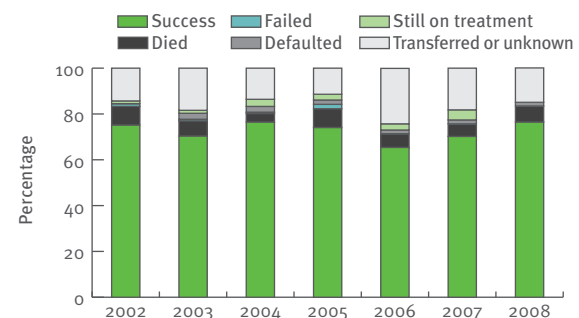


MDR TB cases by previous treatment history, 2000–2009*



* Distribution of cases by previous diagnosis

Treatment outcome, new pulmonary culture-positive cases, 2002–2008



Israel

Population estimate 2009 by UN Statistical Database: 7169556

Tuberculosis case notifications, 2009

Total number of cases	347
Notification rate per 100 000	4.8
New & relapses (lab+) number	345
New & relapses (lab+) notification rate per 100 000	4.8
Pulmonary	248 (71.5%)
of which smear-positive	111 (44.8%)
Culture positive of all TB cases	265 (76.4%)
Mean age (age group) of new TB cases, nationals	> 64 years
Mean age (age group) of new TB cases, non-nationals	25-44 years
Foreign citizens of all TB cases	294 (84.7%)
New (not previously treated)	339 (97.7%)
TB deaths per 100 000 (2008)	0.4

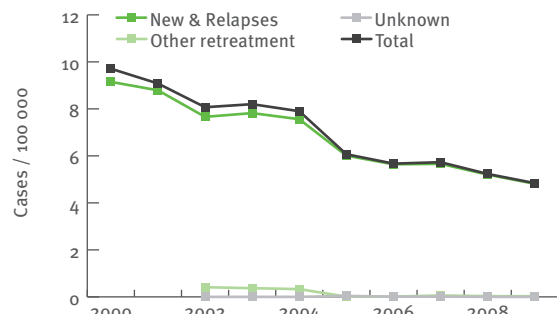
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	Yes
Case-linked data reporting	Yes
Cases with DST results	265 (100.0%)
Cases resistant to isoniazid	30 (11.3%)
Cases resistant to rifampicin	7 (2.6%)
MDR cases	7 (2.6%)
of which XDR cases	-
Cases resistant to ethambutol	7 (2.6%)
Cases resistant to streptomycin	38 (14.3%)
TB cases tested for HIV	288 (83%)
HIV-positive TB cases	22 (7.6%)

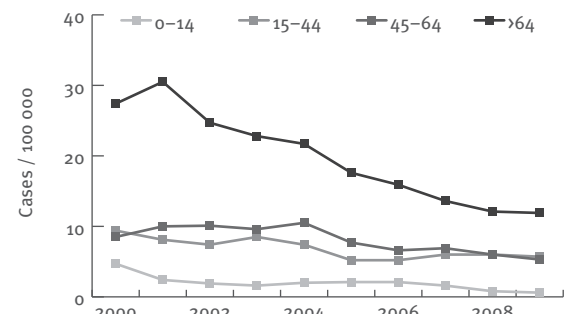
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear and/or culture positive
Case-linked data reporting	Yes
Notified in 2008	160
Success	130 (81.3%)
Died	14 (8.8%)
Failed	1 (0.6%)
Defaulted	2 (1.3%)
Still on treatment	-
Transferred or unknown	13 (8.1%)

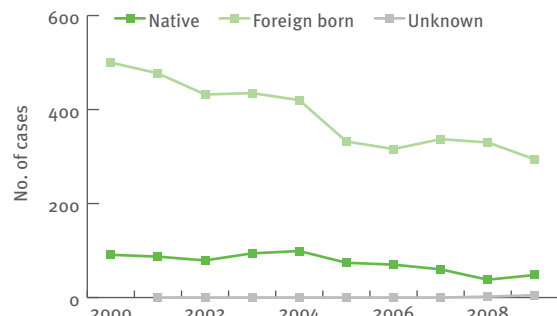
Tuberculosis notification rates by treatment history, 2000-2009



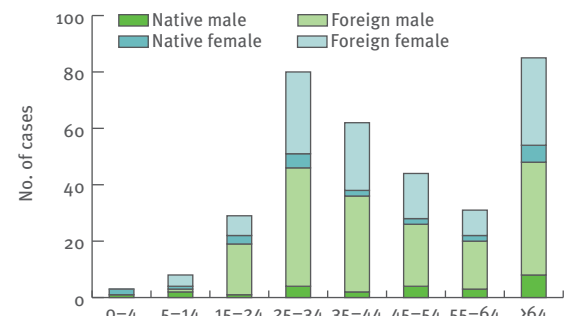
Tuberculosis notification rates by age group, 2000-2009



Tuberculosis cases by geographical origin, 2000-2009



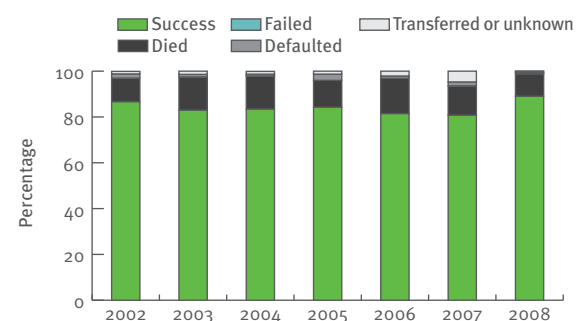
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000-2009



Treatment outcome, new pulmonary culture-positive cases, 2002-2008



Italy

Total population at 1 January 2009 by EUROSTAT: 60 045 068

Tuberculosis case notifications, 2009

Total number of cases	3877
Notification rate per 100 000	6.5
New & relapses (lab+) number	2541
New & relapses (lab+) notification rate per 100 000	4.2
Pulmonary of which smear-positive	2788 (71.9%) 1386 (49.7%)
Culture positive of all TB cases	2511 (64.8%)
Mean age of new TB cases, nationals	55.7 years
Mean age of new TB cases, non-nationals	33.4 years
Foreign citizens of all TB cases	1838 (47.4%)
New (not previously treated)	2541 (65.5%)
TB deaths per 100 000 (2008)	0.4

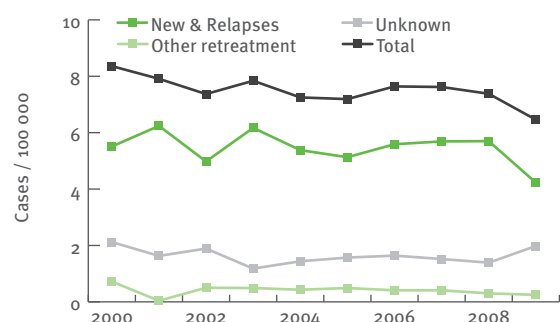
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	-
Case-linked data reporting	No
Cases with DST results	2511 (100.0%)
Cases resistant to isoniazid	248 (9.9%)
Cases resistant to rifampicin	101 (4.0%)
MDR cases of which XDR cases	82 (3.3%) 1 (1.2%)
Cases resistant to ethambutol	56 (2.2%)
Cases resistant to streptomycin	236 (9.4%)
TB cases tested for HIV	-
HIV-positive TB cases	-

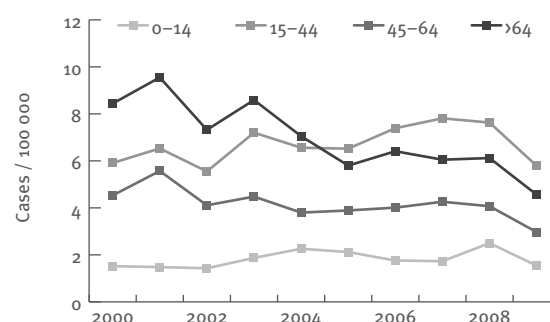
Treatment outcome monitoring, 2008

Not available

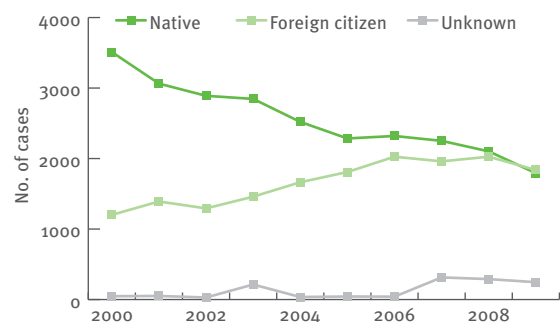
Tuberculosis notification rates by treatment history, 2000–2009



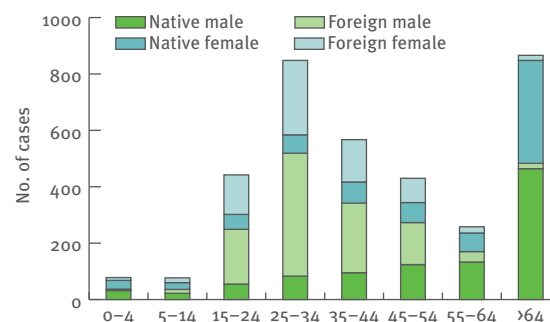
Tuberculosis notification rates by age group, 2000–2009



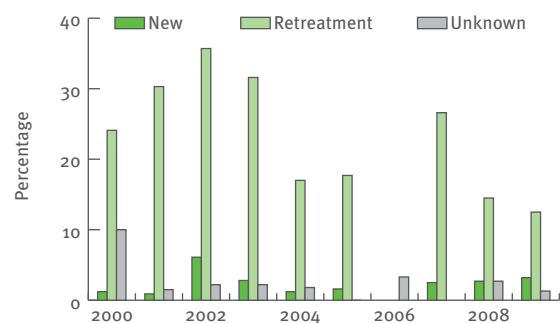
Tuberculosis cases by geographical origin, 2000–2009



Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009*



* No data by treatment history in 2006

Treatment outcome, new pulmonary culture-positive cases, 2002–2008

Not available

Kazakhstan

Population estimate 2009 by UN Statistical Database: 15636987

Tuberculosis case notifications, 2009

Total number of cases	30578
Notification rate per 100 000	195.5
New & relapses (lab+) number	20508
New & relapses (lab+) notification rate per 100 000	131.2
Pulmonary	24 569 (80.3%)
of which smear-positive	12 279 (50.0%)
Culture positive of all TB cases	9741 (31.9%)
Mean age (age group) of new TB cases, nationals	25-44 years
Mean age (age group) of new TB cases, non-nationals	25-44 years
Foreign citizens of all TB cases	162 (0.5%)
New (not previously treated)	16 810 (55.0%)
TB deaths per 100 000 (2008)	16.9

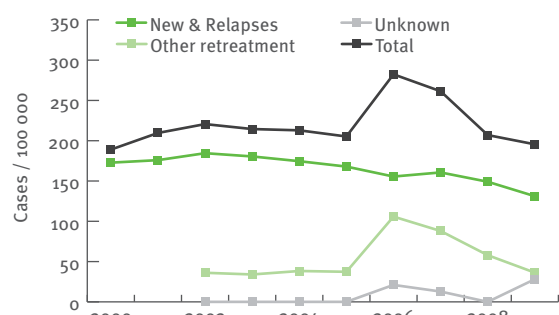
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	Yes
Case-linked data reporting	Yes
Cases with DST results	9578 (98.3%)
Cases resistant to isoniazid	3780 (39.5%)
Cases resistant to rifampicin	3697 (38.6%)
MDR cases	3644 (38.0%)
of which XDR cases	216 (5.9%)
Cases resistant to ethambutol	2945 (30.7%)
Cases resistant to streptomycin	3848 (40.2%)
TB cases tested for HIV	29597 (97%)
HIV-positive TB cases	325 (1.1%)

Treatment outcome monitoring, 2008

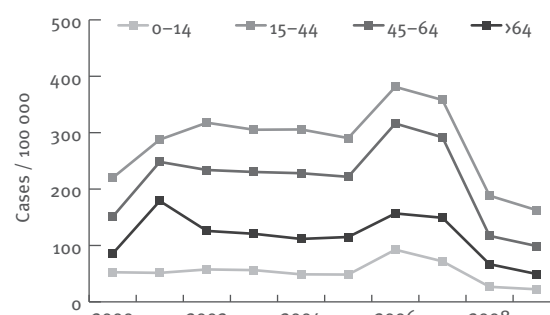
Geographical coverage	National
Outcome cohort	New pulmonary smear positive
Case-linked data reporting	Yes
Notified in 2008	6167
Success	3949 (64.0%)
Died	271 (4.4%)
Failed	1583 (25.7%)
Defaulted	236 (3.8%)
Still on treatment	-
Transferred or unknown	128 (2.1%)

Tuberculosis notification rates by treatment history, 2000-2009*



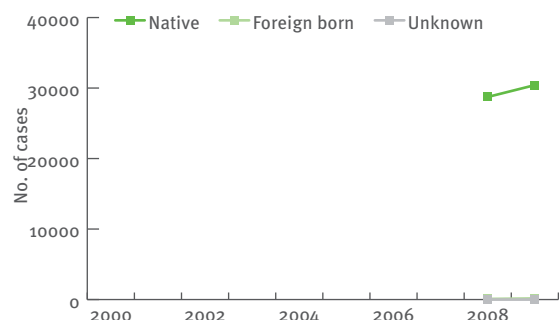
* Sharp increase in cases previously treated & with unknown history in 2006

Tuberculosis notification rates by age group, 2000-2009*

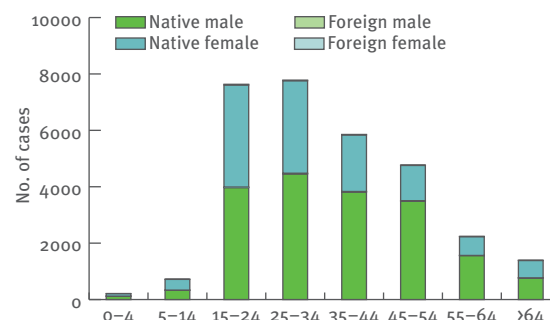


* Sharp increase in cases previously treated & with unknown history in 2006. Only new cases included in 2006.

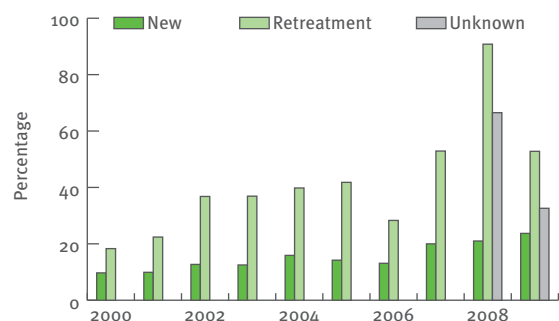
Tuberculosis cases by geographical origin, 2000-2009



Tuberculosis cases by origin, age group and sex, 2009

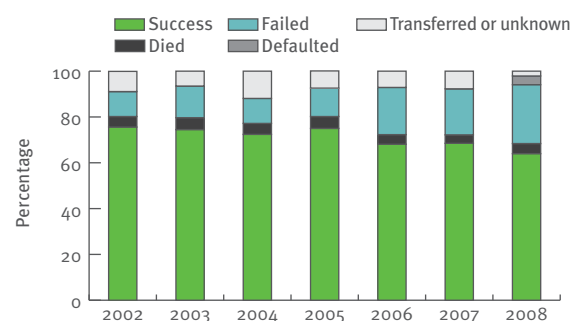


MDR TB cases by previous treatment history, 2000-2009*



* Data completeness unknown

Treatment outcome, new pulmonary smear-positive cases, 2002-2008



Kyrgyzstan

Population estimate 2009 by UN Statistical Database: 5 482 200

Tuberculosis case notifications, 2009

Total number of cases	6 358
Notification rate per 100 000	116.0
New & relapses (lab+) number	5 765
New & relapses (lab+) notification rate per 100 000	105.2
Pulmonary	4 373 (68.8%)
of which smear-positive	2 106 (48.2%)
Culture positive of all TB cases	-
Mean age of new TB cases, nationals	25-44 years
Mean age of new TB cases, non-nationals	-
Foreign citizens of all TB cases	0 (0.0%)
New (not previously treated)	5 434 (85.5%)
TB deaths per 100 000 (2008)	11.4

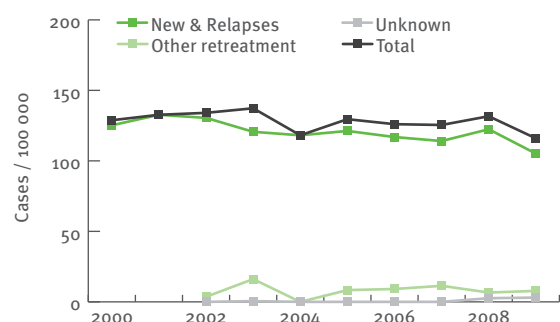
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	Yes
Case-linked data reporting	Yes
Cases with DST results	1 930
Cases resistant to isoniazid	1 278 (66.2%)
Cases resistant to rifampicin	826 (42.8%)
MDR cases	785 (40.7%)
of which XDR cases	6 (0.8%)
Cases resistant to ethambutol	626 (32.4%)
Cases resistant to streptomycin	1 302 (67.5%)
TB cases tested for HIV	6 358 (100%)
HIV-positive TB cases	88 (1.4%)

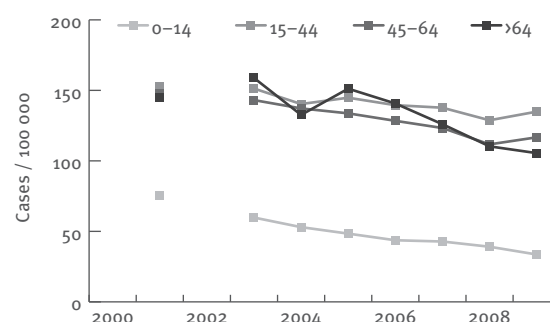
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear positive
Case-linked data reporting	Yes
Notified in 2008	1 637
Success	1 385 (84.6%)
Died	49 (3.0%)
Failed	93 (5.7%)
Defaulted	81 (4.9%)
Still on treatment	-
Transferred or unknown	29 (1.8%)

