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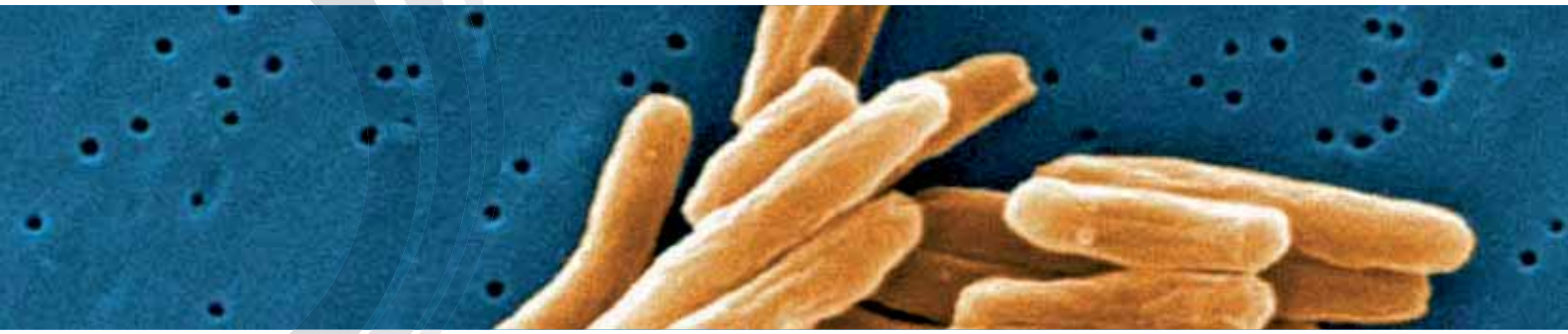
SURVEILLANCE REPORT



Tuberculosis surveillance and monitoring in Europe

2012

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This report of the European Centre for Disease Prevention and Control (ECDC) and WHO Regional Office for Europe was coordinated by Vahur Hollo (ECDC) and Andrei Dadu (WHO/Europe).

Contributing authors: Masoud Dara and Kristin Kremer (WHO/Europe), Emma Huitric, Csaba Ködmön and Phillip Zucs (ECDC)

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The WHO Regional Office for Europe is responsible for the accuracy of the translation of the Russian summary.

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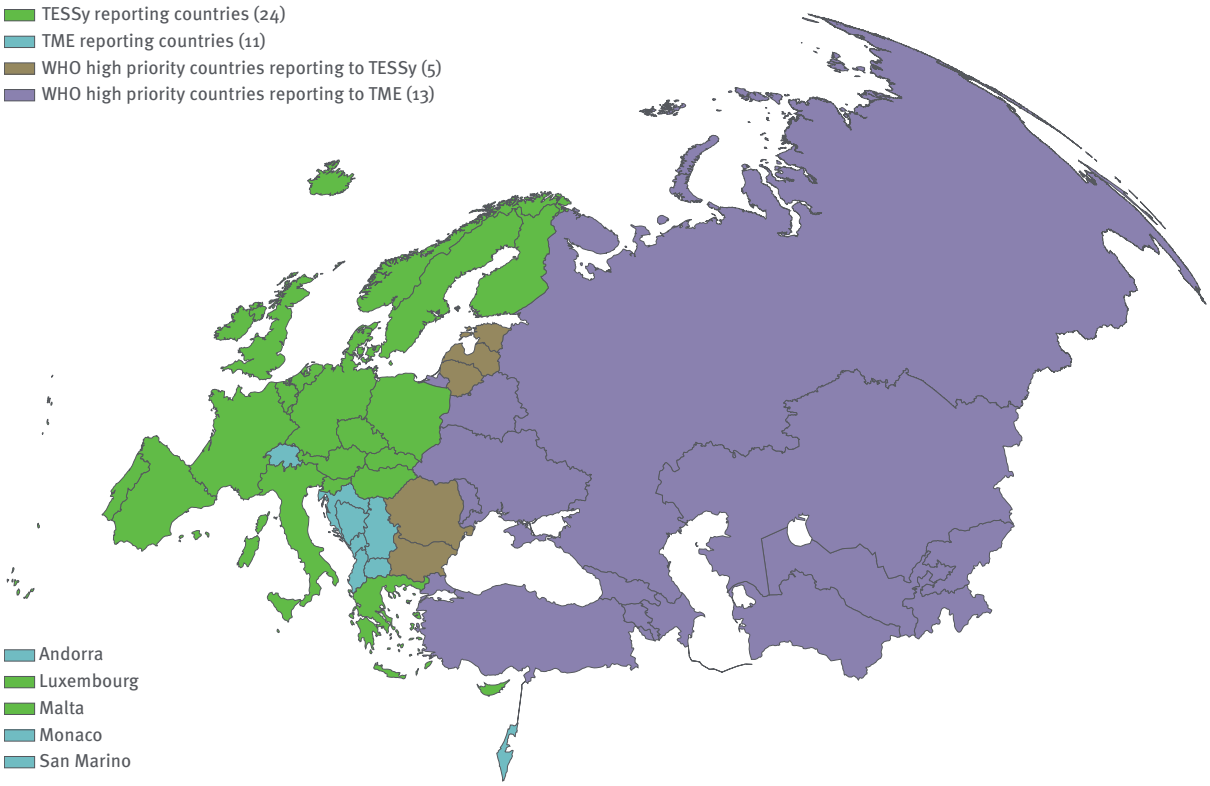
Abbreviations

AFB	Acid-fast bacilli
AIDS	Acquired immunodeficiency syndrome
CI	Confidence interval
CISID	Centralized Information System for Infectious Diseases
DOTS	Directly Observed Treatment Short-Course (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
EQA	External quality assessment
ERLN-TB	European Reference Laboratory Network for TB
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
PR	Prevalence ratio
TB	Tuberculosis
TESSy	The European Surveillance System
TOM	Treatment outcome monitoring
UN	United Nations
WHO	World Health Organization
XDR	Extensive drug resistance
XDR TB	Extensively drug-resistant tuberculosis

Summary

Map: Tuberculosis surveillance in Europe 2010[a]



[a] Data from UN Administrated Province of Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia.

Executive Summary

This is the fourth report launched jointly by the European Centre for Disease Prevention and Control (ECDC) and the WHO Regional Office for Europe (WHO/Europe) following on from reports under the EuroTB project, established in 1996.

The WHO European Region

As in the previous years, surveillance of tuberculosis (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. Although the Region comprises only 4.7% of the world's newly detected and relapsed TB cases, it reported 309 648 new episodes of TB (34.0 per 100 000 population) out of 418 000 (range 355 000–496 000) estimated cases (47 cases per 100 000 population (range 40–55), and maintained a high case detection rate of 74% (range 63–87%). This demonstrates that the countries in the WHO European Region are leading the way in their management of a highly sensitive routine surveillance system. More than 60 000 (40 000–90 000) deaths in the Region were estimated as being due to TB, representing 6.7 cases per 100 000 population (range 4.4–10.0).

TB notifications have been decreasing since 2005, which clearly indicates lower TB incidence. This positive development is confirmed by the drop in notification in terms of the main patient groups, such as newly detected laboratory confirmed episodes and previously treated cases.

Despite this encouraging development, notification rates for newly-detected and relapsed TB cases in the 18 High Priority Countries (HPC), all from the central and eastern part of the Region, remained almost eight times higher (68.5 per 100 000 population) than in the rest of the Region (8.4 per 100 000) and twice as high as the regional average (34.0 per 100 000 population).

Culture confirmation of newly detected pulmonary TB cases was extremely low among non-EU/EEA countries (38.0%) compared with EU/EEA (65.6%). New rapid methods for TB diagnosis have recently been introduced in some countries within the Region but data from these pilot countries were not collected for 2010.

During the period 2006–2010, region-wide trends of overall TB notification in children decreased by 10% from 7.0 to 6.3 cases per 100 000 population. On the other hand, in 10 countries in the west of the Region, more than half of the children with TB are under five years. There is an urgent need to ensure adequate and timely diagnosis, and accurate recording and reporting of TB among children across the Region.

The majority of TB-HIV co-infected individuals (85.6%) notified were in the eastern part of the Region and the region-wide percentage of HIV among notified TB cases increased from 3.4% in 2008 to 5.5% in 2010, amounting to around 16 000. This increase in TB-HIV co-infection warrants a strengthening of collaboration between TB and HIV/AIDS control programmes.

In 2010 for the first time, all countries in the Region reported on first-line anti-TB drug susceptibility test results. However, the completeness and reliability of these data decrease from west to east. The prevalence of multidrug resistant TB (MDR TB) among new TB cases in the Region amounted to 13.7% in 2010, a slight increase on 2009 (12%). MDR TB among previously treated patients also increased to 48.7% in 2010 from 47% in 2008. The Region reported more than 29 000 MDR TB patients. Data on extensively drug-resistant TB (XDR TB) are not yet representative of the actual situation due to insufficient coverage of second-line drug susceptibility testing.

Over the last five years treatment success rates have continued to decrease, falling from 72.5% and 50% in 2005 to 68.7% and 47.6% in 2010 among new and previously treated cases, respectively. The treatment success rate among MDR TB patients was 56.3%. Low treatment success of previously treated patients may indicate a high MDR TB rate among these patients and a low efficiency of the current treatment regimens used for these patients. These facts underline the importance of detecting drug resistant TB early and the need to scale up first-line drug susceptibility testing in the 18 High Priority Countries.

There are high proportions of patients lost to follow-up (defaulters, transfers out and unknown) with 11%, 17% and 22% among new pulmonary laboratory confirmed, previously treated and MDR TB patients, respectively. Although some research has been undertaken in the Region, this phenomenon deserves further investigation to determine the underlying factors and implementing measures required to address it.

In conclusion, despite a decrease in TB incidence, drug resistant TB is becoming a major concern. There is an urgent need to address the root causes of emergence and transmission of drug resistant TB. This should be done by addressing the weaknesses in national health systems and the social determinants of TB in every country. Early detection of TB, particularly drug-resistant TB, and adequate treatment with patient-friendly services need to be ensured across the Region.

In response to the alarming problem of MDR TB, all 53 Member States have fully endorsed the Consolidated Action Plan to Prevent and Combat M/XDR TB in the WHO European Region 2011–2015, and its accompanying resolution EUR/RC61/R7 of the sixty-first session of the WHO Regional Committee for Europe. This Action Plan includes a set of activities to be implemented by countries, WHO and partners to achieve universal access to prevention and

treatment of M/XDR TB. It is crucial for all countries, WHO, and technical partners to join forces and ensure the Plan is being implemented. From 2013 onwards, a joint ECDC-WHO/Europe report and/or similar mechanism would be used to monitor progress in implementing the Action Plan and the Berlin Declaration. To this end, specific monitoring frameworks have been developed for each of these two major regional commitments. They are complementary to each other and to the ECDC Framework for Action.

European Union and European Economic Area countries

This year marks the production of the first surveillance and monitoring report for the EU/EEA, providing an overview of both the epidemiologic situation and progress in TB prevention and control in the EU/EEA. Below is a summary of the main surveillance findings and conclusions, followed by the main monitoring conclusions and recommendations.

In 2010, the 27 EU Member States, Iceland and Norway reported 73 996 TB cases. Compared with 2009, the total had fallen by 5 685 cases (7%), which is more than in any of the previous three years. The overall notification rate in 2010 was 14.6 per 100 000 population, decreasing by 8% from 15.8 in 2009 and maintaining the downward trend observed in previous years.

Of the 73 996 TB cases notified, 58 435 (79%) were new, previously untreated cases, 9 561 (13%) were previously treated and 6 000 cases (8%) had an unknown previous TB treatment status. Among pulmonary TB cases, new cases accounted for 44 494 (77%) of the 57 661 cases notified in 2010. Of these, 29 169 (66%) were confirmed by culture.

TB cases notified in 2010 had a mean age of 45 years which has remained stable since 2001. Among the new TB cases reported, most occurred in the age groups of 25–44 and 45–64 years that together accounted for 60% of these cases.

Between 2006 and 2010, the notification rate for multidrug-resistant TB (MDR TB) remained stable at about 0.3 per 100 000, with 1 447 cases reported. Among the 819 MDR TB cases with drug-susceptibility testing (DST) results to second-line drugs, 108 (13.2%) were reported to be extensively drug-resistant (XDR TB).

The treatment success rate among the 27 922 new culture-confirmed pulmonary TB cases notified in 2009 was 79% (22 010 cases); 1 852 (7%) died, 581 (2%) were labelled treatment failures, 1 613 (6%) defaulted, 602 (2%) were still on treatment and 1 264 (5%) had been transferred or their outcome was unknown. Of the 1 244 MDR TB cases notified in 2008, 375 (30%) had a successful treatment outcome at 24 months, 242 (20%) died, 285 (23%) were considered treatment failures, 221 (18%) had defaulted, 103 (8%) were still on treatment in 2010 and 18 (1%) had been transferred or their outcome was unknown.

Overall in 2010, TB notification rates in the EU/EEA continued to decline, with country-specific rates falling fastest in the five High-Priority Countries. While MDR TB notification rates have remained stable over the past five years, the proportion of XDR TB increased between 2009 and 2010, possibly due to improved reporting.

2010 marks the first year of monitoring progress towards TB elimination in the EU/EEA, as well as progress in implementing the eight areas of the Framework Action Plan to fight TB in the European Union. All four epidemiological indicators and five of the eight core indicators could be measured and analysed.

TB notification rates have fallen over the last five years, particularly due to the steady decline seen in high-incidence countries. Efforts need to be reinforced and maintained in Member States to ensure a continued decline in notification rates with a view to eliminating TB in the EU/EEA.

The number of countries reaching the target of 80% culture-confirmation for new pulmonary TB cases and drug-susceptibility testing has increased; however, overall levels remain sub-optimal.

Continued efforts and targeted support are needed to improve the reporting of treatment outcome by Member States and to ensure successful treatment of new culture-confirmed TB and MDR TB cases. Incomplete coverage of treatment outcome in the EU/EEA further hampers the identification of strengths and challenges in TB and MDR TB control and consequently, the support that can be provided to Member States to further control the epidemic.

Overall, the follow-up to the Framework Action Plan to fight Tuberculosis in the European Union represents a robust tool for monitoring the strengths and weaknesses in TB control across the EU which may ultimately contribute to the elimination of TB. Similar analyses are possible at the Member State level using the surveillance data presented in this report.

Исполнительное резюме

Представляемый документ является четвертым докладом, подготовленным совместно Европейским центром профилактики и контроля заболеваний (ЕЦКЗ) и Европейским региональным бюро ВОЗ (ЕРБ ВОЗ), в продолжение отчетов составленных под руководством проекта ЕвроТБ, который был основан в 1996 г.

Европейские регион ВОЗ

Как и в предыдущие годы, эпидемиологический надзор за туберкулезом показывает неоднородную эпидемиологическую картину, характеризующую государства-члены Европейского региона ВОЗ. Показатели регистрации случаев в странах восточной части Региона были гораздо выше, чем на западе. Несмотря на то, что к 2010 году впервые выявленные случаи и рецидивы туберкулеза в Регионе составляют лишь 4,7% общемирового показателя, в государствах ЕРБ ВОЗ было зарегистрировано 309 648 новых случаев ТБ (34,0 на 100 000 населения) из 418 000 (диапазон 355 000–496 000) расчетных случаев (что составляет 47 на 100 000 population (диапазон 40–55), и выявляемость случаев оставалась высокой - 74% (диапазон 63–87%). Это говорит о том, что страны в Европейском регионе ВОЗ являют собой пример эффективного ведения своей весьма чувствительной системы рутинного эпиднадзора. Согласно расчетным данным, туберкулез был причиной более 60 000 (40 000–90 000) смертей в Регионе, что составляет 6,7 случаев на 100 000 (диапазон 4,4–10,0).

Показатели регистрации случаев туберкулеза снижались с 2005 года, что является неоспоримым доказательством более низкой реальной заболеваемости туберкулезом. Эту положительную динамику подтверждает снижение показателей регистрации основных групп больных, таких как впервые выявленные случаи с лабораторным подтверждением диагноза и случаи повторного лечения.

Несмотря на эту обнадеживающую тенденцию, в 18 странах высокого приоритета по ТБ (СВП), все из которых расположены в центральной и восточной частях Региона, показатели впервые выявленных случаев и рецидивов туберкулеза по-прежнему в восемь раз (68,5 на 100 000 населения) превышали средний уровень этого показателя для остальных стран Региона (8,4 на 100 000 населения), и был вдвое выше среднего показателя по Региону (34,0 на 100 000 населения).

Бактериологическое подтверждение впервые выявленных случаев легочного ТБ было чрезвычайно низким в странах, не входящих в ЕС/ЕЭЗ (38,0%), по сравнению со странами ЕС/ЕЭЗ (65,6%). В некоторых странах Региона недавно были введены в практику новые методы быстрой диагностики ТБ, но данные из этих пилотных стран не собирались для доклада 2010 г.

За период 2006–2010 гг. общерегиональные тенденции показали снижение на 10% показателя регистрации ТБ у детей, с 7,0 до 6,3 случаев на 100 000 населения. При этом в 10 странах на западе Региона более половины больных туберкулезом детей находятся в возрастной группе до 5 лет. Существует острая необходимость в обеспечении надлежащей и своевременной диагностики, а также тщательного учета и отчетности по случаям детского ТБ в странах Региона.

Большинство случаев сочетанной инфекции ТБ/ВИЧ (85,6%) были зарегистрированы в восточной части Региона, и средний по Региону процент ВИЧ-инфицированных среди зарегистрированных случаев ТБ увеличился с 3,4% в 2008 г. до 5,5% в 2010 г., что составило примерно 16 000 человек. Такой рост коинфекции ТБ-ВИЧ свидетельствует о необходимости усиления сотрудничества между программами по борьбе с ТБ и ВИЧ/СПИДом.

В 2010 г. все страны в Регионе впервые представили результаты тестирования устойчивости к противотуберкулезным препаратам первого ряда. Однако полнота и достоверность этих данных уменьшается в направлении с запада на восток. Распространенность туберкулеза с множественной лекарственной устойчивостью (МЛУ-ТБ) среди впервые выявленных случаев ТБ в Регионе составила 13,7 % in 2010 г., и немного увеличилась по сравнению с 2009 г. (12%). Показатель МЛУ-ТБ среди повторно леченых больных также вырос до 48,7% в 2010 г. по сравнению с 47% в 2008 г. Страны Региона сообщили о более чем 29 000 больных МЛУ-ТБ. Данные по туберкулезу с широкой лекарственной устойчивостью (ШЛУ-ТБ) пока не являются репрезентативными и не отражают реальной ситуации вследствие недостаточного охвата тестированием на чувствительность к препаратам второго ряда.

За последние пять лет показатели успешного лечения среди впервые выявленных и ранее леченых случаев продолжили снижаться с 72,5% и 50% в 2005 г. до 68,7% и 47,6% в 2010 г., соответственно. Показатель успешного лечения среди больных с МЛУ-ТБ составил 56,3%. Низкий показатель успешного лечения ранее леченых больных может указывать на высокую распространенность МЛУ-ТБ в этой категории пациентов и определяет в основном низкую эффективность схем химиотерапии, используемых в настоящее время для этих больных. Эти факты подчеркивают важность раннего обнаружения лекарственно-устойчивых форм туберкулеза и необходимость расширить масштабы тестирования чувствительности к препаратам первого ряда в 18 странах высокого приоритета по ТБ.

Большой процент больных теряется из под наблюдения (отрыв от лечения, перевод и исход неизвестен) с показателями 11%, 17% и 22% соответственно для впервые

выявленных больных легочным туберкулезом с лабораторным подтверждением диагноза, случаев повторного лечения и больных МЛУ-ТБ соответственно. Хотя в Регионе и были предприняты некоторые исследования, этот феномен заслуживает дальнейшего изучения для определения причин, лежащих в его основе, и последующую реализацию мероприятий с целью улучшения ситуации.

В заключение: несмотря на снижение заболеваемости ТБ, лекарственно-устойчивый ТБ продолжает вызывает серьезную озабоченность. Существует острая необходимость целенаправленно воздействовать на коренные причины возникновения и распространения лекарственно-устойчивого ТБ. Для этого в каждой стране следует выявлять и воздействовать на обнаруженные недостатки в национальных системах здравоохранения и на социальные детерминанты, имеющие отношение к ТБ. Необходимо обеспечить в масштабе Региона раннее выявление случаев ТБ и, особенно, лекарственно-устойчивого ТБ, а также надлежащее лечение с предоставлением услуг, учитывающих интересы пациента.

В ответ на тревожную проблему МЛУ-ТБ все 53 государства-члена Европейского Региона ВОЗ безоговорочно утвердили Комплексный план действий по профилактике и борьбе с туберкулезом с множественной и широкой лекарственной устойчивостью (М/ШЛУ-ТБ) в Европейском регионе ВОЗ на 2011–2015 гг. и сопровождающую его Резолюцию EUR/RC61/R7 шестьдесят первой сессии Европейского Регионального Комитета ВОЗ. Данный План действий включает комплекс мероприятий, которые предстоит осуществить странам Региона, ВОЗ и партнерам для достижения всеобщего доступа к профилактике и лечению М/ШЛУ-ТБ. Очень важно, чтобы все страны, ВОЗ и технические партнеры объединили усилия и обеспечили реализацию Плана. Начиная с 2013 г. для мониторинга хода реализации Плана действий и Берлинской декларации будет использоваться объединенный доклад ЕЦКЗ и ЕРБ ВОЗ и/или аналогичный механизм. С этой целью были разработаны специфичные планы мониторинга для каждого из этих основополагающих документов, формулирующих взятые Регионом обязательства. Они дополняют друг друга, как и Рамочный план действий ЕЦКЗ.

Страны Европейского Союза и Европейской экономической зоны

ВЭтот год знаменателен появлением первого доклада по эпиднадзору и мониторингу для ЕС/ЕЭЗ, в котором дается обзор эпидемиологической ситуации и достигнутых результатов в области профилактики и контроля ТБ в ЕС/ЕЭЗ. Ниже приводится краткое изложение основных данных эпиднадзора и следующих из них выводов, а затем следуют главные выводы по итогам мониторинга и рекомендации.

В 2010 г. в 27 странах-членах ЕС, Исландии и Норвегии, было зарегистрировано 73 996 случаев туберкулеза. По сравнению с 2009 г. этот показатель снизился на 5 685 cases (7%), что больше, чем за любой из предыдущих трех лет. В среднем показатель регистрации ТБ в 2010 году составил 14,6 на 100 000 населения, сократившись на 8% по сравнению с 2009 г. (15,8), и отражал общую тенденцию к снижению, наблюдающуюся в последние годы.

Из 73 996 зарегистрированных случаев ТБ 58 435 (79%) были новые, ранее не получавшие лечения случаи, 9 561 (13%) были случаями повторного лечения, а для 6 000 случаев (8%) статус предыдущего лечения ТБ был неизвестен. Среди случаев легочного ТБ новых случаев было 44 494 (77%) по сравнению с 57 661 случаем, зарегистрированным в 2010 г. Из них 29 169 (66%) были подтвержденными по культуре.

Средний возраст больных ТБ, зарегистрированных в 2010 г., составлял 45 лет; этот показатель остается неизменным с 2001 года. Большинство впервые выявленных больных ТБ было в возрастных категориях 25–44 и 45–64 лет, которые вместе составляли 60% таких случаев.

За период с 2006 до 2010 гг. показатели регистрации случаев ТБ с множественной лекарственной устойчивостью (МЛУ-ТБ) оставались стабильными и составляли около 0,3 на 100 000 населения, или 1447 зарегистрированных случая. Из 819 больных МЛУ-ТБ с результатами тестирования лекарственной чувствительности (ТЛЧ) к препаратам второго ряда 108 (13,2%) были зарегистрированными случаями с широкой лекарственной устойчивостью (ШЛУ-ТБ).

Показатель успешности лечения среди 27 922 зарегистрированных в 2009 г. впервые выявленных случаев легочного туберкулеза с культуральным подтверждением был равен 79% (22 010 случаев); 1852 (7%) умерли, у 581 (2%) лечение было признано неэффективным, 1613 (6%) прервали лечение, 602 (2%) продолжали курс лечения и 1264 (5%) переведены или с неизвестным исходом. Из зарегистрированных в 2008 г. 1244 случаев МЛУ-ТБ у 375 (30%) исход было успешным после 24 месяцев лечения, 242 (20%) умерли, у 285 (23%) лечение было признано неэффективным, 221 (18%) прервали лечение, 103 (8%) в 2010 г. продолжали курс лечения и 18 (1%) переведены или с неизвестным исходом.

В целом в 2010 г. показатели регистрации ТБ в странах ЕС/ЕЭЗ продолжали снижаться, причем в пяти странах высокого приоритета отмечались самые высокие темпы снижения показателей. В то время как показатели регистрации МЛУ-ТБ оставались неизменными на протяжение последних пяти лет, доля ШЛУ-ТБ в 2009–2010 гг. увеличилась, возможно, вследствие оптимизации отчетности.

2010 г. знаменует начало проведения мониторинга для оценки достигнутого прогресса на пути к поставленной цели - элиминации ТБ в ЕС/ЕЭЗ, а также достигнутых результатов в реализации восьми областей действия Рамочного плана по борьбе с ТБ в Европейском Союзе. Все четыре эпидемиологических показателя и пять из восьми основных показателей теперь можно измерять и анализировать.

За последние пять лет показатели регистрации ТБ и МЛУ-ТБ снизились, прежде всего за счет постепенного их сокращения, отмечаемого в странах с высокой заболеваемостью. Странам-членам необходимо и дальше прилагать и активизировать усилия, чтобы обеспечить непрерывное снижение показателей регистрации в стремлении к элиминации ТБ в ЕС/ЕЭЗ в будущем.

Увеличилось количество стран, достигших целевого показателя в 80% для культурального подтверждения новых случаев ТБ легочной локализации и тестирования лекарственной устойчивости; однако в целом эти показатели остаются субоптимальными.

Необходимы дальнейшие усилия и целенаправленная поддержка для улучшения мониторинга отчетности по исходам лечения, подаваемой странами-членами, и для обеспечения успешного лечения новых культурально-подтвержденных случаев ТБ и МЛУ-ТБ. Непредоставление некоторыми странами в ЕС/ЕЭЗ данных по исходам лечения создает дополнительные трудности для определения сильных сторон и сложных задач в борьбе с ТБ и МЛУ-ТБ и, как следствие, для поддержки, которая может быть предоставлена странам-членам для более эффективной борьбы с эпидемией.

В целом, механизм мониторинга для Рамочного плана действий по борьбе с туберкулезом в Европейском Союзе представляет собой эффективный и надежный инструмент для оценки слабых и сильных сторон борьбы с ТБ в странах ЕС, и его использование будет способствовать элиминации ТБ в будущем. Аналогичные анализы можно проводить на уровне отдельных стран-членов, используя данные эпиднадзора, представленные в данном докладе.

1. Background and technical note

1. Background and technical note

From 1996 to 2007, TB surveillance data from the European Region were collected and analysed annually for each preceding year under the 'EuroTB' project.

Since 1 January 2008, ECDC and the WHO Regional Office for Europe (WHO/Europe) have jointly coordinated the collection and analysis 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. Designated national surveillance institutions are responsible for reporting the data at the European level. TB surveillance data from the European Union and European Economic Area (EU/EEA) countries are processed through The European Surveillance System (TESSy) platform hosted by ECDC. Data from all other countries are processed through WHO's Global Tuberculosis database (TME). However, countries are redirected via a joint ECDC-WHO/Europe surveillance website that serves as a portal for the collection of surveillance data for tuberculosis, HIV/AIDS and influenza throughout the Region[1]. Data from TESSy were imported to the Global TB database to create a full picture of TB control in the Region. Both databases are compatible and complement one another in order to avoid the duplication of EU/EEA country efforts. The procedures and methods guiding European TB surveillance activities have been recommended by European experts from ECDC, WHO and the International Union Against Tuberculosis and Lung Disease [7,9,10,12, 20,21,22].

Estimates of the burden of disease caused by TB (measured in terms of estimated incidence, prevalence and mortality) are produced annually by WHO using information gathered from surveillance systems (case notifications and death registrations), in-depth analyses of surveillance data, expert opinion and consultations with countries. Two recent publications provide up-to date guidance on how TB incidence, prevalence and mortality should be measured,[2] based on the work of the WHO Global Task Force on TB Impact Measurement.[3]

The methods used to estimate the burden of disease were updated in 2009, following 18 months of work by an expert group convened by the WHO Global Task Force on TB Impact Measurement. Improvements to methods included systematic documentation of expert opinion and its use to produce disease burden estimates; simplification of models; updates to parameter values based on the results of systematic reviews; greater use of mortality data from VR systems and systematic documentation of uncertainty (hence the uncertainty intervals shown on all of the disease burden estimates in this report are based on the Global TB control Report).[4]

Estimated values are shown as best estimates followed by lower and upper bounds. The lower and upper bounds are defined as the 2.5th and 97.5th percentiles of the outcome distributions produced in simulations (see Annex 1 of the Global TB report 2010 for further details).[5]

Estimated numbers are shown rounded to two significant figures. Estimated rates are shown rounded to three significant figures unless the value is below 100, in which case rates are shown rounded to two significant figures.

This year's report gives more scope for monitoring the progress towards TB control and elimination against the indicators established in the main policy making documents applicable to the 29 EU/EEA Member States and the entire WHO European Region: the Plan to Stop TB in 18 High-priority Countries of the WHO European Region 2007–2015, the Berlin Declaration on Tuberculosis, the Framework Action Plan to fight Tuberculosis in the European Union, and the Consolidated action plan to prevent and combat multidrug- and extensively drug-resistant tuberculosis in the WHO European Region 2011–2015 [6, 13, 21, 22]

The data published in this report may differ from figures in national reports and the Global Tuberculosis Control Report 2011 [14], due to the fact that the reporting took place at different times. The deadline for updating the data in the joint database used for this report was 31 October 2011.