Tuberculosis notification rates, 1995-2007



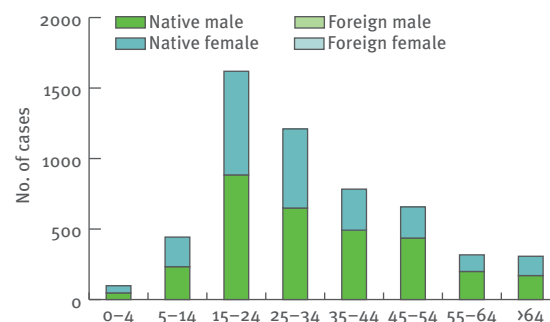
Tuberculosis notification rates by age group, 2000-2009



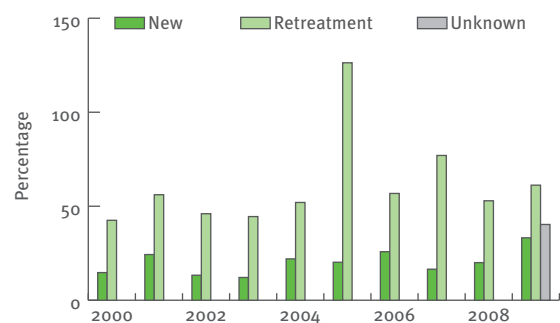
Tuberculosis cases by geographical origin, 2000-2009

Foreign citizens not reported

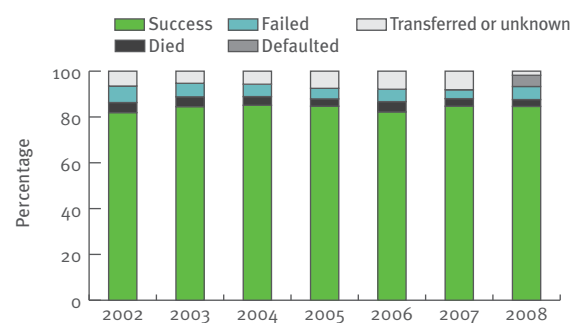
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000-2009*



Treatment outcome, new pulmonary culture-positive cases, 2002-2008



* Data completeness unknown; one out of two cases of foreign origin with DST results in 2001 had MDR

Latvia

Total population at 1 January 2009 by EUROSTAT: 2 261 294

Tuberculosis case notifications, 2009

Total number of cases	977
Notification rate per 100 000	43.2
New & relapses (lab+) number	948
New & relapses (lab+) notification rate per 100 000	41.9
Pulmonary	888 (90.9%)
of which smear-positive	465 (52.4%)
Culture positive of all TB cases	773 (79.1%)
Mean age of new TB cases, nationals	41.7 years
Mean age of new TB cases, non-nationals	52.8 years
Foreign citizens of all TB cases	60 (6.1%)
New (not previously treated)	830 (85.0%)
TB deaths per 100 000 (2008)	4.6

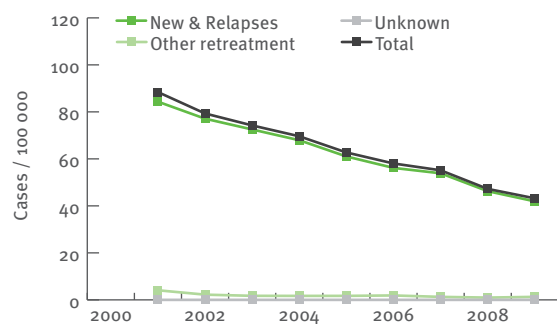
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	Yes
Case-linked data reporting	Yes
Cases with DST results	752 (97.3%)
Cases resistant to isoniazid	230 (30.6%)
Cases resistant to rifampicin	133 (17.7%)
MDR cases	131 (17.4%)
of which XDR cases	16 (12.2%)
Cases resistant to ethambutol	92 (12.2%)
Cases resistant to streptomycin	207 (27.5%)
TB cases tested for HIV	830 (85.0%)
HIV-positive TB cases	73 (8.8%)

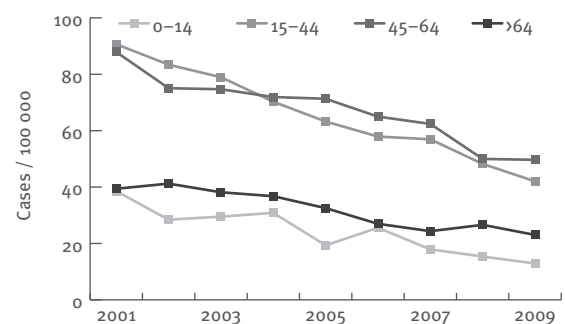
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	641
Success	484 (75.5%)
Died	59 (9.2%)
Failed	6 (0.9%)
Defaulted	26 (4.1%)
Still on treatment	63 (9.8%)
Transferred or unknown	3 (0.5%)

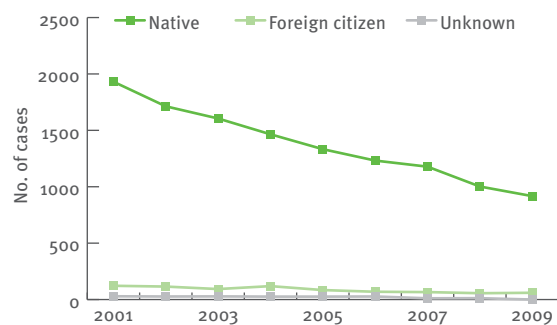
Tuberculosis notification rates by treatment history, 2001–2009



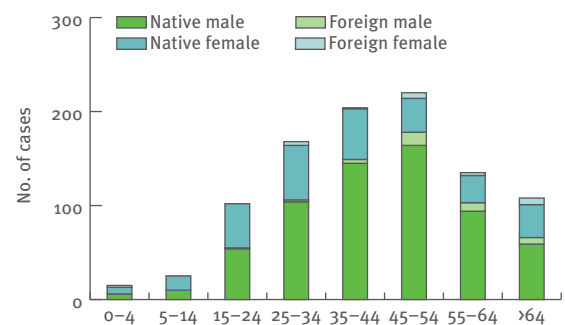
Tuberculosis notification rates by age group, 2001–2009



Tuberculosis cases by geographical origin, 2001–2009



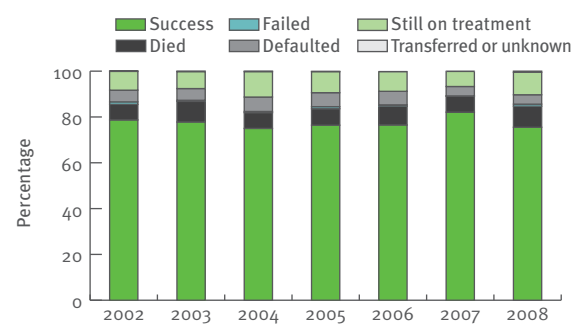
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009



Treatment outcome, new pulmonary culture-positive cases, 2002–2008



Liechtenstein

Total population at 1 January 2009 by EUROSTAT: 35 589

Tuberculosis case notifications, 2009

Not available

Drug resistance surveillance & TB-HIV co-infection, 2009

Not available

Treatment outcome monitoring, 2008

Not available

Tuberculosis notification rates by treatment history, 2000–2009

Insufficient number of cases for graphic presentation

Tuberculosis notification rates by age group, 2000–2009

Insufficient number of cases for graphic presentation

Tuberculosis cases by geographical origin, 2000–2009

Insufficient number of cases for graphic presentation

Tuberculosis cases by origin, age group and sex, 2009

Not available

MDR TB cases by previous treatment history, 2000–2009

Not available

Treatment outcome, new pulmonary culture-positive cases, 2002–2008

Not available

Lithuania

Total population at 1 January 2009 by EUROSTAT: 3349872

Tuberculosis case notifications, 2009

Total number of cases	2081
Notification rate per 100 000	62.1
New & relapses (lab+) number	1898
New & relapses (lab+) notification rate per 100 000	56.7
Pulmonary	1845 (88.7%)
of which smear-positive	1082 (58.6%)
Culture positive of all TB cases	1478 (71.0%)
Mean age of new TB cases, nationals	44.9 years
Mean age of new TB cases, non-nationals	54.7 years
Foreign citizens of all TB cases	61 (2.9%)
New (not previously treated)	1677 (80.6%)
TB deaths per 100 000 (2008)	9.8

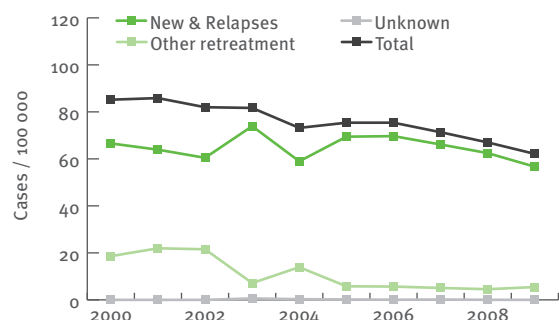
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	No
Case-linked data reporting	Yes
Cases with DST results	1478 (100.0%)
Cases resistant to isoniazid	479 (32.4%)
Cases resistant to rifampicin	330 (22.3%)
MDR cases	322 (21.8%)
of which XDR cases	0 (0.0%)
Cases resistant to ethambutol	193 (13.1%)
Cases resistant to streptomycin	448 (30.3%)
TB cases tested for HIV	-
HIV-positive TB cases	14 (0.7%)

Treatment outcome monitoring, 2008

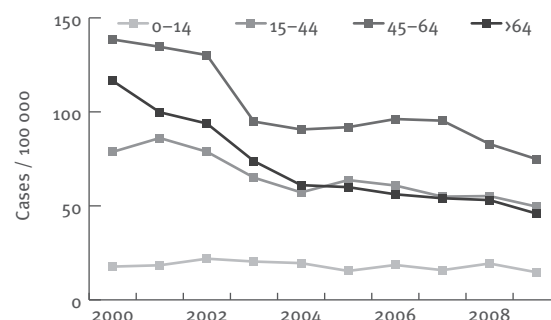
Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	1211
Success	892 (73.7%)
Died	125 (10.3%)
Failed	21 (1.7%)
Defaulted	130 (10.7%)
Still on treatment	38 (3.1%)
Transferred or unknown	5 (0.4%)

Tuberculosis notification rates by treatment history, 2000–2009*



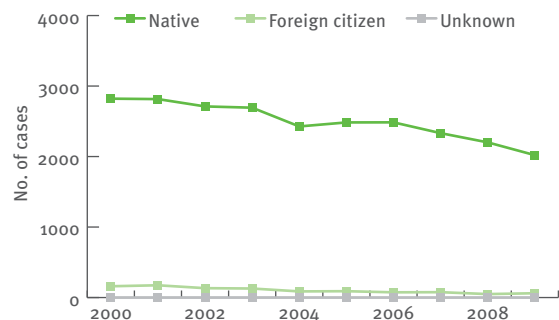
* Historical data used for 2000–2002

Tuberculosis notification rates by age group, 2000–2009*



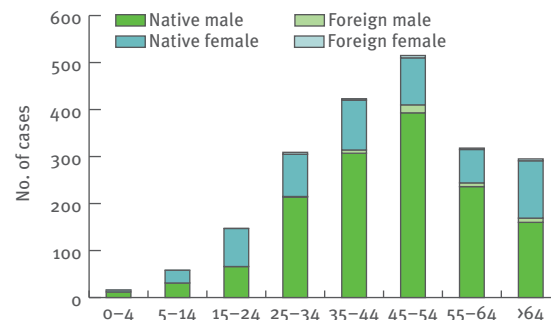
* Historical data used for 2000–2002

Tuberculosis cases by geographical origin, 2000–2009*



* Historical data used for 2000–2002

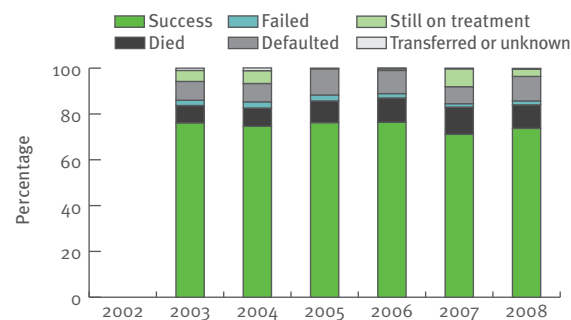
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009



Treatment outcome, new pulmonary culture-positive cases, 2002–2008*



* No data for 2002

Luxembourg

Total population at 1 January 2009 by EUROSTAT: 493 500

Tuberculosis case notifications, 2009

Total number of cases	27
Notification rate per 100 000	5.5
New & relapses (lab+) number	-
New & relapses (lab+) notification rate per 100 000	-
Pulmonary	25 (92.6%)
of which smear-positive	16 (64.0%)
Culture positive of all TB cases	27 (100.0%)
Mean age of new TB cases, nationals	-
Mean age of new TB cases, non-nationals	-
Foreign citizens of all TB cases	16 (59.3%)
New (not previously treated)	0 (0.0%)
TB deaths per 100 000 (2008)	0.3

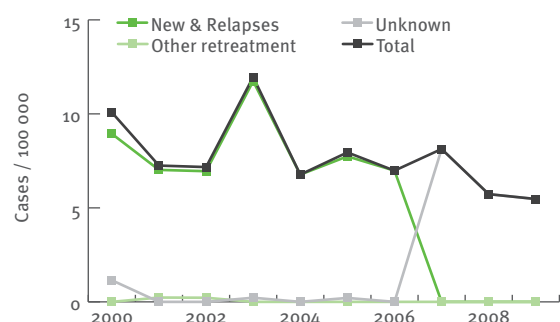
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	-
Case-linked data reporting	Yes
Cases with DST results	27 (100.0%)
Cases resistant to isoniazid	3 (11.1%)
Cases resistant to rifampicin	0 (0.0%)
MDR cases	0 (0.0%)
of which XDR cases	0 (0.0%)
Cases resistant to ethambutol	0 (0.0%)
Cases resistant to streptomycin	1 (3.7%)
TB cases tested for HIV	-
HIV-positive TB cases	-

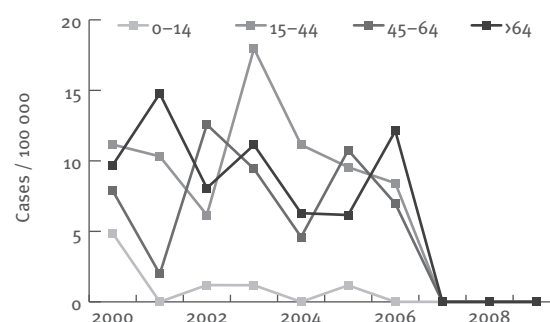
Treatment outcome monitoring, 2008

Not available

Tuberculosis notification rates by treatment history, 2000–2009

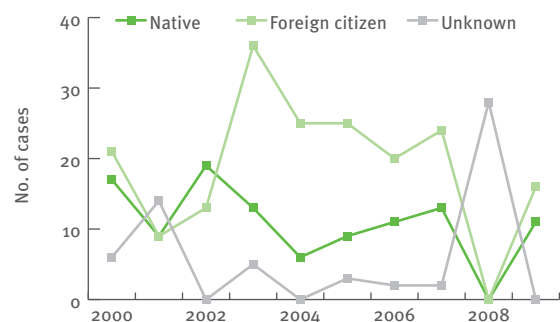


Tuberculosis notification rates by age group, 2000–2009*

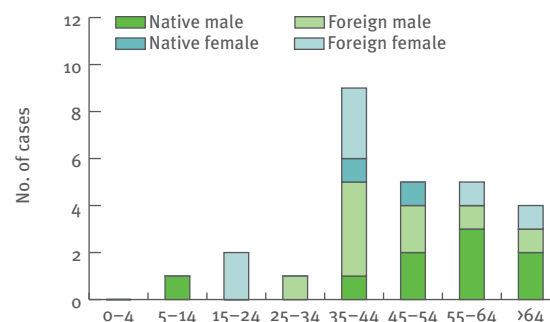


* No previous treatment history reported for 2007–2009

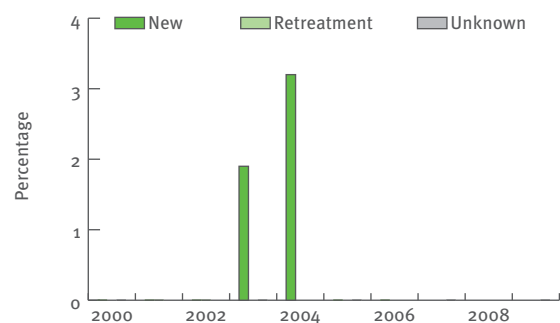
Tuberculosis cases by geographical origin, 2000–2009



Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009



Treatment outcome, new pulmonary culture-positive cases, 2002–2008

Not available

The former Yugoslav Republic of Macedonia

Population estimate 2009 by UN Statistical Database: 2042484

Tuberculosis case notifications, 2009

Total number of cases	473
Notification rate per 100 000	23.2
New & relapses (lab+) number	450
New & relapses (lab+) notification rate per 100 000	22.0
Pulmonary of which smear-positive	351 (74.2%) 230 (65.5%)
Culture positive of all TB cases	238 (50.3%)
Mean age (age group) of new TB cases, nationals	25-44 years
Mean age (age group) of new TB cases, non-nationals	> 64 years
Foreign citizens of all TB cases	16 (3.4%)
New (not previously treated)	417 (88.2%)
TB deaths per 100 000 (2008)	1.5

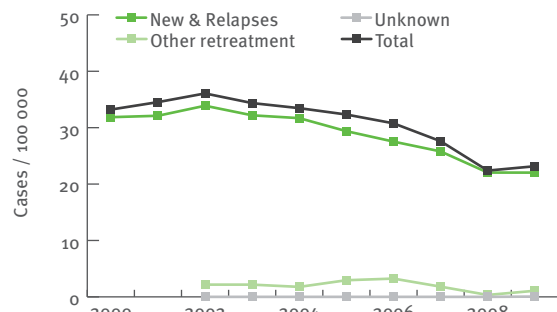
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	No
Case-linked data reporting	Yes
Cases with DST results	219 -
Cases resistant to isoniazid	6 (2.7%)
Cases resistant to rifampicin	4 (1.8%)
MDR cases of which XDR cases	1 (0.5%) -
Cases resistant to ethambutol	5 (2.3%)
Cases resistant to streptomycin	4 (1.8%)
TB cases tested for HIV	43 (9%)
HIV-positive TB cases	0 (0.0%)