1.1 Data reporting and analysis

ECDC and WHO Regional Office for Europe jointly collected TB surveillance data and TB control programme management information for the reporting year 2010. Countries submitted their data electronically to the ECDC–WHO/Europe Joint TB Information System via a common portal. The data were redirected either to TESSy or to the Global TB database[6] depending on the Member State affiliation (EU/EEA or non-EU/EEA) and type of data reported (notification or programme management data). EU/EEA Member States reported case-based data. They were also asked to provide updates for 2007, 2008 and 2009 to allow for the exclusion of duplicate cases or those later found not to have TB, as well as updates of certain variables, including

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

2 TB impact measurement: Policy and recommendations for how to assess the epidemiological burden of TB and the impact of TB control. Geneva, World Health Organization, 2009 (Stop TB policy paper no. 2; WHO/HTM/TB/2009.416). The policy paper is available on the Task Force's website: www.who.int/tb/advisory_bodies/impact_measurement_taskforce

3 For further details, see the Task Force web site at: www.who.int/tb/advisory_bodies/impact_measurement_taskforce. The review is also the basis for the TB component of the update to the Global Burden of Disease, due for publication in 2011 (www.who.int/topics/global_burden_of_disease).

4 For example, some parameter values are now estimated only at global level or for regions, rather than for each country individually.

5 World Health Organization. Global Tuberculosis Control: 2011 report. Geneva: WHO, 2011. WHO/THM/TB/2011.16. Available from: http://www.who.int/tb/publications/global_report/en/index.html

6 The Global TB database at WHO, http://www.stoptb.org/tme/

culture and treatment outcome. The remaining countries of the European Region reported aggregate data.

For the 2011 data collection the TESSy variable list was subject to some changes (the variable 'Clinicalcriteria' was made optional, a new variable 'HIVstatus' was added, a new code was added in variables 'Major-and-MinorSiteofDisease' and the variable 'SiteClassification' was deleted) for harmonisation purposes and to avoid reporting duplication.

Reporting completeness for the EU/EEA countries varied due to differences in national surveillance systems and laws. Moreover, the proportion of the true incidence of TB cases reported can vary widely from country to country. Of 29 EU/EEA countries reporting to TESSy, 29 provided data on previous treatment (diagnosis), 26[7] on anti-TB drug susceptibility testing (DST), 24 on outcome for cases notified in 2009, and 15 on MDR TB outcome for cases notified in 2008. Further limitations included missing data for some districts in Italy and DST data only being available for 35% of all culture-positive cases reported by Greece and Spain.

Although the quality and comparability of reported data has improved considerably in recent years the reader is still cautioned against making direct comparisons of the data presented across countries.

Notification data were analysed by the main epidemiological determinants (location, gender and age) as well as by the principal case management determinants (history of previous anti-TB treatment, localisation of disease, laboratory results and HIV serostatus).

Where relevant, particularly for countries in the EU/EEA, tables were stratified by origin of the case (national/foreign). 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). For TB, either of the two categories defining foreign or native origin may be provided, although country of birth is preferred to country of citizenship. Twenty-four countries provided information on origin by place of birth. Data on citizenship were provided by Austria, Belgium, Greece, Hungary, Poland and all non-EU/EEA countries except Croatia, Israel, Kazakhstan, Kyrgyzstan, the former

7 France, Italy and Spain reported DST aggregated data directly to the Global TB database

Table A: Distribution of TB data reporting/updating by year and EU/EEA country, TESSy 1995–2010

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Belgium	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
Bulgaria	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2
Cyprus	0	0	0	0	0	0	0	1	1	1	2	2	2	2	2	2
Czech Republic	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
Denmark	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
Estonia	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
Finland	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
France	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2
Germany	0	0	0	0	0	0	1	1	1	1	2	2	2	2	2	2
Greece	0	0	0	0	0	0	0	1	1	1	1	2	2	2	2	2
Hungary	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2	2
Iceland	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
Ireland	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	2
Italy	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
Latvia	0	0	0	0	0	0	1	1	1	1	2	2	2	2	2	2
Liechtenstein	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
Lithuania	0	0	0	0	0	0	0	0	1	1	2	2	2	2	2	2
Luxembourg	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2
Malta	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
Netherlands	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
Norway	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2
Poland	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2
Portugal	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2
Romania	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
Slovakia	0	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
Slovenia	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
Spain	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2	2
Sweden	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2
United Kingdom	0	0	0	1	2	2	2	2	2	2	2	2	2	2	2	2

0 Aggregated data in EuroTB historical databases
1 Individual data in TESSy updated before 1 January 2008
2 Individual data in TESSy updated after 1 January 2008
- No data reported

Yugoslav Republic of Macedonia, Monaco, Switzerland, Tajikistan, Turkey and Uzbekistan.

For the calculation of notification rates, country population denominators by age group and gender were obtained from Eurostat[8] for the EU and EEA countries and from United Nations statistics[9] for all others.

Associations between previous treatment status, multidrug resistance and treatment outcome for EU/EEA countries were quantified using prevalence ratios (PR) and their 95% confidence intervals (CI).

TB/HIV co-infection

From the EU/EEA, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Iceland, Ireland, Luxembourg, Romania, Slovenia, Slovakia and Spain reported case-based data on HIV serostatus of notified TB cases while Latvia, Malta, the Netherlands, Portugal and all the non-EU/EEA countries submitted this information in aggregate format via TME. The number of cases with HIV-associated TB obtained from both TB and AIDS notification is known to be under-reported, with detection rates amounting to 77% (range 63—98%) of the estimated total number in the Region [14].

The number of cases with known HICV status is expressed as a percentage of all reported TB cases. Most recent HIV/TB co-infection data are presented by year of report. Special analysis of outcome data for HIV-positive TB cases is not included in this report.

Drug resistance

Since the reporting year 1998, the results of 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 for EU/EEA via TESSy since 2008. For the rest of the European Region data were reported via CISID[10] in 2008—2009 and through the Global TB database since 2010. In countries where DST results are linked to TB case notifications, information on DST is collected as part of the individual data (25 countries in 2010).[11] When DST data are not matched with TB case notifications, or no individual figures are available, data are collected in aggregate format directly into WHO's database on the basis of previous anti-TB treatment history, HIV status and gender. Information on the organisation and laboratory practices of anti-TB DST in the country is also collected directly into the WHO module of the Joint ECDC-WHO/Europe surveillance system. Of 51 countries in the Region that submitted the data (excluding Croatia and San Marino), 44 reported nationwide coverage of routine DST for first-line drugs, while the remaining seven countries reported partial coverage or no data (Azerbaijan, Kyrgyzstan, Spain, Tajikistan, Turkey, Turkmenistan and Uzbekistan).

Data were reported on DST for isoniazid, rifampicin, ethambutol and streptomycin at the start of treatment. Percentages of culture positive drug-resistant cases were calculated using as a denominator those cases for which DST results were available for at least isoniazid and rifampicin. If the cases had DST results for ethambutol and streptomycin these are also shown. DST results relating to second-line drugs were analysed for MDR cases only. Drug resistance surveillance (DRS) methods vary across countries. Initial DST results may be collected routinely for all culture-positive TB cases notified, or only for cases included in specific surveys or diagnosed in/referred to selected laboratories. In some countries geographical coverage of DRS is only partial.

DRS data are considered complete if:

- linked to TB case notification in countries using culture routinely, achieving >50% culture confirmation and;
- DST results for isoniazid and rifampicin are available for >75% of culture-positive cases and;
- External Quality Assessment (EQA) results show confirmation by a Supranational Reference Laboratory at a level of 95% or above.

Treatment outcome monitoring (TOM)

Since the reporting year 2002, outcome data have been collected from EU/EEA countries through the submission of an updated dataset for cases notified one year prior to the year of reporting, and MDR treatment outcome for cases reported two years earlier. Thus, as part of the 2011 data call, treatment outcome data were collected for TB cases notified in 2009, and MDR TB cases reported in 2008. Non-EU/EEA countries have reported aggregated treatment outcome data with the same timeframes for the past three years. 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 EU/EEA and thirteen countries from the rest of the Region provided MDR TB treatment outcome results, although data completeness and quality vary.

Case cohorts eligible for outcome analysis are expected to include all laboratory-confirmed pulmonary TB cases notified in the calendar year of interest, although the confirmation level varies, especially among the non-EU/EEA countries. For countries reporting case-based data, 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 denominators differing from the number of notified cases reported in the previous year's report. For countries reporting aggregate outcome data, completeness of cohorts is assessed by comparing the total number of cases included in TOM cohorts with those initially notified as pulmonary culture or smear-positive, depending on the type of cohort.

8 from: http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/

9 Population by UN Population Division, World Population Prospects: The 2010 Revision, medium variant (2010).

10 Centralized Information System for Infectious Diseases at WHO/Europe http://data.euro.who.int/cisid/

11 Except France, Italy and Spain

Geographical areas

The 27 EU Member States and two EEA countries are presented separately in tables and in Chapter 2. These are: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom.

The 24 remaining countries in the WHO 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. According to the agreement between TB control programmes in Serbia, the United Nations Interim Administration Mission in Kosovo (UNMIK) and WHO/Europe, the WHO Member State of Serbia is presented in the report as one entity and in the tables figures are displayed as provided by the two official national counterparts: 'Serbia excluding the UN Administered Province of Kosovo' and the 'UN Administered Province of Kosovo'.

In order to better highlight the 18 High-Priority countries (HPC) [13] identified by the WHO, their data are presented in italics and as subtotals alongside the subtotals for the EU/EEA and non-EU/EEA Member States. The 18 High-Priority Countries are: Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Romania, Russia, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

Data from Denmark does not contain cases identified in Greenland and therefore Greenland's TB control programme was contacted and TB information was collated directly in the Global TB database. A formal agreement has been reached to merge Greenland's data with that of Denmark. However, due to the incompleteness of data in terms of registration categories, TB notifications from Greenland (116 cases) are footnoted in Table 3, and are not included in the totals for the European Region.

1.2 Definitions

Tuberculosis case definition for surveillance

Information from EU/EEA countries was collected to enable cases to be classified in accordance with the case definition approved by the EU Member States and published by the European Commission [7]. This classifies cases as 'possible', 'probable' or 'confirmed'. Possible cases meet clinical criteria only. Probable cases are defined by the additional detection of acid-fast bacilli (AFB) or *M. tuberculosis* nucleic acid or granulomata. Confirmed cases require a culture or detection of both positive AFB and *M. tuberculosis* in nucleic acid.

Data from the remaining countries of the European Region follow the WHO-recommended definitions. These define a 'case of tuberculosis' as a patient in whom TB has been confirmed by bacteriology or diagnosed by a clinician. A 'definite case' is defined as a patient with culture confirmation of *Mycobacterium tuberculosis* complex. In countries where culture is not routinely available, a patient with one sputum smear-positive for AFB (AFB+) is also considered a definite case.

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

For the purposes of this report, the following definitions shall 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 or complete, 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 never having previously received drug treatment for active TB, or having received anti-TB drugs for less than one month.

Previously treated case (retreatment case)

A case previously diagnosed with TB having received treatment with anti-TB drugs (excluding preventive therapy) for at least one month. Previously treated cases were reported from 24 EU/EEA Member States. In the remaining five (Belgium, Denmark, Ireland, Norway and United Kingdom), information about previous treatment was not collected and previously diagnosed cases were reported instead as a proxy calculation.

Relapse

A case previously diagnosed with TB and then re-diagnosed with bacteriologically positive tuberculosis after having been declared cured or having completed treatment (smear-negative pulmonary and extrapulmonary cases may also be relapses if supported by pathomorphological or bacteriological evidence).

Site of disease

Pulmonary case

A case with TB affecting the lung parenchyma, (tracheobronchial tree or larynx are also included in pulmonary TB for EU/EEA countries).

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

Notes on the definition

- The above definitions are in accordance with the European Commission's approved 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 previously treated cases, relapses are included in notifications from all countries, whereas cases re-treated after failure, default, or for other reasons, and cases transferred in, are not included. In countries where information on previous anti-TB treatment is incomplete or not available, information on whether TB had been previously diagnosed is used as a proxy.
- The data from DST results have only been analysed for culture confirmed cases.

Geographic origin

The geographic origin of a TB case 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 is notified for case management purposes). The country of origin is included in case-based 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 citizens of) a country other than the 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.

Extensive 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

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.

Note: Since the 2008 cohort, outcome for MDR TB cases has been implemented for cases 'year of notification = -2'. For the entire European Region, treatment outcome was reported for 41% of all reported MDR TB cases in that 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 or notification. For multidrug-resistant cases in EU/EEA countries, treatment outcome after 24 and 36 months should be reported if treatment lasts longer than 12 months and the reported 12-month outcome for such cases is coded as 'still on treatment'[12]. Non-EU/EEA countries evaluate treatment outcomes according to the WHO definition. Cases still on treatment after 12 months were considered treatment failures.

Treatment outcome categories

With the exception of two additional categories for EU/EEA countries – 'still on treatment at 12 months' and 'unknown' [8,12] – the outcome categories are those generally recommended, as follows:

Cured: definite pulmonary case with treatment completion and:

- culture-negative 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), sputum microscopy negative for AFB at the end of treatment and on at least one previous occasion.

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

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.

Failure for MDR TB case:

- Two or more of the five cultures recorded in the final 12 months of therapy are positive, or any one of the final three cultures is positive.

or

- A clinical decision has been made to terminate treatment early because of poor clinical or radiological response or adverse events. The latter failures can be indicated separately in order to perform a sub-analysis [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 treatment[13]:

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

or

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

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

In this report:

- 'Success' refers to the combination of cured and completed.
- Transfer out and unknown treatment outcome are combined in the tables.

13 Definition applicable to 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 309 648 new episodes of TB in 2010, (34.0 per 100 000 population), the majority of them in the 18 High-Priority Countries (HPC) of the WHO European Region. The notification shows a 2.6% decrease compared to 2009, however there is a significant difference in TB notification rates among the countries (from 2.8 to 123 per 100 000 population).
- In ten countries of the Region (all in EU/EEA), youngsters under five years accounted for more than half of the cases detected in children.
- Treatment success of new TB patients and previously treated patients is very low (68.7% and 47.6% respectively). During the last five years, a gradual decrease in treatment success has been noted in the Region.
- In the non-EU/EEA countries where HIV testing and reporting is reasonably high (85.6%), the prevalence of HIV among TB cases increased from 4.6 % in 2009 to 5.5% in 2010 which led to an absolute number of 14 779 TB patients with HIV positive status.
- In 2010, for the first time, all countries in the Region reported on first-line anti-TB drug susceptibility test results. Six countries reported MDR TB rates above 20% among new sputum smear positive pulmonary TB patients tested for drug susceptibility. Seven countries reported MDR TB rates above 50% among previously treated patients tested for drug susceptibility. The percentages of MDR TB among newly detected patients and re-treatment cases are alarmingly high – 13.7% and 48.7% respectively – giving an absolute number of 29 059 notified MDR TB patients throughout the Region, with 96% of them in the non EU/EEA countries. This indicates an increase in both percentage and absolute numbers compared to 2009. Data on XDR TB are not yet representative due to insufficient coverage of second-line drug susceptibility testing.
- The treatment success among MDR TB cases was 56.3%, and, in contrast to the other cohorts, the proportion of successfully treated MDR TB cases was higher in the non-EU/EEA countries than in the EU/EEA countries (62.0% vs. 30.1%).[14]
- In response to the alarming problem of MDR TB, all 53 Member States have fully endorsed the Consolidated Action Plan to Prevent and Combat Multidrug- and Extensively Drug-Resistant Tuberculosis (M/XDR TB) in the WHO European Region 2011–2015 and its accompanying Resolution EUR/RC61/R7 of the sixty-first session of the Regional Committee for Europe. The Action Plan includes a set of activities for countries, WHO and partners in order to achieve universal access to prevention and treatment of M/XDR TB.

Tuberculosis burden estimates

The WHO European Region accounts for about 4.7% of the newly detected tuberculosis and relapse cases in the world. This represents the emergence of an estimated 418 000 (range 355 000–496 000) individuals with a new episode of TB (new or relapse) in the Region during 2010. The incidence in the Region amounts to an estimated 47 (range 40–55) per 100 000 population (Table 2, Figure A).

More than 60 000 (40 000–90 000) deaths were attributed to TB – 6.8 (range 5.4–8.3) per 100 000 population.

The vast majority of TB cases occur in the 18 HPC.[15] These countries represents 87% of the TB incidence and 94% of the mortality caused by TB in the Region (Figure B).

Trends in notification

In 2010, a total of 388 875 TB cases were reported from 52 countries[16] of the WHO European Region (43.2 per 100 000 population) (Table 3). This represents a 8.7% decrease on the 2006 rate of 47.3 per 100 000, a 2.6% decrease on 2009 (44.4) and a 1.7% mean annual decrease for the period 2006–2010. However, during 2007–2008, an increase in notification of all types of TB in the Region was largely due to changes in the notification policy for TB patients in Kazakhstan and Russia. This policy had meant that previously notified cases were included in the category of previously treated, thus artificially inflating the number of cases in Kazakhstan and Russia by counting them twice. Since 2009 none of the countries in the Region report prevalent TB cases in the overall notification.

During the period 2005–2010, a declining trend of 15.2% was observed in the notification of new TB cases and relapses, from 40.1 to 34.0 cases per 100 000 population (Table 4). This trend reflects a true reduction in the spread of the disease, strongly influenced by the 14.2% decrease in notification rates in the Region's 18 HPC (from 79.9 to 68.5 per 100 000 population) (Figure C). Before 2004 there was a sustained plateau in the notification rate for new TB and relapses. Despite encouraging trends, the notification rate of new and relapsed cases in the HPC remained twice

14 For EU/EEA countries this included all MDR TB cases notified in 2008, for non-EU countries this included only cases enrolled for treatment.

15 The 18High-Priority Countries are: Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Romania, Russia, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

16 There are 53 countries in the WHO European Region. San Marino did not report data in 2010.

as high as for the Region as a whole (68.5 compared with 34.0 cases per 100 000) and more than 5.6 times higher than the rate in the EU/EEA (12.2 cases per 100 000 population). The reduced burden of TB in the Region is also confirmed by the decline in notification of newly detected sputum smear-positive TB cases between 2006 and 2010 (Table 8), which showed a 17.1% reduction from 12.3 to 10.2 cases per 100 000 population. This reduction has resulted from the expansion of DOTS, especially in the 18 HPC during the period 2002–2006, and an improvement in the quality of laboratory diagnosis.

The notification rate of new and relapse cases varies widely among countries, from 2.8 (Italy) to 123 (Kazakhstan) per 100 000 population (Table 4). It is noteworthy that some countries, including Italy, have a considerably high (more then 25%) proportion of patients with unknown treatment history and, as a result, have reported less new and relapse cases. In addition to Kazakhstan, there were three countries with notification rates above 100 per 100 000 population for new and relapsed cases: Kyrgyzstan (106), Georgia (107) and Moldova (115). According to the WHO estimates, Tajikistan should have also a notification rate exceeding 100 per 100 000, but many patients may go undetected (the lowest case detection rate in the region; 45% (37–53)).

In 2010, the number of countries with low notification of new and relapse cases (less than 20 cases per 100 000)[17] increased four-fold against the previous year, amounting to 32. All of these 32 countries are in the western part of the Region and represent high-income countries,[18] which account for 13% of the notified burden in the Region. Seven countries reported new or relapse case rates between 20 and 50 per 100 000 population. Nine reported between 50 and 100 cases per 100 000 population: Belarus (52), Lithuania (53), Uzbekistan (62), Turkmenistan (64), Azerbaijan (70), Ukraine (74), Russia (83), Romania (86), and Tajikistan (92). The 14 countries with new/relapse case notifications above 50 per 100 000 account for about 80% of the regional burden, with the largest contribution to this burden coming from Russia: 118 641 cases and 16% of the region's population (143 million).

The percentage of reported cases that had been previously treated decreased slightly from 32% in 2007 to 29.8%[19] in 2008 and declined sharply to 22% in 2010, mostly due to the revised case notification in Russia and Kazakhstan (Table 5). However, sub-regional differences were observed; the decline over the last four years was about 13% for EU/EEA countries and 22% for non-EU/EEA countries of the WHO European Region. The percentage of previously treated cases was 12.9% and 24.0% for the EU/EEA and non-EU/EEA respectively.

There were 12 countries in which previously treated cases accounted for 15% or more of all TB cases: Belarus (20.1%), Kazakhstan (32.3%), Moldova (31.0%), Russia (28.3%), Armenia (25.3%), Georgia (24.3%), Romania (24.3), Estonia (24.0%), Azerbaijan (23.8%), Uzbekistan (20.1%), Lithuania (18.8%), and Kyrgyzstan (15.7%). Reasons for high prevalence of previous treatment among all cases include clinical failures and lack of programme management, possible re-infection and misclassification. However, this cannot be concluded from the joint ECDC/WHO European TB data collection form, but requires field assessment missions which should be conducted every three to five years, according to WHO recommendations.[20] TB cases with unknown treatment history were more often notified by countries in the western part of the Region. These included five countries where more than 25% of TB cases identified had no previous treatment history: Cyprus (45.9%), Italy (45.6%), Austria (43.7%), France (40.1%), and Malta (28.1).

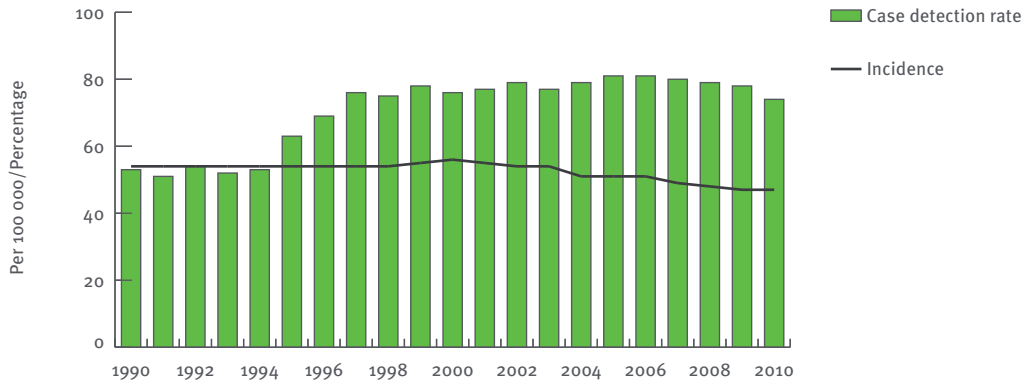
17 Broekmans JF, Migliori GB, Rieder HL, Lees J, Ruutu P, Loddenkemper R, Raviglione MC. European framework for tuberculosis control and elimination in countries with a low incidence. Recommendations of the World Health Organization (WHO), International Union Against Tuberculosis and Lung Disease (IUATLD) and Royal Netherlands Tuberculosis Association (KNCV) Working Group Eur Respir J 2002; 19(4): 765-75.

18 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).

19 European Centre for Disease Prevention and Control/WHO Regional Office for Europe: Tuberculosis Surveillance Report in Europe, 2008. Stockholm: ECDC, 2010.

20 Guidelines for Conducting a Review of a National Tuberculosis Programme, WHO/TB/98.240

Figure A: Estimated TB incidence (per 100 000 population) and case detection rates (percentage), the WHO European Region, 1990–2010



Global tuberculosis database, WHO. (http://www.who.int/tb/country/data/download/en/index.html), accessed on 10 October 2011

Notification by site of disease

In 2010, pulmonary localisation was notified in about 83% of the overall TB cases in the Region, a proportion similar to that observed in the last four years. In EU/EEA countries a somewhat lower proportion of pulmonary localisation was seen (78%) than in non-EU/EEA countries (84%). Data completeness on disease localisation in the non-EU/EEA area increased significantly from 69.7% in 2008 to 99.7% in 2010. However, two non-EU/EEA and one EU/EEA country still need to improve their notification by disease localisation; Bosnia and Herzegovina (11.4% unknown disease sites), Turkmenistan (8.5% unknown) and Denmark (18.1% unknown). Extra-pulmonary TB was notified on average for 17% of all TB cases in the Region. However, 16 countries reported more than 30% of their tuberculosis cases to have extra-pulmonary localisation, and five countries had rates exceeding 40%: United Kingdom (47%), Netherlands (45%), Andorra (43%), Norway and Malta (41% each).

Figure B: TB incidence rate per 100 000 population, WHO European Region, 2010

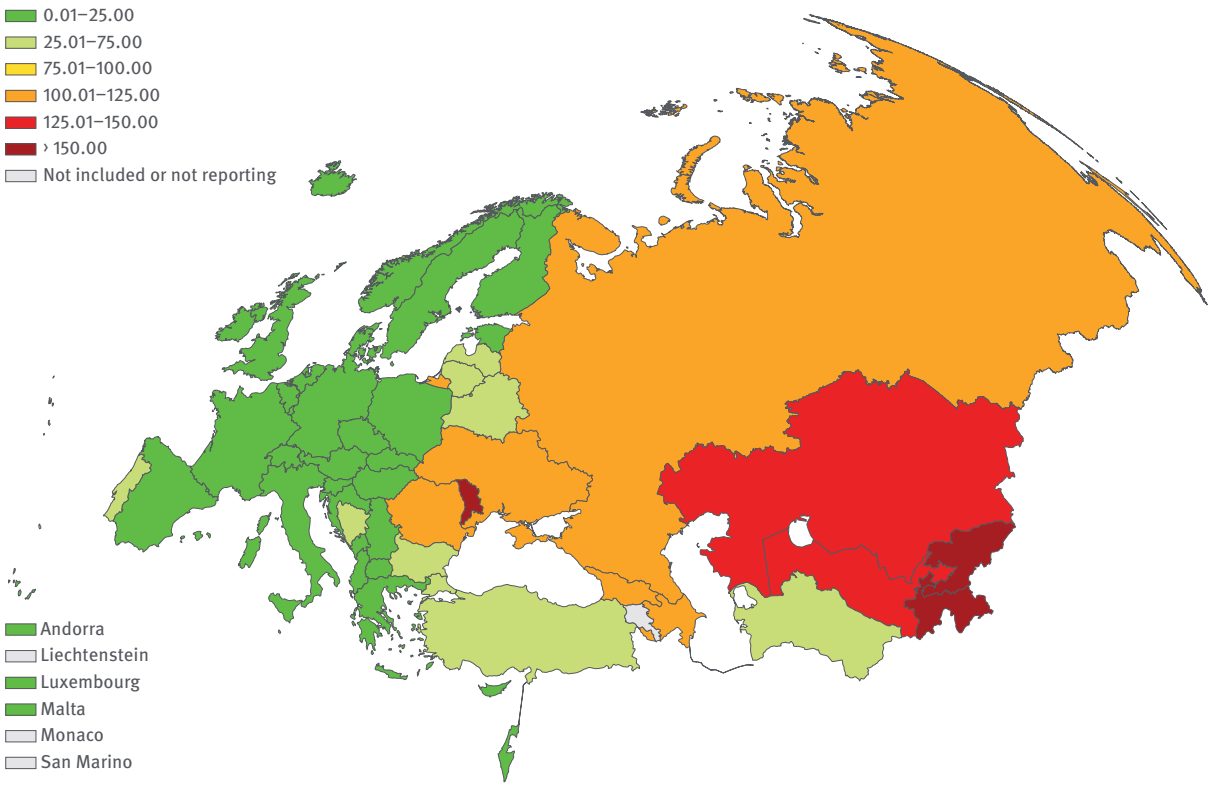
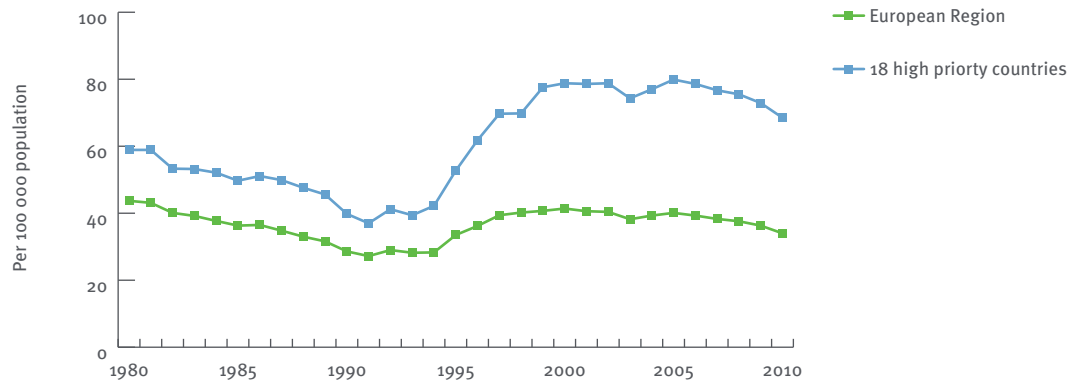


Figure C: Notification rate of new and relapse cases; WHO European Region, 1980–2010



Source: Global TB database, WHO. Accessed on 10 October 2011

Notification by laboratory confirmation

Confirmation of TB diagnosis by culture among newly detected pulmonary TB cases (Table 7) was lower in non-EU/EEA countries (31.7%) than in EU/EEA countries (65.6%). There was a significant proportion of sputum smear negative and culture positive patients in several countries within the Region: Finland (40.7%), Israel (38.9%), Belgium (39.6%), Estonia (39.5%), Sweden (38.8%), Slovenia (36.6%), Latvia (36.4%), Czech Republic (31.7%), Norway (30.2%), Cyprus (30.0%), Montenegro (25.0%), Belarus (23.4%), Macedonia (21.4%) and Serbia (15.9%). New rapid methods to support TB diagnosis have recently been introduced in some countries of the Region but data from these new tests were not collected for 2010.

Notification by gender and age

There were twice as many males reported as females among all TB cases (Table 4), however a large variation was observed for male predominance in the gender distribution of TB cases, ranging from almost even distribution in Switzerland (1.1) to about three times greater in Azerbaijan (2.8). There were 15 other countries where the male/female ratio among TB cases was greater than two: Estonia, Georgia, Lithuania, Greece, Armenia, Moldova, Ukraine, Albania, Russia, Belarus, Romania, Malta, Poland, Portugal and Latvia. This gender difference in TB case notification most likely reflects the overrepresentation of males in the various risk groups for TB, notably the homeless, prisoners and HIV-infected individuals. However, this cannot be concluded from the data collected within the framework of this report and requires a cross-sectional prevalence survey.[21]

In 2010, most (37.3%) of the newly detected TB cases in the European Region were in the age category of 25–44 years (Table 10). This was also the most affected age group in both EU/EEA and non-EU/EEA countries, accounting for 31.1% and 37.6% of new TB notifications respectively. The overall age distribution of TB cases in the 18 HPC is more prominent in the age-group 25–44 years than in other countries of the Region, which generally have a higher proportion of older TB patients. In eight countries the oldest age group (65+ years) contained more than 25% of new cases: Finland (43%), Bosnia and Herzegovina (38.7%), Croatia (35.3%), Slovenia (33%), and Czech Republic (30.7%), Slovakia (29.4%), Germany (28.4%), and Montenegro (25.5%).

During 2006–2010, region-wide trends of overall TB notification in children (age group 0–14 years) decreased by 10% in the Region from 7.0 to 6.3 cases per 100 000 population. These trends were strongly influenced by the 32% decrease in TB notification among children observed in the 18 HPC (from 14.8 to 10 cases per 100 000 population). The average percentage of patients within this age group in the Region also decreased (from 5.4% to 3.2%), however in the EU/EEA countries it remained stable at 4.1% over the same period (Table 12). In 20 of the Region's countries children represented more than 5% of all TB cases. In ten countries youngsters under the age of five years accounted for more than half of the cases detected among children: Switzerland and Slovenia (both 67%), Greece and Israel (both 63%), Spain (55%), Belgium (54%), Italy (52%), Latvia and France (by 51%) and Austria (50%) (Table 10).

Notification by origin of patients

Identification of the geographic origin of patients (Table 14a) was significantly better in EU/EEA countries (98.3% reported as either native or foreign) than in the rest of the Region (51.2%). The lower identification rate in non-EU/EEA countries is largely due to the fact that this criterion was not notified in Azerbaijan, Macedonia, Serbia, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan. Similarly, a large percentage of cases of unknown origin were reported in Russia (32.4%).

Tuberculosis and HIV co-infection.

Following the trend of the last two years, in 2010 the number of registered HIV co-infected TB cases increased to 15 834, with 85.6% of these cases notified in the non-EU/EEA countries (Table 24). In the non-EU/EEA countries the prevalence of HIV among TB patients increased from 3.2% in 2008 to 5.5% in 2010. Given the relatively high HIV testing uptake in non-EU/EEA countries (85.6% in 2010 and similar numbers in the two previous years), the increase in HIV positivity may represent an actual increase in HIV prevalence among TB patients. In contrast, the same indicator decreased (from 8.2% to 6.0%) during the same period in EU/EEA countries where HIV testing coverage was only 23.9%. It is noteworthy that five of the 15 EU/EEA countries reporting on HIV had an HIV prevalence among TB cases in excess of 10%; Estonia (11.5%), Malta (11.5%), the Netherlands (12.7%), Portugal (13.3%), and Ireland (17.6%), followed by Belgium (6.8%), Spain (9.4%) and Latvia (9.5%). Ukraine was the only country among non-EU/EEA countries that reported more than 10% HIV positivity among TB patients tested for HIV (13%). Two other non-EU/EEA countries with high HIV prevalence among TB patients were Russia (5.3%) and Moldova (5.9%).

Laboratory network performance

In the 45 countries of the European Region that reported on their laboratory capacity, 8 100 laboratories performed sputum smear microscopy and 1 997 used mycobacteriology cultures, with 818 performing drug susceptibility testing (DST) (Table 15). Although the number of smear microscopy laboratories in non-EU/EEA countries is much higher than in the EU/EEA countries (6 826 vs. 1 310), the number of culture and DST laboratories in the two country groups are similar and, hence, not proportional to the number of cases. Thirty-seven countries reported having established in-country external quality assurance (EQA) systems for smear microscopy and DST, and 42 participated in international EQA programmes for DST. All countries except for one scored over 95% of DST results for isoniazid and rifampicin. This year, for the first time, data on the use of the Line Probe Assay for rapid detection of anti-TB drug resistance was also reported by 40 countries. This test was used in 18 EU/EEA countries by 66 laboratories and in 10 non-EU/EEA countries by 29 laboratories. Especially

21 Tuberculosis prevalence surveys: a handbook; WHO/HTM/TB/2010.17

in the non-EU/EEA countries the Line Probe Assay was only available at reference laboratory level and only five countries in the Region used this test on a larger scale; Belgium (n=5), Finland (n=5), the United Kingdom (n=10), Portugal (n=18) and Turkey (n=18).

Laboratory data from 20 countries in the EU/EEA and seven 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 80% of culture positive cases, and EQA results matching 95% or higher). Of more than 388 800 cases registered in the countries or sites where culture is routinely performed, 39.3% (152 827) were confirmed by culture. This confirmation rate was lower than in 2009, when it was 47.3%. The culture confirmation rate was nearly twice as high in EU/EEA as in non-EU/EEA sub-regions (60.9 % vs. 34.3%). The percentage of positive cultures subjected to DST for first-line drugs increased slightly from 84% in 2009 to 85.7% in 2010, although the number of cases for which isolates were subjected to DST was lower this year (135 409 vs. 152 827) (Table 16).

Multidrug-resistant tuberculosis notification

In 2010 for the first time, all countries in the Region reported on first-line anti-TB drug susceptibility test results. The prevalence of MDR TB among 84 819 new pulmonary TB cases tested for first-line DST in the Region was 13.7% in 2010, a slight increase on 2009 (11.7%). While various high- and middle-income countries reported no MDR among new TB cases, some low-income countries had an MDR TB rate of over 20% among new TB cases (Table 19). Except for the Baltic States, where MDR TB among new cases varied from 10.8% in Latvia to 18.6% in Estonia, the prevalence was below 3% in all EU/EEA countries. In the non-EU/EEA sub-region, five countries had an MDR TB prevalence ranging from 10–20% among new cases tested for first-line DST. Six countries had an even higher prevalence: Turkmenistan (23.5%), Moldova (24.3%), Belarus (25.7%), Kazakhstan (27.0%), Kyrgyzstan (36.3%) and Tajikistan (57.5%). The data from Turkmenistan, Kyrgyzstan and Tajikistan are not representative (not country-wide) and therefore should be interpreted with care.

The proportion of MDR TB among 37 070 previously treated TB cases whose isolates were tested for first-line DST increased from 36.6% in 2009 to 48.7% in 2010, comparable to the rate measured in 2008 (46.9%). Countries with more than 50% MDR TB among previously treated cases tested for first line DST include: Ukraine (79.4%), Tajikistan (78.0%), Kyrgyzstan (82.0%), Moldova (65.4%), Belarus (60.2%), Armenia (53.6%), and Uzbekistan (50.3%). The data from Uzbekistan, Kyrgyzstan and Tajikistan are not nationally representative and should therefore be interpreted with care.

The MDR TB notification rate among culture positive cases with available DST results has been recorded since 2006 and trends over the past four years have differed significantly by country (Table 18). Overall, the rate was stable at around 5% in the EU/EEA Region, and increased from 5.8% in 2006 to 8.8% in 2010 in the non-EU/EEA countries.

XDR TB notification

In 2010 only 26 countries reported on second-line DST (17 EU/EEA and 9 non-EU/EEA countries; Table 21). Of the 1 738 MDR TB cases subjected to second-line DST in the Region, 212 (12.2%) were extensively drug-resistant (XDR TB). This XDR TB rate among MDR TB cases tested for second-line DST was lower than the rate reported last year (348; 22.3%), and this was mainly because of the absence of data from Kazakhstan for 2010. In 2009, Kazakhstan reported 76.6% XDR (216 cases) among 282 MDR TB cases tested for second-line drugs, a phenomenon that may be explained by the selection of severe MDR TB patients tested for second-line DST. Because these 282 cases made up nearly 40% of all MDR cases subjected to second-line DST, the rate of XDR among MDR cases in non-EU/EEA countries decreased from 39.1% in 2009 to 11.3% in 2010. In contrast, the number of XDR TB cases among MDR cases tested for second-line drugs reported from EU/EEA countries increased from 8.2% in 2009 to 13.2% in 2010 (representing 70 and 108 cases respectively). The vast majority of XDR TB cases (93%) were located in nine HPC. It is noteworthy that in Kyrgyzstan all MDR TB cases investigated were XDR TB, both in 2009 and 2010, although numbers were small (6 and 32). However, these high rates of XDR among MDR TB cases tested for second-line drugs may not be reliable because testing coverage is low (only 22.1% and 22.2% of MDR cases respectively were subjected to second-line DST in the last two years) and because data may be biased towards testing for more severe cases. Alternatively, it could also be a first indicator of an alarmingly high XDR TB prevalence among MDR TB cases in the Region, underlining the need for second-line drug susceptibility testing.

Treatment outcome

In 2009, the treatment success rate among 105 441 TB cases newly detected in 2009 with laboratory-confirmed pulmonary disease was 68.7% (Table 25), a further slight decrease on the treatment success rates recorded in previous years (69.7% for 2008, 70.7% for 2007 and 73.1% for the 2006 yearly cohorts). This may be explained by an increase in failures due to the growing MDR TB burden and other unfavourable outcomes. The treatment success rate was higher in the EU/EEA countries than in non-EU/EEA countries (78.8% vs. 65.0%). Fourteen countries exceeded the target of 85% treatment success among newly detected cases with laboratory-confirmed TB and another nine were close to this target, with success rates between 80 and 85%. Seven countries had treatment success rates below 60%. The lower overall success rate for the non-EU/EEA sub-Region (only 65%) was caused mainly by Russia and Ukraine, which together represented 59% of cases in this sub-Region and reported treatment successes of 55.3% and 59.7% respectively.

In the 2009 yearly cohort, a total of 8 825 (8.4%) new pulmonary laboratory-confirmed cases were reported to have died, 6.4% to have defaulted and 11.6% to have had treatment that failed. These unfavourable outcomes were lower in the EU/EEA countries than the rest of the Region, exemplified by the proportion of patients with

failed treatment – 2.1% in EU/EEA versus 15.0% in non-EU/EEA countries (Table 25). Five of the 11 countries with lethal outcomes in excess of 10% were in the EU/EEA countries. Six countries reported a treatment failure rate greater than 10%; Kazakhstan (29.5%), Russia (20.5%), Hungary (18.6%), Moldova (16.6%), Ukraine (15.9%), and Georgia (11.6%). The high failures rates can largely be explained by the high MDR TB prevalence in these countries.

Seven non EU/EEA and nine EU/EEA countries have reported treatment default rates above five percent among new sputum smear positive pulmonary TB patients. High default rates in some Member States require further investigation to determine the reasons for treatment interruption and there should be appropriate intervention for patients in programmes.

As expected, the treatment outcome among previously treated TB cases was lower than among newly detected cases. The treatment success rate among 56 425 laboratory confirmed cases notified in 2009 with previously treated pulmonary disease was 47.6% (Table 26), a slight increase on the 44% recorded in 2008. As with the new TB cases, the success rate was higher in the EU/EEA countries than in non-EU/EEA countries (55.1% vs. 46.5%). Twelve countries had a treatment success rate of 50% or lower among previously treated TB cases. Nineteen had a success rate above 70%, and six of these had a success rate of 80% or higher: Norway (80.0%), Finland (83.3%), Bosnia and Herzegovina (83.6%), Slovenia (85.7%), Andorra (100%) and Iceland (100%). These countries reported very few cases, except for Bosnia and Herzegovina which reported on the outcome of 116 cases. Among all previously treated cases in the Region with unsuccessful outcomes 11.3% died, 22% failed and another 11.3% defaulted.

The treatment outcome of 6 920 MDR TB cases, all representing culture-confirmed MDR TB cases notified in 2008, was reported by 33 countries (Table 28). For the whole Region the treatment success among MDR TB cases was 56.3%, and, in contrast to the other cohorts, the proportion of successfully treated MDR TB cases was higher in the non-EU/EEA countries than in the EU/EEA countries (62.0% vs. 30.1%). The countries that performed best were: Kazakhstan with 2 268 patients (74.1%), the Netherlands with 15 patients (93.3%), Sweden with 11 patients (90.9%) and Israel with 11 patients (90.9%). In EU/EEA countries, 19.5% MDR TB cases died, 22.9% failed and 17.8% defaulted, emphasising that treatment outcome in these countries should be strengthened.

Conclusions and recommendations

As in the previous year, tuberculosis surveillance 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. Although the Region accounts for only 4.7% of the world's newly detected and relapsed TB cases, it reported 309 648 new episodes of TB (34.0 per 100 000 population) out of an estimated 418 000 (range 355 000–496 000) (47 cases per 100 000 population) (range 40–55), and maintained a high case detection rate, 74% (range 63–87%). This demonstrates that, on average, the countries of the Region have one of the most sensitive surveillance systems in the world. More than 60 000 (40 000–90 000) deaths were estimated to have been caused by TB in the Region (6.7 per 100 000 population) (range 4.4–10.0).

TB notifications have been decreasing since 2005. Trends are confirmed by the fall in the registration of patients coming under the categories 'previous treatment history' and 'laboratory confirmed'.

Despite this encouraging trend, notification rates for newly-detected and relapse TB cases in the 18 HPC remained almost eight times higher (68.5 per 100 00 population) than in the rest of the Region (8.4 per 100 000) and twice as high as the regional average (34.0 per 100 000 population).

Unknown treatment history and undocumented localisation of disease was more often reported by countries in the west of the Region. Similarly, the use of the standard definition also needs to be improved in some countries.

Culture confirmation of newly detected pulmonary TB cases was extremely low among non-EU/EEA countries (38.0%) compared with EU/EEA (65.6%). There was a significant proportion of sputum smear negative culture positive patients in several countries, indicating challenges in assuring the quality of smear microscopy diagnosis and/or adhering to the recommended diagnostic algorithm. New rapid methods for diagnosis of TB have recently been introduced in some countries within the Region but data from these new tests have not been collected for 2010.

During 2006–2010, region-wide trends of overall TB notification in children decreased by 10%, from 7.0 to 6.3 cases per 100 000 population, mainly driven by a 32% decrease in 18 HPC (from 14.8 to 10 cases per 100 000 population). However, in the EU/EEA countries, this trend reached a plateau at 4.1% during the same period. It is also alarming that over half of children reported by 10 countries in the west of the Region were under five years of age. There is a need to ensure adequate and timely diagnosis and accurate recording and reporting of TB among children across the Region.

The low proportion of TB in foreigners in non-EU/EEA countries may be due to a lack of notification for this indicator in several countries. For a more accurate interpretation of the role of migration in spreading the disease based on routinely reported data, countries should initiate notification of patients by this criterion. When linked with the genotyping of mycobacterium strains this data will allow us to understand the molecular epidemiology and geographical spread across the Region and beyond.

The majority of TB-HIV co-infected individuals (85.6%) were notified in the non-EU/EEA countries. The prevalence of HIV among TB cases in the Region increased from 3.4% in 2008 to 5.5% in 2010. Six countries had an HIV percentage among TB cases in excess of 10%: Estonia (11.5%), Malta (11.5%), the Netherlands (12.7%), Portugal (13.3%), Ireland (17.6%) and Ukraine (13.0 %). In contrast to non EU/EEA countries, HIV co-infection decreased from 8.2% to 6.0%

in EU/EEA countries during the same time period. The increase in TB-HIV co-infection warrants a strengthening of collaborative TB/HIV activities.

The prevalence of MDR among new TB cases in the Region amounted to 13.7% in 2010, a slight increase on 2009 (11.7%). Except for the Baltic States, where MDR among new cases varied from 10.8% in Latvia to 18.6% in Estonia, the prevalence was lower than 3% in all EU/EEA countries. In the non-EU/EEA sub-region, five countries had a prevalence of MDR among new cases ranging from 10% to 20%, and six countries had an even higher prevalence; Turkmenistan (23.5%), Moldova (24.3%), Belarus (25.7%), Kazakhstan (27.0%), Kyrgyzstan (36.3%), and Tajikistan (57.5%).

The prevalence of MDR TB among previously treated cases increased from 36.6% in 2009 to 48.7% in 2010, comparable to the rate measured in 2008 (46.9%). Countries with more than 50% of previously treated cases that were tested for drug susceptibility and found to be infected with MDR TB include: Uzbekistan (50.3%), Armenia (53.6%), Belarus (60.2%), Moldova (65.4%), Tajikistan (78.0%), Ukraine (79.4%) and Kyrgyzstan (82.0%).

The XDR TB rate among MDR TB cases was lower than that reported for 2009 (348; 22.3%). This was mainly because of the absence of 2010 data from Kazakhstan, which reported 216 cases among 282 MDR TB cases tested for second-line drugs (76.6%) in 2009. These high rates of XDR among MDR TB cases may not be reliable because testing coverage is low (only 22.1% and 22.2% of MDR cases were subjected to second-line DST in the last two years respectively) or because data may be biased towards testing for more severe cases. Alternatively, it could also be a first indicator of an alarmingly high XDR TB prevalence among MDR TB cases in the Region, underlining the need for second-line drug susceptibility testing.

Treatment success rates continued to decrease over the last five years and in 2010 they dropped to 68.7% and 47.6% among new and previously treated cases respectively. As with 2009, a higher treatment success rate was seen among MDR TB patients (56.3%) than previously treated patients. This may assume low efficiency of the treatment regimen in use for previously treated TB patients, which cannot be proved with this data. However, it does suggest, mainly to the 18 HPC, that first-line DST should be scaled up in the Region. Treatment success rates among newly detected pulmonary laboratory TB and among cases previously treated in EU/EEA countries were higher than in the rest of the Region – 78.8% vs. 68.0% and 55.1% vs. 46.5% respectively.

In the 2009 yearly cohort, a total of 8.4% (8 825) of new pulmonary laboratory confirmed cases were reported to have died, 6.4% to have defaulted and 11.6% to have failed treatment. These rates were lower in the EU/EEA countries than outside the EU/EEA area, exemplified by the proportion of patients that failed treatment; 2.1% in EU/EEA versus 15.0% in non-EU/EEA countries. These high failure rates can be explained by the high MDR TB prevalence in countries that account for the majority of the burden in the Region. The percentage of cases lost to follow-up (defaulted, transferred out or unknown) among the 2008 MDR TB cohort was about 22%, which is alarming and requires action to prevent the development of mycobacterium strains resistant to a wider spectrum of anti-TB drugs.

The high default rates of patients in some Member States require investigation to determine the underlying factors and measures to address them.

Despite the decrease in TB notification, drug-resistant TB is becoming a major concern and there is an urgent need to address the root causes of its emergence and transmission. Health system weaknesses and social determinants of TB should be addressed in every country. Early detection of TB, particularly drug resistant TB, and adequate treatment with patient-friendly services need to be ensured across the Region. Even in the EU/EEA countries the current treatment success of MDR TB cohorts is very low (30.1%). In close consultation with the Member States, experts, patients and communities suffering from the disease, WHO Regional Office for Europe has developed a Consolidated Action Plan to Prevent and Combat Multidrug and Extensively Drug-Resistant Tuberculosis 2011-2015.[22] The Plan takes into account the new diagnostic techniques, patient-centred models of care and tailored services for specific populations. All 53 Member States have fully endorsed the Consolidated Action Plan and the accompanying resolution EUR/RC61/R7 of the sixty-first session of the Regional Committee for Europe. It is important to join forces and ensure the Plan is being implemented. From 2013 onwards, the Joint ECDC-WHO/Europe report and/or similar mechanism will be used to monitor progress on the implementation of the Action Plan and the Berlin Declaration. To this end, specific monitoring frameworks have been developed for each of these two important regional commitments, as presented below. These frameworks complement one another and the ECDC Framework for Action.

22 Consolidated Action Plan to Prevent and Combat M/XDR TB in the WHO European Region http://www.euro.who.int/__data/assets/pdf_file/0014/152015/e95786.pdf

2.2 European Union and European Economic Area countries

Key conclusions for the EU/EEA

- At 14.6 per 100 000, the TB notification rate in the EU/EEA continues to decline, with country-specific rates falling fastest in the five HPC within the EU/EEA: Bulgaria, Estonia, Latvia, Lithuania and Romania. However, despite the recent progress made in these countries, they still have notification rates several times higher than those in the low-incidence countries.
- The paediatric notification rate has decreased slightly since 2006, going down to 3.8 per 100 000 in 2010.
- Almost all Member States report decreasing TB case counts in persons of national origin, but only six countries observe decreasing counts in those of foreign origin.
- The proportion of culture confirmation in all TB cases has been stable at about 60% since 2006.
- While the MDR TB notification rate has remained stable over the past five years, the proportion of XDR TB among MDR TB cases increased from 8.2% in 2009 to 13.2% in 2010. This could be the result of increased reporting.
- The treatment success ratio of new pulmonary TB cases has been stable at just below 80% since 2005.
- The prevalence of HIV seropositivity among notified TB cases has decreased since 2008, reaching 6% in 2010.

Data completeness

For TB cases notified in 2010, completeness of data reporting ranged from below 20% to nearly 100%, depending on the variable (Table B). Age, gender, site of disease, geographic origin and previous treatment were reported in over 90% of cases. While almost all countries achieved this high level of completeness, France and Italy reported previous treatment for only 60% and 54% of their cases respectively.

Information on confirmation by culture and sputum smear was provided for more than 80% of cases overall. However, France and Italy reported culture results for less than 60%. Nucleic acid detection results were provided for 19% of all cases. These were reported by 18 countries.

First and second-line drug susceptibility was reported for 73% and 31% of the cases respectively. All Member States provided first line drug susceptibility data, but Bulgaria, Finland, Germany, the Netherlands and Portugal failed to report on susceptibility to second-line drugs.

Fifteen countries provided information on HIV status for between 15% and 100% of their cases, which accounted for 24% of TB cases overall. Iceland, Luxembourg and Slovakia reported the HIV status for almost 100% of their cases.

Treatment outcome was reported for 74% of TB cases notified in 2009 and 72% of MDR TB cases notified in 2008. No treatment outcome data were provided by France, Greece, Italy, Luxembourg or Spain.

TB notification and trends

In 2010, the 27 EU Member States, Iceland and Norway reported 73 996 TB cases, Romania accounting for 29% and Poland, Romania and the United Kingdom together representing 50% of the caseload (Table 3). Compared with 2009, the total fell by 5 685 (7%), which is more than it did in each of the previous three years. This decline would remain even if Italy, whose 2010 case reports from a number of regions were missing, had reported as many cases as in 2009. The overall notification rate in 2010 was 14.6 per 100 000 population, decreasing by 8% from 15.8 in 2009 and maintaining the downward trend observed in previous years.

Country-specific rates in 2010 ranged from four per 100 000 in Greece to 98 in Romania. Rates remained below 10 per 100 000 in 18 Member States and below 20 in 23 Member States while exceeding 20 in Bulgaria, Estonia, Latvia, Lithuania, Portugal and Romania. Compared with 2009, notification rates in 2010 dropped in 22 Member States, with declines of more than 10% in Estonia, Finland, Greece, Ireland, Malta and Slovakia (not counting Italy). In 2010, increases of at least 10% on 2009 figures were observed in Belgium, Cyprus, Hungary and Iceland. From 2006 to 2010, TB notification rates in 16 Member States displayed downward trends with a particularly steep decline in the five EU HPC: Bulgaria, Estonia, Latvia, Lithuania and Romania. Only Cyprus and Sweden saw clearly increasing five-year trends, while rates in the remaining 11 countries did not display any distinct trends.

Classification and bacterial confirmation of cases

Of 73 996 TB cases notified in 2010, 58 435 (79%) were new cases never previously treated for TB, 9 561 (13%) had received TB treatment in the past and for 6 000 cases (8%), previous TB treatment status was unknown (Table 5). Of those previously treated, 5 147 (54%) had completed anti-TB therapy, in 1 059 (11%), treatment had failed, 1 182 cases (12%) had defaulted, and for 2 143 (22%), it was unknown whether treatment had failed or cases had defaulted.

Country-specific percentages of new cases ranged from 52% in Austria to 100% in Iceland. They were inversely correlated with the proportions of unknown previous TB treatment status (Spearman's rho=-0.8; $p<0.0001$) suggesting that lower proportions of new cases may have been largely attributable to higher proportions of cases with unknown previous TB treatment status.

Of 73 996 reported cases, 57 661 (78%) suffered from pulmonary TB (in 6% accompanied by extrapulmonary manifestations) and 16 123 (22%) from extrapulmonary TB (Table 6). In Malta, the Netherlands, Norway and the

Table B: Data completeness of basic variables in tuberculosis dataset, TESSy 2011

	Table showing data by country	Region			
		EU/EEA			
		Number of countries reporting	Total number of cases reported	Percentage	Range in percentage
Reporting notifications of TB cases, 2010					
Total number of TB cases	2	29	73 996	100.0	-
Total number of cases with reported					
age	-	29	73 221	99.0	(98.0–100.0)
gender	13A	29	73 812	99.8	(98.6–100.0)
previous treatment[a]	4	29	67 996	91.9	(54.1–100.0)
site of diseases	5	29	73 784	99.7	(81.9–100.0)
geographic origin	13A	29	72 712	98.3	(92.5–100.0)
Laboratory testing coverage[b]					
Total number of cases with reported					
culture result	-	26	59 637	80.6	(48.4–100.0)
sputum smear result	-	28	48 875	84.8	(33.9–100.0)
nucleic acid detection	-	21	17 692	18.9	(0.2–100.0)
drug susceptibility testing					
for first-line drugs	-	26	26 158	72.6	(34.4–100.0)
for second-line drugs[c]	-	26	850	30.6	(5.4–100.0)
HIV status	23	15	17 650	23.9	(15.9–100.0)
Treatment outcome					
Treatment outcome of cases reported, 2009	24,25	24	58 912	73.9	(27.3–100.0)
Treatment outcome, MDR TB cases, 2008	27	15	1 244	71.9	(66.7–100.0)

[a] Previous diagnosis used for Belgium, Denmark, Ireland, Norway and United Kingdom
[b] Data reported to TME not included, except for HIV testing coverage
[c] Denominator: MDR TB cases reported to TESSy.

United Kingdom, purely extrapulmonary TB accounted for more than 40% of all cases.

New cases accounted for 44 494 (77%) of 57 661 cases notified with pulmonary TB in 2010 (Table 7). Of these new pulmonary TB cases, 29 169 (66%) were confirmed by culture. New pulmonary TB cases not confirmed by culture included 8 738 smear-negative cases (20% of new pulmonary TB cases) that qualified as non-laboratory-confirmed cases in accordance with the case definition applied in this report. Country-specific proportions of culture-confirmed new pulmonary TB cases ranged from 32% in Italy to 100% in Cyprus and Greece, with 18 Member States exceeding 70% and 12 exceeding 80%. Country-specific proportions of culture-negative and smear-negative cases were at least 30% in six Member States.

Of the total 73 996 TB cases notified in 2010, 44 964 (61%) were confirmed by culture, which is largely the same percentage seen since 2006 (Table 9). With the exception of Bulgaria, France, Hungary and Malta, country-specific percentages exceeded 50% in 2010. Although most country-specific percentages of culture-confirmed cases did not display any obvious trends between 2006 and 2010, there were some sizeable changes from one year to the next. In smaller countries, such as Cyprus, Iceland and Luxembourg, the most likely explanation is the small population denominator. In larger countries such as Greece, Hungary and Italy, however, such sudden large increases/decreases may reflect well changes in laboratory practice.

Gender and age

Among the new TB cases and relapses notified in 2010, there were 80% more males than females (male/female ratio=1.8) (Table 5). This gender imbalance was observed in every Member State except Iceland and was most pronounced in Estonia, Greece and Lithuania, with male to female ratios of up to 2.7. Overall, this gender imbalance was also stronger in nationals than patients of foreign origin, although for 12 Member States, male to female ratios in foreign-origin patients were higher (Table 14a).

As in 2009, most new TB cases in 2010 occurred in the age groups of 25–44 and 45–64 years that together accounted for 60% of these cases (Table 10). Overall, 12% of TB cases were among adolescents and young adults between 15 and 24 years of age, however these age-specific proportions exceeded 20% in Iceland, Norway and Sweden. TB cases reported among adults between 25 and 44 years of age were markedly overrepresented in Cyprus, Iceland, Malta, Norway, Sweden and the United Kingdom, accounting for 46–65% of new TB cases. Cases older than 64 years (18% overall) were particularly frequent in the Czech Republic, Finland and Slovenia (>30%).

TB cases notified in 2010 had a mean age of 45 years and this trend has remained stable since 2001 (Table 11). From 2001 to 2010, stable trends were also observed in 14 Member States, whereas the mean age increased in four and decreased in 11 Member States.

In 2010, four percent of TB cases were notified in children under 15 years, representing a notification rate of 3.8 per 100 000 that has steadily declined from 4.5 in 2006 (Table 12). Country-specific paediatric rates were highest in the five EU/EEA HPC, peaking at 25.3 per 100 000. No country-specific five-year trend in paediatric rates showed any consistent increase. The ratio of notification rates in children versus adults in 2010 was 0.2 and this has been stable since 2001 (Table 13). Country-specific 10-year trends for this ratio were mostly inconclusive, but clearly

increasing in Bulgaria, Italy and Sweden and decreasing in Denmark.

Origin of cases

In 2010, 18 601 (25%) of 73 996 notified TB cases were of foreign origin (Table 14a). However, in 12 Member States, cases of foreign origin accounted for the majority, reaching up to 85 and 86% in Norway and Sweden respectively. From 2001 to 2010, most Member States observed a decrease in cases of national origin and only Spain saw an increase, due to the substantial decrease in cases of unknown origin (country profiles). As regards cases of foreign origin, eleven Member States experienced rising trends and ten Member States reported stable trends. Only Belgium, Denmark, Estonia, Germany, Luxembourg and Slovenia registered a decline in cases of foreign origin between 2001 and 2010.