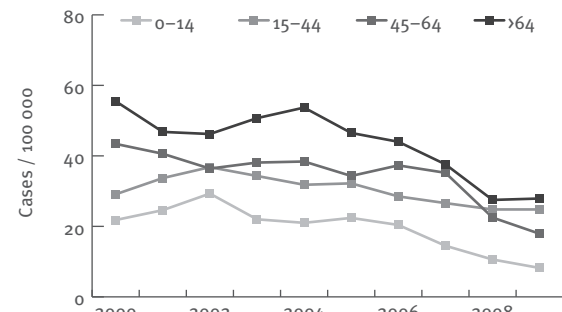
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear positive
Case-linked data reporting	Yes
Notified in 2008	188
Success	167 (88.8%)
Died	14 (7.4%)
Failed	1 (0.5%)
Defaulted	4 (2.1%)
Still on treatment	-
Transferred or unknown	2 (1.1%)

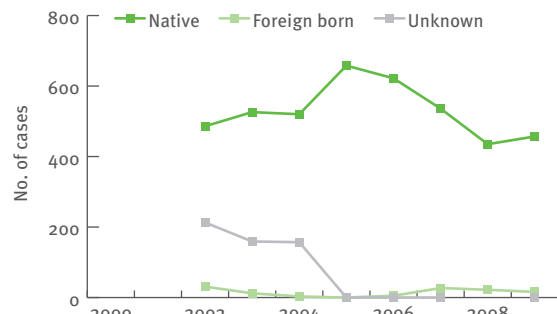
Tuberculosis notification rates by treatment history, 2000-2009



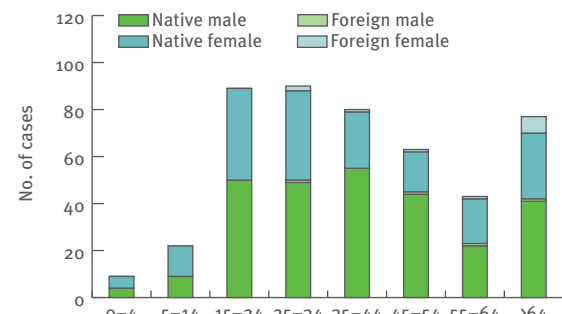
Tuberculosis notification rates by age group, 2000-2009



Tuberculosis cases by geographical origin, 2000-2009



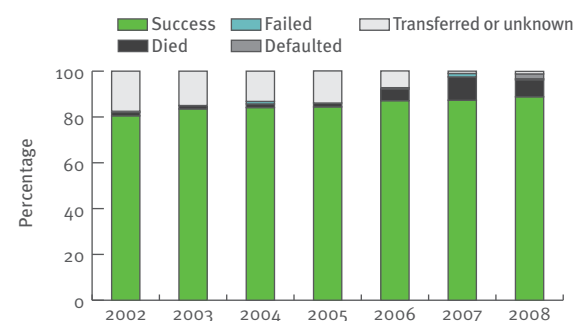
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000-2009*



Treatment outcome, new pulmonary smear-positive cases, 2002-2008



* Data completeness unknown

Malta

Total population at 1 January 2009 by EUROSTAT: 413 609

Tuberculosis case notifications, 2009

Total number of cases	44
Notification rate per 100 000	10.6
New & relapses (lab+) number	41
New & relapses (lab+) notification rate per 100 000	9.9
Pulmonary of which smear-positive	26 (59.1%) 12 (46.2%)
Culture positive of all TB cases	20 (45.5%)
Mean age of new TB cases, nationals	59.9 years
Mean age of new TB cases, non-nationals	26.7 years
Foreign citizens of all TB cases	34 (77.3%)
New (not previously treated)	41 (93.2%)
TB deaths per 100 000 (2008)	1.1

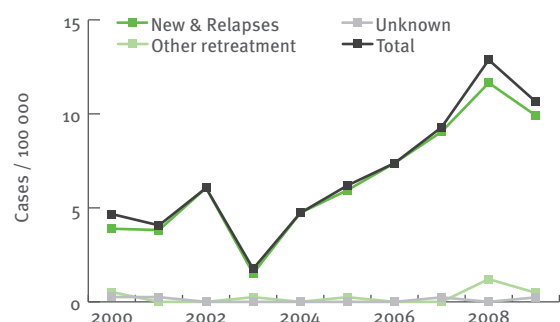
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	Yes
Case-linked data reporting	Yes
Cases with DST results	17 (85.0%)
Cases resistant to isoniazid	1 (5.9%)
Cases resistant to rifampicin	0 (0.0%)
MDR cases	0 (0.0%)
of which XDR cases	0 (0.0%)
Cases resistant to ethambutol	0 (0.0%)
Cases resistant to streptomycin	1 (5.9%)
TB cases tested for HIV	37 (84.1%)
HIV-positive TB cases	4 (10.8%)

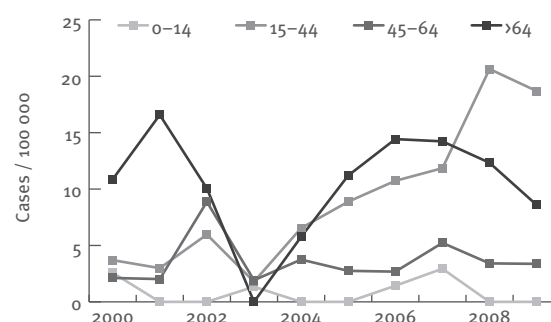
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	13
Success	12 (92.3%)
Died	0 (0.0%)
Failed	0 (0.0%)
Defaulted	0 (0.0%)
Still on treatment	0 (0.0%)
Transferred or unknown	1 (7.7%)

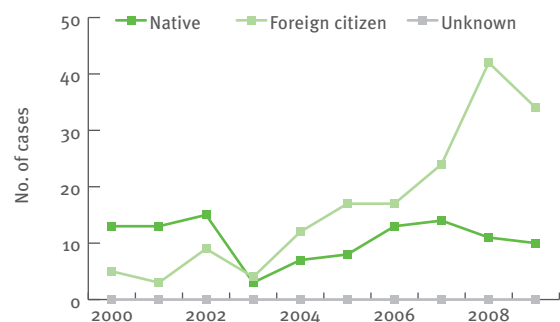
Tuberculosis notification rates by treatment history, 2000–2009



Tuberculosis notification rates by age group, 2000–2009

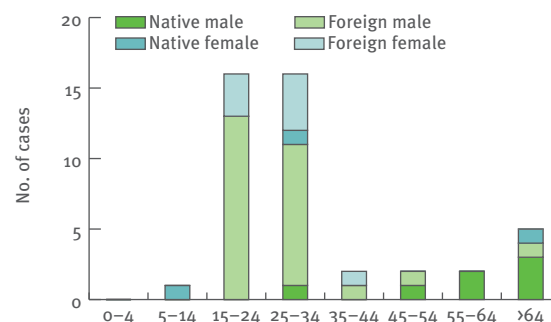


Tuberculosis cases by geographical origin, 2000–2009

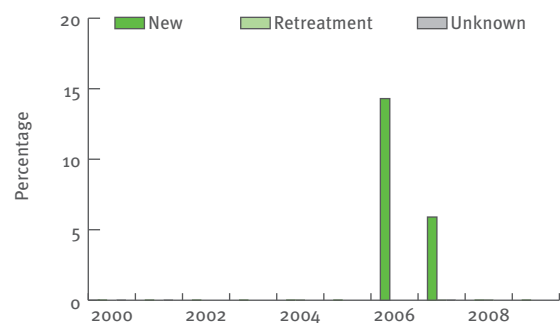


* By nationality for 2000–2006

Tuberculosis cases by origin, age group and sex, 2009

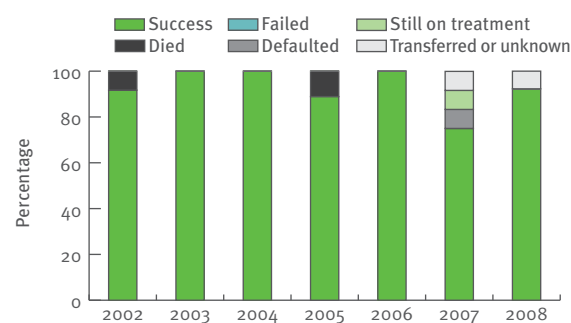


MDR TB cases by previous treatment history, 2000–2009*



* Data completeness unknown in 2003–2005; one out of 14 cases in foreign citizens with DST results in 2006 had MDR

Treatment outcome, new pulmonary culture-positive cases, 2002–2008



Moldova

Population estimate 2009 by UN Statistical Database: 3603506

Tuberculosis case notifications, 2009

Total number of cases	5591
Notification rate per 100 000	155.2
New & relapses (lab+) number	4347
New & relapses (lab+) notification rate per 100 000	120.6
Pulmonary	5054 (90.4%)
of which smear-positive	2325 (46.0%)
Culture positive of all TB cases	2229 (39.9%)
Mean age of new TB cases, nationals	25-44 years
Mean age of new TB cases, non-nationals	25-44 years
Foreign citizens of all TB cases	29 (0.5%)
New (not previously treated)	3804 (68.0%)
TB deaths per 100 000 (2008)	15.8

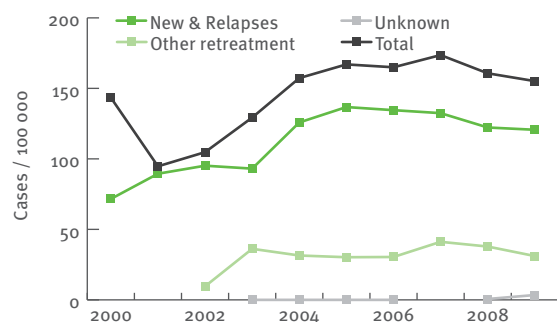
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	Yes
Case-linked data reporting	Yes
Cases with DST results	2413 -
Cases resistant to isoniazid	1157 (47.9%)
Cases resistant to rifampicin	1020 (42.3%)
MDR cases	1069 (44.3%)
of which XDR cases	- -
Cases resistant to ethambutol	827 (34.3%)
Cases resistant to streptomycin	1295 (53.7%)
TB cases tested for HIV	5239 (94%)
HIV-positive TB cases	275 (5.2%)

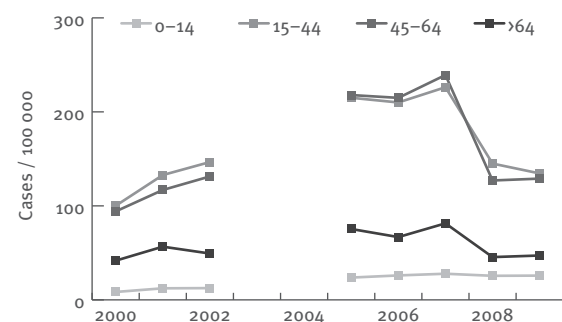
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear positive
Case-linked data reporting	Yes
Notified in 2008	1418
Success	943 (66.5%)
Died	169 (11.9%)
Failed	115 (8.1%)
Defaulted	188 (13.3%)
Still on treatment	- -
Transferred or unknown	3 (0.2%)

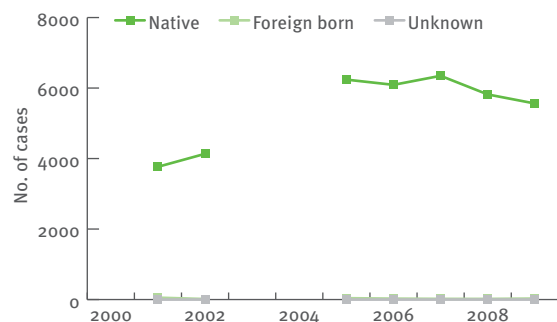
Tuberculosis notification rates by treatment history, 2000-2009



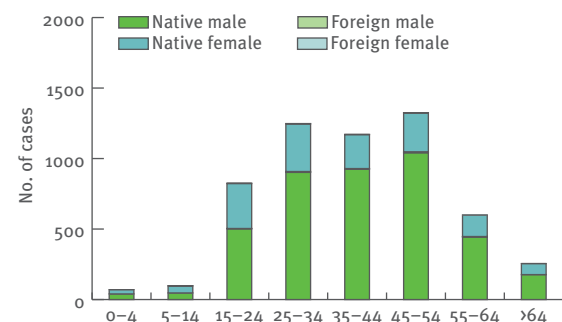
Tuberculosis notification rates by age group, 2000-2009



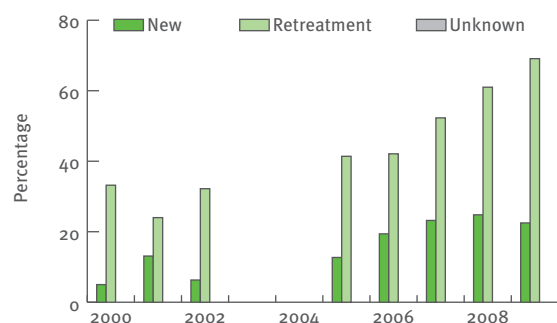
Tuberculosis cases by geographical origin, 2000-2009



Tuberculosis cases by origin, age group and sex, 2009

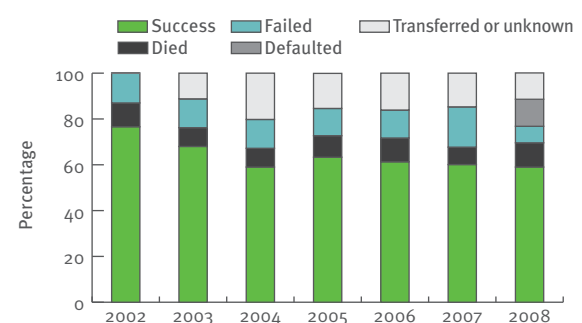


MDR TB cases by previous treatment history, 2000-2009*



* No data in 2003-2004

Treatment outcome, new pulmonary smear-positive cases, 2002-2008*



* Data completeness unknown 2002

Monaco

Population estimate 2009 by UN Statistical Database: 32812

Tuberculosis case notifications, 2009

Not available

Drug resistance surveillance & TB-HIV co-infection, 2009

Not available

Treatment outcome monitoring, 2008

Not available

Tuberculosis notification rates by treatment history, 2000–2009

Not available

Tuberculosis notification rates by age group, 2000–2009

Not available

Tuberculosis cases by geographical origin, 2000–2009

Not available

Tuberculosis cases by origin, age group and sex, 2009

Not available

MDR TB cases by previous treatment history, 2000–2009

Not available

Treatment outcome, new pulmonary culture-positive cases, 2002–2008

Not available

Montenegro

Population estimate 2009 by UN Statistical Database: 624 213

Tuberculosis case notifications, 2009

Total number of cases	120
Notification rate per 100 000	19.2
New & relapses (lab+) number	113
New & relapses (lab+) notification rate per 100 000	18.1
Pulmonary of which smear-positive	107 (89.2%) 63 (58.9%)
Culture positive of all TB cases	89 (74.2%)
Mean age (age group) of new TB cases, nationals	45-64 years
Mean age (age group) of new TB cases, non-nationals	45-64 years
Foreign citizens of all TB cases	1 (0.8%)
New (not previously treated)	108 (90.0%)
TB deaths per 100 000 (2008)	0.5

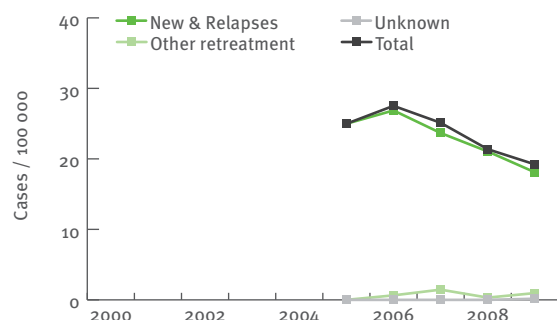
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	Yes
Case-linked data reporting	Yes
Cases with DST results	89 -
Cases resistant to isoniazid	2 (2.2%)
Cases resistant to rifampicin	2 (2.2%)
MDR cases of which XDR cases	1 (1.1%) -
Cases resistant to ethambutol	0 (0.0%)
Cases resistant to streptomycin	0 (0.0%)
TB cases tested for HIV	91 (76%)
HIV-positive TB cases	0 (0.0%)

Treatment outcome monitoring, 2008

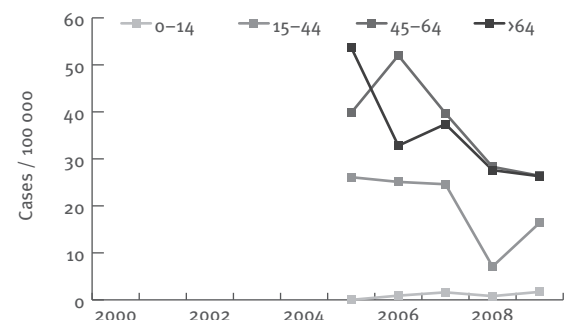
Geographical coverage	National
Outcome cohort	New pulmonary smear and/or culture positive
Case-linked data reporting	Yes
Notified in 2008	65
Success	55 (84.6%)
Died	3 (4.6%)
Failed	0 (0.0%)
Defaulted	1 (1.5%)
Still on treatment	-
Transferred or unknown	6 (9.2%)

Tuberculosis notification rates by treatment history, 2000-2009*



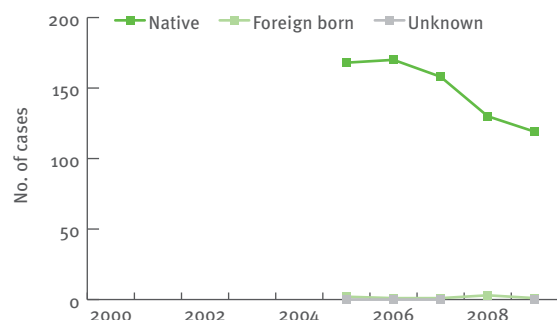
* Established in 2006 following the split of Serbia & Montenegro; data starting from 2005

Tuberculosis notification rates by age group, 2000-2009*



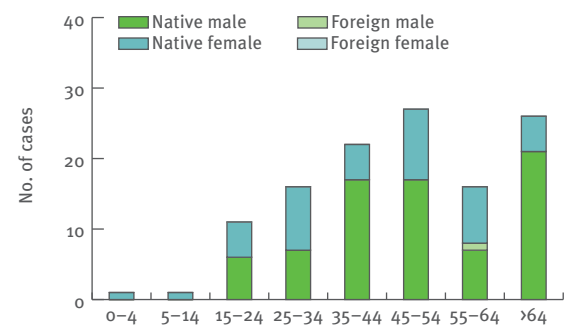
* Established in 2006 following the split of Serbia & Montenegro; data starting from 2005

Tuberculosis cases by geographical origin, 2000-2009*

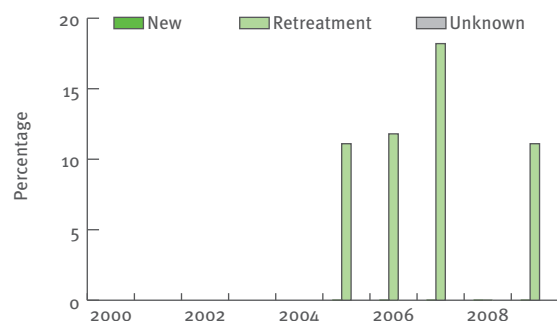


* Established in 2006 following the split of Serbia & Montenegro; data starting from 2005

Tuberculosis cases by origin, age group and sex, 2009

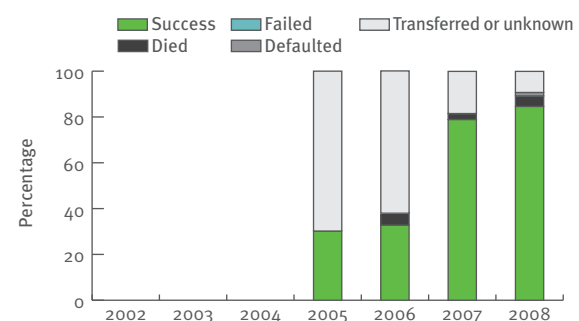


MDR TB cases by previous treatment history, 2000-2009*



* Established in 2006 following the split of Serbia & Montenegro; data starting from 2005

Treatment outcome, new pulmonary smear and/or culture-positive cases, 2001-2007*



* Pilot project, results incomplete

Netherlands

Total population at 1 January 2009 by EUROSTAT: 16 485 787

Tuberculosis case notifications, 2009

Total number of cases	1160
Notification rate per 100 000	7.0
New & relapses (lab+) number	1114
New & relapses (lab+) notification rate per 100 000	6.8
Pulmonary of which smear-positive	642 (55.3%) 224 (34.9%)
Culture positive of all TB cases	760 (65.5%)
Mean age of new TB cases, nationals	47.6 years
Mean age of new TB cases, non-nationals	37.4 years
Foreign citizens of all TB cases	842 (72.6%)
New (not previously treated)	1094 (94.3%)
TB deaths per 100 000 (2008)	0.4

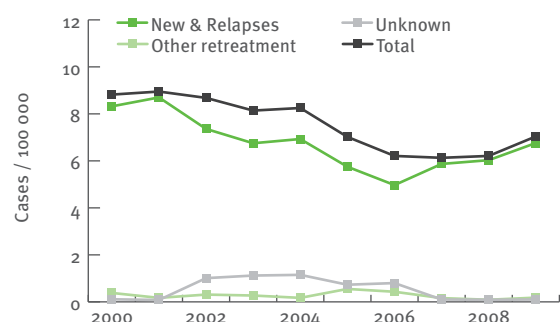
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	No
Case-linked data reporting	Yes
Cases with DST results	760 (100.0%)
Cases resistant to isoniazid	66 (8.7%)
Cases resistant to rifampicin	22 (2.9%)
MDR cases of which XDR cases	20 (2.6%) -
Cases resistant to ethambutol	10 (1.3%)
Cases resistant to streptomycin	0 (0.0%)
TB cases tested for HIV	356 (30.7%)
HIV-positive TB cases	42 (11.8%)

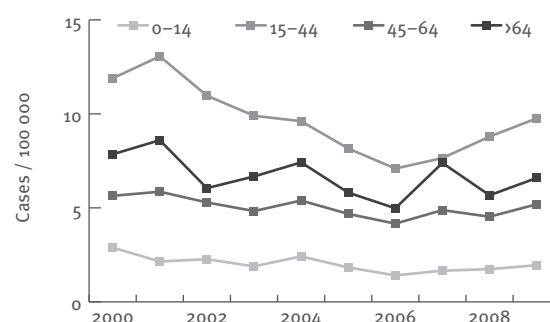
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	467
Success	397 (85.0%)
Died	32 (6.9%)
Failed	0 (0.0%)
Defaulted	7 (1.5%)
Still on treatment	0 (0.0%)
Transferred or unknown	31 (6.6%)

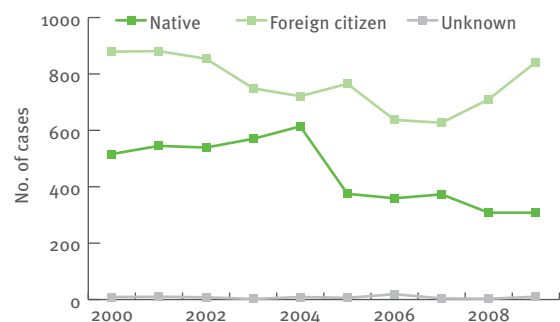
Tuberculosis notification rates by treatment history, 2000–2009



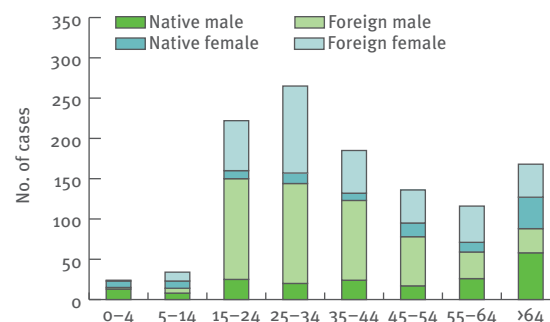
Tuberculosis notification rates by age group, 2000–2009



Tuberculosis cases by geographical origin, 2000–2009



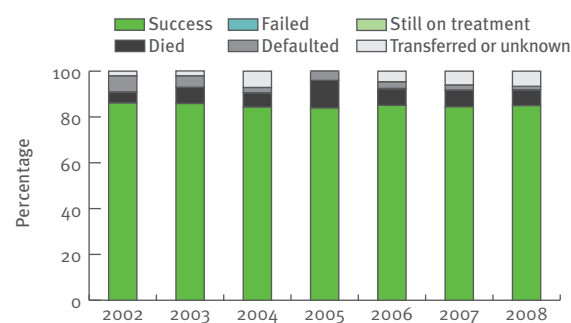
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009*



Treatment outcome, new pulmonary culture-positive cases, 2002–2008



* Total number for New in 2009 is 16, for Retreatment-3 and Unknown - 1

Norway

Total population at 1 January 2009 by EUROSTAT: 4 799 252

Tuberculosis case notifications, 2009

Total number of cases	363
Notification rate per 100 000	7.6
New & relapses (lab+) number	258
New & relapses (lab+) notification rate per 100 000	5.4
Pulmonary	229 (63.1%)
of which smear-positive	58 (25.3%)
Culture positive of all TB cases	285 (78.5%)
Mean age of new TB cases, nationals	60.4 years
Mean age of new TB cases, non-nationals	30.7 years
Foreign citizens of all TB cases	323 (89.0%)
New (not previously treated)	258 (71.1%)
TB deaths per 100 000 (2008)	0.3

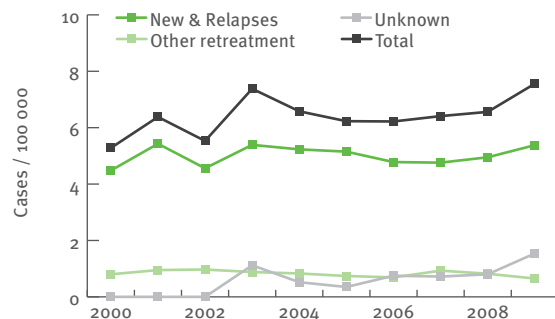
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	-
Case-linked data reporting	Yes
Cases with DST results	283 (99.3%)
Cases resistant to isoniazid	24 (8.5%)
Cases resistant to rifampicin	9 (3.2%)
MDR cases	8 (2.8%)
of which XDR cases	0 (0.0%)
Cases resistant to ethambutol	1 (0.4%)
Cases resistant to streptomycin	25 (8.8%)
TB cases tested for HIV	-
HIV-positive TB cases	-

Treatment outcome monitoring, 2008

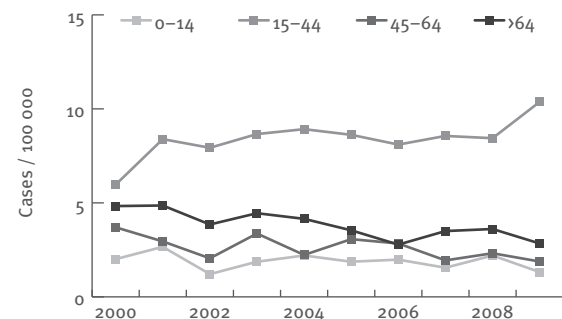
Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	105
Success	88 (83.8%)
Died	6 (5.7%)
Failed	0 (0.0%)
Defaulted	0 (0.0%)
Still on treatment	4 (3.8%)
Transferred or unknown	7 (6.7%)

Tuberculosis notification rates by treatment history, 2000–2009*

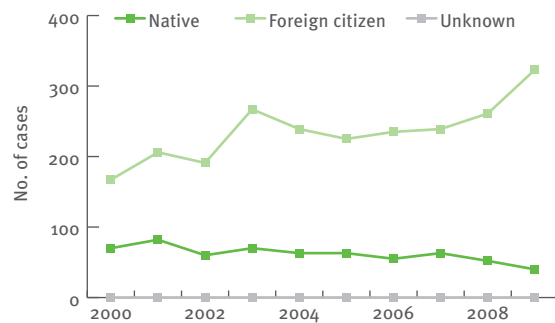


* Distribution of cases by previous diagnosis

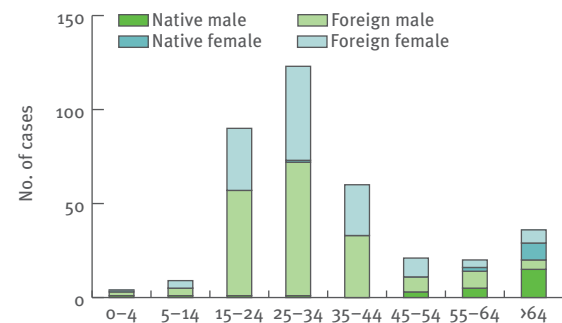
Tuberculosis notification rates by age group, 2000–2009



Tuberculosis cases by geographical origin, 2000–2009



Tuberculosis cases by origin, age group and sex, 2009

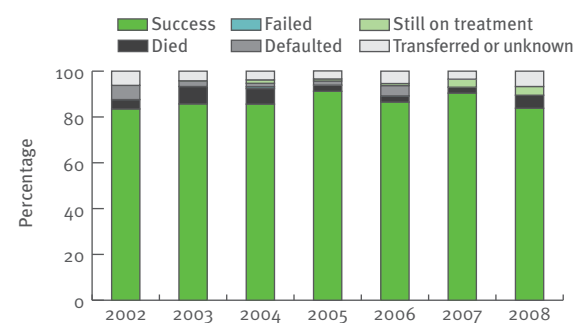


MDR TB cases by previous treatment history, 2000–2009*



* Distribution of cases by previous diagnosis

Treatment outcome, new pulmonary culture-positive cases, 2002–2008



Poland

Total population at 1 January 2009 by EUROSTAT: 38 135 876

Tuberculosis case notifications, 2009

Total number of cases	8 236
Notification rate per 100 000	21.6
New & relapses (lab+) number	7 646
New & relapses (lab+) notification rate per 100 000	20.0
Pulmonary	7 654 (92.9%)
of which smear-positive	3 115 (40.7%)
Culture positive of all TB cases	5 223 (63.4%)
Mean age of new TB cases, nationals	52.5 years
Mean age of new TB cases, non-nationals	35.3 years
Foreign citizens of all TB cases	53 (0.6%)
New (not previously treated)	7 268 (88.2%)
TB deaths per 100 000 (2008)	1.9

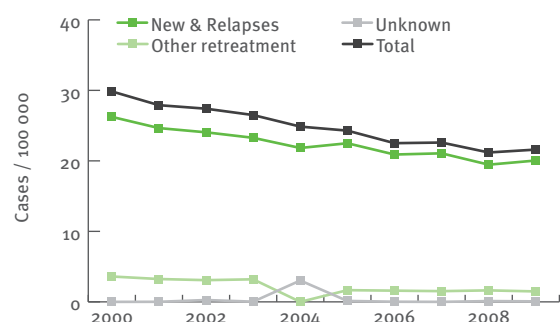
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	-
Completeness of TB-HIV data	No
Case-linked data reporting	-
Cases with DST results	- -
Cases resistant to isoniazid	- -
Cases resistant to rifampicin	- -
MDR cases	- -
of which XDR cases	- -
Cases resistant to ethambutol	- -
Cases resistant to streptomycin	- -
TB cases tested for HIV	- -
HIV-positive TB cases	27 (0.3%)

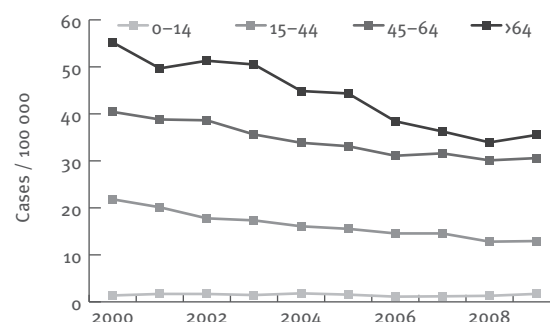
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	4 228
Success	3 128 (74.0%)
Died	287 (6.8%)
Failed	2 (0.0%)
Defaulted	426 (10.1%)
Still on treatment	18 (0.4%)
Transferred or unknown	367 (8.7%)

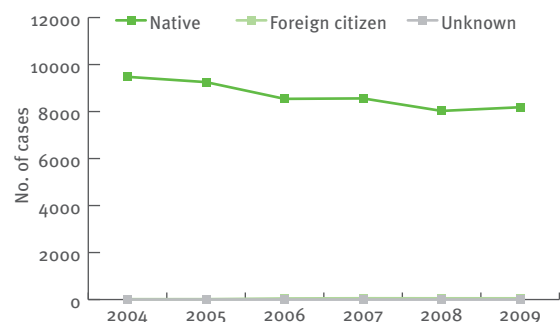
Tuberculosis notification rates by treatment history, 2000–2009



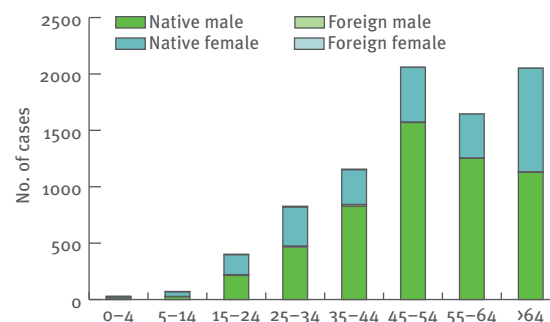
Tuberculosis notification rates by age group, 2000–2009



Tuberculosis cases by geographical origin, 2000–2009



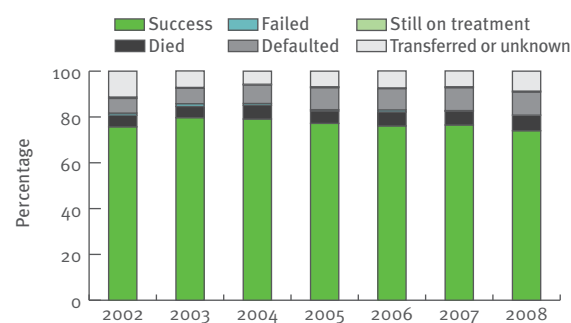
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009*



Treatment outcome, new pulmonary culture-positive cases, 2002–2008



* No data for 2000, 2002, 2003 and 2009

Portugal

Total population at 1 January 2009 by EUROSTAT: 10 627 250

Tuberculosis case notifications, 2009

Total number of cases	2871
Notification rate per 100 000	27.0
New & relapses (lab+) number	2713
New & relapses (lab+) notification rate per 100 000	25.5
Pulmonary	2091 (72.8%)
of which smear-positive	1179 (56.4%)
Culture positive of all TB cases	1892 (65.9%)
Mean age of new TB cases, nationals	46.8 years
Mean age of new TB cases, non-nationals	37.1 years
Foreign citizens of all TB cases	437 (15.2%)
New (not previously treated)	2600 (90.6%)
TB deaths per 100 000 (2008)	1.5