Of 3 035 notified TB cases in children under 15 years, 2 420 (80%) were national and 560 (19%) were of foreign origin (Table 14b). This pattern was reversed in Austria, Norway and Sweden (not counting Member States with less than 10 paediatric cases).

Drug-resistant tuberculosis

For 71% of new pulmonary TB cases in 2010, DST results for isoniazid and rifampicin were available, with country-specific ratios of 100% or almost 100% in 17 Member States, but less than 40% in Greece and Romania (Table 19). In 8% of cases (up to 27% in the three Baltic countries), isolates were resistant to at least isoniazid and 3% (up to 19%) to at least rifampicin. Multidrug-resistant cases accounted for 3% of new pulmonary TB cases overall, reaching 11–19% in the Baltic countries.

The prevalence of resistance in isolates from previously treated pulmonary cases was 27% for isoniazid and 20% for rifampicin (Table 20). For all new TB cases, 563 (2%) of 23 844 tested isolates were multidrug-resistant, whereas the prevalence of MDR TB in previously treated cases was 808 (18%) of 4 586 isolates (Table 17). Previously treated cases were 7.5 times more likely to have multidrug-resistant TB than new cases (prevalence ratio [PR] 7.5; 95% confidence interval [CI] 6.7–8.3). With proportions of 20 to 50%, the five HPC and Sweden accounted for the highest prevalence of multidrug-resistance in previously treated cases. However, proportions in excess of 10% were also registered in Austria, Belgium, Finland, Italy and Spain.

Between 2006 and 2010, the notification rate for multidrug-resistant TB remained stable at around 0.3 per 100 000 (Table 18). In 2010, country-specific rates were between 0.7 and 9.3 in the five HPC, but not in Sweden. Country-specific five-year trends in notification rates increased in eight Member States, decreased in five and were inconclusive in the remaining 16.

In 2010, 108 (13.2%) of the 819 multidrug-resistant TB cases with DST results to second-line drugs were reported to be extensively drug-resistant (Table 21). Country-specific prevalence of XDR TB in 2010 was highest in the Baltic countries at 15–20% of MDR TB, followed by Belgium, the Czech Republic, Hungary and Romania with proportions greater than 10% (the first three countries reporting one to two XDR TB cases). Compared with the figure for 2009 (8.2%), the overall prevalence of XDR TB among tested MDR TB cases increased by 35% in 2010, largely due to Lithuania reporting 16% in 2010 after not reporting in 2009.

In 2010, 13% of national origin TB cases were resistant to at least isoniazid, 7% to rifampicin and 7% to both, i.e. multidrug-resistant (Table 23). In cases of foreign origin, the respective prevalence figures were lower – 10% for isoniazid, 4% for rifampicin and 3% for both (Table 22).

Tuberculosis and HIV infection

Testing and reporting on HIV serostatus of TB cases is known to be incomplete, especially in the EU/EEA countries compared to the rest of the region. In 2010, 1 055 (6%) of 17 650 TB cases with reported HIV status were HIV-positive (Table 24). The appropriate numerator and denominator (number of cases tested for HIV) were provided by 15 Member States, of which Ireland and Portugal reported the highest HIV seropositivity (18% and 13% respectively). However, Ireland had only 16% HIV-testing coverage, reporting the known HIV status for 68 of 427 TB cases, compared to Portugal with a 65% HIV-testing coverage. Between 2008 and 2010, the overall proportion of TB cases testing positive for HIV decreased by 22%. A similar consistent decrease was only observed in Portugal and Spain, while Latvia reported a consistent increase and in the remaining countries changes between years were inconclusive.

Treatment outcome

Of the 27 922 new culture-confirmed pulmonary TB cases notified in 2009, 22 010 (79%) had a successful treatment outcome during 2010, 1 852 (7%) died, 581 (2%) were labelled treatment failures, 1 613 (6%) had defaulted, 602 (2%) were still on treatment in 2010 and 1 264 (5%) had been transferred or their outcome was unknown (Table 25). With values under 60%, Cyprus, Denmark, Estonia and Hungary reported the lowest proportions of cases with successful treatment. In Cyprus and Denmark, this was due to exceptionally high proportions of transfers and unknown outcomes, in Estonia to high case fatality and prevalence of cases still on treatment and in Hungary to the highest treatment failure ratio in the EU/EEA.

Of the 6 291 previously treated culture-confirmed pulmonary cases notified in 2009, 3 812 (55%) had been successfully treated during 2010, 708 (10%) had died, 717 (10%) were labelled treatment failures, 1 049 (15%) had defaulted, 443 (6%) were still on treatment in 2010 and 192 (3%) had been transferred or their outcome was unknown (Table 26). Compared with new culture-confirmed pulmonary cases, previously treated cases were therefore:

- 30% less likely to have successfully completed their treatment (PR 0.69; 95% CI 0.67–0.70);
- 1.5 times more likely to die (PR 1.5; 95% CI 1.4–1.6);
- Five times more likely to experience treatment failure (PR 4.9; 95% CI 4.4–5.4);

- Three times more likely to default (PR 2.6; 95% CI 2.4–2.8); and
- Three times more likely to still be on treatment in 2010 (PR 2.9; 95% CI 2.6–3.3).

From 2005 to 2009, the overall annual treatment success rate of new culture-confirmed pulmonary TB cases remained stable at just below 80% (Table 27). Country-specific five-year trends increased in seven Member States, decreased in eight and were inconclusive in the remainder.

Of the 1244 MDR TB cases notified in 2008, 375 (30%) had a successful treatment outcome at 24 months, 242 (20%) had died, 285 (23%) were considered treatment failures, 221 (18%) had defaulted, 103 (8%) were still on treatment in 2010 and 18 (1%) had been transferred or had an unknown outcome (Table 28). In 359 new culture-confirmed pulmonary MDR TB cases notified in 2008, treatment success accounted for 49%, fatal outcomes 13%, treatment failures 14%, defaulters 12% and patients still on treatment 10% (Table 29). Compared with the new culture-confirmed pulmonary MDR TB cases, previously treated culture-confirmed pulmonary MDR TB cases were:

- 15% less likely to have successfully completed their treatment (PR 0.85; 95% CI 0.75–0.97);
- Twice as likely to die (PR 2.1; 95% CI 1.6–2.8);
- Twice as likely to experience treatment failure (PR 2.3; 95% CI 1.7–3.0);
- Twice as likely to default (PR 2.1; 95% CI 1.5–2.8); and
- No more likely to be still on treatment in 2010 (PR 1.2; 95% CI 0.8–1.7).

Laboratory performance

Of 1097 laboratories in 24 EU/EEA Member States performing bacteriological culture, 280 (26%) were reported to have achieved acceptable results in international EQA schemes in 2010 (Table 15). Restricting the denominator to laboratories for which EQA results were available increased the proportion of acceptable results to 71%. Country-specific proportions of acceptable results ranged from 3% in the Netherlands to 100% in six Member States.

Of 360 laboratories in 24 EU/EEA Member States testing for drug susceptibility, 130 (36%) were reported to have achieved acceptable results in national EQA schemes. Restricting the denominator to laboratories for which EQA results were available increased the proportion of acceptable results to 56%. Country-specific proportions of acceptable results ranged from 14% in Bulgaria to 94% in the Czech Republic. Almost all national reference laboratories in the 23 Member States participating in international EQA schemes in 2009 and 2010 achieved results which were 100% compatible for isoniazid and rifampicin.

Conclusions

Epidemiology

The TB notification rate in the EU/EEA continues to decline, with country-specific rates falling fastest in the five HPC. Despite their recent progress, however, Romania, Bulgaria and the Baltic countries still have notification rates several times higher than those in the low-incidence countries. Consistently increasing five-year trends are limited to Cyprus and Sweden where they appear to be mainly driven by cases of foreign origin, although total notification rates in both countries remain well under 10 per 100 000.

The paediatric notification rate has decreased slightly since 2006, but as cases under 15 years of age only account for 4% of the total caseload, this has not had any elevating effect on the mean age of 45 years.

Almost all Member States report decreasing numbers of TB cases in persons of national origin, but only six countries observed decreasing counts in those of foreign origin. This possibly reflects imported infections, the poorer living conditions of migrants and the difficulties in reaching this population with TB control efforts. Children of foreign origin constitute a minority of paediatric TB cases overall and in all Member States except Austria, Norway and Sweden.

While the MDR TB notification rate has remained stable over the past five years, the proportion of XDR TB increased between 2009 and 2010, possibly due to improved reporting. In the EU/EEA, previously treated TB cases are eight times more likely to have MDR TB than new cases.

The overall treatment success rate of new culture-confirmed pulmonary TB cases notified between 2005 and 2009 was stable at almost 80%. Compared with new culture-confirmed pulmonary cases, previously treated cases are considerably more likely to experience an unfavourable outcome, especially treatment failure. The same applies to previously treated cases compared to new pulmonary culture-confirmed MDR TB cases, but the risk estimates tend to be lower.

Since 2008, the overall prevalence of HIV seropositivity among notified TB cases has decreased to a level of 6% in 2010, but is still three times higher in Ireland and Portugal and appears to be on the rise in Latvia. Given the low reporting completeness for HIV status, these trends must be interpreted with caution.

Laboratory

The proportion of culture confirmations in all TB cases has been stable at about 60% since 2006. Culture-negative and smear-negative cases accounted for 20% of new pulmonary cases, although in six countries, mostly in Central and Eastern Europe, this figure was over 30%.

Laboratories in 24 Member States performed moderately well in EQAs for culture, but rather poorly in national EQAs for DST. The laboratories at the lower end of the performance spectrum were mostly in Central and Eastern Europe, possibly as a result of lack of materials and training due

to longstanding underfunding, aggravated by the current economic crisis. However, throughout the EU/EEA, national reference laboratories achieved excellent results in international EQAs and would therefore be in the best position to support the weaker laboratories in their countries.

Data completeness

While overall, age, gender, site of disease, geographic origin and previous treatment were nearly complete in the 2010 dataset, the contributions of individual countries and the reporting of some of the remaining variables leave room for improvement. First-line drug susceptibility and treatment outcome were missing for close to 30% of cases, second-line drug susceptibility and HIV status for around 70%. France and Italy reported less completely than most other Member States on previous treatment status and culture results and did not report at all on HIV status and treatment outcome.

Surveillance recommendations

Future work needs to focus on:

- Studying how best to address the underreporting and surveillance coverage in the EU/EEA.
- Optimising the reporting of bacteriological results from local/regional to national and EU/EEA level to increase the percentage of culture-confirmed cases and improve completeness of DST data.
- Extending the implementation of case-based drug resistance surveillance, both for first and second-line drugs, as well as HIV-TB co-infection surveillance into routine TB surveillance among the Member States.
- Studying how best to help Member States without TOM to introduce it and investigating how those with TOM in place could maximise completeness of reporting at both 12 and 24 months (particularly for MDR TB cases).
- Continuing the discussion within the network on the interpretation of the foreign-origin cases, based on Member States' specific epidemiological, social and demographic settings, and which is the most effective tool for understanding the dynamics of TB among this vulnerable group.

3. Commentary – Monitoring

3. Commentary – Monitoring

This year marks the production of the first TB monitoring report, providing an overview of progress on TB control in the WHO European Region and the EU/EEA. For the WHO European Region, two monitoring frameworks were developed by WHO's Regional Office for Europe, aimed at monitoring the Consolidated Action Plan to Prevent and Combat Multidrug- and Extensively Drug-Resistant Tuberculosis in the WHO European Region 2011-2015, and the implementation of the 2007 Berlin Declaration on Tuberculosis; confronting the overall TB health threat to the Region. The current report presents these two monitoring frameworks and discusses the feasibility of applying them in the WHO European Region. In 2010, the ECDC launched the epidemiological and strategic monitoring framework 'Progressing towards TB elimination'. Although tailored to the EU/EEA setting the framework is compatible with global targets and frameworks to measure progress towards the elimination of TB. The feasibility of applying this monitoring framework in the EU/EEA was first presented in the 2011 TB Surveillance report and this year's Surveillance and Monitoring report presents the first measurement of the indicators described in the framework and thus an overview of the progress towards TB elimination in the EU/EEA.

3.1 The WHO European Region

Monitoring of the Consolidated Action Plan to Prevent and Combat Multidrug- and Extensively Drug-Resistant Tuberculosis in the WHO European Region 2011–2015 and the 2007 Berlin Declaration on Tuberculosis

The development of a monitoring framework is an essential component of any effective plan. The key to the development of successful indicators is the inclusion of measures that are broad enough to reflect all aspects of the plan, sufficiently specific to address the critical markers of success, and concise so as not to overburden national programmes. Taking these guidelines into account, under the leadership of the WHO Regional Office for Europe, an international task force was set up with members from across the Region, international bodies, NGOs and civil society representatives to develop a feasible and sustainable mechanism for follow-up of the Berlin Declaration and the Consolidated Action Plan to Prevent and Combat Multidrug- and Extensively Drug-Resistant Tuberculosis in the WHO European Region 2011–2015.

This framework, based on a detailed review of the action plan, provides a tool for monitoring international and national implementation. It outlines detailed elements for the assessment of specific interventions at the operational level, covering inputs, processes, outputs, outcomes and impact. All indicators identified in this framework reflect the stated goals of the action plan, allowing implementers, the community, donors and other stakeholders to track progress towards benchmarks and the eventual achievement of all objectives.

These indicators, while regional in scope, are designed to serve as a guide to the development or adjustment of comprehensive monitoring plans at the country level.

There are 11 core indicators designed to monitor performance of the main areas and interventions in the action plan. The list of core measures is accompanied by a full list of indicators, which closely follow the structure of the action plan. Each group of activities is reflected in the framework by one or more indicators, assessed by the task force to represent the most accurate measure of performance of the group of activities. In addition, a baseline level for the indicator, desired target, assessment frequency, monitoring mechanism and data source are defined for each indicator/group of indicators. In most cases, the baseline levels have been defined based on information provided by each country through the WHO/ECDC annual TB data collection. The WHO/ECDC annual data collection process has Region-wide coverage, is undertaken only once to avoid duplication of efforts by countries and partners, and employs a user-friendly mechanism for data collection. From a limited number of indicators in the full list, the absence of base line information might be explained by the unavailability of these data and/or questionable reliability of the information available.

In order to assess the performance of interventions, countries will be grouped on the basis of two main criteria: a) high or low M/XDR TB burden;[23] b) whether or not they are one of 18 high-priority countries for TB control in the WHO European Region.[24] Data from each country will be analysed to assess country-specific performance in preventing and combating M/XDR TB.

The majority indicators, including the 11 in the core set, will be monitored annually. In addition to the WHO/ECDC annual data collection process, there will be a periodic desk review to monitor the activities that are not included in the joint TB data collection form. Desk reviews will be performed as the action plan is initiated and at the end of the period when full implementation is expected.

23 High MDR TB burden countries were selected based on having an estimated absolute number of at least 4 000 MDR TB cases occurring annually and/or at least 10% of all newly registered TB cases being MDR TB, as of 2008. The 15 countries of the WHO European Region with a high MDR TB burden are Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Republic of Moldova, Russian Federation, Tajikistan, Ukraine and Uzbekistan. Reference: Multidrug and extensively drug-resistant TB (M/XDR TB): 2010 Global Report on Surveillance and Response. WHO/HTM/TB/2010.3

24 The 18 High-Priority Countries for TB control in the WHO European Region are: Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Republic of Moldova, Romania, Russian Federation, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan. Reference: Plan to Stop TB in 18 High-Priority Countries in the WHO European Region, 2007–2015 (ISBN 978 92 890 7180 2)

Furthermore, in-depth assessment of the country or external technical assistance reports will provide additional material to support the measurement of indicators. In the absence of these sources of information, a short interview with the national programme (or equivalent) will be undertaken to assess the measures implemented as part of the action plan. Short term impacts will be assessed in 2016–2018 when data on the outcomes of the MDR cohorts will be available. The long-term impacts will be assessed after several years.

Only data approved by Member States will be utilised in monitoring the action plan.

Following the endorsement of this framework as a formal part of the action plan, Member States are not expected to develop a parallel system of monitoring measures at country level as part of the action plan. It is recommended that this framework should form the sole basis for monitoring, and that available established mechanisms for information collection should be used and, where appropriate, strengthened in order to avoid duplication of efforts and increase efficiency and effectiveness. The indicators outlined here should be integrated into the monitoring and evaluation framework of the national TB control programme at country level. Moreover, impact indicators from the core group, such as MDR prevalence, should be reflected in the health system assessment framework in addition to those for overall TB control.

The full results of the performance assessment of measures implemented as a result of the action plan will be presented via the joint ECDC and WHO European TB report. The report will consist of detailed analysis and interpretation of data based on the indicators and recommendations. Tables, graphs, maps and country profiles will also be presented. Progress on implementation of the MDR TB action plan will be reported to the WHO Europe Regional Committee, and the monitoring reports will be presented during the meeting of national TB programme managers/country focal points which is open to stakeholders and civil society organisations involved in TB control within the Region.

Monitoring and Evaluation Framework for the Berlin Declaration

The Berlin Declaration

The Ministerial Forum on Tuberculosis, held in Berlin on 22 October 2007, addressed the re-emerging threat of tuberculosis (TB) to health security in the World Health Organization's European Region. The Berlin Declaration was signed by the Ministers of the Member States, at the meeting with the WHO Regional Director for Europe and high-level partners from the WHO European Region. The purpose of this chapter is to familiarise readers with the concept of the Monitoring Framework for the Berlin Declaration which is designed to document the implementation progress of the Declaration.

In the Berlin Declaration, the Ministers of Member States in the WHO European Region noted with concern that tuberculosis had re-emerged as an increasing threat to health security in the Region. Despite some achievements during the decade preceding the signing of the Declaration (see Part Three of the Declaration), TB control and efforts towards elimination of the disease in the Region still need to be improved. Areas of concern (see Part Four of the Declaration) were identified where action was needed to fully implement the Stop TB Strategy for effective TB control and the Ministers of Member States agreed on priorities for addressing the above-mentioned gaps.

The focus of the Monitoring and Evaluation Framework is on the priorities set out in Part Four of the Declaration and the commitment to respond urgently to the situation, as stated in Part Five (see Figure D). In the Declaration Ministers '… note with concern the gaps to be bridged in order to fully implement the Stop TB Strategy for effective TB control' and agree on eight priority areas. The commitment to respond urgently to TB control is expressed in the form of statements grouped into four areas: (i) strengthening the number of areas for effective TB control, (ii) adopting the Stop TB Strategy, (iii) endeavouring to secure sustainable financing, and (iv) channelling financing.

Under the leadership of the WHO Regional Office for Europe, an international task force was established to prepare a sound and inclusive monitoring framework. The members of the task force, from across the Region and including international bodies and civil society organisations and representatives, then submitted their inputs to WHO's Regional Office for Europe in 2011.

The members of the task force were selected based on their expertise and familiarity with the process of development of the Berlin Declaration and the Consolidated Action Plan to Prevent and Combat Multidrug- and Extensively Drug-resistant Tuberculosis in the WHO European Region 2011-2015. The members did not represent any institutions or Member States.

Purpose of the Monitoring Framework for follow-up of the Berlin Declaration

The Monitoring and Evaluation Framework has been designed for the countries and their National Tuberculosis Control Programs (NTPs) to monitor efforts to implement the Berlin Declaration and for the purposes of international benchmarking in the WHO European Region. The current framework is an integrated part of the annual surveillance and monitoring report produced by WHO's Regional Office and ECDC.

Reporting platform

In October 2009, all Member States agreed to closely monitor and evaluate the implementation of the actions outlined in The Berlin Declaration. The WHO Regional Office for Europe, in partnership with the European Union and other relevant institutions and organisations, was tasked with establishing adequate fora and mechanisms to assess progress at regional level on a biennial basis. The Monitoring and Evaluation Framework is a tool for carrying out such regular monitoring.

The current Framework relies on the data, which is to be supplied by the NTPs and the Ministries of Health. The

Table C: Monitoring Framework for Follow-up of the Consolidated Action Plan to Prevent and Combat Multidrug-resistant and Extensively Drug-resistant Tuberculosis in the WHO European Region 2011–2015

Area of intervention	Indicator	Baseline	Target	Frequency	Data source	Layers of analysis	Monitoring mechanism	Input-Impact level
1. Prevent the development of M/XDR TB cases								
1.1 Identify and address social determinants related to M/XDR TB								
	1.1.1 Number of Member States with specific section on social determinants of M/XDR TB in their national health strategies		53 EUR	Q3-2011 Q1-2016	NTPs	53 EUR 18 HPC 15hi MDR	Desk review	Output
1.2 Improve patient adherence to treatment								
	1.2.1 Default rate (%) among new laboratory confirmed TB patients	6.6%	5%	Annually	WHO Global TB database	53 EUR 18 HPC 15hi MDR	Routine reporting	Outcome
	1.2.2 Number of Member States with fixed-dose drug combinations provided for TB patients		18 HPC			18 HPC 15hi MDR		Output
	1.2.3 Number of Member States with no stock-out of first-line TB drugs at any level							
1.3 Increase efficiency of health financing for TB control								
	1.3.1 Number of Member States with decreased gap in financing of core elements of TB control		18 HPC	Annually	WHO Global TB database	18 HPC 15hi MDR	Routine reporting	Output
1.4 Apply full capacity of primary health care services in TB prevention, control and care								
	1.4.1 Case detection rate (%) of new TB and relapses	78%	Increase	Annually	WHO Global TB database	53 EUR 18 HPC 15hi MDR	Routine estimation	Outcome
	1.4.2 Treatment success rate (%) among laboratory confirmed new TB patients	70%	85%				Routine reporting	Output
	1.4.3 Treatment success rate (%) among previously treated TB patients	44%	Increase					
	1.4.4 Number of Member States with ambulatory TB care integrated in primary health care system		18 HPC			18 HPC 15hi MDR		
1.5 Consider management for M/XDR TB contacts								
	1.5.1 Number of Member States with national policy of M/XDR TB contacts management		18 HPC	2015	NTPs	18 HPC 15hi MDR	Desk review	Output

national Ministries of Health, who are also the signatories to the Berlin Declaration, are then expected to report on the implementation of the Declaration. WHO's Regional Director will remind the Ministers every second year to give input for a regional progress report on implementation of the Berlin Declaration. WHO will aggregate the data on a biennial basis, disseminate the information at regional level and present the indicators and recommendations related to implementation of the Berlin Declaration in the joint WHO-ECDC monitoring and surveillance report. The regional monitoring report will be disseminated and discussed at a biennial meeting of the National TB Control Program managers. This is also an opportunity for civil society representatives to follow up on what their contribution to the implementation of the Berlin Declaration has been and what other support they can offer, in line with the 'Offer of Partnership', formally presented to the Ministers of Health at the Ministerial Forum on 22 October 2007. At the national level, Ministries of Health and NTP are expected to provide feedback from the biennial meeting of the National TB Control Program managers to national stakeholders, and plan collaborative activities for the implementation of the Declaration, based on the result of the joint WHO/ECDC monitoring and surveillance report. (See Figure D).

Parts of the Berlin Declaration not included in the Monitoring and Evaluation Framework

The Berlin Declaration states that the signatories will endeavour to secure sustainable financing by implementing the resolutions on TB prevention and control adopted by the World Health Assembly in 2005[25] and 2007[26]. Since both resolutions are important, multi-dimensional documents in themselves, monitoring of their implementation is deemed to be beyond the scope of the present Monitoring and Evaluation Framework.

Structure

The Berlin Declaration identifies the priorities and gaps to be bridged in order to fully implement the Stop TB Strategy for effective TB control priorities and commits the signatories of the Declaration to respond to the current situation. These two elements of the Declaration are the subject of the present Monitoring and Evaluation Framework.

Goal

Priorities and commitments taken together contribute to the goal of full implementation of the Stop TB Strategy for effective TB control in the WHO European Region (see Figure E). Priorities and commitments are further grouped to avoid duplication and expressed as seven expected outcomes. Each outcome has a corresponding set of outputs; the total sum of outcomes represents commitments made by the signatories of the Declaration.

Outcomes and output indicators

Most outcomes have one related outcome indicator and each output has an average of one or two output indicators.

25 WHA58.14 2005 - Sustainable financing for tuberculosis prevention and control

26 WHA60.19 2007 - To develop and implement long-term plans for tuberculosis prevention and control in line with the Global Plan to Stop TB 2006–2015, in the context of overall health development plans, in collaboration with other programmes (including those on HIV/AIDS, child health and the strengthening of health systems), and through national Stop TB partnerships where appropriate.

Figure D: Reporting lines, consultation, dissemination and planning for monitoring the implementation of the Berlin Declaration.

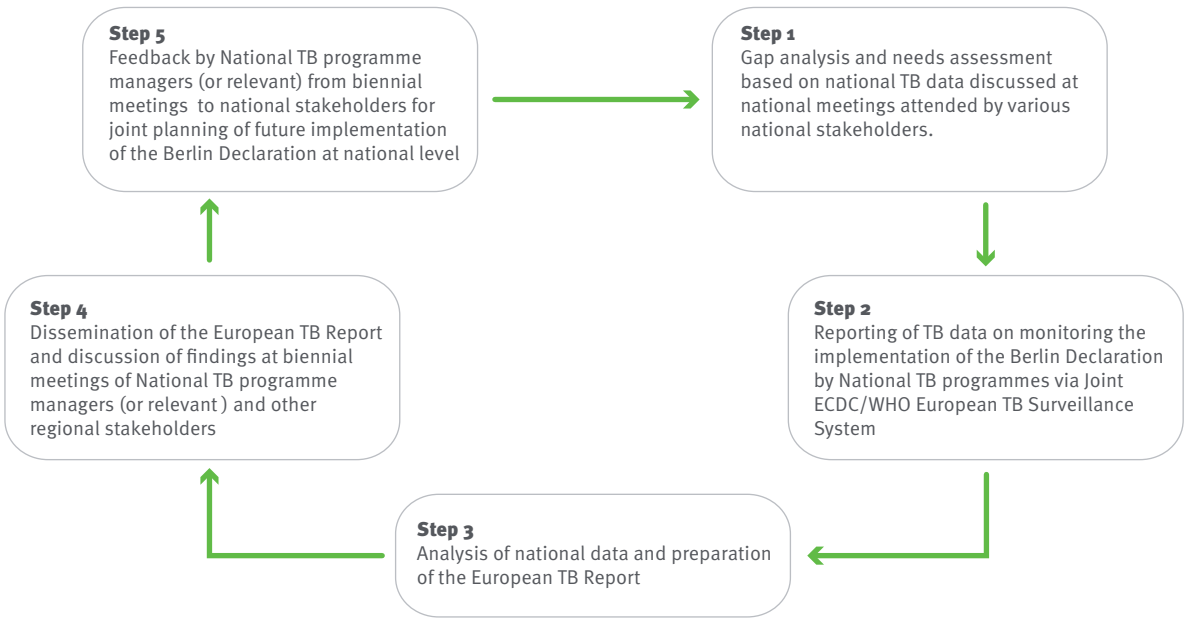
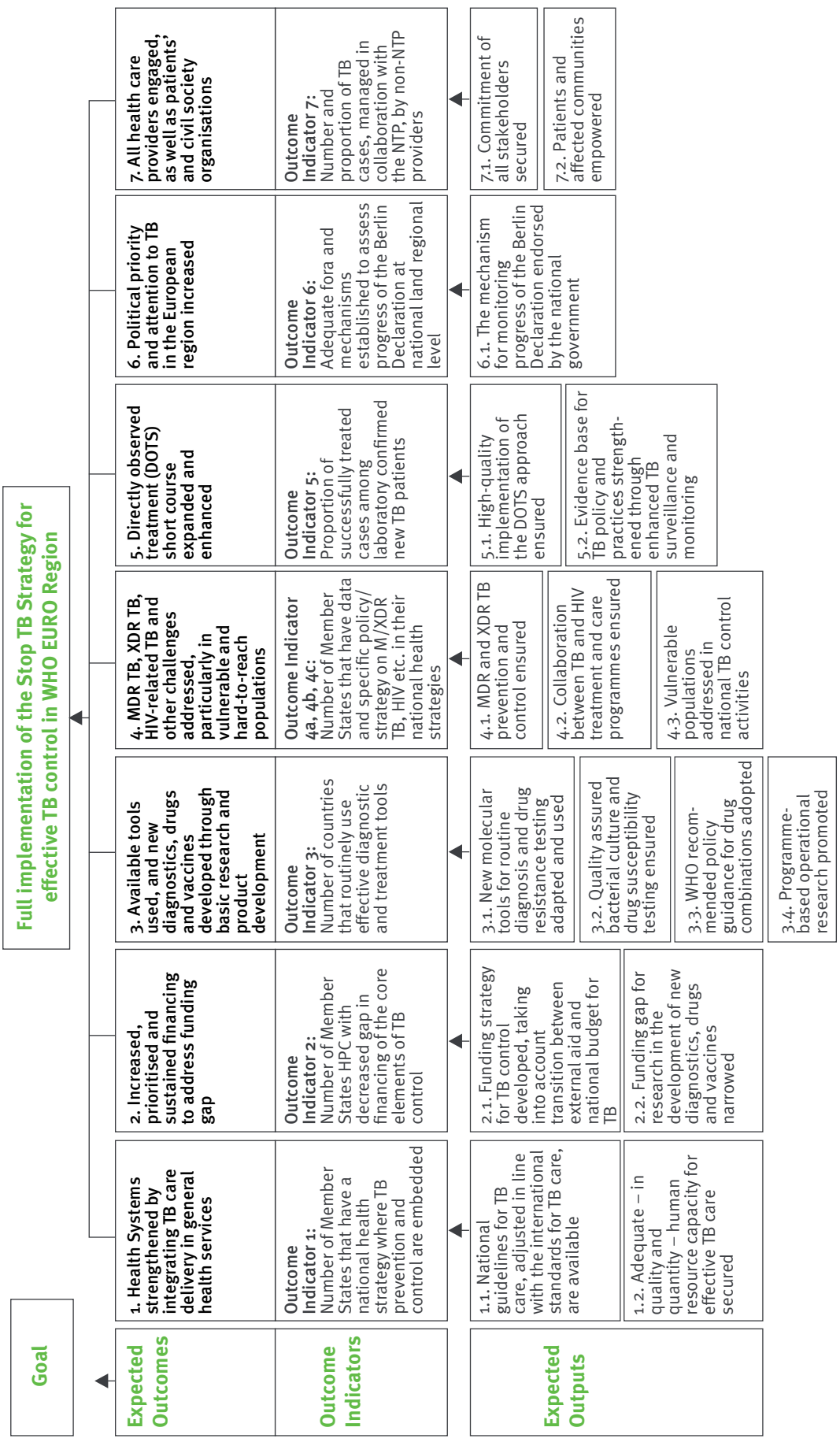


Figure E: Berlin Declaration Monitoring and Evaluation Framework



Source: WHO's Task Force for developing monitoring frameworks for the Berlin Declaration and the Consolidated Action Plan to Prevent and Combat Multidrug-resistant and Extensively Drug-resistant Tuberculosis in the WHO European Region 2011-2015

There are a total of nine outcome indicators and 25 output indicators.