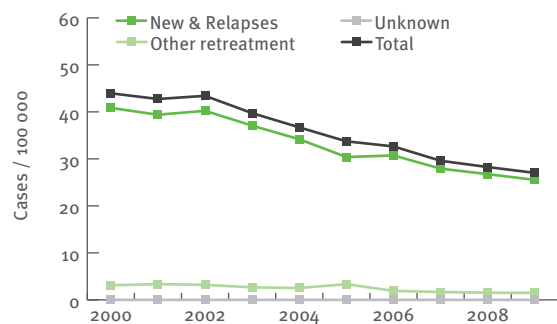
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	Yes
Case-linked data reporting	Yes
Cases with DST results	1539 (81.3%)
Cases resistant to isoniazid	108 (7.0%)
Cases resistant to rifampicin	23 (1.5%)
MDR cases	22 (1.4%)
of which XDR cases	0 (0.0%)
Cases resistant to ethambutol	18 (1.2%)
Cases resistant to streptomycin	172 (11.2%)
TB cases tested for HIV	1520 (52.9%)
HIV-positive TB cases	349 (23.0%)

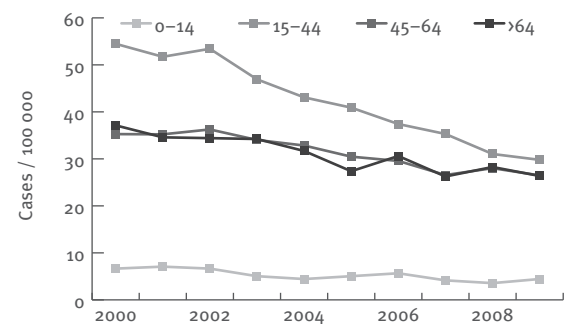
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	1683
Success	1470 (87.3%)
Died	0 (0.0%)
Failed	0 (0.0%)
Defaulted	37 (2.2%)
Still on treatment	55 (3.3%)
Transferred or unknown	121 (7.2%)

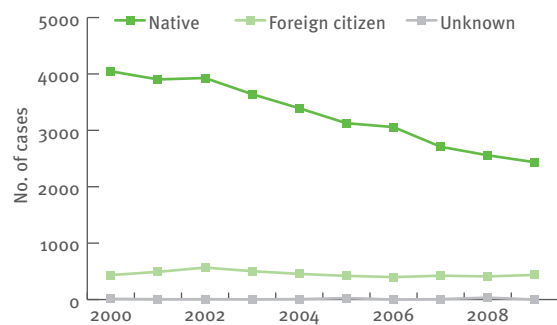
Tuberculosis notification rates by treatment history, 2000–2009



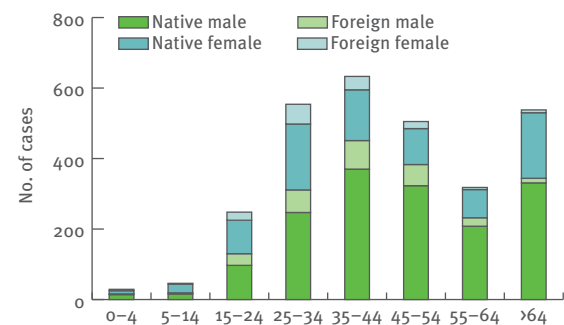
Tuberculosis notification rates by age group, 2000–2009



Tuberculosis cases by geographical origin, 2000–2009



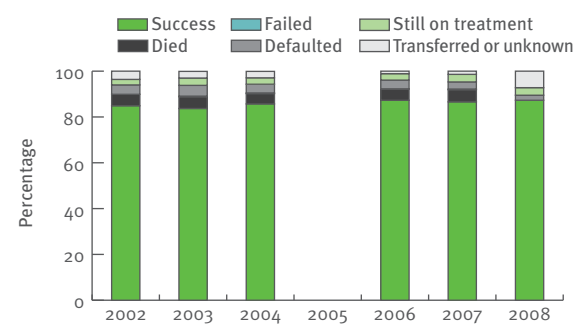
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009



Treatment outcome, new pulmonary culture-positive cases, 2002–2008*



* No data available for 2005

Romania

Total population at 1 January 2009 by EUROSTAT: 21 498 616

Tuberculosis case notifications, 2009

Total number of cases	23 267
Notification rate per 100 000	108.2
New & relapses (lab+) number	20 241
New & relapses (lab+) notification rate per 100 000	94.2
Pulmonary	19 889 (85.5%)
of which smear-positive	13 106 (65.9%)
Culture positive of all TB cases	12 351 (53.1%)
Mean age of new TB cases, nationals	41.7 years
Mean age of new TB cases, non-nationals	39.1 years
Foreign citizens of all TB cases	35 (0.2%)
New (not previously treated)	17 866 (76.8%)
TB deaths per 100 000 (2008)	7.1

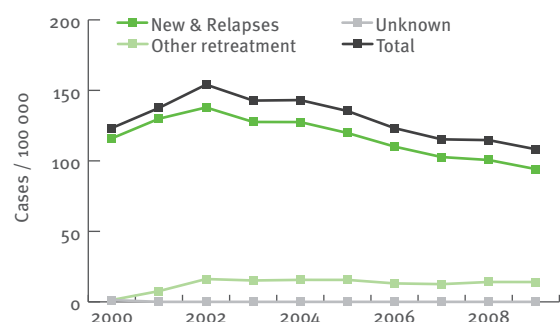
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	No
Case-linked data reporting	Yes
Cases with DST results	3 867 (31.3%)
Cases resistant to isoniazid	654 (16.9%)
Cases resistant to rifampicin	485 (12.5%)
MDR cases	435 (11.2%)
of which XDR cases	22 (5.1%)
Cases resistant to ethambutol	139 (3.6%)
Cases resistant to streptomycin	192 (5.0%)
TB cases tested for HIV	5 755 (24.7%)
HIV-positive TB cases	209 (3.6%)

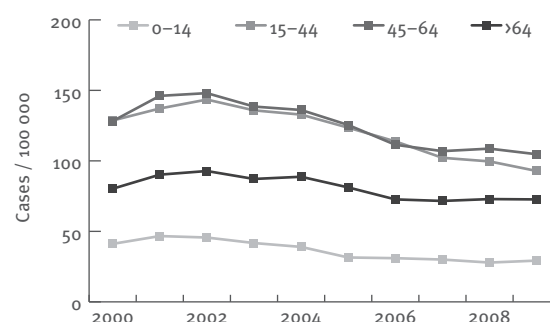
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	10 082
Success	8 513 (84.4%)
Died	467 (4.6%)
Failed	387 (3.8%)
Defaulted	554 (5.5%)
Still on treatment	106 (1.1%)
Transferred or unknown	55 (0.5%)

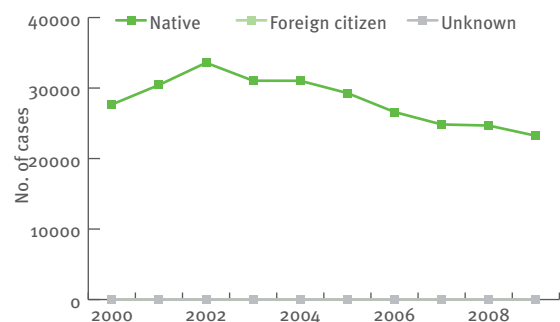
Tuberculosis notification rates by treatment history, 2000–2009



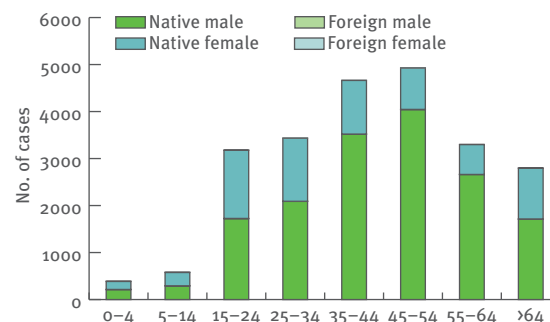
Tuberculosis notification rates by age group, 2000–2009



Tuberculosis cases by geographical origin, 2000–2009



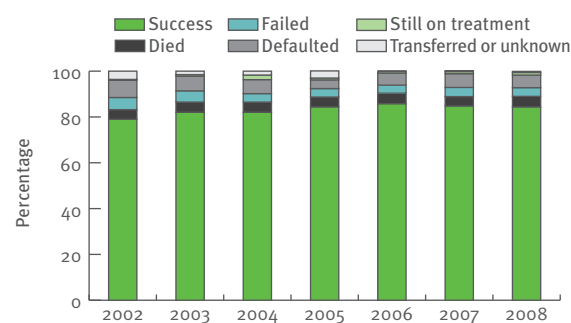
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009*



Treatment outcome, new pulmonary culture-positive cases, 2002–2008



* Data completeness unknown (data for 2004 from representative survey in 2003-2004)

Russia

Population estimate 2009 by UN Statistical Database: 140873648

Tuberculosis case notifications, 2009

Total number of cases	156 222
Notification rate per 100 000	110.9
New & relapses (lab+) number	126 227
New & relapses (lab+) notification rate per 100 000	89.6
Pulmonary	145 012 (92.8%)
of which smear-positive	49 626 (34.2%)
Culture positive of all TB cases	51 503 (33.0%)
Mean age (age group) of new TB cases, nationals	25-44 years
Mean age (age group) of new TB cases, non-nationals	25-44 years
Foreign citizens of all TB cases	2 217 (1.4%)
New (not previously treated)	117 227 (75.0%)
TB deaths per 100 000 (2008)	18.0

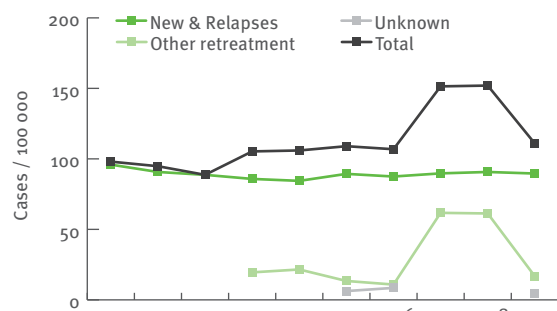
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	Yes
Case-linked data reporting	Yes
Cases with DST results	58 716 -
Cases resistant to isoniazid	0 (0.0%)
Cases resistant to rifampicin	0 (0.0%)
MDR cases	14 686 (25.0%)
of which XDR cases	-
Cases resistant to ethambutol	0 (0.0%)
Cases resistant to streptomycin	0 (0.0%)
TB cases tested for HIV	156 222 (100%)
HIV-positive TB cases	7 442 (4.8%)

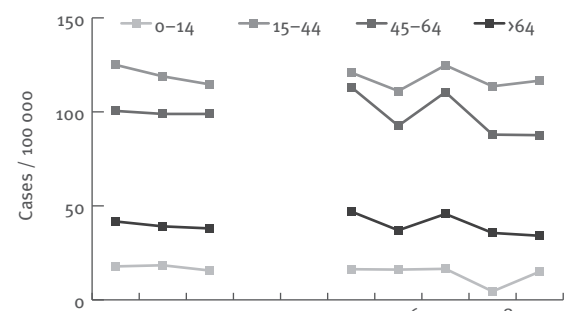
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear positive
Case-linked data reporting	Yes
Notified in 2008	32 356
Success	18 579 (57.4%)
Died	3 838 (11.9%)
Failed	5 731 (17.7%)
Defaulted	2 769 (8.6%)
Still on treatment	-
Transferred or unknown	1 439 (4.4%)

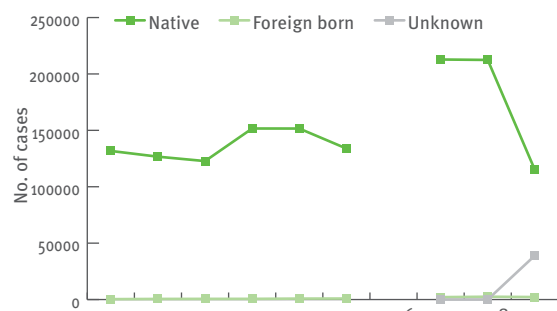
Tuberculosis notification rates, 1995-2007



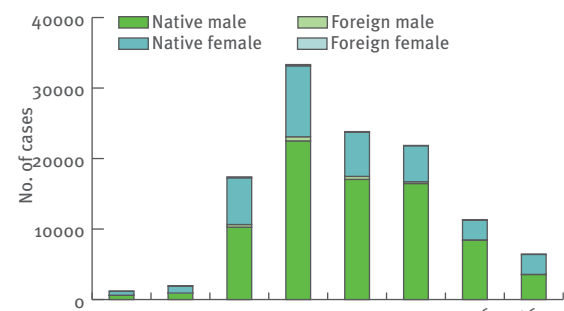
Tuberculosis notification rates by age group, 2000-2009



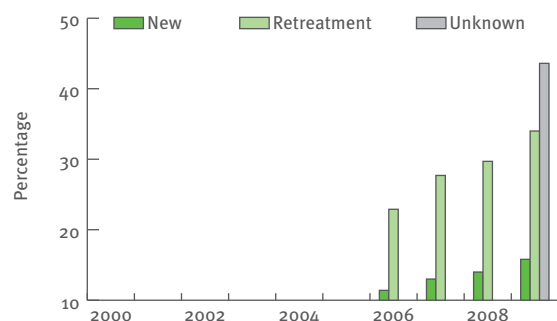
Tuberculosis cases by geographical origin, 2000-2009



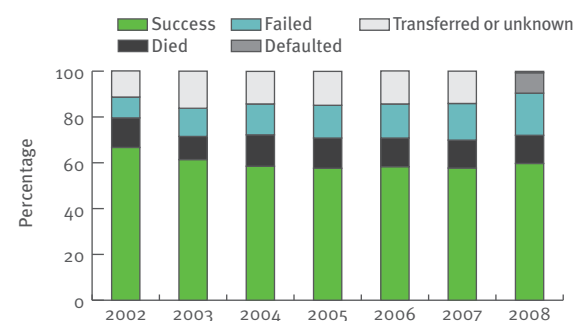
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000-2009



Treatment outcome, new pulmonary smear-positive cases, 2002-2008*



* DOTS areas, data completeness unknown

San Marino

Population estimate 2009 by UN Statistical Database: 31358

Tuberculosis case notifications, 2009

Not available

Drug resistance surveillance & TB-HIV co-infection, 2009

Not available

Treatment outcome monitoring, 2008

Not available

Tuberculosis notification rates by treatment history, 2000–2009

Not available

Tuberculosis notification rates by age group, 2000–2009

Not available

Tuberculosis cases by geographical origin, 2000–2009

Not available

Tuberculosis cases by origin, age group and sex, 2009

Not available

MDR TB cases by previous treatment history, 2000–2009

No MDR cases reported

Treatment outcome, new pulmonary culture-positive cases, 2002–2008

Not available

Serbia

Population estimate 2009 by UN Statistical Database: 9849846

Tuberculosis case notifications, 2009

Total number of cases*	1694
Notification rate per 100 000	17.2
New & relapses (lab+) number	1625
New & relapses (lab+) notification rate per 100 000	19.1
Pulmonary of which smear-positive	1482 (87.5%) 925 (62.4%)
Culture positive of all TB cases	1273 (75.1%)
Mean age (age group) of new TB cases, nationals	45-64 years
Mean age (age group) of new TB cases, non-nationals	45-64 years
Foreign citizens of all TB cases	6 (0.4%)
New (not previously treated)	1486 (87.7%)
TB deaths per 100 000 (2008)	1.7

* Excluding 901 cases from Kosovo (in accordance with Security Council Resolution 1244 (1999)) in 2009 only

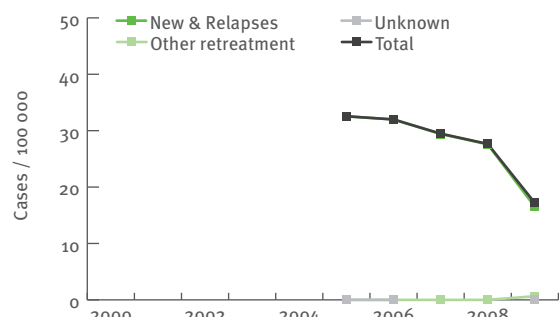
Drug resistance surveillance & TB-HIV co-infection, 2009

Not available

Treatment outcome monitoring, 2008

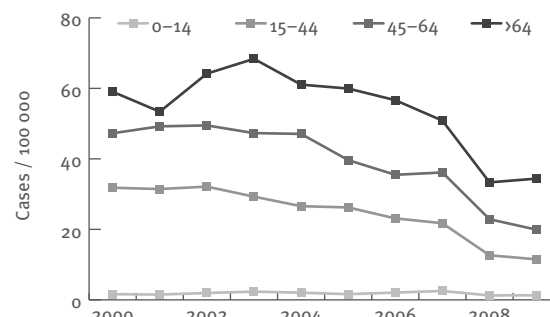
Geographical coverage	National
Outcome cohort	New pulmonary smear and/or culture positive
Case-linked data reporting	-
Notified in 2008	1111
Success	942 (84.8%)
Died	76 (6.8%)
Failed	24 (2.2%)
Defaulted	55 (5.0%)
Still on treatment	-
Transferred or unknown	14 (1.3%)

Tuberculosis notification rates by treatment history, 2000-2009*



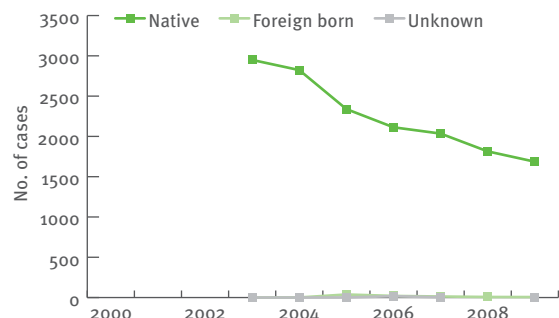
* Excluding 901 cases from Kosovo (in accordance with Security Council Resolution 1244 (1999)) in 2009 only

Tuberculosis notification rates by age group, 2000-2009*



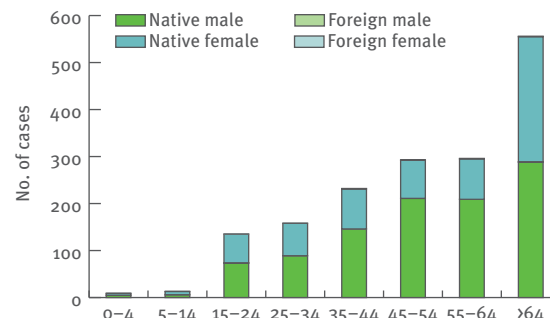
* Excluding 901 cases from Kosovo (in accordance with Security Council Resolution 1244 (1999)) in 2009 only

Tuberculosis cases by geographical origin, 2000-2009*

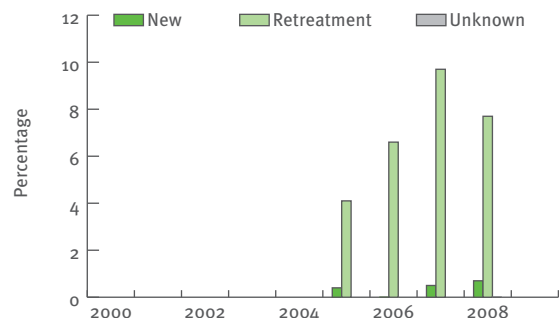


* Excluding 901 cases from Kosovo (in accordance with Security Council Resolution 1244 (1999)) in 2009 only

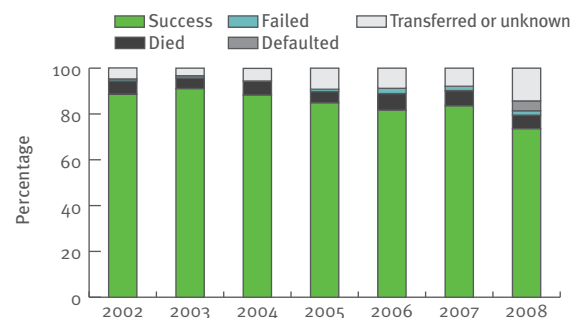
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000-2009



Treatment outcome, new pulmonary definite cases, 2002-2008*



* Belgrade region 2001-2004; nationwide pulmonary culture-positive cases from 2005

Slovakia

Total population at 1 January 2009 by EUROSTAT: 5 412 254

Tuberculosis case notifications, 2009

Total number of cases	506
Notification rate per 100 000	9.3
New & relapses (lab+) number	433
New & relapses (lab+) notification rate per 100 000	8.0
Pulmonary	414 (81.8%)
of which smear-positive	161 (38.9%)
Culture positive of all TB cases	235 (46.4%)
Mean age of new TB cases, nationals	54.6 years
Mean age of new TB cases, non-nationals	29.2 years
Foreign citizens of all TB cases	7 (1.4%)
New (not previously treated)	406 (80.2%)
TB deaths per 100 000 (2008)	0.8

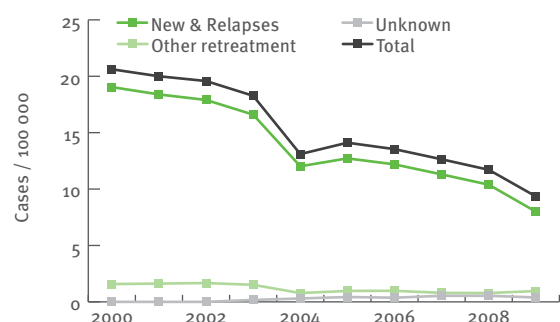
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	Yes
Case-linked data reporting	Yes
Cases with DST results	235 (100.0%)
Cases resistant to isoniazid	8 (3.4%)
Cases resistant to rifampicin	2 (0.9%)
MDR cases	1 (0.4%)
of which XDR cases	0 (0.0%)
Cases resistant to ethambutol	0 (0.0%)
Cases resistant to streptomycin	0 (0.0%)
TB cases tested for HIV	490 (96.8%)
HIV-positive TB cases	1 (0.2%)

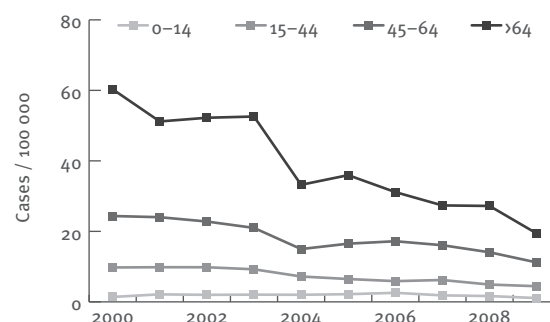
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	269
Success	234 (87.0%)
Died	26 (9.7%)
Failed	3 (1.1%)
Defaulted	4 (1.5%)
Still on treatment	1 (0.4%)
Transferred or unknown	1 (0.4%)

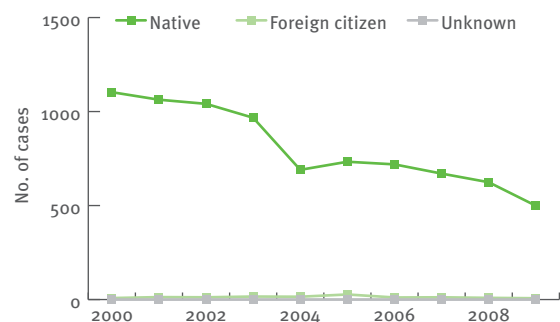
Tuberculosis notification rates by treatment history, 2000–2009



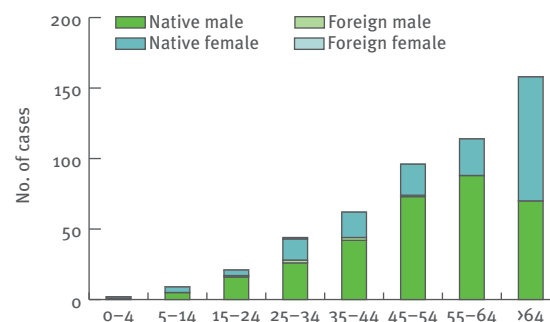
Tuberculosis notification rates by age group, 2000–2009



Tuberculosis cases by geographical origin, 2000–2009



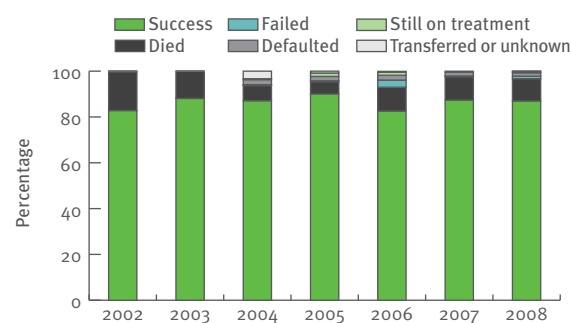
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009*



Treatment outcome, new pulmonary culture-positive cases, 2002–2008



* Data completeness unknown in 2003 and 2005

Slovenia

Total population at 1 January 2009 by EUROSTAT: 2032362

Tuberculosis case notifications, 2009

Total number of cases	188
Notification rate per 100 000	9.3
New & relapses (lab+) number	187
New & relapses (lab+) notification rate per 100 000	9.2
Pulmonary	162 (86.2%)
of which smear-positive	89 (54.9%)
Culture positive of all TB cases	179 (95.2%)
Mean age of new TB cases, nationals	53.8 years
Mean age of new TB cases, non-nationals	46.5 years
Foreign citizens of all TB cases	55 (29.3%)
New (not previously treated)	180 (95.7%)
TB deaths per 100 000 (2008)	1.2

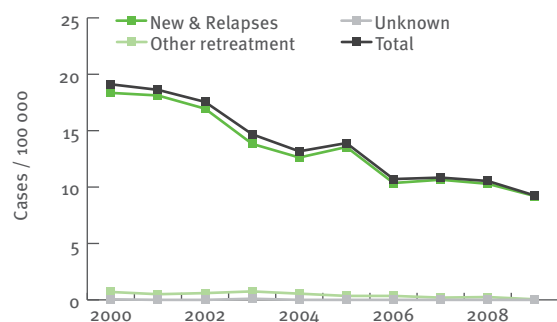
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	Yes
Completeness of TB-HIV data	Yes
Case-linked data reporting	Yes
Cases with DST results	175 (97.8%)
Cases resistant to isoniazid	4 (2.3%)
Cases resistant to rifampicin	1 (0.6%)
MDR cases	1 (0.6%)
of which XDR cases	0 (0.0%)
Cases resistant to ethambutol	0 (0.0%)
Cases resistant to streptomycin	5 (2.9%)
TB cases tested for HIV	134 (71.3%)
HIV-positive TB cases	0 (0.0%)

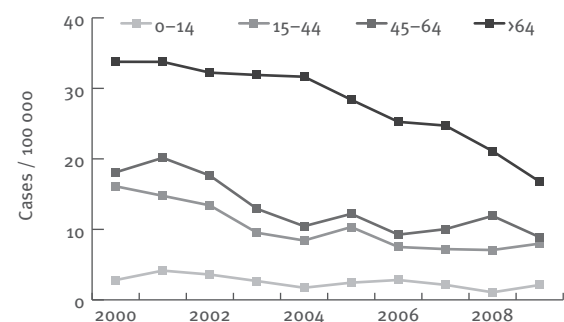
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	159
Success	127 (79.9%)
Died	24 (15.1%)
Failed	0 (0.0%)
Defaulted	3 (1.9%)
Still on treatment	2 (1.3%)
Transferred or unknown	3 (1.9%)

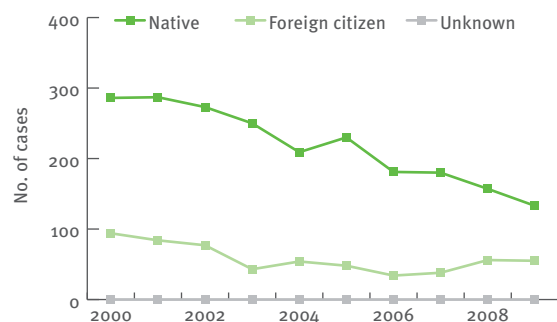
Tuberculosis notification rates by treatment history, 2000–2009



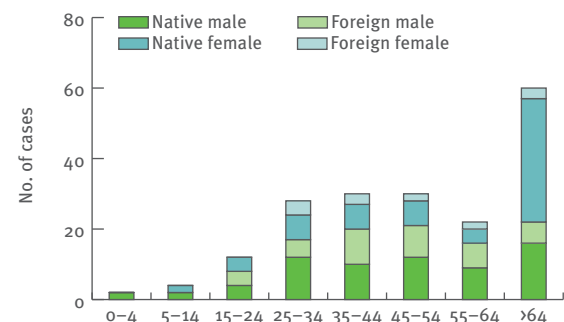
Tuberculosis notification rates by age group, 2000–2009



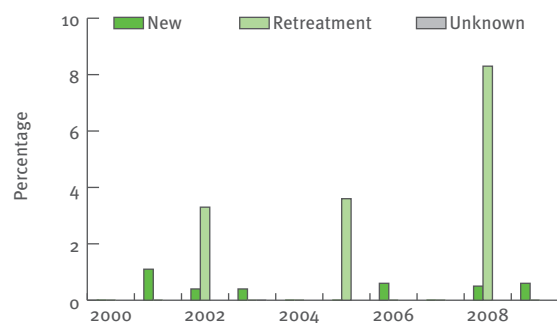
Tuberculosis cases by geographical origin, 2000–2009



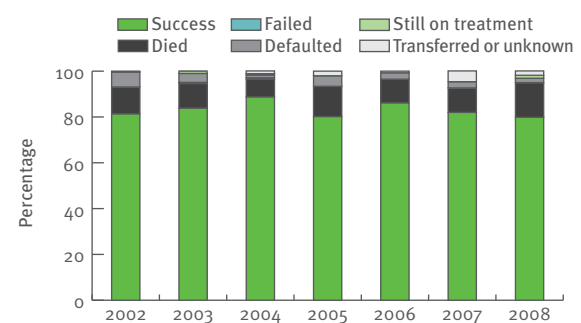
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009



Treatment outcome, new pulmonary culture-positive cases, 2002–2008



Spain

Total population at 1 January 2009 by EUROSTAT: 45 828 172

Tuberculosis case notifications, 2009

Total number of cases	7592
Notification rate per 100 000	16.6
New & relapses (lab+) number	6687
New & relapses (lab+) notification rate per 100 000	14.6
Pulmonary of which smear-positive	5778 (76.1%) 2496 (43.2%)
Culture positive of all TB cases	4095 (53.9%)
Mean age of new TB cases, nationals	45.3 years
Mean age of new TB cases, non-nationals	32.0 years
Foreign citizens of all TB cases	2330 (30.7%)
New (not previously treated)	6687 (88.1%)
TB deaths per 100 000 (2008)	0.5

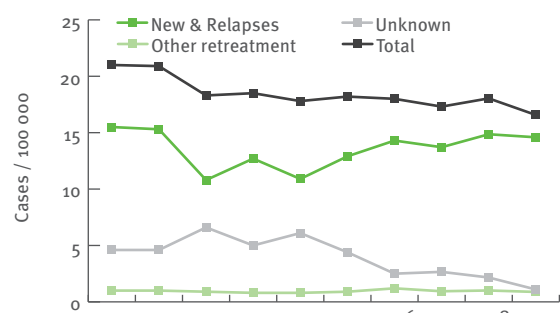
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	No
Case-linked data reporting	No
Cases with DST results	1750 (42.7%)
Cases resistant to isoniazid	149 (8.5%)
Cases resistant to rifampicin	63 (3.6%)
MDR cases of which XDR cases	56 (3.2%) 5 (8.9%)
Cases resistant to ethambutol	34 (1.9%)
Cases resistant to streptomycin	88 (5.0%)
TB cases tested for HIV	3599 (47.4%)
HIV-positive TB cases	425 (11.8%)

Treatment outcome monitoring, 2008

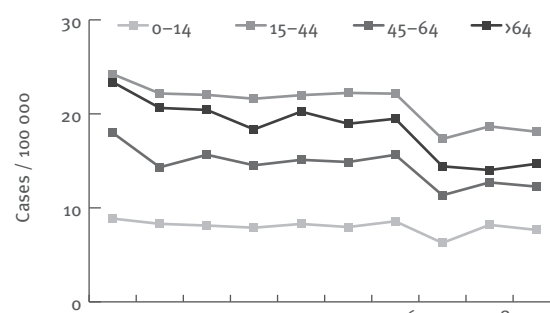
Not available

Tuberculosis notification rates by treatment history, 2000–2009*



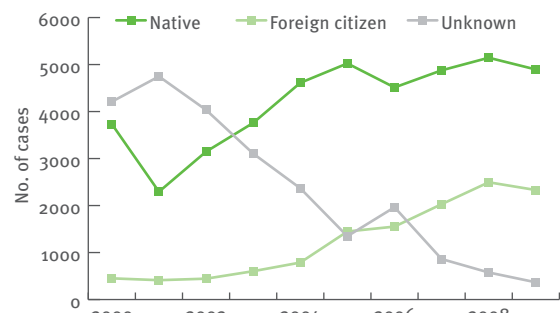
* Historical data used for 2000–2006

Tuberculosis notification rates by age group, 2000–2009*



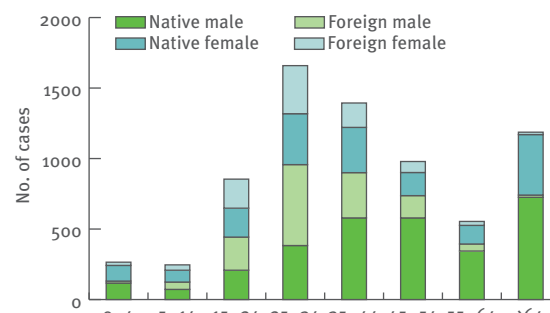
* Historical data used for 2000–2006

Tuberculosis cases by geographical origin, 2000–2009*

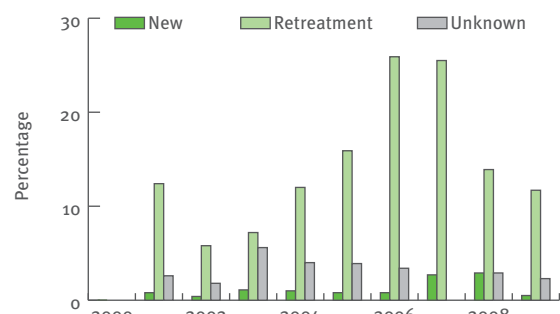


* Historical data used for 2000–2006

Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009*



* No data for 2000

Treatment outcome, new pulmonary culture-positive cases, 2002–2008

Not available

Sweden

Total population at 1 January 2009 by EUROSTAT: 9 256 347

Tuberculosis case notifications, 2009

Total number of cases	627
Notification rate per 100 000	6.8
New & relapses (lab+) number	515
New & relapses (lab+) notification rate per 100 000	5.6
Pulmonary of which smear-positive	358 (57.1%) 134 (37.4%)
Culture positive of all TB cases	515 (82.1%)
Mean age of new TB cases, nationals	56.7 years
Mean age of new TB cases, non-nationals	35.8 years
Foreign citizens of all TB cases	513 (81.8%)
New (not previously treated)	515 (82.1%)
TB deaths per 100 000 (2008)	0.3

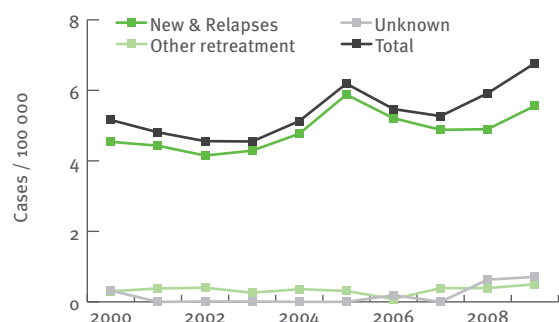
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	-
Case-linked data reporting	Yes
Cases with DST results	515 (100.0%)
Cases resistant to isoniazid	51 (9.9%)
Cases resistant to rifampicin	14 (2.7%)
MDR cases of which XDR cases	13 (2.5%) 0 (0.0%)
Cases resistant to ethambutol	7 (1.4%)
Cases resistant to streptomycin	15 (2.9%)
TB cases tested for HIV	-
HIV-positive TB cases	-