A baseline level for the indicator, desired target, assessment frequency and data source are defined for each indicator. Where possible, the baseline levels are defined using information provided by each country through the WHO/ECDC annual TB data collection. The joint WHO/ECDC annual data collection process has region-wide coverage. It is undertaken once a year, therefore avoiding duplication of effort by countries and partners, and ensuring a user-friendly mechanism for data collection.

Source

Where desk reviews are mentioned as a source, the mechanism is as follows: the national Ministry of Health (or similar competent body) and the NTP give input on a desk review of national strategies and some of the data is obtained from external monitoring mission reports. Where similar or identical indicators in the Berlin Declaration are also part of the Monitoring Framework for the Consolidated Action Plan to Prevent and Combat Multidrug- and Extensively Drug-resistant Tuberculosis in the WHO European Region 2011-2015 (MAP Framework), countries are only expected to report once and the WHO will use the information obtained from the MAP Framework to inform the Berlin Declaration Framework.

Frequency

All indicators will be reported on a biennial basis and most are already part of the routine annual data collection. In addition, a periodic desk review will be performed, starting in 2012, to monitor the activities that are not reflected in the joint TB data collection form. Furthermore, in-depth assessment of the country or external technical assistance reports will provide additional material to support the measurement of indicators. In the absence of these main sources of information, a short interview with the national TB programmes (or equivalent) will be undertaken to assess the implementation of the Berlin Declaration. ECDC and WHO will collect the information and report at regional level biennially.

Baseline and target

Baseline and targets are given either for national level, WHO European Region (53 Member States) or for the 18 High-Priority Countries (HPC) under the Plan to Stop TB in WHO European Region[27]: Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Republic of Moldova, Romania, Russian Federation, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

Where baseline information is not available 'baseline unknown' is indicated. Targets have been set under the leadership of the WHO Regional Office for Europe in collaboration with the international task force.

Outcome 1: Health Systems strengthened by integrating TB care delivery in general health services

Outcome indicator 1: Number of Member States that have a national health strategy (and/or an action plan) in which TB prevention and control are embedded as a priority and integrated into general health services, with corresponding quantifiable indicators.
Source: Ministry of Health (or similar competent body) gives input to desk review of national strategies; external monitoring mission reports.
Level: Regional (Baseline: unknown. Target: 53 countries in WHO European Region)

Output 1.1: National guidelines/protocol for TB care are available, adjusted to comply with the international standard for TB care

Output indicator 1.1.1: Number of Member States with national guidelines/protocol for TB care in line with the international standard for TB care.
Source: NTP gives input to desk review of national guidelines/protocol for TB care (WHO); external monitoring mission reports and other available official documents.
Level: Regional (Baseline: unknown. Target: 53 countries in WHO European Region)

Output 1.2: Adequate – in quality and quantity - human resource capacity for effective TB care secured

Output indicator 1.2.1: Number of Member States with TB component in national HR plans.
Source: NTP gives input to desk review of national guidelines/protocol for TB care (WHO); external monitoring mission reports and other available official documents.
Level: Regional (Baseline: unknown. Target: 18 HPC)
Output indicator 1.2.2 Percentage of staff in established positions at peripheral level health care units trained by NTP or equivalent (specified for medical doctors, health assistants, lab technicians)
Source: Ministry of Health via NTP, WHO Global TB database.
Level: National (Baseline: unknown. Target: close to 100%).

27 Reference: Plan to Stop TB in 18 High-Priority Countries in the WHO European Region, 2007–2015 (ISBN 978 92 890 7180 2)

Outcome 2: Increased, prioritised and sustained local, national and international financing to address funding gap

Outcome indicator 2: Number of Member States from 18 HPC with reduced shortfall in financing of the core elements of TB control.
Source: Ministry of Health/Finance via the NTP and WHO Global TB database.
Level: Regional (Baseline: unknown. Target: decrease in shortfall per country).

Output 2.1. Funding strategy for TB control developed, taking into account transition between external aid and national budget for TB

Output indicator 2.1.1: Number of countries with funding strategy developed, taking into account transition between external aid funding and national budget for TB control.
Source: Ministry of Health/Finance via NTP and Global TB database.
Level: Regional (Baseline: unknown. Target: 18 HPC).

Output 2.2: Funding gap for research in the development of new TB diagnostics, drugs and vaccines narrowed

Output indicator 2.2.1: Increase in regional funding to narrow the funding gap for research in the development of new diagnostics, drugs and vaccines.
Source: Stop TB partnership, respective working groups.
Level: Regional (baseline: unknown. Target: decrease in the funding gap).

Outcome 3: Tools available used and new diagnostics, drugs and vaccines developed through basic research and product development

Outcome indicator 3: Number of countries that routinely use effective diagnostic and treatment tools.
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: Regional (baseline: unknown. Target: 53 countries in the European Region).

Output 3.1: New molecular tools for routine diagnosis and drug resistance testing adapted and used

Output indicator 3.1.1: Number of Member States with implemented WHO policy guidance on TB diagnosis and DST.
Source: Ministry of Health via the NTP and WHO Global TB database
Level: Regional (baseline: unknown. Target: 53 countries in the European Region).

Output 3.2: Quality assured bacterial culture and drug susceptibility testing ensured

Output indicator 3.2.1: Proportion of TB laboratories that demonstrate good performance[28]
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: Regional (baseline: unknown. Target: close to 100%).

Output 3.3: WHO recommended policy guidance for drug combinations adopted

Output indicator 3.3.1: Number of Member States with use of fixed drug combinations.
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: National (baseline: unknown. Target: 18 HPC).

Output 3.4: Program-based operational research promoted

Output indicator 3.4.1: Number of Member States with allocated and dispensed budget for operational research
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: National (baseline: unknown. Target: 18 HPC).

28 Microscopy: No high false positive (HFP) and no high false negative (HFN). Culture: more than 90% of specimens from patients who were smear-positive prior to the start of treatment were culture-positive. Drug susceptibility testing: demonstrated proficiency to at least 95% agreement for rifampicin and isoniazid with the results of the National Reference Laboratory or Supra-national Reference Laboratory. LPA rifampicin demonstrated proficiency to at least 95% agreement with the results of the National Reference Laboratory or Supra-national Reference Laboratory. Xpert MTB/RIF: performance criteria for quality assurance are under development.

Outcome 4. MDR TB, XDR TB, HIV-related TB and other challenges addressed, particularly in vulnerable and hard-to-reach populations

Outcome indicator 4a: Number of Member States that have data and specific policy/strategy on M/XDR TB in their national health strategies.
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: Regional (base: unknown. Target: 18 HPC).

Outcome indicator 4b: Number of Member States that have data and specific policy/strategy on TB/HIV in their national health strategies.
Source: Ministry of Health via the NTP and WHO Global TB database; external monitoring mission reports.
Level: Regional (base: unknown. Target: 53 countries in the European Region).

Outcome indicator 4c: Number of Member States that have information available about vulnerable and/or hard-to-reach populations (including migrants, children, homeless, drug users and prisoners) and that develop outreach programs.
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: Regional (base: unknown. Target: 53 countries in the European Region).

Output 4.1. MDR- and XDR TB prevention and control ensured

Output indicator 4.1.1: MDR TB detection rate among notified TB cases.
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: Regional (baseline: 34.5%; target: close to 100%).

Output indicator 4.1.2: Percentage of MDR among all TB cases.
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: Regional (baseline: 20.5%. Target: decrease).

Output indicator 4.1.3: Percentage of detected M/XDR TB covered by treatment according to national guidelines in line with WHO recommendations.
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: Regional (baseline: 62%. Target: close to 100%)

Output 4.2. Collaboration between TB and HIV treatment and care programmes ensured

Output indicator 4.2.1: Detection rate of TB/HIV (notified to estimated).
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: Regional (baseline: 59%. Target: close to 100%)

Output indicator 4.2.2: Percentage of HIV among TB patients.
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: Regional (baseline: 5.3%. Target: decrease).

Output indicator 4.2.3: Percentage of TB/HIV patients under ART.
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: Regional (baseline: 21%. Target: close to 100%).

Output 4.3. Vulnerable and hard-to-reach populations addressed in national TB control activities

Output indicator 4.3.1: Number of Member States that have systematic data about vulnerable and hard-to-reach populations[29]
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: Regional (baseline: unknown. Target: 53 countries in the European Region).

Output indicator 4.3.2: Number of Member States that financially support NGOs active in TB control with specific emphasis on hard-to-reach populations.
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: Regional (baseline: unknown. Target: 53 countries in the European Region).

29 Vulnerable and hard-to-reach populations for which routine data is collected (WHO annual form, section 3) include: refugees (displaced) people, cross-border populations, orphaned (homeless), slum dwellers, ethnic minorities, alcohol abusers, injecting drug users, people with diabetes and people who smoke tobacco. In addition, the subjects of this indicator are children, HIV/TB co-infected persons and prisoners.

Outcome 5. Directly observed treatment, short course (DOTS) expanded and enhanced

Outcome indicator 5: Proportion of successfully treated cases among new laboratory-confirmed TB patients.
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: Regional (baseline: 70%. Target: 85%).

Output 5.1. High-quality implementation of DOTS approach ensured

Output indicator 5.1.1: Percentage of new pulmonary laboratory-confirmed TB patients lost to follow-up (default, transfer out, not evaluated).
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: National (baseline: 11%. Target: 5%).

Output 5.2. Evidence base for TB policy and practices through enhanced TB surveillance and monitoring

Output indicator 5.2.1: Number of HPC with the WHO-recommended Monitoring and Evaluation Framework for their national TB programme, including M/XDR TB component.
Source: NTP gives input to desk review by WHO; external monitoring mission reports and any other official documents available.
Level: Regional (baseline: unknown. Target: 18 HPC)

Output indicator 5.2.2: Number of Member States with electronic case-based surveillance at the national level.
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: Regional (baseline: unknown. Target 53 countries in the European Region).

Outcome 6: Increased political priority and focus on TB

Outcome indicator 6: Adequate fora and mechanisms established, involving civil society, communities and the private sector, to assess progress of the Berlin Declaration at national and regional levels.
Source: Stop TB partnership/TB Europe coalition/WHO Desk review.
Level: Regional (baseline: unknown. Target: 18 HPC).

Output 6.1. Mechanism for monitoring progress of the Berlin Declaration endorsed by the national government

Output indicator 6.1.1: A report on the progress of the Berlin Declaration by the national government submitted biennially.
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: National and Regional (baseline: no. Target: yes).

Output indicator 6.1.2: Regular meetings are organised to follow up on the implementation of the Berlin Declaration with participation of NTPs, private sector, civil society organisations, communities, Ministries of Health and Ministry of Justice at national level.
Source: NTP/country coordinating meeting to give input to WHO.
Level: National (baseline: no. Target: yes).

Outcome 7: All healthcare providers, including patients, communities and civil society organisations (CSO) engaged

Outcome indicator 7: Number and proportion of symptomatic TB cases, managed in collaboration with the NTP by non-NTP public providers, including CSOs and private providers.
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: National (Target: information being collected).

Output 7.1: Commitment of all stakeholders secured

Output indicator 7.1.1: Number of Member States with national Stop TB partnerships or equivalent up and running with meaningful involvement of all stakeholders.
Source: Ministry of Health via the NTP and WHO Global TB database.
Level: Regional (Baseline: unknown. Target: 53 countries of the European Region).

Output 7.2: Patients and affected communities empowered

Output indicator 7.2.1: Number of Member States with the Patients' Charter adopted, implemented and monitored to ensure ethics and human rights.
Source: NTP gives input to desk review by WHO; external monitoring mission reports and other available official documents.
Level: National (Baseline – unknown. Target – 18 HPC).

3.2 European Union and European Economic Area countries

Monitoring progress towards TB elimination in the EU/EEA

The Framework Action Plan to fight tuberculosis in the European Union was launched by the ECDC in 2008. Following a request by the EU Health Commissioner to create a monitoring framework in support of the plan, ECDC developed the follow-up to the Framework Action Plan, to provide an overview of the current strategic environment for TB control in the EU, to outline how this relates to the global situation, and to describe an epidemiological and strategic monitoring framework that could assess progress towards elimination of TB in the EU/EEA.

The prevailing TB epidemic in the EU/EEA called for a specific monitoring framework that was directly related to the EU/EEA epidemiological context and easily applicable by the Member States. Four epidemiological indicators were developed to provide a tool for measuring progress towards TB elimination, both for the EU/EEA overall and for individual Member States. A further eight core operational indicators (denoted as the Core Indicators) were also identified. These were developed to be compatible with global monitoring frameworks and are specifically related to the eight strategic areas of the Framework Action Plan to enable progress to be assessed in each of these areas.

To avoid placing any extra reporting burden on Member States, the monitoring framework and its indicators were developed, to the greatest extent possible, on the basis of data and variables already available through existing surveillance and laboratory systems. The variables for nine out of twelve indicators are obtained from the TESSy dataset and the European Reference Laboratory Network for TB (ERLN-TB) External Quality Assurance (EQA) system. For three core indicators, an ad hoc, targeted survey will be developed by ECDC, together with an online tool to ensure a minimal reporting burden on network partners.

This year marks the first monitoring report, providing an overview of progress made on TB control and, ultimately, elimination in the EU/EEA. This report focuses on overall indicators and trends. As shown in Table 1, a similar analysis can be performed at country level to measure TB epidemiological trends and monitor national TB control programmes. The ECDC aims to publish a monitoring report on a biennial basis to enable the measurement of changes in trends. A biennial report will also enable ECDC at EU/EEA level, and Member States at the national level, to analyse epidemiological trends and programmatic achievements over time.

A summary of the four epidemiological and eight operational indicators linked to the Framework Action Plan is provided in Table D.

Epidemiological indicators

Trends in case notification rate

In 2010, 73 996 TB cases were reported by the 27 EU countries, Iceland and Norway, representing a decrease of 7% compared with 2009 and a mean five-year decline of 4.4% for the period 2006–2010. The target of a mean five-year decline was met by EU/EEA overall and by 22 of the 29 Member States. The overall notification rate in 2010 was 14.6 per 100 000 population. For the first time, all EU/EEA Member States have notification rates below 100 per 100 000 population and one country, Poland, has entered the elimination phase defined as <20 cases per 100 000.

Figure F shows the **trends in TB case notification rates** over the last five reporting years. Overall, the EU/EEA has

Table D: Monitoring of the follow-up to the Framework Action Plan to fight TB in the EU

Indicator	Table	Target	EU/EEA status	Number of Member States reaching the target	Number of Member States reporting
Epidemiological indicators					
Trend in TB case notification rate	Table 3	Mean five year decline	-4.4%	22	29
Trend in MDR case notification rate	Table 18	Mean five year decline	-3.4%	7	22
Trend in child-to-adult ratio of notification rates	Table 13	Mean 10 year decline	-0.3%	7	25
Trend in mean age of TB cases (a)	Table 11	Increasing trend over 10 years	0.0%	10	24
Core indicators					
National TB plan availability(b)	-	TB plan available for all countries	50%	14	28
TB Guidelines availability	-	TB guidelines available	Not collected	-	-
Laboratory EQA performance(c)	Table 15	100% reference TB labs achieving 80% performance (smear, cult, DST)	79%	NA(d)	23
Availability of a new tool strategy	-	Strategy available	Not collected	-	-
Culture confirmation	Table 7	80% culture confirmation in new pulmonary cases.	65.6%	12	29
DST results of new pulmonary cases	Table 19	100% DST results to first-line drugs among new pulmonary culture-positive cases	70.8%	8	26
Percentage of MS reporting TOM	Table 24	All MS (100%) report TOM	82.8%	NA(d)	24
Treatment success rate	Table 24	85% in new pulmonary culture-positive cases	78.8%	4	24
Treatment success for MDR TB	Table 29	70% in new pulmonary MDR TB	49.3%	4	16
Percentage with known HIV status	Table 24	HIV status is known for 100% of TB cases	23.9%	1	15

[a] Crude mean age used for calculations
[b] Results obtained from 2009 survey
[c] Information is available only for DST to INH & RIF, data currently obtained from International EQA scheme. In future this data will be obtained from ERLN-TB
[d] EU level indicator, no trend involved

experienced a sustained annual decline of 4.4% (Table 3). Stratifying between high- and low-incidence countries (defined as ≥ or < 20 per 100 000 respectively), shows that the overall EU/EEA decline is attributable to the strong decline in the high-incidence Member States.

MDR TB case notification rates in the EU/EEA display a similar trend. In general, the case notification rates have remained stable over the last five years. This has resulted in a mean annual decline of 3.4% for the period between 2006 and 2010, with seven out of 33 countries reaching the set target of a declining trend (Figure G, Table 18). Similar to the overall TB case notification trends, this decline is attributable to the strong decline within high-incidence countries. Of special note for these countries is the strong decline in MDR TB case notification rates over the last two reporting years (2009—2010). This decline can be attributed to the strengthened and tailored TB control programmes targeting the MDR TB epidemic in each of these countries. Caution is needed when assessing these values, as the quality and completeness of data must be considered.

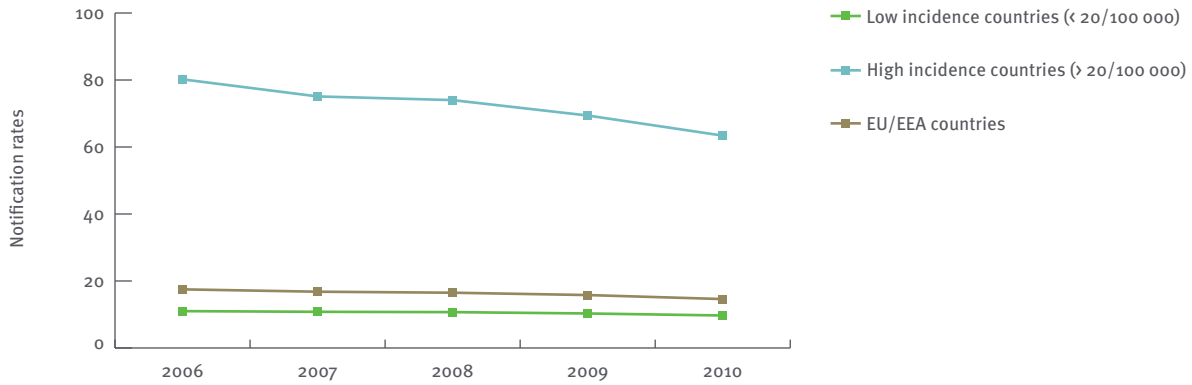
Overall in the EU/EEA, the completeness of DST coverage for 2010 was only 70.4%, with 60.8% of all TB cases being culture positive (completeness being defined as › 50% of all cases culture-confirmed and ›80% covered by DST).

Trends in child-to-adult ratio of notification rates and trends in mean age of TB cases

As described in the follow-up to the Framework Action Plan to fight tuberculosis in the European Union, monitoring the trends in the child-to-adult ratio notification rate and in the mean age of TB cases is difficult at the EU/EEA-level due to the highly heterogeneous TB epidemiology in individual Member States. As Table 13 shows, the changes in these two trends overall for the EU/EEA are minimal (-0.3% and 0.0% respectively).

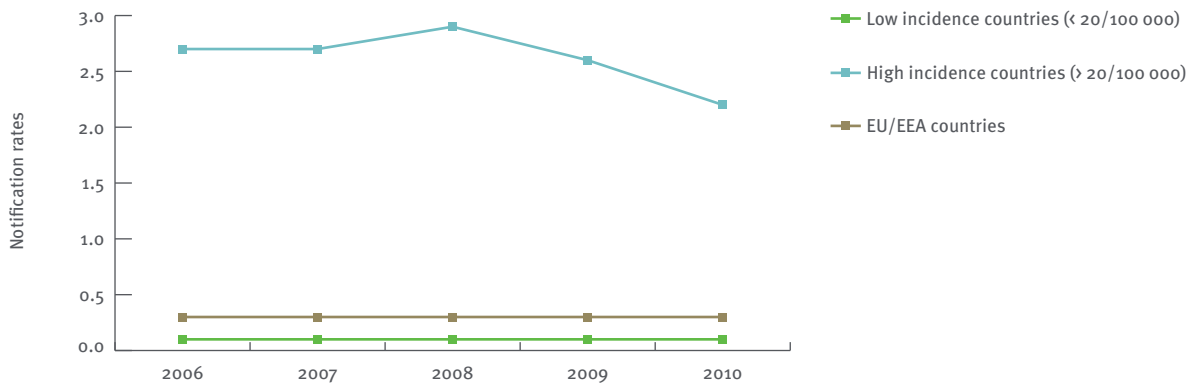
Monitoring these two trends in individual Member States can provide detailed information on the progress towards TB elimination. During the period 2001—2010, three countries observed a clear increase in the **ratio of child-to-adult notification rates** (18 countries in total with an increasing

Figure F: Epidemiological Indicator 1 - Trends in TB case notification rates, EU/EEA, 2006–2010



a. Number of the low-incidence countries: 23.
b. Number of the high-incidence countries: 6.

Figure G: Epidemiological Indicator 2 – Trends in MDR TB case notification rate, EU/EEA, 2006–2010



a. Number of the low-incidence countries: 2006, 2007, 2009, 2010: 23; 2008: 22.
b. Number of the high-incidence countries: 6.

trend) and one country observed a marked decline (seven countries in total with a decreasing trend, Table 13). A decline in the ratio of child-to-adult notification rates suggests a decline in the number of childhood TB cases and thus indicates a decrease in ongoing transmission in these countries. This in turn indicates that systems are in place to identify TB cases and provide appropriate treatment. Measuring **trends in the mean age of TB cases**, 10 Member States saw an increasing trend and 13 Member States a decreasing trend (Table 11). An increasing mean age among TB cases indicates that TB cases are mainly among the aging population (i.e. reactivation of disease). It also implies that new infectious cases are being detected rapidly and treatment provided within the TB programme to prevent further disease transmission.

Core operational indicators linked to the Framework Action Plan

Core indicators 1 and 2: Availability of a national TB control plan and guidelines for its implementation

These two indicators have not been measured for the EU/EEA for 2010 as they require a Member State survey. The ECDC aims to organise this survey in the near future, using a structured format to ensure minimal extra work to network partners. A survey conducted by ECDC in 2009 does, however, provide an indication of the availability of a national TB control plan and guidelines in countries. The survey, sent to the EU/EEA Member States, found that fourteen of the 28 responding countries had an explicit national control plan for TB in 2009 (Table D). Several other Member States did however have developed, detailed technical guidance for TB case management.

Strategic plans and monitoring platforms are essential to ensuring a consolidated and strategic approach to TB control and elimination. As EU and regional TB control ultimately relies on national efforts, the EU Action Plan requires the availability and implementation of national plans to ensure its effectiveness and impact. To support Member States in further developing their existing strategic plans and/or to develop new plans, ECDC conducts country visits to EU/EEA Member States jointly with the WHO Regional Office for Europe, at the formal request of the country. These visits are aimed at identifying strengths and challenges in the national programmes based on the TB burden of the specific country. They can also provide support in tailoring strategic plans and guidelines to their setting.

Core indicator 3: Percentage of National TB reference laboratories achieving adequate performance in the external quality assurance scheme

The European Reference Laboratory Network for TB (ERLN-TB) has to date performed three EQA rounds in laboratory proficiency for smear microscopy, culture and DST for first- and second-line anti-TB drugs. As the results are currently still being collated they are not presented in this report. However, first indications are that performance is good in all diagnostic methods at the majority of reference laboratories, and therefore, at the reference level, EU TB reference laboratories offer quality diagnostic services.

Twenty-three national reference laboratories reported on performance in DST for first-line anti-TB drugs following the international EQA schemes of the WHO Supra-National Reference Laboratory Network (Table D and Table 15). All 23 laboratories reported full agreement of results (defined as >95% results confirmation by a Supranational Reference Laboratory), demonstrating high-quality DST. This indicates that the reference laboratories are providing reliable drug-resistance diagnosis essential to ensuring optimal TB care and control in Member States.

Strong, quality-assured reference laboratories in Member States play a key role in supporting regional and local TB laboratories in the performance of high-quality TB diagnostics. As described in the follow-up to the Action Plan, this indicator can be extended to include sub-national laboratories, enabling Member States to further assess and secure the TB control programme's diagnostic services.

Core indicator 4: Availability of a strategy for introducing and implementing new tools for TB control

As new tools become available for TB diagnosis, treatment and prevention, it is essential that they are introduced and implemented properly, and only in algorithms where they have proven efficacy and effectiveness. Together with the survey on national TB control plans and implementation guidelines, ECDC aims to assess the availability of such a strategy in EU/EEA Member States.

Core indicator 5: Percentage of new pulmonary TB cases confirmed by culture and percentage of new cases tested by DST for first-line drugs

Culture confirmation of *M. tuberculosis* is, to date, the most accurate method of confirming active tuberculosis and confirms a TB case as per EU case definition. Moreover, the standard method for determining and defining drug-resistance is through culture-based methods, implying that culture is a prerequisite to assuring drug-susceptibility testing. From a programmatic perspective, reaching the culture confirmation target (80% culture confirmation of all new pulmonary TB cases) and testing 100% of these cases for susceptibility to first-line drugs are of key importance in assuring correct TB diagnosis of new cases and the subsequent rapid detection and treatment of M/XDR TB cases.

In 2012, 12 (41%) of 29 EU/EEA countries achieved 80% or more culture confirmation among new pulmonary TB cases (Figure H; Table 7). This represents almost a doubling of the number of countries reaching this target compared to 2009 (7/29, 24%) and indicates a strengthened ability in several Member States to correctly confirm active cases, enabling increased DST and detection of drug resistance. However, the overall proportion of culture-confirmed new pulmonary TB cases remains low in the EU/EEA, measuring only 65.6% in 2010 and indicating sub-optimal diagnosis of these cases.

DST results were reported for 70.8% of culture-confirmed new pulmonary TB cases in the EU/EEA in 2010, the target being 100% (France, Italy and Spain do not provide DST data stratified by site of disease, Figure I; Table 19). Identification

Figure H: Core indicator 5 – Percentage of new pulmonary TB cases confirmed by culture, EU/EEA, 2010

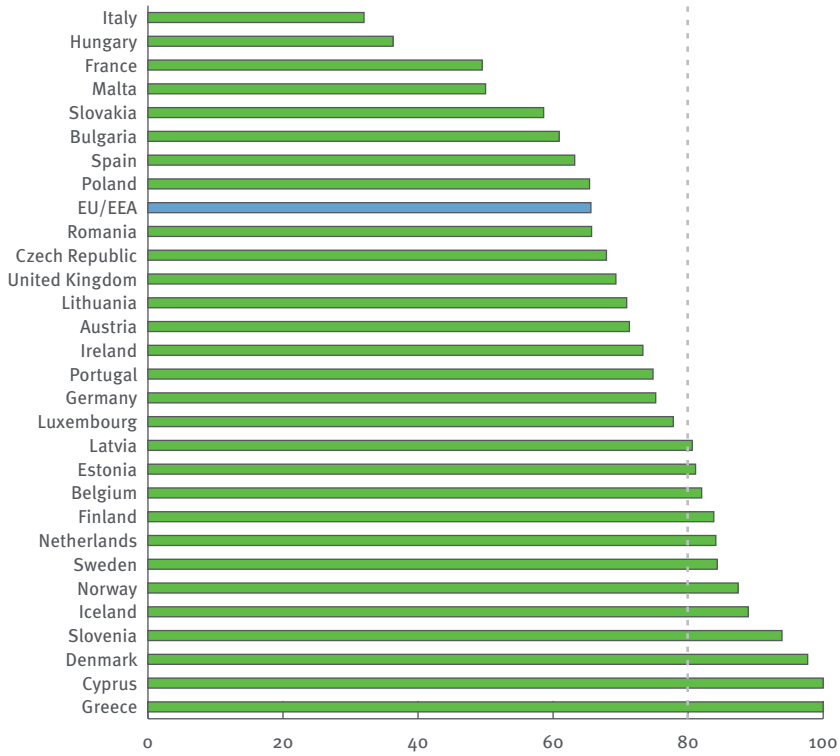
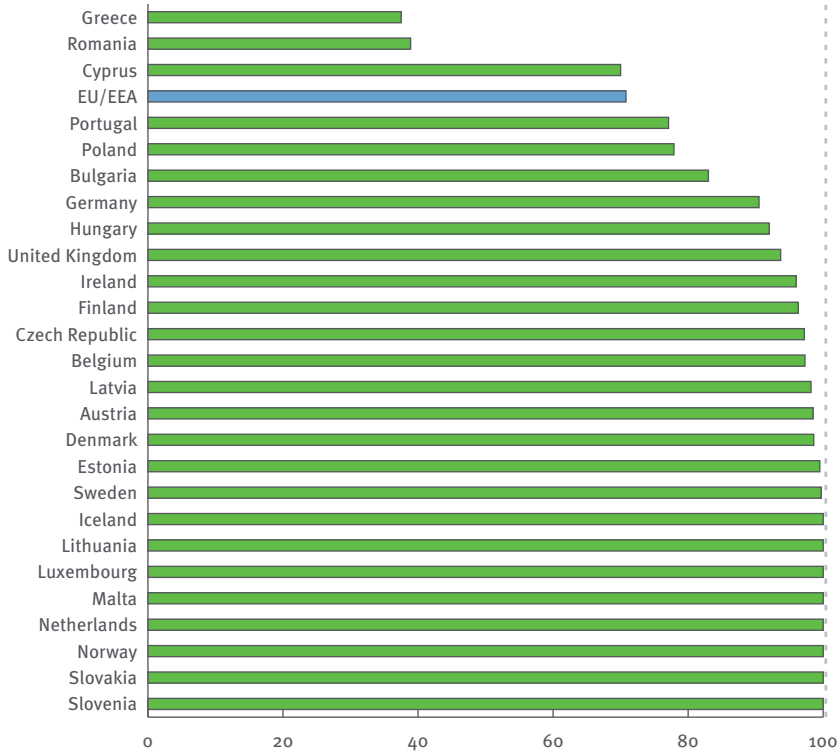
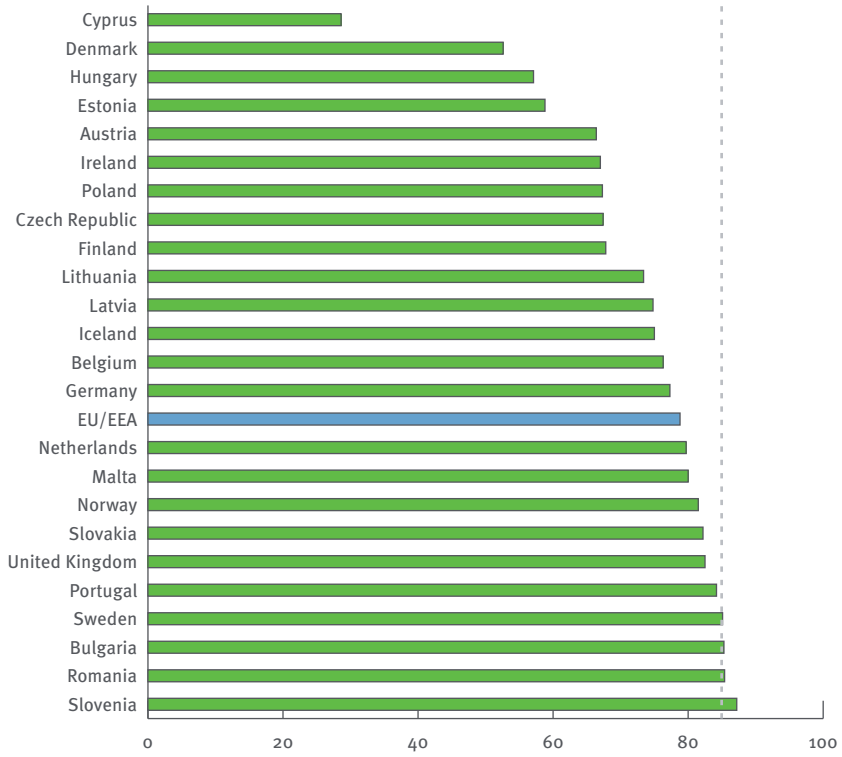


Figure I: Core indicator 5 – Percentage of new pulmonary culture-confirmed TB cases tested for susceptibility to first-line drugs, EU/EEA, 2010



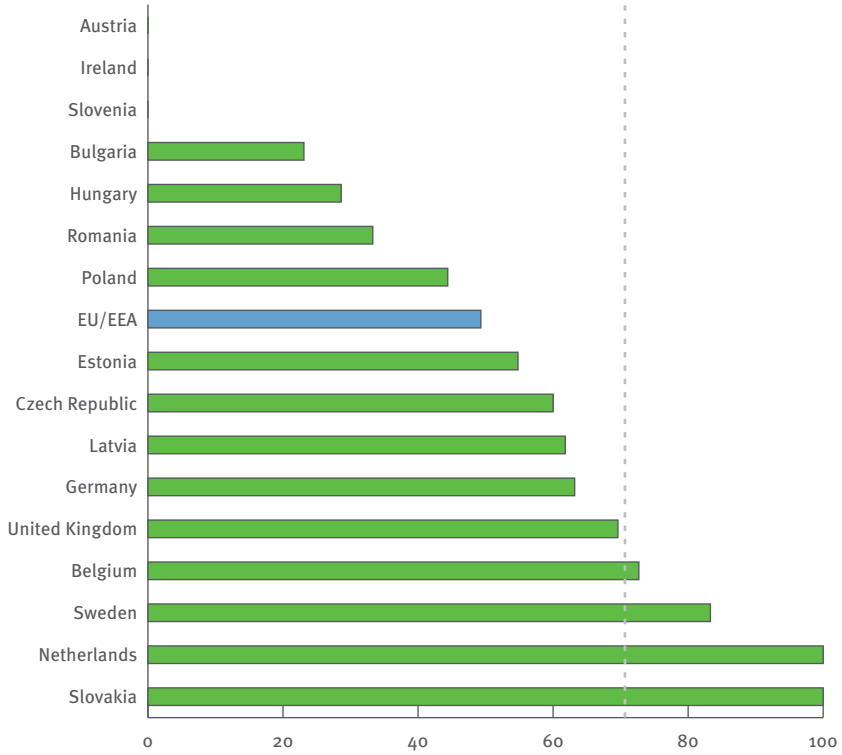
France, Italy and Spain do not provide DST data stratified by the site of disease.

Figure J: Core indicator 7 – Treatment success rate of new pulmonary culture-positive TB cases reported in 2009, EU/EEA



France, Italy and Spain do not provide DST data stratified by the site of disease.

Figure K: Core indicator 8 – Treatment success rate of new pulmonary culture-positive MDR TB cases reported in 2008, EU/EEA



Cyprus, Denmark, Malta and Norway had no new pulmonary MDR TB cases in 2008.
France, Italy and Spain do not report TOM data and MDR TB case stratified by the site of disease.
Greece and Luxembourg did not report DST and TOM results for cases notified in 2008.
Finland, Iceland, Lithuania and Portugal did not report TOM after 24 months.

of all new pulmonary MDR TB cases is thus compromised by the fact that only eight countries reached the target of testing 100% of all new culture-positive pulmonary TB cases. However, several countries are very close to the target, with 12 countries securing DST for over 90% of cases. It remains to be determined whether the low culture-confirmation in the EU/EEA is the result of sub-optimal diagnostic practices or poor linkage of laboratory and epidemiological data.

Core indicator 6: Percentage of Member States reporting treatment success rate

Optimal treatment outcome-monitoring (TOM) and a high proportion of successfully treated patients are strong indicators for assessing programmatic performance. Achieving high performance will both have an impact on the epidemic and prevent the emergence of drug-resistance.

Twenty-four (82.8%) Member States reported TOM data for new culture-confirmed pulmonary TB cases diagnosed in 2009, with the defined target that all Member States report treatment outcome of all TB cases (Table D; Table 25). This indicates that five EU/EEA Member States still need to optimise their reporting and recording systems to enable full monitoring of TB treatment outcome.

Core indicator 7: Treatment success rate

Overall in the 24 EU/EEA Member States reporting treatment outcome, treatment success among new pulmonary culture-confirmed TB cases diagnosed in 2009 was 78.8%, with four countries reaching the target of 85% (Figure 10; Table 25). This is similar for cases diagnosed in 2008 (78.8%), although with two countries less reaching the 85% target.

The treatment success rates reported for new culture-confirmed pulmonary MDR TB cases at 24 months (i.e. MDR TB cases reported in 2008) are less favourable. In 2008, 19 Member States reported at least one new culture-confirmed pulmonary MDR TB case and of these only 16 reported on treatment outcome. This presents a large caveat in understanding treatment outcome among MDR TB cases in the EU/EEA, and subsequently hampers the identification of strengths and challenges in MDR TB control and prevents targeted intervention and support. This also applies to individual Member States.

The overall treatment success rate remains far below the 70% target in the 16 countries providing TOM data for new culture-confirmed pulmonary MDR TB cases reported in 2008 (overall treatment success of 49.3%). Only four countries reached the target (Figure 11; Table 29). This poses a serious threat to patient survival and risks the development of XDR TB. Continued efforts and targeted support are needed to improve the reporting of TOM data by Member States and to ensure successful treatment of new culture-confirmed TB cases as well as MDR TB cases.

Core indicator 8: Percentage of TB patients for whom HIV-status is known

To combat TB among individuals with HIV infection, it is essential to provide integrated TB and HIV treatment programmes given the challenges in treating this TB patient group. However, a clear overview of the extent of HIV infection among TB patients is lacking in the EU/EEA, due to the sub-optimal reporting of HIV prevalence in countries. This is mainly due to differences in testing policies and data collection within countries.

In 2010, only one of 15 Member States provided data on HIV status for all TB cases, and two countries reported the known status for more than 95% of TB cases (Table D; Table 24). The lack of reporting HIV-infection among TB cases, as well as the low-coverage of HIV-testing for the 15 reporting countries is indicative that national TB programmes are lacking targeted, incorporated TB/HIV plans. As described in the Follow-up to the Action Plan, a limitation of this indicator is that it does not directly assess whether systems are in place within countries to provide HIV-infected TB patients with adequate treatment, management and follow-up, regardless of reporting practices.

Strategic areas of work for strengthening TB control programmes in the EU/EEA

To support EU/EEA Member States in further strengthening TB control programmes and working towards the joint goal of eliminating TB in the EU/EEA, ECDC is working within the eight strategic areas defined in the Framework Action Plan to fight tuberculosis in the European Union. The aim is to support Member States and the EU/EEA as a whole to reach the targets defined in the Follow-up to the Action Plan. Recent outputs as well as a number of ongoing activities are listed here.

- Through the TB surveillance network, ECDC is continuing to support Member States in improving the reporting of TB data to TESSy with a special focus on improving the reporting of TOM data.
- To support Member States in further developing their existing strategic plans and/or to develop new plans, ECDC, jointly with the WHO Regional Office for Europe, conducts country visits to EU/EEA Member States, at the formal request of the country. Together with representatives of the countries' TB programme, these visits are aimed at identifying strengths and challenges in the national programmes based on the TB burden of the specific country. Further support can be provided to tailor strategic plans and guidelines to their setting.
- ECDC is continuously developing evidence-based guidance in several areas of TB control. This is designed to support Member States when they are considering updating or introducing new practices in national TB control plans and guidelines. Some examples are evidence-based guidance on the introduction of new tools and approaches, the management of contacts to MDR TB cases, and TB outbreak management in children.
- A recent key activity has been to develop European Union Standards for TB Care; a joint collaboration between the

ECDC and the European Respiratory Society (ERS). Since they are complementary to the International Standards for TB Care and tailored to the EU TB epidemiology, resources and definitions, these standards aim to support Member States at all levels of TB health care in ensuring optimal TB diagnosis, treatment and prevention.

Conclusions and monitoring recommendations

2010 marks the first year of monitoring progress towards TB elimination in the EU/EEA, as well as progress in implementing the eight areas of the Framework Action Plan to fight tuberculosis in the European Union. All four epidemiological indicators and five of the eight core indicators could be measured and analysed. Overall, the follow-up to the Action Plan to fight tuberculosis in the European Union provides a robust tool for monitoring the strengths and weaknesses of TB control in the EU and ultimately the path to TB elimination. At the Member State level, similar analyses are possible using the surveillance data presented in this report.

Here are the key conclusions and monitoring recommendations based on the measured indicators for the EU/EEA.

TB notification rates and MDR TB notifications rates have declined over the last five years, particularly as a result of the steady decline seen in high-incidence countries. Efforts need to be reinforced and maintained in Member States to ensure a continued decline in notification rates, with a view to eventually eliminating TB in the EU/EEA.

Monitoring trends in the child-to-adult ratio of notification rates and trends in the mean age of TB cases is difficult at the EU/EEA-level as a result of the heterogeneous TB epidemic and epidemiology in individual Member States. However, monitoring these trends in individual Member States, together with TB and MDR TB notification rate trends, offers a robust tool for measuring overall progress in TB control.

ECDC aims to conduct a survey in the near future to measure the availability of a national TB control plan in Member States; national guidelines for the implementation of the national TB control plan, and the availability of a strategy to introduce and implement new tools for TB control. This survey will be structured so as to ensure minimal extra work for Member State partners.

The quality of DST, as measured through performance in external quality assurance schemes, is high in the reporting countries, suggesting that sub-optimal levels of culture confirmation and DST might be largely due to the challenge of linking laboratory and epidemiological data.

The number of countries reaching the target of 80% culture-confirmation for new pulmonary TB cases and drug-susceptibility testing has increased however, overall levels remain sub-optimal. To secure accurate TB diagnosis and treatment it is essential to improve these levels.

Continued efforts and targeted support are needed to improve the reporting of treatment outcome monitoring by Member States and to ensure successful treatment of new culture-confirmed TB and MDR TB cases. Incomplete coverage of treatment outcome in the EU/EEA further hampers the identification of strengths and challenges in TB and MDR TB control and consequently, the support that can be provided to Member States to further control the epidemic. The countries themselves are confronted by the same obstacle when attempting to assess the strengths and challenges of their programmes to prevent and treat TB and MDR TB.

The limited reporting of HIV-infection among TB cases and the low-coverage of known HIV-status for the 15 reporting countries indicates that national TB programmes are lacking targeted, incorporated TB/HIV plans.

As highlighted in the Monitoring Framework, the reliability and interpretability of the monitoring data is dependent on the quality of surveillance. Case surveillance and reporting systems must capture close to 100% of all TB cases with minimal to no variations in the sensitivity of the surveillance system used. For example, improvement is needed in the coverage of drug-susceptibility testing, as seen for Epidemiological Indicator 2 (MDR TB notification rates), in order to obtain an accurate measurement of trends. 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.

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4. Tables

Summary table: Tuberculosis surveillance data by region, European Region, 2010

	Table showing data by country	EU/EEA				
		Number of countries reporting[c]		Target (where applicable)	Number of countries meeting target	
Total population (millions)	-	**29**	**506.3**	-	-	
Notifications of TB cases, 2010						
Estimated TB incidence rates 2010 per 100 000 population	1	29	15.7	-	-	
Case detection rate	1	29	78.0	-	-	
Estimated TB prevalence rates 2010 per 100 000 population	1	29	19.9	-	-	
Estimated TB mortality rates 2010 per 100 000 population	1	29	1.1	-	-	
Estimated HIV-TB prevalence in percentage	1	29	4.6	-	-	
Notifications of TB cases, 2010						
Total number of TB cases	2	29	73,996			
All TB cases per 100 000 population	2	29	14.6			
Mean annual % change in overall notification rate (2005–2009)[d]	2	29	-4.4%	decreasing trend	22	
New TB cases and relapses per 100 000 population[e]	3	29	12.2			
Percentage of pulmonary TB cases among all TB cases	5	29	77.9%			
Pulmonary sputum smear-positive TB cases per 100 000 population	7	29	4.1			
Percentage of laboratory-confirmed[f] pulmonary TB cases among new pulmonary TB cases[g]	6	29	65.6%	80%	12	
Mean age (age-group) of all TB cases[h]	10	29	45.1	increasing trend over 10 years	11	
Trend in ratio of notification rate in children to adults 2001–2010[i]	12	25	-0.3%	decreasing trend over 10 years	7	
Sex ratio of new and relapse cases (male to female)	3	29	1.8			
Foreign origin, percentage of all cases	13a	29	25.1%			
Multidrug resistance (MDR) and HIV co-infection, 2010						
Percentage of MDR TB among all TB cases	15	26	4.6%			
Trends in MDR case notification rate (2006–2010)[j]	17	26	-3.38%	decreasing trend over 5 years	7	
Percentage of XDR TB among all MDR TB cases tested for SLD[k], 2010	20	19	13.2%			
HIV infections, percentage of all TB cases tested for HIV, 2010	23	15	10.6%			
Percentage of known HIV status[l]	23	15	23.9%	100%	1	
Treatment outcome						
Treatment outcome of new laboratory-confirmed pulmonary cases reported, 2009[c*]	24	24	82.8%	100%	24	
Success (cure or treatment completion)[m]	24	24	78.8%	85%	4	
Death	24	24	6.6%			
Failure	24	24	2.1%			
Default	24	24	5.8%			
Still on treatment	24	24	2.2%			
Lost to follow-up (transfer, unknown)	24	24	4.5%			
Treatment outcome of all laboratory-confirmed pulmonary MDR TB cases reported, 2008[c]						
Success (cure or treatment completion)[n]	27	15	30.1%			
Death	27	15	19.5%			
Failure	27	15	22.9%			
Default	27	15	17.8%			
Still on treatment	27	15	8.3%			
Lost to follow-up (transfer, unknown)	27	15	1.4%			
Treatment outcome of new culture-confirmed pulmonary MDR TB cases reported, 2008[l]	28	20	69.0%	100%	20	
Success (cure or treatment completion)[n]	28	20	49.3%	70%	4	
Death	28	20	13.1%			
Failure	28	20	2.1%			
Default	28	20	5.8%			
Still on treatment	28	20	2.2%			
Lost to follow-up (transfer, unknown)	28	20	4.5%			

'European Region' comprises the 53 countries of the WHO European Region
[a] Mean value unless otherwise indicated; for definition of regions see Chapter 1 Background and Technical Note.
[b] 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, T
[c] Number of countries with available data and included in the statistics.
[d] EU Epidemiological monitoring framework, Indicator 1
[e] WHO estimates, as published in WHO report *Global tuberculosis control 2011*
[f] Laboratory confirmed = culture confirmed for EU/EEA countries and smear and/or culture confirmation for non-EU/EEA countries
[g] Core indicator for the Framework Action Plan 5a
[h] EU Epidemiological monitoring framework, Indicator 4
[i] EU Epidemiological monitoring framework, Indicator 3
[j] EU Epidemiological monitoring framework, Indicator 2
[k] SLD = anti-TB treatment second line drugs
[l] Core indicator for the Framework Action Plan 8
[m] Core indicator for the Framework Action Plan 7a
[n] Core indicator for the Framework Action Plan 7b
* for non EU/EEA countries included MDR/TB cases enrolled to treatment

Region[a]							
Non-EU/EEA		Total				18 High-Priority Countries (HPC)[b]	
Number of countries reporting[c]		Number of countries reporting[c]		Target (where applicable)	Number of countries meeting target	Number of countries reporting[c]	
24	**390.8**	**53**	**897.1**	**-**	**-**	**18**	**387.6**
24	86.6	53	46.6	-	-	18	93.8
22	73.1	51	74.1	70.0	37	18	73.0
24	116.6	53	62.0	-	-	18	126.5
24	14.0	53	6.7	-	-	18	14.6
21	5.0	50	4.9	-	-	18	4.8
23	314,879	52	388,875	-	-	18	335,458
23	80.1	52	43.2	-	-	18	86.5
22	-0.9%	51	-1.7%	decreasing trend	38	18	-1.2%
23	61.1	52	34.0	-	-	18	68.5
23	84.0%	52	82.8%	-	-	18	84.1%
23	17.9	52	10.2	-	-	18	20.2
22	31.7%	51	38.0%	-	-	18	34.0%
23	25-44	52	25-44	-	-	18	25-44
-	-	-	-	-	-	-	-
23	1.9	52	1.9	-	-	18	1.9
20	0.8%	49	5.4%	-	-	10	0.7%
21	27.8%	47	22.2%	16.0%	37	18	27.2%
20	17.7%	46	27.9%	-	-	18	11.9%
9	11.3%	28	9.6%	-	-	9	13.0%
17	5.5%	32	5.5%	-	-	16	5.4%
17	85.6%	32	73.8%	close to 100%	9	16	83.1%
21	87.5%	45	84.9%	100.0%	45	18	1
21	65.0%	45	68.7%	85.0%	8	18	67.1%
21	9.0%	45	8.4%	-	-	18	8.6%
21	15.0%	45	11.6%	-	-	18	13.7%
21	6.7%	45	6.4%	5.0%	31	18	6.7%
-	-	24	2.2%	-	-	-	
21	4.3%	45	4.3%	-	-	18	3.7%
		33	90.5%	100.0%	38		
13	62.0%	33	56.3%	75.0%	4	13	56.2%
13	7.1%	33	9.3%	10.0%	18	13	9.3%
13	8.9%	33	11.5%	10.0%	19	13	11.7%
13	13.3%	33	14.1%	-	-	13	14.2%
-	-	20	8.3%	-	-	-	-
13	8.6%	33	7.3%	5.0%	7	13	7.3%

Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan.

Table 1: Monitoring of the Follow-up to the TB Action Plan: Progressing towards TB elimination in the European Union[6]

Country	Indicator						
	Epidemiological						
	1.Change in notification rate, 2006–2010[a]	2.Change in MDR TB notification rate, 2006–2010[a]	3. Change in ratio of notification rate in children to adults, 2001-2010[a]	4. Change in mean age of TB cases, 2001-2010[a,b]	1. Availability of a national TB control plan[c]	3. National TB reference laboratories achieving adequate performance in EQA scheme[e]	
EU/EEA							
Austria	-6.8%	18.3%	7.4%	0.2%	No	-	
Belgium	-0.5%	15.4%	3.2%	-0.7%	No	Yes	
Bulgaria	-4.2%	13.9%	10.4%	-	Yes	Yes	
Cyprus	12.0%	-	-	-	-	-	
Czech Republic	-8.3%	-3.3%	5.1%	-0.2%	Yes	Yes	
Denmark	-2.1%	-	-4.0%	1.1%	Yes	Yes	
Estonia	-7.5%	7.2%	109.4%	0.5%	Yes	Yes	
Finland	3.4%	111.5%	29.4%	-0.9%	Yes	Yes	
France	-1.4%	-3.2%	1.6%	-0.1%	Yes	Yes	
Germany	-5.0%	-9.9%	1.7%	0.2%	No	Yes	
Greece	-8.0%	-	13.9%	-	No	-	
Hungary	-0.5%	9.7%	17.1%	0.0%	No	Yes	
Iceland	35.2%	-	-	-0.7%	No	-	
Ireland	-3.3%	11.9%	24.7%	-1.0%	No	Yes	
Italy	-7.9%	36.2%	10.5%	-1.4%	No	-	
Latvia	-7.9%	-7.6%	0.4%	0.2%	No	Yes	
Lithuania	-6.2%	-0.6%	7.6%	-	Yes	Yes	
Luxembourg	-3.2%	-	-	0.0%	No	Yes	
Malta	4.8%	-	-	-3.3%	No	-	
Netherlands	0.9%	34.1%	-1.6%	1.0%	Yes	Yes	
Norway	3.0%	31.8%	-3.7%	-1.0%	Yes	Yes	
Poland	-3.2%	2.1%	1.5%	0.4%	Yes	Yes	
Portugal	-6.8%	0.5%	-1.1%	1.2%	No	Yes	
Romania	*-5.4%*	*-5.6%*	*-2.8%*	*0.7%*	*Yes*	*Yes*	
Slovakia	-11.9%	-29.6%	6.8%	-0.6%	Yes	Yes	
Slovenia	-5.8%	-	5.8%	0.7%	No	Yes	
Spain	-4.1%	0.7%	-0.2%	-	Yes	Yes	
Sweden	7.3%	105.9%	15.7%	-3.4%	No	Yes	
United Kingdom	-0.2%	3.7%	-2.4%	-0.4%	Yes	Yes	
Subtotal EU/EEA	**-4.4%**	**-3.4%**	**-0.3%**	**0.0%**	**48.3%**	**79.3%**	

'European Region' comprises the 53 countries of the WHO European Region.
[a] For trend and mean annual change by country see Tables 3, 18, 11 and 13.
[b] Used crude mean age calculation.
[c] Results obtained from 2009 survey.
[d] No data available for core indicators 2 and 4, needs special survey for next Monitoring Report.
[e] Information is available only for DST to INH & RIF, data currently obtained from International EQA scheme. In future this data will be obtained from ERLN-TB.

Indicator						
Core indicators for the Framework Action Plan[d]						
	5a. % of new pulmonary TB cases confirmed by culture	5b. % of new pulmonary TB cases tested using DST for first-line drugs	6. % of Member States reporting treatment success rate	7. Treatment success rate of new pulmonary culture-positive TB cases diagnosed in 2009	7b. Treatment success rate of new pulmonary culture-positive MDR TB cases diagnosed in 2008	8. % of TB patients for whom HIV status is known
	71.3	98.7	Yes	66.4	0.0	-
	82.0	95.8	Yes	76.3	72.7	86.9
	60.9	82.3	Yes	85.3	23.1	66.9
	100.0	62.7	Yes	28.6	-	-
	67.9	96.6	Yes	67.4	60.0	26.1
	97.7	98.9	Yes	52.6	-	-
	81.1	99.6	Yes	58.8	54.8	89.7
	83.8	96.1	Yes	67.8	-	-
	49.5	61.7	No	-	-	-
	75.2	88.9	Yes	77.3	63.2	-
	100.0	34.6	Yes	-	-	-
	36.3	91.5	No	57.1	28.6	-
	88.9	100.0	Yes	75.0	-	95.5
	73.3	95.2	Yes	67.0	0.0	15.9
	32.0	99.2	No	-	-	-
	80.6	97.7	Yes	74.8	61.8	80.1
	70.9	100.0	Yes	73.4	-	-
	77.8	100.0	No	-	-	100.0
	50.0	100.0	Yes	80.0	-	81.3
	84.1	100.0	Yes	79.7	100.0	34.5
	87.4	99.6	Yes	81.5	-	-
	65.4	77.9	Yes	67.3	44.4	-
	74.8	76.3	Yes	84.2	-	65.5
	65.7	*42.8*	*Yes*	*85.4*	*33.3*	*33.8*
	58.6	100.0	Yes	82.2	100.0	97.9
	93.9	100.0	Yes	87.2	0.0	76.2
	63.2	35.5	No	-	-	53.2
	84.3	99.6	Yes	85.1	83.3	-
	69.3	93.8	Yes	82.5	69.6	-
	65.6	**70.2**	**86.2**	**78.8**	**49.3**	**23.9**

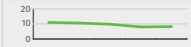
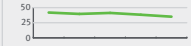
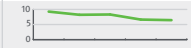
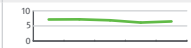
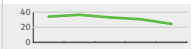
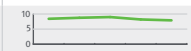
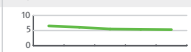
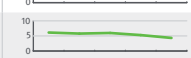
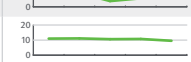
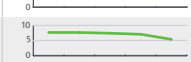
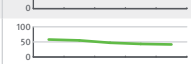
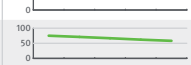
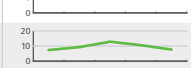
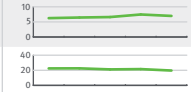
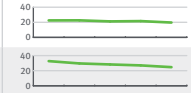
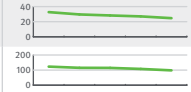
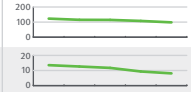
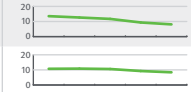
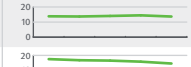
Table 2: Estimates of the TB disease burden 2010, European Region