Treatment outcome monitoring, 2008

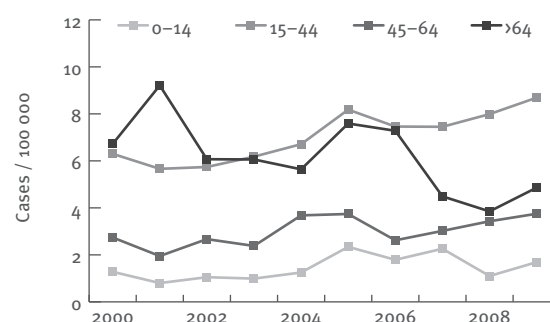
Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	222
Success	194 (87.4%)
Died	13 (5.9%)
Failed	0 (0.0%)
Defaulted	3 (1.4%)
Still on treatment	3 (1.4%)
Transferred or unknown	9 (4.1%)

Tuberculosis notification rates by treatment history, 2000–2009*

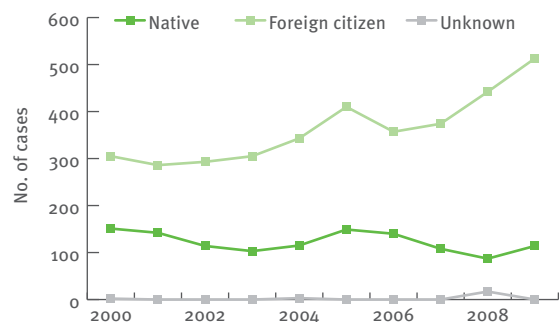


* 2007 previously diagnosed

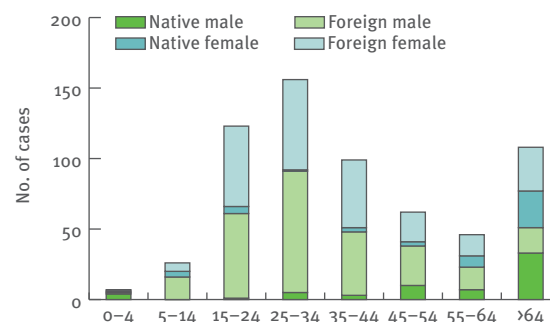
Tuberculosis notification rates by age group, 2000–2009



Tuberculosis cases by geographical origin, 2000–2009



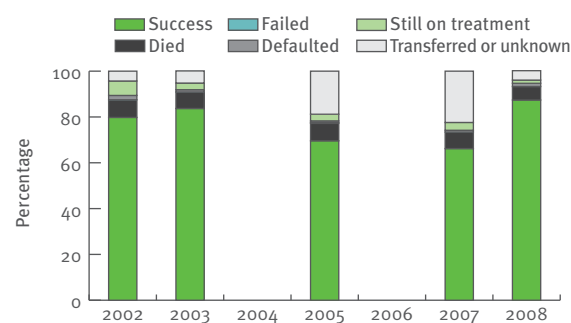
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000–2009



Treatment outcome, new pulmonary culture-positive cases, 2002–2008*



* No data for 2004 and 2006

Switzerland

Population estimate 2009 by UN Statistical Database: 7567661

Tuberculosis case notifications, 2009

Total number of cases	554
Notification rate per 100 000	7.3
New & relapses (lab+) number	333
New & relapses (lab+) notification rate per 100 000	4.4
Pulmonary	389 (70.2%)
of which smear-positive	110 (28.3%)
Culture positive of all TB cases	454 (81.9%)
Mean age (age group) of new TB cases, nationals	45-64 years
Mean age (age group) of new TB cases, non-nationals	45-64 years
Foreign citizens of all TB cases	258 (46.6%)
New (not previously treated)	333 (60.1%)
TB deaths per 100 000 (2008)	-

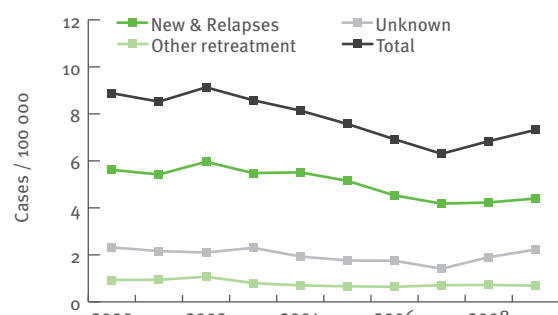
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	No
Case-linked data reporting	Yes
Cases with DST results	448 (98.7%)
Cases resistant to isoniazid	26 (23.6%)
Cases resistant to rifampicin	7 (6.4%)
MDR cases	5 (1.9%)
of which XDR cases	-
Cases resistant to ethambutol	4 (0.9%)
Cases resistant to streptomycin	-
TB cases tested for HIV	-
HIV-positive TB cases	-

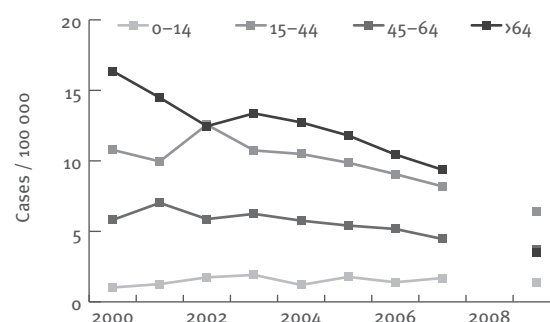
Treatment outcome monitoring, 2008

Not available

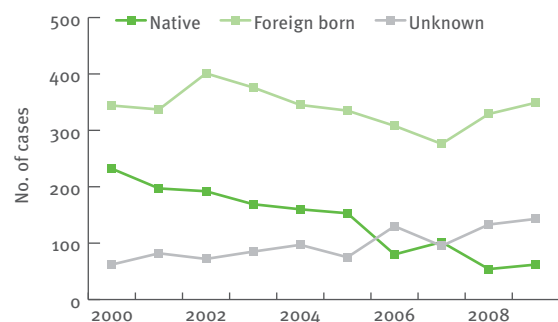
Tuberculosis notification rates by treatment history, 2000-2009



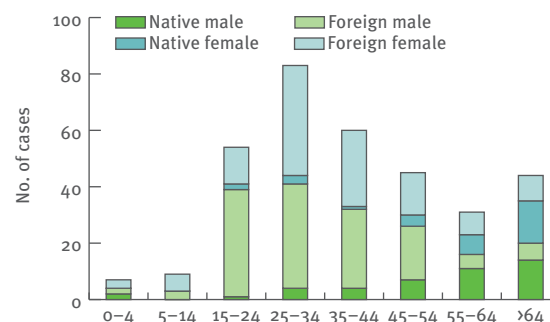
Tuberculosis notification rates by age group, 2000-2009



Tuberculosis cases by geographical origin, 2000-2009



Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000-2009



Treatment outcome, new pulmonary smear-positive cases, 2002-2008

Not available

Tajikistan

Population estimate 2009 by UN Statistical Database: 6952223

Tuberculosis case notifications, 2009

Total number of cases	7482
Notification rate per 100 000	107.6
New & relapses (lab+) number	6125
New & relapses (lab+) notification rate per 100 000	88.1
Pulmonary	5798 (77.5%)
of which smear-positive	2851 (49.2%)
Culture positive of all TB cases	- -
Mean age (age group) of new TB cases, nationals	25-44 years
Mean age (age group) of new TB cases, non-nationals	-
Foreign citizens of all TB cases	- -
New (not previously treated)	5864 (78.4%)
TB deaths per 100 000 (2008)	5.8

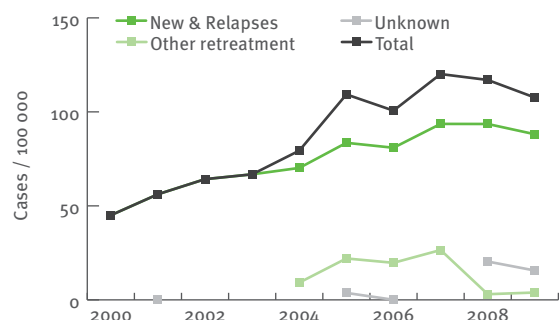
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	No
Case-linked data reporting	No
Cases with DST results	1413 -
Cases resistant to isoniazid	382 (27.0%)
Cases resistant to rifampicin	345 (24.4%)
MDR cases	319 (22.6%)
of which XDR cases	11 (3.4%)
Cases resistant to ethambutol	220 (15.6%)
Cases resistant to streptomycin	397 (28.1%)
TB cases tested for HIV	3714 (50%)
HIV-positive TB cases	49 (1.3%)

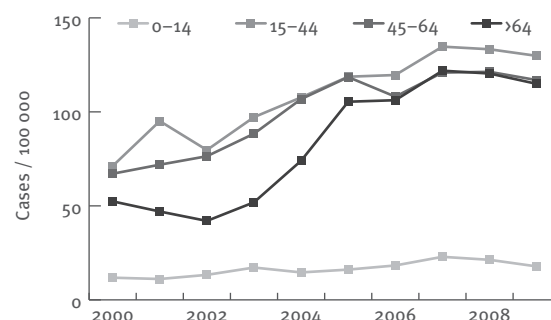
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear positive
Case-linked data reporting	No
Notified in 2008	2041
Success	1682 (82.4%)
Died	79 (3.9%)
Failed	152 (7.4%)
Defaulted	108 (5.3%)
Still on treatment	-
Transferred or unknown	20 (1.0%)

Tuberculosis notification rates by treatment history, 2000-2009



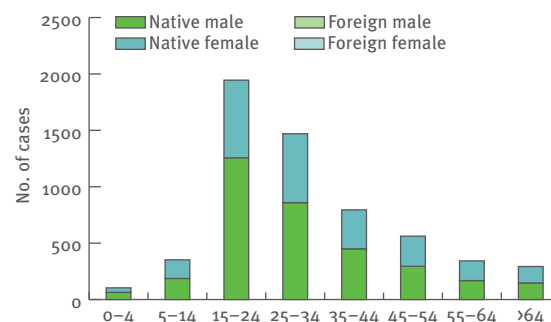
Tuberculosis notification rates by age group, 2000-2009



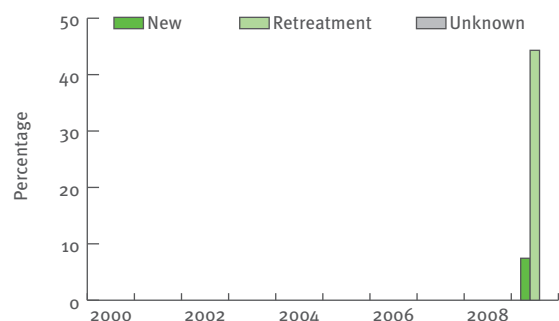
Tuberculosis cases by geographical origin, 2000-2009

Foreign citizens not reported

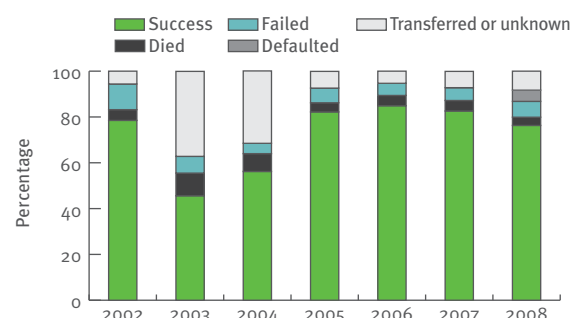
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000-2009



Treatment outcome, new pulmonary culture-positive cases, 2002-2008*



* Data completeness unknown in 2002-2003

Turkey

Population estimate 2009 by UN Statistical Database: 74 815 704

Tuberculosis case notifications, 2009

Total number of cases	17 402
Notification rate per 100 000	23.3
New & relapses (lab+) number	16 757
New & relapses (lab+) notification rate per 100 000	22.4
Pulmonary of which smear-positive	11 554 (66.4%) 6 932 (60.0%)
Culture positive of all TB cases	5 835 (33.5%)
Mean age (age group) of new TB cases, nationals	25-44 years
Mean age (age group) of new TB cases, non-nationals	25-44 years
Foreign citizens of all TB cases	163 (0.9%)
New (not previously treated)	15 943 (91.6%)
TB deaths per 100 000 (2008)	0.6

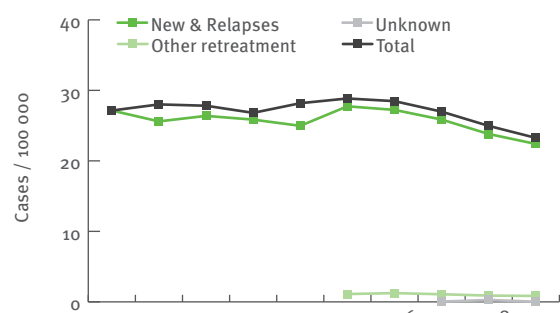
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	-
Case-linked data reporting	Yes
Cases with DST results	4 313 (73.9%)
Cases resistant to isoniazid	564 (13.1%)
Cases resistant to rifampicin	282 (6.5%)
MDR cases of which XDR cases	222 (5.1%) -
Cases resistant to ethambutol	202 (4.7%)
Cases resistant to streptomycin	369 (8.6%)
TB cases tested for HIV	-
HIV-positive TB cases	1

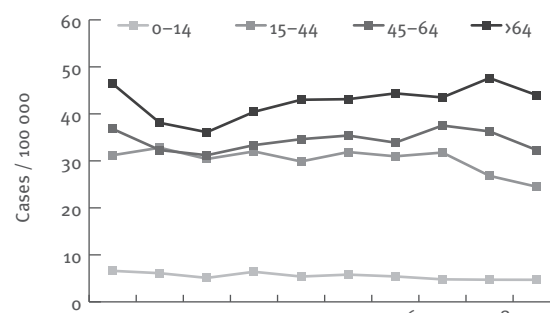
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear and/or culture positive
Case-linked data reporting	Yes
Notified in 2008	6 993
Success	6 408 (91.6%)
Died	206 (2.9%)
Failed	42 (0.6%)
Defaulted	199 (2.8%)
Still on treatment	-
Transferred or unknown	138 (2.0%)

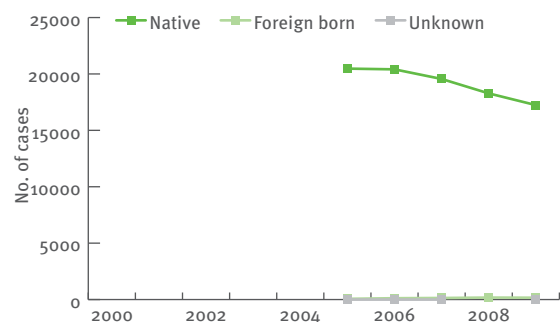
Tuberculosis notification rates by treatment history, 2000-2009



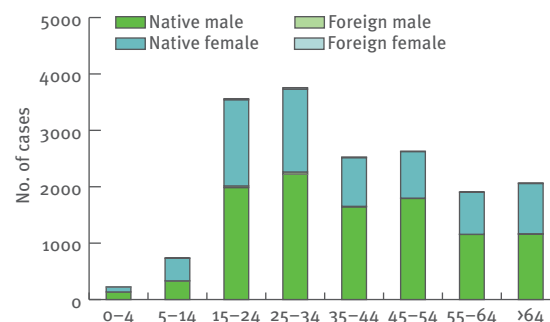
Tuberculosis notification rates by age group, 2000-2009



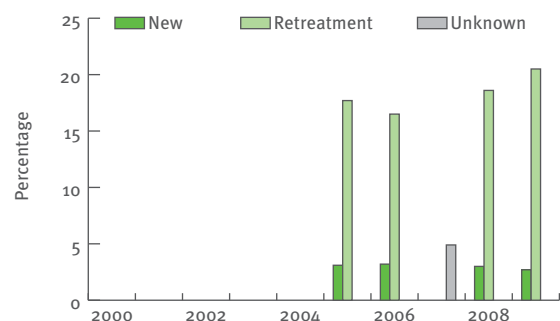
Tuberculosis cases by geographical origin, 2000-2009



Tuberculosis cases by origin, age group and sex, 2009

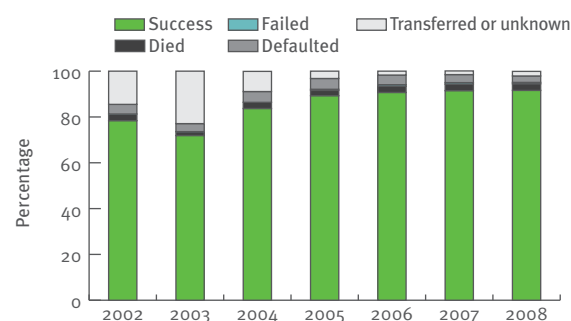


MDR TB cases by previous treatment history, 2000-2009*



* Data completeness unknown; no data for 2001-2004

Treatment outcome, new pulmonary smear-positive cases, 2002-2008*



* Data completeness unknown in 2002; smear cohort in 2005; smear+ cases for 2007

Turkmenistan

Population estimate 2009 by UN Statistical Database: 5109881

Tuberculosis case notifications, 2009

Total number of cases	3157
Notification rate per 100 000	61.8
New & relapses (lab+) number	4 550
New & relapses (lab+) notification rate per 100 000	89.0
Pulmonary	2593 (82.1%)
of which smear-positive	1370 (52.8%)
Culture positive of all TB cases	- -
Mean age (age group) of new TB cases, nationals	-
Mean age (age group) of new TB cases, non-nationals	-
Foreign citizens of all TB cases	- -
New (not previously treated)	3157 (100.0%)
TB deaths per 100 000 (2008)	7.4

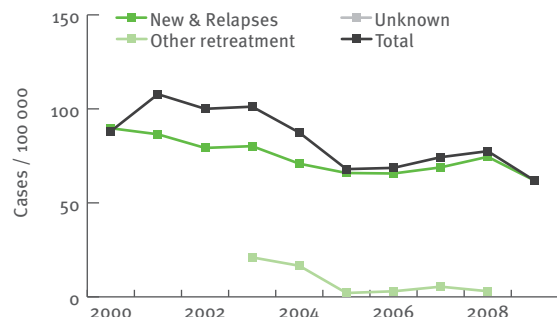
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	-
Case-linked data reporting	No
Cases with DST results	275 -
Cases resistant to isoniazid	41 (14.9%)
Cases resistant to rifampicin	37 (13.5%)
MDR cases	39 (14.2%)
of which XDR cases	- -
Cases resistant to ethambutol	17 (6.2%)
Cases resistant to streptomycin	25 (9.1%)
TB cases tested for HIV	- -
HIV-positive TB cases	- -