Country	Population[a]	Estimated number of deaths from TB (all forms, excluding HIV)						Estimated prevalence of TB (all forms)					
		Number			Per 100 000			Number			Per 100 000		
		Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High
EU/EEA													
Austria	8 375 290	22	20	26	0.3	0.2	0.3	480	140	830	5.7	1.7	9.9
Belgium	10 839 905	52	45	63	0.5	0.4	0.6	1100	390	1900	10.1	3.6	17.5
Bulgaria	*7 563 710*	*310*	*210*	*470*	*4.1*	*2.8*	*6.2*	*4 000*	*1 400*	*6 800*	*52.9*	*18.5*	*89.9*
Cyprus	803 147	3	2	3	0.3	0.3	0.4	61	19	100	7.6	2.4	12.5
Czech Republic	10 506 813	45	40	54	0.4	0.4	0.5	880	270	1500	8.4	2.6	14.3
Denmark	5 534 738	16	14	19	0.3	0.3	0.3	410	140	700	7.4	2.5	12.6
Estonia	*1 340 127*	*39*	*36*	*46*	*2.9*	*2.7*	*3.4*	*350*	*96*	*610*	*26.1*	*7.2*	*45.5*
Finland	5 351 427	36	33	39	0.7	0.6	0.7	450	100	800	8.4	1.9	14.9
France	64 716 213	450	400	500	0.7	0.6	0.8	7700	3200	12 000	11.9	4.9	18.5
Germany	81 802 257	200	180	240	0.2	0.2	0.3	4800	1500	8300	5.9	1.8	10.1
Greece	11 305 118	81	70	97	0.7	0.6	0.9	650	210	1100	5.7	1.9	9.7
Hungary	10 014 324	130	120	160	1.3	1.2	1.6	1900	640	3300	19.0	6.4	33.0
Iceland	317 630	1	1	1	0.4	0.3	0.4	17	5	29	5.4	1.4	9.1
Ireland	4 467 854	22	19	26	0.5	0.4	0.6	430	140	740	9.6	3.1	16.6
Italy	60 340 328	260	230	320	0.4	0.4	0.5	3600	1300	6200	6.0	2.2	10.3
Latvia	*2 248 374*	*74*	*59*	*89*	*3.3*	*2.6*	*4.0*	*970*	*250*	*1700*	*43.1*	*11.1*	*75.6*
Lithuania	*3 329 039*	*370*	*240*	*560*	*11.1*	*7.2*	*16.8*	*3100*	*1100*	*5300*	*93.1*	*33.0*	*159.2*
Luxembourg	502 066	2	2	2	0.3	0.3	0.4	52	15	89	10.4	3.0	17.7
Malta	414 372	3	2	4	0.7	0.5	0.9	62	22	110	15.0	5.3	26.5
Netherlands	16 574 989	31	27	37	0.2	0.2	0.2	1500	500	2500	9.0	3.0	15.1
Norway	4 858 199	9	7	10	0.2	0.2	0.2	370	120	630	7.6	2.5	13.0
Poland	38 167 329	780	670	940	2.0	1.8	2.5	11000	3700	19 000	28.8	9.7	49.8
Portugal	10 637 713	160	130	200	1.5	1.2	1.9	3400	1200	5900	32.0	11.3	55.5
Romania	*21 462 186*	*1500*	*1500*	*1500*	*7.0*	*7.0*	*7.0*	*34 000*	*12 000*	*59 000*	*158.4*	*55.9*	*274.9*
Slovakia	5 424 925	26	23	30	0.5	0.4	0.6	520	150	910	9.6	2.8	16.8
Slovenia	2 046 976	16	14	19	0.8	0.7	0.9	280	91	470	13.7	4.4	23.0
Spain	45 989 016	320	270	390	0.7	0.6	0.8	8400	2800	14 000	18.3	6.1	30.4
Sweden	9 340 682	26	23	32	0.3	0.2	0.3	830	300	1400	8.9	3.2	15.0
United Kingdom	62 026 962	400	360	450	0.6	0.6	0.7	9600	3300	16 000	15.5	5.3	25.8
Subtotal EU/EEA	**506 301 709**	**5383**	**4748**	**6328**	**1.1**	**0.9**	**1.2**	**100 912**	**35 098**	**171 918**	**19.9**	**6.9**	**34.0**
Non-EU/EEA													
Albania	3 204 284	12	9	21	0.4	0.3	0.7	510	120	890	15.9	3.7	27.8
Andorra	84 864	1	1	1	0.7	0.6	0.7	8	2	15	9.8	2.1	17.7
Armenia	*3 092 072*	*330*	*220*	*470*	*10.7*	*7.1*	*15.2*	*3 500*	*1 500*	*5 900*	*113.2*	*48.5*	*190.8*
Azerbaijan	*9 187 783*	*940*	*610*	*1 400*	*10.2*	*6.6*	*15.2*	*15 000*	*6 300*	*26 000*	*163.3*	*68.6*	*283.0*
Belarus	*9 595 421*	*1000*	*600*	*1 600*	*10.4*	*6.3*	*16.7*	*9 400*	*3 600*	*16 000*	*98.0*	*37.5*	*166.7*
Bosnia and Herzegovina	3 760 149	110	76	180	2.9	2.0	4.8	2200	640	3900	58.5	17.0	103.7
Croatia	4 403 330	100	87	120	2.3	2.0	2.7	1200	390	2000	27.3	8.9	45.4
Georgia	*4 352 244*	*200*	*160*	*240*	*4.6*	*3.7*	*5.5*	*5100*	*1200*	*9100*	*117.2*	*27.6*	*209.1*
Israel	7 418 400	17	15	20	0.2	0.2	0.3	410	110	710	5.5	1.5	9.6
Kazakhstan	*16 026 367*	*3 600*	*2 200*	*5 800*	*22.5*	*13.7*	*36.2*	*32 000*	*11 000*	*55 000*	*199.7*	*68.6*	*343.2*
Kyrgyzstan	*5 334 223*	*1400*	*910*	*2 000*	*26.2*	*17.1*	*37.5*	*13 000*	*5 500*	*22 000*	*243.7*	*103.1*	*412.4*
Macedonia, the former Yugoslav Republic of	2 060 563	42	30	69	2.0	1.5	3.3	500	120	880	24.3	5.8	42.7
Moldova	*3 572 885*	*830*	*550*	*1200*	*23.2*	*15.4*	*33.6*	*9900*	*4300*	*16 000*	*277.1*	*120.4*	*447.8*
Monaco	35 407	0	0	0	-	-	-	0	0	0	-	-	-
Montenegro	631 490	9	6	14	1.4	1.0	2.2	140	41	250	22.2	6.5	39.6
Russia	*142 958 164*	*26 000*	*16 000*	*42 000*	*18.2*	*11.2*	*29.4*	*190 000*	*70 000*	*330 000*	*132.9*	*49.0*	*230.8*
San Marino	31 534	0	0	0	-	-	-	0	0	0	-	-	-
Serbia	9 856 222	140	94	220	1.4	1.0	2.2	2200	670	3800	22.3	6.8	38.6
Switzerland	7 664 318	21	18	26	0.3	0.2	0.3	720	250	1200	9.4	3.3	15.7
Tajikistan	*6 878 637*	*2 800*	*2 100*	*3 700*	*40.7*	*30.5*	*53.8*	*26 000*	*12 000*	*43 000*	*378.0*	*174.5*	*625.1*
Turkey	*72 752 325*	*2 200*	*1 300*	*3 600*	*3.0*	*1.8*	*4.9*	*18 000*	*7 200*	*30 000*	*24.7*	*9.9*	*41.2*
Turkmenistan	*5 041 995*	*1000*	*700*	*1 900*	*19.8*	*13.9*	*37.7*	*3 900*	*960*	*6 900*	*77.4*	*19.0*	*136.9*
Ukraine	*45 448 329*	*8 600*	*5 200*	*12 000*	*18.9*	*11.4*	*26.4*	*60 000*	*25 000*	*100 000*	*132.0*	*55.0*	*220.0*
Uzbekistan	*27 444 702*	*5 400*	*3 900*	*7 100*	*19.7*	*14.2*	*25.9*	*62 000*	*29 000*	*100 000*	*225.9*	*105.7*	*364.4*
Subtotal non-EU/EEA	**390 835 708**	**54 752**	**34 786**	**83 681**	**14.0**	**8.9**	**21.4**	**455 688**	**179 903**	**773 545**	**116.6**	**46.0**	**197.9**
Total European Region	**897 137 417**	**60 135**	**39 533**	**90 008**	**6.7**	**4.4**	**10.0**	**556 600**	**215 000**	**945 463**	**62.0**	**24.0**	**105.4**
Subtotal 18 HPC	***387 628 583***	***56 593***	***36 495***	***85 675***	***14.6***	***9.4***	***22.1***	***490 220***	***192 406***	***833 310***	***126.5***	***49.6***	***215.0***

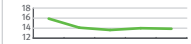
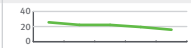
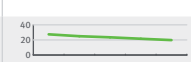
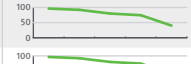
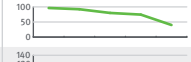
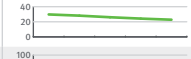
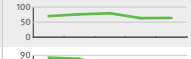
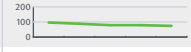
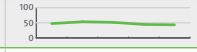
'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
[a] Source for population of EU/EEA countries is EUROSTAT, for non EU/EEA countries population estimates 2009 from UN Statistical Database

Estimated number of incident cases (all forms)						Case detection rate (all forms), percent			Estimated incidence of HIV-positive TB cases					
Number			Per 100 000						Number			Percentage (%)		
Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High	Best	Low	High
420	370	480	5.0	4.4	5.7	84.0	75.0	96.0	21	13	31	5.1	3.2	7.5
930	820	1100	8.6	7.6	10.1	87.0	77.0	100.0	55	33	81	6.1	3.8	9.0
3000	*2600*	*3500*	*39.7*	*34.4*	*46.3*	*79.0*	*70.0*	*92.0*	*3*	*0*	*11*	*0.1*	*0.0*	*0.4*
49	42	55	6.1	5.2	6.8	68.0	60.0	78.0	0	0	0	0.0	0.0	0.0
710	620	810	6.8	5.9	7.7	88.0	77.0	100.0	5	3	7	0.7	0.4	1.0
330	290	380	6.0	5.2	6.9	93.0	82.0	110.0	15	10	22	4.4	2.8	6.6
330	*290*	*370*	*24.6*	*21.6*	*27.6*	*85.0*	*76.0*	*97.0*	*34*	*25*	*44*	*10.0*	*7.1*	*13.0*
360	310	410	6.7	5.8	7.7	87.0	77.0	99.0	7	5	10	1.6	1.0	2.4
5900	5500	6200	9.1	8.5	9.6	47.0	44.0	50.0	360	240	510	6.1	4.0	8.8
4000	3500	4500	4.9	4.3	5.5	89.0	79.0	100.0	97	61	140	2.4	1.6	3.6
520	460	600	4.6	4.1	5.3	68.0	60.0	78.0	12	7	18	2.3	1.4	3.4
1500	1300	1700	15.0	13.0	17.0	100.0	90.0	120.0	15	9	24	1.0	0.6	1.6
16	13	20	5.0	4.1	6.3	140.0	110.0	170.0	3	2	5	15.0	8.8	23.0
360	320	410	8.1	7.2	9.2	88.0	77.0	100.0	16	10	23	4.3	2.7	6.3
2900	2600	3300	4.8	4.3	5.5	57.0	51.0	65.0	180	110	250	5.8	3.8	8.5
890	*780*	*1000*	*39.6*	*34.7*	*44.5*	*100.0*	*91.0*	*120.0*	*89*	*69*	*110*	*9.5*	*7.5*	*12.0*
2300	*2000*	*2700*	*69.1*	*60.1*	*81.1*	*76.0*	*66.0*	*89.0*	*10*	*5*	*16*	*0.4*	*0.2*	*0.7*
45	39	51	9.0	7.8	10.2	54.0	47.0	62.0	2	1	3	4.5	2.6	7.1
50	44	56	12.1	10.6	13.5	40.0	36.0	45.0	6	1	13	12.0	2.4	30.0
1200	1100	1400	7.2	6.6	8.4	85.0	75.0	96.0	52	37	70	4.4	3.2	5.8
300	260	330	6.2	5.4	6.8	93.0	82.0	110.0	7	4	11	2.4	1.5	3.8
8800	7700	10000	23.1	20.2	26.2	80.0	70.0	91.0	190	110	280	2.1	1.3	3.2
3100	2700	3600	29.1	25.4	33.8	79.0	70.0	90.0	690	450	970	22.0	15.0	31.0
25000	*20000*	*30000*	*116.5*	*93.2*	*139.8*	*74.0*	*62.0*	*90.0*	*530*	*310*	*810*	*2.1*	*1.3*	*3.3*
440	380	500	8.1	7.0	9.2	88.0	78.0	100.0	1	0	5	0.2	0.0	1.3
210	190	240	10.3	9.3	11.7	79.0	70.0	90.0	0	0	0	0.0	0.0	2.8
7300	6400	8300	15.9	13.9	18.0	87.0	77.0	99.0	950	640	1300	13.0	8.9	18.0
630	560	720	6.7	6.0	7.7	87.0	77.0	99.0	16	9	25	2.5	1.5	3.9
7900	7400	8400	12.7	11.9	13.5	91.0	86.0	98.0	310	190	450	3.9	2.5	5.8
79490	**68588**	**91132**	**15.7**	**13.5**	**18.0**	**78.0**	**68.0**	**90.4**	**3676**	**2353**	**5240**	**4.6**	**3.4**	**5.7**
450	380	520	14.0	11.9	16.2	95.8	82.9	113.4	0	0	0	0.0	0.0	0.0
6	5	7	7.4	6.2	8.6	111.1	95.9	132.1	0	0	0	0.0	0.0	0.0
2300	*1900*	*2700*	*74.4*	*61.4*	*87.3*	*61.3*	*52.2*	*74.2*	*31*	*17*	*49*	*1.4*	*0.8*	*2.2*
10000	*8300*	*12000*	*108.8*	*90.3*	*130.6*	*63.9*	*53.3*	*77.0*	*140*	*74*	*220*	*1.4*	*0.8*	*2.2*
6800	*5500*	*8200*	*70.9*	*57.3*	*85.5*	*73.6*	*61.0*	*91.0*	*250*	*200*	*310*	*3.6*	*3.1*	*4.2*
1900	1600	2200	50.5	42.6	58.5	69.5	60.0	82.6	0	0	0	0.0	0.0	0.0
940	830	1100	21.3	18.8	25.0	73.2	62.5	82.9	6	3	11	0.7	0.3	1.2
4600	*4100*	*5200*	*105.7*	*94.2*	*119.5*	*101.6*	*89.9*	*114.0*	*69*	*58*	*80*	*1.3*	*1.0*	*1.4*
370	320	420	5.0	4.3	5.7	91.9	81.0	106.3	18	16	20	3.8	3.6	4.0
24000	*20000*	*28000*	*149.8*	*124.8*	*174.7*	*82.1*	*70.4*	*98.5*	*330*	*270*	*400*	*1.4*	*1.3*	*1.6*
8500	*7000*	*10000*	*159.3*	*131.2*	*187.5*	*66.5*	*56.5*	*80.7*	*240*	*190*	*290*	*2.8*	*2.4*	*3.2*
430	370	500	20.9	18.0	24.3	89.3	76.8	103.8	0	0	0	0.0	0.0	0.0
6500	*5300*	*7800*	*181.9*	*148.3*	*218.3*	*63.4*	*52.8*	*77.8*	*380*	*310*	*470*	*5.9*	*5.3*	*6.6*
0	0	0	-	-	-	-	-	-	0	0	0	-	-	-
120	100	140	19.0	15.8	22.2	91.7	78.6	110.0	1	0	7	1.2	0.0	6.5
150000	*130000*	*180000*	*104.9*	*90.9*	*125.9*	*79.1*	*65.9*	*91.3*	*8100*	*6800*	*9400*	*5.3*	*5.2*	*5.4*
0	0	0	-	-	-	-	-	-	0	0	0	-	-	-
1800	1600	2100	18.3	16.2	21.3	129.2	110.8	145.4	29	15	46	1.6	0.9	2.5
580	510	660	7.6	6.7	8.6	55.7	48.9	63.3	36	22	53	6.1	3.8	9.1
14000	*12000*	*17000*	*203.5*	*174.5*	*247.1*	*45.0*	*37.0*	*52.5*	*370*	*280*	*470*	*2.5*	*2.0*	*3.0*
21000	*17000*	*25000*	*28.9*	*23.4*	*34.4*	*75.6*	*63.5*	*93.4*	*54*	*27*	*90*	*0.3*	*0.1*	*0.4*
3300	*2700*	*4000*	*65.5*	*53.6*	*79.3*	*97.9*	*80.8*	*119.6*	*0*	*0*	*0*	-	-	-
46000	*38000*	*55000*	*101.2*	*83.6*	*121.0*	*73.6*	*61.6*	*89.1*	*6000*	*5000*	*7100*	*13.0*	*13.0*	*13.0*
35000	*29000*	*42000*	*127.5*	*105.7*	*153.0*	*48.2*	*40.2*	*58.2*	*710*	*560*	*870*	*2.1*	*1.9*	*2.3*
338596	**286515**	**404547**	**86.6**	**73.3**	**103.5**	**73.1**	**61.2**	**86.4**	**16765**	**13842**	**19886**	**5.0**	**4.8**	**4.9**
418086	**355103**	**495679**	**46.6**	**39.6**	**55.3**	**74.1**	**62.5**	**87.2**	**20441**	**16195**	**25125**	**4.9**	**4.6**	**5.1**
363520	***306470***	***434470***	***93.8***	***79.1***	***112.1***	***73.0***	***61.1***	***86.6***	***17340***	***14195***	***20740***	***4.8***	***4.6***	***4.8***

Table 3: Tuberculosis cases, notification rates per 100 000 population and mean annual change in rates, European Region, 2006–2010

Country	Trends in TB notification rate, 2006–2010[a]	2006		2007		2008		2009		2010		Mean annual % change in rate, 2006–2010
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	
EU/EEA												
Austria		906	11.0	874	10.6	817	9.8	698	8.4	688	8.2	-6.8%
Belgium		1117	10.6	1020	9.6	990	9.3	994	9.2	1115	10.3	-0.5%
Bulgaria		*3232*	*41.9*	*3038*	*39.6*	*3150*	*41.2*	*2910*	*38.3*	*2649*	*35.0*	*-4.2%*
Cyprus		37	4.8	42	5.4	50	6.3	55	6.9	61	7.6	12.0%
Czech Republic		951	9.3	846	8.2	864	8.3	695	6.6	678	6.5	-8.3%
Denmark[b]		387	7.1	391	7.2	376	6.9	337	6.1	359	6.5	-2.1%
Estonia		*460*	*34.2*	*491*	*36.6*	*444*	*33.1*	*411*	*30.7*	*329*	*24.5*	*-7.5%*
Finland		297	5.7	348	6.6	344	6.5	417	7.8	327	6.1	3.4%
France		5323	8.4	5574	8.8	5758	9.0	5276	8.2	5116	7.9	-1.4%
Germany		5378	6.5	5000	6.1	4519	5.5	4419	5.4	4330	5.3	-5.0%
Greece		681	6.1	645	5.8	670	6.0	594	5.3	489	4.3	-8.0%
Hungary		1859	18.4	1685	16.7	1619	16.1	1407	14.0	1741	17.4	-0.5%
Iceland		13	4.3	14	4.6	6	1.9	9	2.8	22	6.9	35.2%
Ireland		463	11.0	480	11.1	468	10.6	479	10.8	427	9.6	-3.3%
Italy		4503	7.7	4525	7.7	4,418	7.4	4244	7.1	3249	5.4	-7.9%
Latvia		*1328*	*57.9*	*1255*	*55.0*	*1070*	*47.1*	*978*	*43.2*	*934*	*41.5*	*-7.9%*
Lithuania		*2559*	*75.2*	*2408*	*71.1*	*2250*	*66.8*	*2081*	*62.1*	*1938*	*58.2*	*-6.2%*
Luxembourg		33	7.0	39	8.2	28	5.8	27	5.5	29	5.8	-3.2%
Malta		30	7.4	38	9.3	53	12.9	44	10.6	32	7.7	4.8%
Netherlands		1031	6.3	998	6.1	1015	6.2	1157	7.0	1073	6.5	0.9%
Norway		290	6.2	302	6.5	313	6.6	358	7.5	339	7.0	3.0%
Poland		8587	22.5	8614	22.6	8080	21.2	8236	21.6	7509	19.7	-3.2%
Portugal		3456	32.7	3139	29.6	3002	28.3	2871	27.0	2626	24.7	-6.8%
Romania		*26600*	*123.1*	*24837*	*115.2*	*24680*	*114.6*	*23164*	*107.7*	*21078*	*98.2*	*-5.4%*
Slovakia		730	13.5	682	12.6	633	11.7	506	9.3	439	8.1	-11.9%
Slovenia		215	10.7	218	10.8	213	10.6	188	9.3	172	8.4	-5.8%
Spain		8029	18.3	7,768	17.5	8,216	18.1	7592	16.6	7089	15.4	-4.1%
Sweden		497	5.5	482	5.3	546	5.9	617	6.7	675	7.2	7.3%
United Kingdom		8363	13.8	8329	13.7	8606	14.1	8917	14.5	8483	13.7	-0.2%
Subtotal EU/EEA		**87 355**	**17.5**	**84 082**	**16.8**	**83 198**	**16.5**	**79 681**	**15.8**	**73 996**	**14.6**	**-4.4%**

'European Region' comprises the 53 countries of the WHO European Region
Note: For TB cases and case rates by country and year for the period 1995-2006 see: http://ecdc.europa.eu/en/healthtopics/Tuberculosis/epidemiological_data/Pages/tuberculosis_surveillance_Europe.aspx
WHO European Region 18 TB High Priority Countries presented in italics.
[a] EU Epidemiological monitoring framework. Indicator 1
[b] Excluding Greenland (116 cases in 2010, see footnote in Commentary Chapter 1.1).

Country	Trends in TB notification rate, 2006–2010[a]	2006		2007		2008		2009		2010		Mean annual % change in rate, 2006–2010
		N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	
Non-EU/EEA												
Albania		502	15.9	447	14.1	434	13.6	447	14.0	445	13.9	-3.2%
Andorra		13	16.3	6	7.4	4	4.8	9	10.8	7	8.2	2.4%
Armenia		*2 155*	*70.2*	*2 129*	*69.3*	*2 125*	*69.0*	*2 006*	*65.0*	*1 780*	*57.6*	*-4.7%*
Azerbaijan		*7 498*	*86.2*	*7 347*	*83.3*	*10 078*	*112.7*	*10 417*	*114.9*	*8 394*	*91.4*	*3.4%*
Belarus		*6 065*	*62.0*	*5 756*	*59.2*	*5 483*	*56.6*	*5 511*	*57.2*	*5 554*	*57.9*	*-1.7%*
Bosnia and Herzegovina		1 800	47.6	2 400	63.5	1 736	46.0	1 772	47.0	1 390	37.0	-3.3%
Croatia		1 135	25.6	982	22.2	980	22.2	855	19.4	695	15.8	-11.1%
Georgia		*6 311*	*142.0*	*5 912*	*133.9*	*5 836*	*132.8*	*5 978*	*136.7*	*5 796*	*133.2*	*-1.6%*
Israel		340	5.0	397	5.7	322	4.5	347	4.8	343	4.6	-1.2%
Kazakhstan		*38 556*	*251.8*	*37 658*	*243.3*	*28 913*	*184.7*	*30 578*	*193.0*	*28 550*	*178.1*	*-7.7%*
Kyrgyzstan		*6 656*	*130.9*	*6 707*	*130.5*	*7 127*	*136.9*	*6 358*	*120.6*	*6 295*	*118.0*	*-2.4%*
Macedonia, the former Yugoslav Republic of		627	30.7	563	27.5	483	23.5	473	23.0	420	20.4	-9.6%
Moldova		*6 118*	*164.7*	*6 367*	*173.4*	*5 838*	*160.6*	*5 591*	*155.2*	*5 447*	*152.5*	*-1.8%*
Monaco		-		-		-		-		1	2.8	-
Montenegro		171	27.3	159	25.3	133	21.1	120	19.0	114	18.1	-9.7%
Russia		*152 265*	*106.1*	*214 924*	*150.0*	*214 905*	*150.1*	*156 222*	*109.2*	*162 553*	*113.7*	*4.6%*
San Marino		-		-		-		-		-		-
Serbia		3 272	27.4	2 981	24.9	2 813	23.5	2 595	21.6	2 385	19.8	-7.8%
Serbia excluding UN Administered Province of Kosovo[c]		1 248	12.7	1 020	10.4	1 091	11.1	970	9.8	1 501	15.2	8.0%
UN Administered Province of Kosovo[c]		2 024	96.4	1 961	92.2	1 722	80.0	1 625	74.5	884	40.1	-17.7%
Switzerland		518	6.9	453	6.0	516	6.8	554	7.3	549	7.2	0.9%
Tajikistan		*6 671*	*102.2*	*8 081*	*122.4*	*7 996*	*119.5*	*7 482*	*110.3*	*7 641*	*111.1*	*2.6%*
Turkey		*20 526*	*29.7*	*19 694*	*28.1*	*18 452*	*26.0*	*17 402*	*24.2*	*16 551*	*22.7*	*-6.5%*
Turkmenistan		*3 369*	*70.2*	*3 698*	*76.1*	*3 909*	*79.5*	*3 157*	*63.4*	*3 230*	*64.1*	*-1.6%*
Ukraine		*41 265*	*88.6*	*40 643*	*87.8*	*37 832*	*82.3*	*38 901*	*85.1*	*36 409*	*80.1*	*-2.4%*
Uzbekistan		*25 310*	*96.6*	*23 390*	*88.3*	*21 194*	*79.0*	*21 453*	*79.1*	*20 330*	*74.1*	*-6.3%*
Subtotal non-EU/EEA		**331 143**	**85.5**	**390 694**	**100.6**	**377 109**	**96.7**	**318 228**	**81.3**	**314 879**	**80.1**	**-0.9%**
Total European Region		**418 498**	**47.3**	**474 801**	**53.4**	**460 307**	**51.6**	**397 909**	**44.4**	**388 875**	**43.2**	**-1.7%**
Subtotal 18 HPC		***356 944***	***93.2***	***414 335***	***107.9***	***401 282***	***104.2***	***340 600***	***88.1***	***335 458***	***86.5***	***-1.2%***

[c] In accordance with Security Council Resolution 1244(1999)

Table 4: New TB cases and relapses, notification rates per 100 000 population, European Region, 2001–2010[a]

Country	2001		2002		2003		2004		2005	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
EU/EEA										
Austria	986	12.3	986	12.2	911	11.2	1,014	12.5	933	11.4
Belgium	977	9.5	952	9.2	695	6.7	860	8.3	851	8.1
Bulgaria	*3436*	*42.2*	*2962*	*37.5*	*2952*	*37.6*	*2923*	*37.5*	*3101*	*40.0*
Cyprus	-	-	19	2.7	34	4.8	28	3.8	33	4.4
Czech Republic	1291	12.6	1156	11.3	1110	10.9	1027	10.1	886	8.7
Denmark[b]	475	8.9	386	7.2	368	6.8	355	6.6	1	0.0
Estonia	*677*	*49.5*	*621*	*45.6*	*559*	*41.2*	*540*	*40.0*	*480*	*35.6*
Finland	501	9.7	476	9.2	412	7.9	329	6.3	354	6.8
France	4268	7.0	4314	7.0	4292	6.9	4523	7.3	4443	7.1
Germany	4874	5.9	4956	6.0	4921	6.0	5108	6.2	4818	5.8
Greece	503	4.6	281	2.6	552	5.0	600	5.4	583	5.3
Hungary	2717	26.6	2505	24.6	2297	22.6	2087	20.6	1721	17.0
Iceland	12	4.2	8	2.8	5	1.7	12	4.1	10	3.4
Ireland	248	6.5	306	7.8	288	7.3	304	7.5	311	7.6
Italy	3553	6.2	2846	5.0	3556	6.2	3130	5.4	3005	5.1
Latvia	*1986*	*84.0*	*1803*	*76.9*	*1686*	*72.3*	*1571*	*67.7*	*1404*	*60.9*
Lithuania	*2225*	*63.8*	*2097*	*60.3*	*2553*	*73.7*	*2026*	*58.8*	*2371*	*69.2*
Luxembourg	31	7.1	31	7.0	53	11.8	31	6.8	36	7.8
Malta	15	3.8	24	6.1	6	1.5	19	4.8	24	6.0
Netherlands	1396	8.7	1188	7.4	1095	6.8	1128	6.9	1071	6.6
Norway	245	5.4	207	4.6	246	5.4	240	5.2	238	5.2
Poland	9429	24.6	9195	24.0	8890	23.3	8337	21.8	8586	22.5
Portugal	4054	39.5	4170	40.4	3870	37.2	3588	34.3	3206	30.4
Romania	*28750*	*128.2*	*30065*	*137.7*	*27741*	*127.4*	*27652*	*127.4*	*25916*	*119.7*
Slovakia	989	18.4	963	17.9	893	16.6	647	12.0	685	12.7
Slovenia	361	18.1	338	17.0	276	13.8	252	12.6	271	13.6
Spain	4410	10.9	5229	12.8	4594	11.0	5516	13.0	6185	14.4
Sweden	394	4.4	370	4.2	384	4.3	429	4.8	531	5.9
United Kingdom	5114	8.7	5290	8.9	5135	8.6	5308	8.9	6015	10.0
Subtotal EU/EEA	**83917**	**17.2**	**83744**	**17.1**	**80374**	**16.4**	**79584**	**16.1**	**78069**	**15.7**
Non-EU/EEA										
Albania	555	18.0	594	19.2	543	17.5	547	17.5	506	16.1
Andorra	10	15.1	5	7.2	10	13.8	7	9.3	10	12.8
Armenia	*1389*	*45.3*	*1433*	*46.8*	*1538*	*50.3*	*1660*	*54.2*	*2206*	*72.0*
Azerbaijan	*4898*	*59.8*	*5142*	*62.1*	*3840*	*45.8*	*5404*	*63.7*	*6034*	*70.3*
Belarus	*5505*	*55.0*	*5139*	*51.6*	*5106*	*51.5*	*5443*	*55.1*	*5308*	*54.0*
Bosnia and Herzegovina	2469	65.9	1691	44.8	1740	46.0	2353	62.2	2111	55.8
Croatia	1376	30.7	1443	32.3	1356	30.4	1170	26.3	1050	23.6
Georgia	*4006*	*85.5*	*4490*	*97.1*	*4212*	*92.2*	*4011*	*88.7*	*4501*	*100.5*
Israel	511	8.3	466	7.5	472	7.4	456	7.0	371	5.6
Kazakhstan	*26224*	*176.0*	*27546*	*184.9*	*27069*	*181.0*	*26349*	*175.0*	*25512*	*168.2*
Kyrgyzstan	*6654*	*133.4*	*6613*	*132.2*	*1643*	*32.8*	*6104*	*121.6*	*6329*	*125.5*
Macedonia, the former Yugoslav Republic of	648	32.1	686	33.9	653	32.2	644	31.7	598	29.3
Moldova	*3608*	*89.3*	*1146*	*28.9*	*1214*	*31.2*	*4806*	*125.6*	*5141*	*136.5*
Monaco	-	0.0	0	0.0	-	-	-	-	-	-
Montenegro	-	-	-	-	-	-	-	-	156	24.9
Russia	*132477*	*90.6*	*128873*	*88.6*	*124041*	*85.6*	*121426*	*84.1*	*127930*	*88.9*
San Marino	-	-	1	3.5	1	3.4	0	0.0	0	0.0
Serbia	-	-	-	-	-	-	-	-	3208	26.9
Serbia excluding UN Administered Province of Kosovo[c]				-	-	-	-	-	2106	21.4
UN Administered Province of Kosovo[c]				-	-	-	-	-	1102	53.2
Switzerland	392	5.4	434	6.0	402	5.5	407	5.5	383	5.2
Tajikistan	*3508*	*56.3*	*687*	*10.9*	*0*	*0.0*	*4529*	*70.9*	*5460*	*84.6*
Turkey	*17263*	*26.7*	*18043*	*27.6*	*17923*	*27.0*	*17543*	*26.1*	*19744*	*29.0*
Turkmenistan	*3948*	*86.7*	*3671*	*79.8*	*3771*	*81.1*	*3382*	*72.0*	*3191*	*67.2*
Ukraine	*36784*	*75.9*	*40175*	*83.6*	*37043*	*77.8*	*38403*	*81.2*	*39608*	*84.4*
Uzbekistan	*17391*	*69.4*	*20588*	*81.5*	*20700*	*81.2*	*20289*	*78.9*	*21513*	*82.9*
Subtotal non-EU/EEA	**269616**	**70.5**	**268866**	**70.3**	**253277**	**66.2**	**264933**	**69.1**	**280870**	**70.6**
Total European Region	**353533**	**40.6**	**352610**	**40.4**	**333651**	**38.2**	**344517**	**39.3**	**358939**	**40.1**
Subtotal 18 HPC	***300729***	***78.6***	***301094***	***78.8***	***283591***	***74.3***	***294061***	***77.0***	***305749***	***79.9***