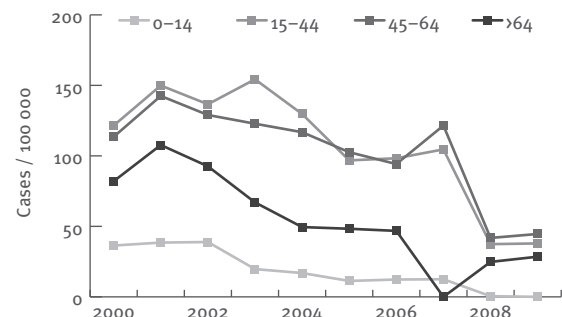
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear positive
Case-linked data reporting	No
Notified in 2008	1331
Success	1107 (83.2%)
Died	77 (5.8%)
Failed	74 (5.6%)
Defaulted	64 (4.8%)
Still on treatment	- -
Transferred or unknown	9 (0.7%)

Tuberculosis notification rates by treatment history, 2000–2009



Tuberculosis notification rates by age group, 2000–2009



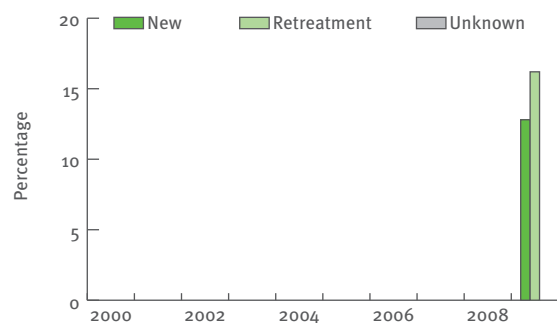
Tuberculosis cases by geographical origin, 2000–2009

Foreign citizens not reported

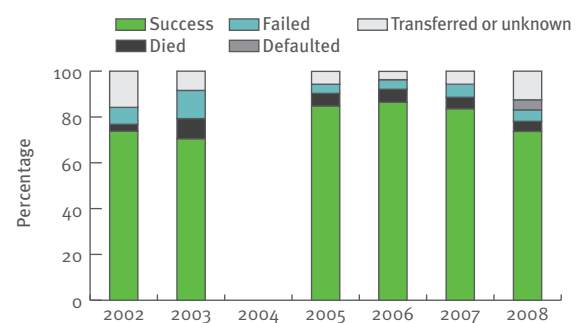
Tuberculosis cases by origin, age group and sex, 2009

Not available

MDR TB cases by previous treatment history, 2000–2009



Treatment outcome, new pulmonary smear-positive cases, 2002–2008*



* Data completeness unknown (retreated cases in Ashgabat city; no data by geographical origin before 2006)

* No data in 2004

Ukraine

Population estimate 2009 by UN Statistical Database: 45708080

Tuberculosis case notifications, 2009

Total number of cases	38901
Notification rate per 100 000	85.1
New & relapses (lab+) number	36 075
New & relapses (lab+) notification rate per 100 000	78.9
Pulmonary	34 681 (89.2%)
of which smear-positive	16 283 (47.0%)
Culture positive of all TB cases	-
Mean age (age group) of new TB cases, nationals	-
Mean age (age group) of new TB cases, non-nationals	-
Foreign citizens of all TB cases	-
New (not previously treated)	33 424 (85.9%)
TB deaths per 100 000 (2008)	22.7

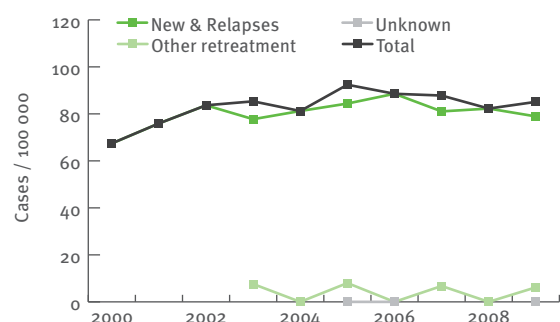
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	Yes
Case-linked data reporting	No
Cases with DST results	18 355
Cases resistant to isoniazid	4 857 (26.5%)
Cases resistant to rifampicin	5 419 (29.5%)
MDR cases	3 482 (19.0%)
of which XDR cases	-
Cases resistant to ethambutol	3 385 (18.4%)
Cases resistant to streptomycin	5 365 (29.2%)
TB cases tested for HIV	33 424 (86%)
HIV-positive TB cases	3 771 (11.3%)

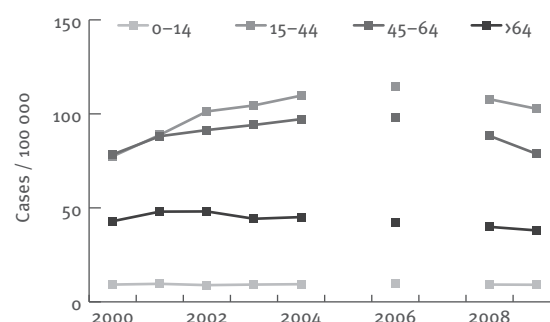
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear positive
Case-linked data reporting	No
Notified in 2008	14 407
Success	8 927 (62.0%)
Died	1 785 (12.4%)
Failed	1 740 (12.1%)
Defaulted	1 270 (8.8%)
Still on treatment	-
Transferred or unknown	685 (4.8%)

Tuberculosis notification rates by treatment history, 2000–2009



Tuberculosis notification rates by age group, 2000–2009



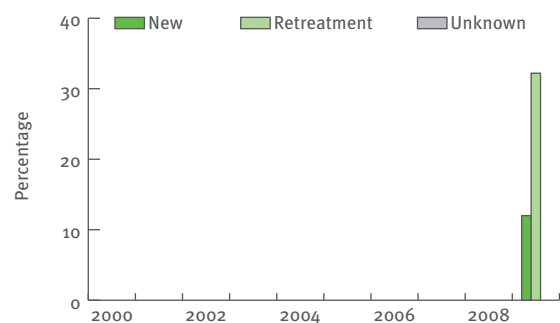
Tuberculosis cases by geographical origin, 2000–2009

Foreign citizens not reported

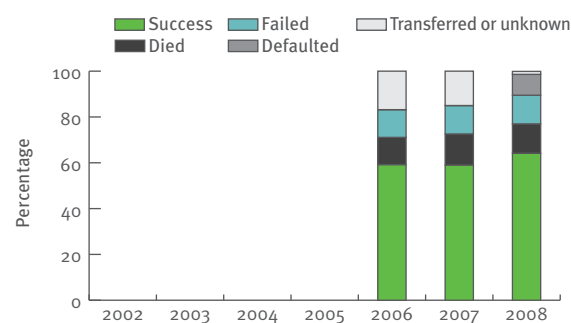
Tuberculosis cases by origin, age group and sex, 2009

Not available

MDR TB cases by previous treatment history, 2000–2009



Treatment outcome, new pulmonary smear or culture-positive cases, 2002–2008



United Kingdom

Total population at 1 January 2009 by EUROSTAT: 61179 256

Tuberculosis case notifications, 2009

Total number of cases	9040
Notification rate per 100 000	14.8
New & relapses (lab+)* number	7008
New & relapses (lab+)* notification rate per 100 000	11.5
Pulmonary of which smear-positive**	4851 (53.7%) 1579 (32.5%)
Culture positive of all TB cases	5075 (56.1%)
Mean age of new TB cases, nationals	40.9 years
Mean age of new TB cases, non-nationals	38.3 years
Foreign citizens of all TB cases	5994 (66.3%)
New (not previously treated)***	7008 (77.5%)
TB deaths per 100 000 (2008)	0.6

* For countries used previous diagnosis data – only new cases included
 ** Sputum smear status was not known for 42.5% of pulmonary cases
 *** Previous diagnosis is not known for 13.5% of all cases

Drug resistance surveillance & TB-HIV co-infection, 2009

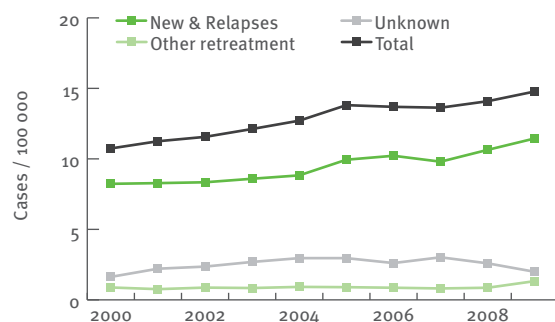
Completeness of DRS data	Yes
Completeness of TB-HIV data	-
Case-linked data reporting	Yes
Cases with DST results	4991 (98.3%)
Cases resistant to isoniazid	344 (6.9%)
Cases resistant to rifampicin	69 (1.4%)
MDR cases of which XDR cases	58 (1.2%) 2 (3.4%)
Cases resistant to ethambutol	29 (0.6%)
Cases resistant to streptomycin*	191 (3.8%)
TB cases tested for HIV	-
HIV-positive TB cases	-

* Streptomycin is not used as a first-line drug in the UK and therefore not assessed for all culture-confirmed cases. Pyrazinamide resistance was 3.8% in the UK in 2009

Treatment outcome monitoring, 2008

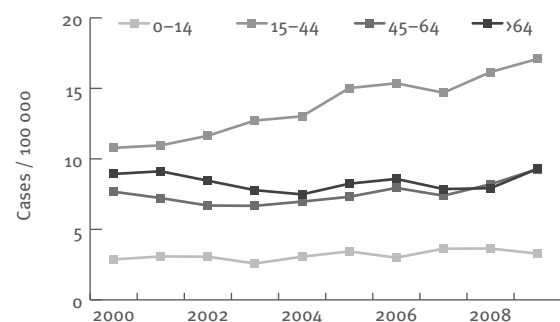
Geographical coverage	National
Outcome cohort	New pulmonary culture positive
Case-linked data reporting	Yes
Notified in 2008	2314
Success	1759 (76.0%)
Died	151 (6.5%)
Failed	0 (0.0%)
Defaulted	16 (0.7%)
Still on treatment	127 (5.5%)
Transferred or unknown	261 (11.3%)

Tuberculosis notification rates by treatment history, 2000–2009*

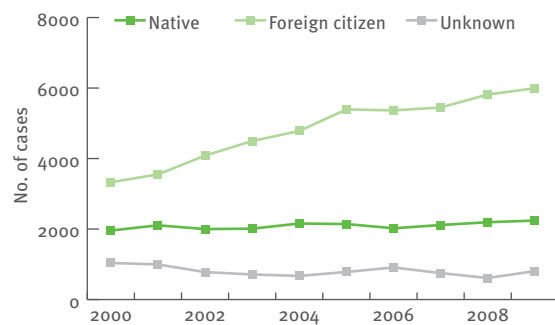


* Distribution of cases by previous diagnosis

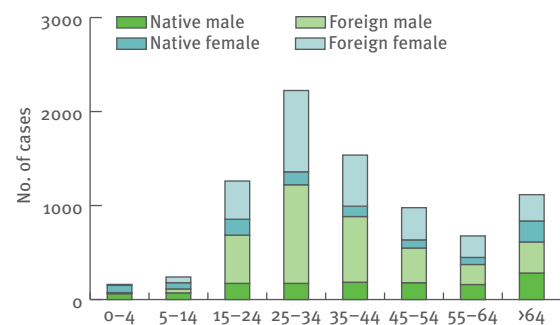
Tuberculosis notification rates by age group, 2000–2009



Tuberculosis cases by geographical origin, 2000–2009



Tuberculosis cases by origin, age group and sex, 2009

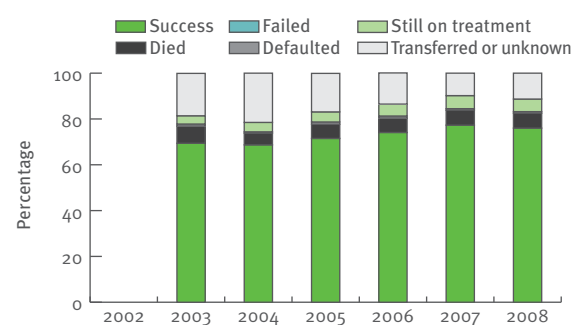


MDR TB cases by previous treatment history, 2000–2009*



* Distribution of cases by previous diagnosis

Treatment outcome, new pulmonary culture-positive cases, 2002–2008*



* No data for 2002

Uzbekistan

Population estimate 2009 by UN Statistical Database: 27 488 220

Tuberculosis case notifications, 2009

Total number of cases	21453
Notification rate per 100 000	78.0
New & relapses (lab+) number	17540
New & relapses (lab+) notification rate per 100 000	63.8
Pulmonary of which smear-positive	16340 (76.2%) 7025 (43.0%)
Culture positive of all TB cases	- -
Mean age (age group) of new TB cases, nationals	25-44 years
Mean age (age group) of new TB cases, non-nationals	25-44 years
Foreign citizens of all TB cases	38 (0.2%)
New (not previously treated)	16569 (77.2%)
TB deaths per 100 000 (2008)	-

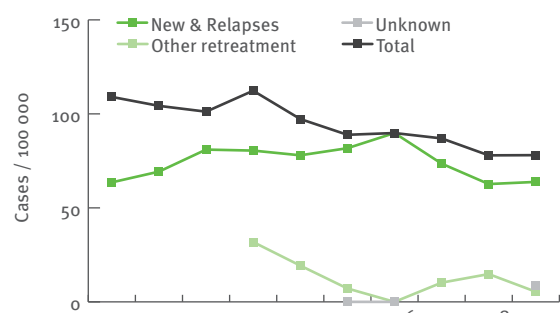
Drug resistance surveillance & TB-HIV co-infection, 2009

Completeness of DRS data	No
Completeness of TB-HIV data	Yes
Case-linked data reporting	Yes
Cases with DST results	1303 -
Cases resistant to isoniazid	523 (40.1%)
Cases resistant to rifampicin	341 (26.2%)
MDR cases of which XDR cases	654 (50.2%) 13 (2.0%)
Cases resistant to ethambutol	676 (51.9%)
Cases resistant to streptomycin	1045 (80.2%)
TB cases tested for HIV	21453 (100%)
HIV-positive TB cases	357 (1.7%)

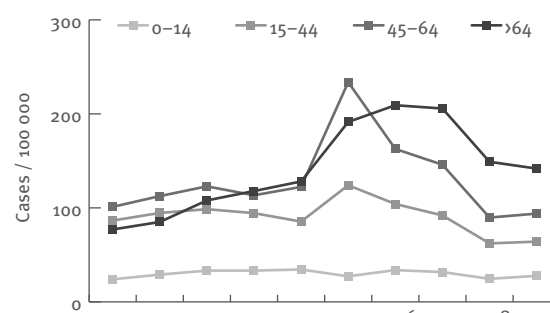
Treatment outcome monitoring, 2008

Geographical coverage	National
Outcome cohort	New pulmonary smear positive
Case-linked data reporting	Yes
Notified in 2008	5108
Success	4158 (81.4%)
Died	316 (6.2%)
Failed	290 (5.7%)
Defaulted	210 (4.1%)
Still on treatment	- -
Transferred or unknown	134 (2.6%)

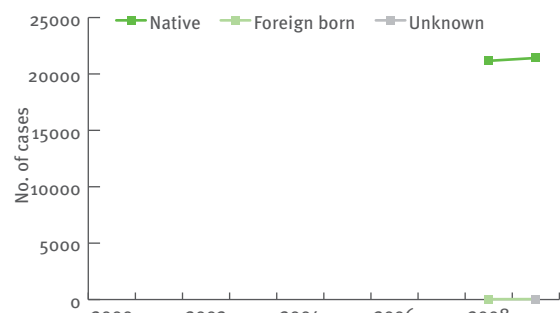
Tuberculosis notification rates by treatment history, 2000-2009



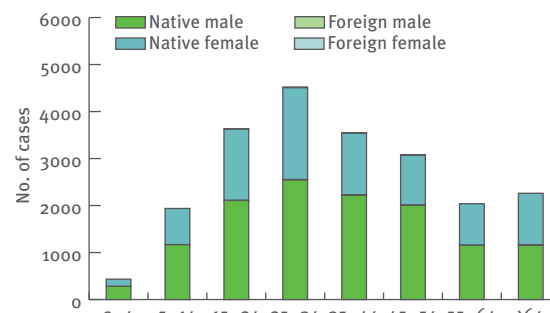
Tuberculosis notification rates by age group, 2000-2009



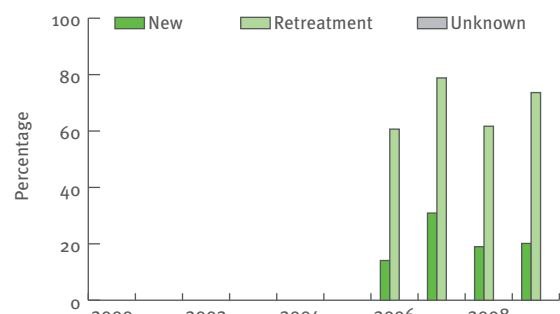
Tuberculosis cases by geographical origin, 2000-2009



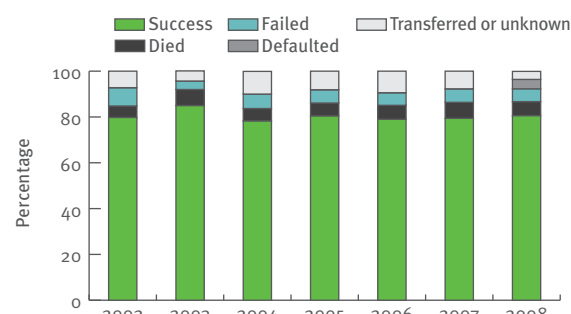
Tuberculosis cases by origin, age group and sex, 2009



MDR TB cases by previous treatment history, 2000-2009*



Treatment outcome, new pulmonary smear-positive cases, 2002-2008*



* Data completeness unknown

* Data completeness unknown

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