'European Region' comprises the 53 countries of the WHO European Region.
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.
[a] For countries that could not provide previous treatment data, only data for new cases were used.
[b] Excluding Greenland (114 cases in 2010).
[c] In accordance with Security Council Resolution 1244(1999)

2006		2007		2008		2009		2010		Sex ratio (M:F)
N	Rate	N	Rate	N	Rate	N	Rate	N	Rate	
852	10.3	811	9.8	737	8.9	439	5.3	358	4.3	1.5
825	7.8	819	7.7	787	7.4	787	7.3	814	7.5	1.9
3011	*39.0*	*2821*	*36.7*	*2945*	*38.5*	*2657*	*34.9*	*2413*	*31.9*	*1.9*
35	4.6	41	5.3	18	2.3	43	5.4	33	4.1	1.3
872	8.5	770	7.5	806	7.8	633	6.0	627	6.0	1.8
350	6.4	355	6.5	327	6.0	295	5.4	313	5.7	1.4
426	*31.7*	*457*	*34.0*	*400*	*29.8*	*360*	*26.9*	*286*	*21.3*	*2.7*
281	5.3	333	6.3	328	6.2	403	7.6	312	5.8	1.5
4193	6.6	3871	6.1	3328	5.2	2873	4.5	2752	4.3	1.5
4467	5.4	4183	5.1	3766	4.6	3733	4.6	3526	4.3	1.6
567	5.1	535	4.8	540	4.8	470	4.2	356	3.1	2.5
1627	16.1	1467	14.6	1433	14.3	1265	12.6	1543	15.4	1.8
13	4.3	12	3.9	5	1.6	8	2.5	22	6.9	0.6
314	7.5	350	8.1	360	8.2	364	8.2	319	7.1	1.6
3295	5.6	3378	5.7	3409	5.7	2540	4.2	1693	2.8	1.4
1285	*56.0*	*1226*	*53.7*	*1048*	*46.1*	*948*	*41.9*	*915*	*40.7*	*2.0*
2365	*69.5*	*2232*	*65.9*	*2097*	*62.3*	*1898*	*56.7*	*1754*	*52.7*	*2.5*
33	7.0	-	-	-	-	-	-	24	4.8	1.6
30	7.4	37	9.1	48	11.7	41	9.9	20	4.8	2.2
980	6.0	947	5.8	962	5.9	1091	6.6	1031	6.2	1.3
223	4.8	224	4.8	237	5.0	275	5.7	274	5.6	1.2
7973	20.9	8033	21.1	7419	19.5	7646	20.0	7009	18.4	2.2
3253	30.8	2962	27.9	2840	26.7	2722	25.6	2497	23.5	2.0
23774	*110.0*	*22128*	*102.6*	*21646*	*100.5*	*20643*	*96.0*	*18379*	*85.6*	*2.3*
657	12.2	610	11.3	562	10.4	433	8.0	389	7.2	2.0
208	10.4	214	10.6	208	10.3	187	9.2	169	8.3	1.7
6101	13.9	6154	13.8	6770	15.0	6687	14.6	6377	13.9	1.7
473	5.2	447	4.9	452	4.9	508	5.5	552	5.9	1.2
6270	10.4	5,987	9.9	6505	10.6	7058	11.5	7219	11.6	1.3
74753	**15.0**	**71404**	**14.3**	**69983**	**13.9**	**67007**	**13.3**	**61976**	**12.2**	**1.8**
469	14.9	438	13.8	427	13.4	435	13.6	431	13.5	2.3
12	15.0	5	6.1	4	4.8	8	9.6	7	8.2	1.3
1767	*57.6*	*1682*	*54.7*	*1655*	*53.7*	*1560*	*50.6*	*1410*	*45.6*	*2.5*
5705	*65.6*	*5521*	*62.6*	*6417*	*71.7*	*7301*	*80.5*	*6390*	*69.5*	*2.8*
5142	*52.6*	*5351*	*55.0*	*5126*	*53.0*	*5250*	*54.5*	*5003*	*52.1*	*2.3*
1778	47.0	2373	62.8	1713	45.4	1725	45.8	1321	35.1	1.3
1029	23.2	951	21.5	980	22.2	832	18.9	688	15.6	1.7
4554	*102.5*	*4310*	*97.6*	*4412*	*100.4*	*4732*	*108.2*	*4674*	*107.4*	*2.6*
340	5.0	396	5.7	322	4.5	347	4.8	340	4.6	2.0
23796	*155.4*	*24752*	*159.9*	*23140*	*147.8*	*20508*	*129.5*	*19703*	*122.9*	*1.2*
6174	*121.4*	*6098*	*118.7*	*6628*	*127.4*	*5765*	*109.4*	*5652*	*106.0*	*1.3*
561	27.5	526	25.7	450	21.9	450	21.9	384	18.6	1.5
4990	*134.3*	*4857*	*132.3*	*4442*	*122.2*	*4347*	*120.7*	*4122*	*115.4*	*2.4*
-	-	-	-	-	-	-	-	1	2.8	0.0
167	26.6	147	23.4	131	20.8	113	17.9	110	17.4	1.2
124689	*86.9*	*127338*	*88.9*	*128263*	*89.6*	*126227*	*88.2*	*118641*	*83.0*	*2.3*
-	-	-	-	-	-	-	-	-	-	-
3146	26.3	2891	24.1	2714	22.6	2526	21.0	2326	19.3	1.3
2024	20.5	1961	19.9	1722	17.5	1625	16.5	1442	14.6	1.4
1122	53.4	930	43.7	992	46.1	901	41.3	884	40.1	1.0
339	4.5	314	4.2	319	4.2	333	4.4	323	4.2	1.1
5362	*82.2*	*6297*	*95.3*	*6396*	*95.6*	*6125*	*90.3*	*6297*	*91.5*	*1.3*
19629	*28.4*	*18878*	*27.0*	*17600*	*24.8*	*16757*	*23.3*	*15879*	*21.8*	*1.4*
3223	*67.1*	*3428*	*70.6*	*3757*	*76.4*	*3157*	*63.4*	*3230*	*64.1*	*1.8*
41265	*88.6*	*37517*	*81.1*	*37832*	*82.3*	*36075*	*78.9*	*33857*	*74.5*	*2.4*
23900	*91.2*	*19779*	*74.6*	*17040*	*63.6*	*17540*	*64.7*	*16883*	*61.5*	*1.4*
278037	**69.7**	**273849**	**68.4**	**269768**	**67.1**	**262113**	**65.0**	**247672**	**61.1**	**1.9**
352790	**39.3**	**345253**	**38.3**	**339751**	**37.6**	**329120**	**36.3**	**309648**	**34.0**	**1.9**
301057	***78.6***	***294672***	***76.7***	***290844***	***75.5***	***281850***	***72.9***	***265488***	***68.5***	***1.9***

Table 5: Tuberculosis cases by history of previous TB treatment[a], European Region, 2010

Country	New		Previously treated total		Previous treatment completed		Previous treatment failed		Previous treatment defaulted		Other retreatment		Unknown previous TB history	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA														
Austria	358	(52.0)	29	(4.2)	0	(0.0)	0	(0.0)	0	(0.0)	29	(100.0)	301	(43.8)
Belgium[b]	814	(73.0)	87	(7.8)	0	(0.0)	0	(0.0)	0	(0.0)	87	(100.0)	214	(19.2)
Bulgaria	*2301*	*(86.9)*	*348*	*(13.1)*	*250*	*(71.8)*	*45*	*(12.9)*	*53*	*(15.2)*	*0*	*(0.0)*	*0*	*(0.0)*
Cyprus	33	(54.1)	0	(0.0)	0	-	0	-	0	-	0	-	28	(45.9)
Czech Republic	627	(92.5)	51	(7.5)	0	(0.0)	0	(0.0)	0	(0.0)	51	(100.0)	0	(0.0)
Denmark[b]	313	(87.2)	46	(12.8)	0	(0.0)	0	(0.0)	0	(0.0)	46	(100.0)	0	(0.0)
Estonia	*250*	*(76.0)*	*79*	*(24.0)*	*52*	*(65.8)*	*11*	*(13.9)*	*16*	*(20.3)*	*0*	*(0.0)*	*0*	*(0.0)*
Finland	312	(95.4)	15	(4.6)	0	(0.0)	0	(0.0)	0	(0.0)	15	(100.0)	0	(0.0)
France	2752	(53.8)	315	(6.2)	0	(0.0)	0	(0.0)	0	(0.0)	315	(100.0)	2049	(40.1)
Germany	3428	(79.2)	367	(8.5)	188	(51.2)	16	(4.4)	33	(9.0)	130	(35.4)	535	(12.4)
Greece	356	(72.8)	44	(9.0)	0	(0.0)	0	(0.0)	2	(4.5)	42	(95.5)	89	(18.2)
Hungary	1487	(85.4)	254	(14.6)	167	(65.7)	0	(0.0)	63	(24.8)	24	(9.4)	0	(0.0)
Iceland	22	(100.0)	0	(0.0)	0	-	0	-	0	-	0	-	0	(0.0)
Ireland[b]	319	(74.7)	31	(7.3)	0	(0.0)	0	(0.0)	0	(0.0)	31	(100.0)	77	(18.0)
Italy	1693	(52.1)	74	(2.3)	0	(0.0)	0	(0.0)	0	(0.0)	74	(100.0)	1482	(45.6)
Latvia	*825*	*(88.3)*	*109*	*(11.7)*	*92*	*(84.4)*	*3*	*(2.8)*	*14*	*(12.8)*	*0*	*(0.0)*	*0*	*(0.0)*
Lithuania	*1573*	*(81.2)*	*364*	*(18.8)*	*181*	*(49.7)*	*54*	*(14.8)*	*129*	*(35.4)*	*0*	*(0.0)*	*1*	*(0.1)*
Luxembourg	24	(82.8)	0	(0.0)	0	-	0	-	0	-	0	-	5	(17.2)
Malta	20	(62.5)	3	(9.4)	0	(0.0)	0	(0.0)	0	(0.0)	3	(100.0)	9	(28.1)
Netherlands	1013	(94.4)	43	(4.0)	25	(58.1)	0	(0.0)	14	(32.6)	4	(9.3)	17	(1.6)
Norway[b]	274	(80.8)	42	(12.4)	0	(0.0)	0	(0.0)	0	(0.0)	42	(100.0)	23	(6.8)
Poland	6610	(88.0)	899	(12.0)	619	(68.9)	0	(0.0)	0	(0.0)	280	(31.1)	0	(0.0)
Portugal	2398	(91.3)	228	(8.7)	156	(68.4)	0	(0.0)	31	(13.6)	41	(18.0)	0	(0.0)
Romania	*15963*	*(75.7)*	*5,115*	*(24.3)*	*3359*	*(65.7)*	*930*	*(18.2)*	*826*	*(16.1)*	*0*	*(0.0)*	*0*	*(0.0)*
Slovakia	361	(82.2)	55	(12.5)	48	(87.3)	0	(0.0)	0	(0.0)	7	(12.7)	23	(5.2)
Slovenia	161	(93.6)	11	(6.4)	10	(90.9)	0	(0.0)	1	(9.1)	0	(0.0)	0	(0.0)
Spain	6377	(90.0)	324	(4.6)	0	(0.0)	0	(0.0)	0	(0.0)	324	(100.0)	388	(5.5)
Sweden	552	(81.8)	52	(7.7)	0	(0.0)	0	(0.0)	0	(0.0)	52	(100.0)	71	(10.5)
United Kingdom[b]	7219	(85.1)	576	(6.8)	0	(0.0)	0	(0.0)	0	(0.0)	576	(100.0)	688	(8.1)
Subtotal EU/EEA	**58435**	**(79.0)**	**9561**	**(12.9)**	**5147**	**(53.8)**	**1059**	**(11.1)**	**1182**	**(12.4)**	**2173**	**(22.7)**	**6000**	**(8.1)**
Non-EU/EEA														
Albania	415	(93.3)	25	(5.6)	16	(64.0)	3	(12.0)	1	(4.0)	5	(20.0)	5	(1.1)
Andorra	7	(100.0)	0	(0.0)	0	-	0	-	0	-	0	-	0	(0.0)
Armenia	*1329*	*(74.7)*	*451*	*(25.3)*	*81*	*(18.0)*	*12*	*(2.7)*	*14*	*(3.1)*	*344*	*(76.3)*	*0*	*(0.0)*
Azerbaijan	*5237*	*(62.4)*	*1997*	*(23.8)*	*1153*	*(57.7)*	*277*	*(13.9)*	*412*	*(20.6)*	*155*	*(7.8)*	*1160*	*(13.8)*
Belarus	*4345*	*(78.2)*	*1114*	*(20.1)*	*658*	*(59.1)*	*241*	*(21.6)*	*65*	*(5.8)*	*150*	*(13.5)*	*95*	*(1.7)*
Bosnia and Herzegovina	1289	(92.7)	101	(7.3)	32	(31.7)	0	(0.0)	0	(0.0)	69	(68.3)	0	(0.0)
Croatia	652	(93.8)	43	(6.2)	36	(83.7)	0	(0.0)	0	(0.0)	7	(16.3)	0	(0.0)
Georgia	*4383*	*(75.6)*	*1409*	*(24.3)*	*291*	*(20.7)*	*63*	*(4.5)*	*131*	*(9.3)*	*924*	*(65.6)*	*4*	*(0.1)*
Israel	339	(98.8)	4	(1.2)	1	(25.0)	0	(0.0)	1	(25.0)	2	(50.0)	0	(0.0)
Kazakhstan	*15641*	*(54.8)*	*9213*	*(32.3)*	*4062*	*(44.1)*	*606*	*(6.6)*	*721*	*(7.8)*	*3824*	*(41.5)*	*3696*	*(12.9)*
Kyrgyzstan	*5308*	*(84.3)*	*987*	*(15.7)*	*344*	*(34.9)*	*0*	*(0.0)*	*0*	*(0.0)*	*643*	*(65.1)*	*0*	*(0.0)*
Macedonia, the former Yugoslav Republic of	368	(87.6)	52	(12.4)	16	(30.8)	0	(0.0)	0	(0.0)	36	(69.2)	0	(0.0)
Moldova	*3745*	*(68.8)*	*1689*	*(31.0)*	*377*	*(22.3)*	*166*	*(9.8)*	*299*	*(17.7)*	*847*	*(50.1)*	*13*	*(0.2)*
Monaco	1	(100.0)	0	(0.0)	0	-	0	-	0	-	0	-	0	(0.0)
Montenegro	102	(89.5)	12	(10.5)	8	(66.7)	0	(0.0)	4	(33.3)	0	(0.0)	0	(0.0)
Russia	*109904*	*(67.6)*	*45980*	*(28.3)*	*8737*	*(19.0)*	*8197*	*(17.8)*	*2897*	*(6.3)*	*26149*	*(56.9)*	*6669*	*(4.1)*
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	2178	(91.3)	200	(8.4)	148	(74.0)	8	(4.0)	8	(4.0)	36	(18.0)	7	(0.3)
Serbia excluding UN Administered Province of Kosovo[c]	1323	(88.1)	171	(11.4)	119	(69.6)	8	(4.7)	8	(4.7)	36	(21.1)	7	(0.5)
UN Administered Province of Kosovo[c]	855	(96.7)	29	(3.3)	29	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Switzerland	323	(58.8)	41	(7.5)	0	(0.0)	0	(0.0)	0	(0.0)	41	(100.0)	185	(33.7)
Tajikistan	*5959*	*(78.0)*	*985*	*(12.9)*	*338*	*(34.3)*	*220*	*(22.3)*	*70*	*(7.1)*	*357*	*(36.2)*	*697*	*(9.1)*
Turkey	*15183*	*(91.7)*	*1339*	*(8.1)*	*696*	*(52.0)*	*70*	*(5.2)*	*123*	*(9.2)*	*450*	*(33.6)*	*29*	*(0.2)*
Turkmenistan	*3148*	*(97.5)*	*82*	*(2.5)*	*82*	*(100.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*
Ukraine	*31295*	*(86.0)*	*5114*	*(14.0)*	*2562*	*(50.1)*	*0*	*(0.0)*	*0*	*(0.0)*	*2552*	*(49.9)*	*0*	*(0.0)*
Uzbekistan	*15734*	*(77.4)*	*4596*	*(22.6)*	*1149*	*(25.0)*	*281*	*(6.1)*	*57*	*(1.2)*	*3109*	*(67.6)*	*0*	*(0.0)*
Subtotal non-EU/EEA	**226885**	**(72.1)**	**75434**	**(24.0)**	**20787**	**(27.6)**	**10144**	**(13.4)**	**4803**	**(6.4)**	**39700**	**(52.6)**	**12560**	**(4.0)**
Total European Region	**285320**	**(73.4)**	**84995**	**(21.9)**	**25934**	**(30.5)**	**11203**	**(13.2)**	**5985**	**(7.0)**	**41873**	**(49.3)**	**18560**	**(4.8)**
Subtotal 18 HPC	***242123***	***(72.2)***	***80971***	***(24.1)***	***24464***	***(30.2)***	***11176***	***(13.8)***	***5827***	***(7.2)***	***39504***	***(48.8)***	***12364***	***(3.7)***

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
[a] Distribution of cases by previous anti-TB treatment, except where indicated (previous diagnosis).
[b] Distribution by previous diagnosis.
[c] In accordance with Security Council Resolution 1244(1999)

Table 6: Tuberculosis cases by site of disease, European Region, 2010

Country	Pulmonary						Extrapulmonary		No site reported		Total
	Pulmonary only		Pulmonary + extrapulmonary		Total pulmonary						
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	
EU/EEA											
Austria	497	(72.2)	60	(8.7)	557	(81.0)	131	(19.0)	0	(0.0)	688
Belgium	733	(65.7)	74	(6.6)	807	(72.4)	307	(27.5)	1	(0.1)	1115
Bulgaria	*1762*	*(66.5)*	*89*	*(3.4)*	*1851*	*(69.9)*	*798*	*(30.1)*	*0*	*(0.0)*	*2649*
Cyprus	40	(65.6)	0	(0.0)	40	(65.6)	19	(31.1)	2	(3.3)	61
Czech Republic	560	(82.6)	21	(3.1)	581	(85.7)	97	(14.3)	0	(0.0)	678
Denmark	227	(63.2)	24	(6.7)	251	(69.9)	43	(12.0)	65	(18.1)	359
Estonia	*264*	*(80.2)*	*44*	*(13.4)*	*308*	*(93.6)*	*21*	*(6.4)*	*0*	*(0.0)*	*329*
Finland	241	(73.7)	-	-	241	(73.7)	86	(26.3)	0	(0.0)	327
France	3017	(59.0)	702	(13.7)	3719	(72.7)	1361	(26.6)	36	(0.7)	5116
Germany	2879	(66.5)	435	(10.0)	3314	(76.5)	980	(22.6)	36	(0.8)	4330
Greece	361	(73.8)	59	(12.1)	420	(85.9)	69	(14.1)	0	(0.0)	489
Hungary	1642	(94.3)	25	(1.4)	1667	(95.7)	74	(4.3)	0	(0.0)	1741
Iceland	11	(50.0)	7	(31.8)	18	(81.8)	4	(18.2)	0	(0.0)	22
Ireland	251	(58.8)	23	(5.4)	274	(64.2)	150	(35.1)	3	(0.7)	427
Italy	2423	(74.6)	262	(8.1)	2685	(82.6)	564	(17.4)	0	(0.0)	3249
Latvia	*788*	*(84.4)*	*58*	*(6.2)*	*846*	*(90.6)*	*88*	*(9.4)*	*0*	*(0.0)*	*934*
Lithuania	*1713*	*(88.4)*	-	-	*1713*	*(88.4)*	*225*	*(11.6)*	*0*	*(0.0)*	*1938*
Luxembourg	23	(79.3)	-	-	23	(79.3)	6	(20.7)	0	(0.0)	29
Malta	10	(31.3)	9	(28.1)	19	(59.4)	13	(40.6)	0	(0.0)	32
Netherlands	458	(42.7)	128	(11.9)	586	(54.6)	482	(44.9)	5	(0.5)	1073
Norway	153	(45.1)	48	(14.2)	201	(59.3)	138	(40.7)	0	(0.0)	339
Poland	6949	(92.5)	43	(0.6)	6992	(93.1)	517	(6.9)	0	(0.0)	7509
Portugal	1732	(66.0)	149	(5.7)	1881	(71.6)	727	(27.7)	18	(0.7)	2626
Romania	*16708*	*(79.3)*	*1300*	*(6.2)*	*18008*	*(85.4)*	*3070*	*(14.6)*	*0*	*(0.0)*	*21078*
Slovakia	337	(76.8)	35	(8.0)	372	(84.7)	67	(15.3)	0	(0.0)	439
Slovenia	117	(68.0)	25	(14.5)	142	(82.6)	30	(17.4)	0	(0.0)	172
Spain	5238	(73.9)	-	-	5238	(73.9)	1851	(26.1)	0	(0.0)	7089
Sweden	342	(50.7)	77	(11.4)	419	(62.1)	256	(37.9)	0	(0.0)	675
United Kingdom	3606	(42.5)	882	(10.4)	4488	(52.9)	3949	(46.6)	46	(0.5)	8483
Subtotal EU/EEA	**53082**	**(71.7)**	**4579**	**(6.2)**	**57661**	**(77.9)**	**16123**	**(21.8)**	**212**	**(0.3)**	**73996**
Non-EU/EEA											
Albania	-	-	-	-	275	(61.8)	170	(38.2)	0	(0.0)	445
Andorra	-	-	-	-	4	(57.1)	3	(42.9)	0	(0.0)	7
Armenia	-	-	-	-	*1090*	*(61.2)*	*690*	*(38.8)*	*0*	*(0.0)*	*1780*
Azerbaijan	-	-	-	-	*7274*	*(86.7)*	*1120*	*(13.3)*	*0*	*(0.0)*	*8394*
Belarus	-	-	-	-	*5107*	*(92.0)*	*447*	*(8.0)*	*0*	*(0.0)*	*5554*
Bosnia and Herzegovina	-	-	-	-	1067	(76.8)	164	(11.8)	159	(11.4)	1390
Croatia	-	-	-	-	608	(87.5)	87	(12.5)	0	(0.0)	695
Georgia	-	-	-	-	*3748*	*(64.7)*	*2048*	*(35.3)*	*0*	*(0.0)*	*5796*
Israel	-	-	-	-	269	(78.4)	74	(21.6)	0	(0.0)	343
Kazakhstan	-	-	-	-	*22614*	*(79.2)*	*5936*	*(20.8)*	*0*	*(0.0)*	*28550*
Kyrgyzstan	-	-	-	-	*4660*	*(74.0)*	*1635*	*(26.0)*	*0*	*(0.0)*	*6295*
Macedonia, the former Yugoslav Republic of	-	-	-	-	309	(73.6)	111	(26.4)	0	(0.0)	420
Moldova	-	-	-	-	*4934*	*(90.6)*	*513*	*(9.4)*	*0*	*(0.0)*	*5447*
Monaco	-	-	-	-	0	(0.0)	1	(100.0)	0	(0.0)	1
Montenegro	-	-	-	-	100	(87.7)	14	(12.3)	0	(0.0)	114
Russia	-	-	-	-	*145858*	*(89.7)*	*16695*	*(10.3)*	*0*	*(0.0)*	*162553*
San Marino	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	1871	(78.4)	514	(21.6)	0	(0.0)	2385
Serbia excluding UN Administered Province of Kosovo[a]	-	-	-	-	1286	(85.7)	215	(14.3)	0	(0.0)	1501
UN Administered Province of Kosovo[a]	-	-	-	-	585	(66.2)	299	(33.8)	0	(0.0)	884
Switzerland	-	-	-	-	366	(66.7)	183	(33.3)	0	(0.0)	549
Tajikistan	-	-	-	-	*4985*	*(65.2)*	*2656*	*(34.8)*	*0*	*(0.0)*	*7641*
Turkey	-	-	-	-	*10740*	*(64.9)*	*5811*	*(35.1)*	*0*	*(0.0)*	*16551*
Turkmenistan	-	-	-	-	*2483*	*(76.9)*	*473*	*(14.6)*	*274*	*(8.5)*	*3230*
Ukraine	-	-	-	-	*32405*	*(89.0)*	*3639*	*(10.0)*	*365*	*(1.0)*	*36409*
Uzbekistan	-	-	-	-	*13654*	*(67.2)*	*6676*	*(32.8)*	*0*	*(0.0)*	*20330*
Subotal non-EU/EEA	**-**	**-**	**-**	**-**	**264421**	**(84.0)**	**49660**	**(15.8)**	**798**	**(0.3)**	**314879**
Total European Region	**-**	**-**	**-**	**-**	**322082**	**(82.8)**	**65783**	**(16.9)**	**1010**	**(0.3)**	**388875**
Subtotal 18 HPC	**-**	**-**	**-**	**-**	***282278***	***(84.1)***	***52541***	***(15.7)***	***639***	***(0.2)***	***335458***

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
[a] In accordance with Security Council Resolution 1244(1999)

Table 7: New pulmonary tuberculosis cases by laboratory confirmation, European Region, 2010[a]

Country	New pulmonary TB cases									
	N	(%)	Culture positive							
			Smear positive		Smear negative		Smear unknown		Total	
			N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA										
Austria	289	(51.9)	71	(24.6)	69	(23.9)	66	(22.8)	206	(71.3)
Belgium	584	(72.4)	236	(40.4)	231	(39.6)	12	(2.1)	479	(82.0)
Bulgaria	*1554*	*(84.0)*	*758*	*(48.8)*	*187*	*(12.0)*	*1*	*(0.1)*	*946*	*(60.9)*
Cyprus	20	(50.0)	8	(40.0)	6	(30.0)	6	(30.0)	20	(100.0)
Czech Republic	533	(91.7)	193	(36.2)	169	(31.7)	0	(0.0)	362	(67.9)
Denmark	217	(86.5)	114	(52.5)	58	(26.7)	40	(18.4)	212	(97.7)
Estonia	*233*	*(75.6)*	*97*	*(41.6)*	*92*	*(39.5)*	*0*	*(0.0)*	*189*	*(81.1)*
Finland	228	(94.6)	80	(35.1)	93	(40.8)	18	(7.9)	191	(83.8)
France	1975	(53.1)	497	(25.2)	436	(22.1)	45	(2.3)	978	(49.5)
Germany	2623	(79.1)	818	(31.2)	0	(0.0)	1154	(44.0)	1972	(75.2)
Greece	307	(73.1)	178	(58.0)	76	(24.8)	53	(17.3)	307	(100.0)
Hungary	1417	(85.0)	245	(17.3)	225	(15.9)	45	(3.2)	515	(36.3)
Iceland	18	(100.0)	5	(27.8)	2	(11.1)	9	(50.0)	16	(88.9)
Ireland	206	(75.2)	77	(37.4)	29	(14.1)	45	(21.8)	151	(73.3)
Italy	1365	(50.8)	275	(20.1)	108	(7.9)	54	(4.0)	437	(32.0)
Latvia	*739*	*(87.4)*	*327*	*(44.2)*	*269*	*(36.4)*	*0*	*(0.0)*	*596*	*(80.6)*
Lithuania	*1352*	*(78.9)*	*719*	*(53.2)*	*240*	*(17.8)*	*0*	*(0.0)*	*959*	*(70.9)*
Luxembourg	18	(78.3)	0	(0.0)	0	(0.0)	14	(77.8)	14	(77.8)
Malta	10	(52.6)	4	(40.0)	0	(0.0)	1	(10.0)	5	(50.0)
Netherlands	546	(93.2)	168	(30.8)	157	(28.8)	134	(24.5)	459	(84.1)
Norway	159	(79.1)	47	(29.6)	48	(30.2)	44	(27.7)	139	(87.4)
Poland	6109	(87.4)	2428	(39.7)	1458	(23.9)	112	(1.8)	3998	(65.4)
Portugal	1703	(90.5)	744	(43.7)	260	(15.3)	269	(15.8)	1273	(74.8)
Romania	*13064*	*(72.5)*	*6,698*	*(51.3)*	*1884*	*(14.4)*	*3*	*(0.0)*	*8585*	*(65.7)*
Slovakia	302	(81.2)	103	(34.1)	72	(23.8)	2	(0.7)	177	(58.6)
Slovenia	131	(92.3)	64	(48.9)	48	(36.6)	11	(8.4)	123	(93.9)
Spain	4697	(89.7)	1712	(36.4)	1155	(24.6)	102	(2.2)	2969	(63.2)
Sweden	343	(81.9)	117	(34.1)	133	(38.8)	39	(11.4)	289	(84.3)
United Kingdom	3752	(83.6)	1076	(28.7)	674	(18.0)	852	(22.7)	2602	(69.3)
Subtotal EU/EEA	**44494**	**(77.2)**	**17859**	**(40.1)**	**8179**	**(18.4)**	**3131**	**(7.0)**	**29169**	**(65.6)**
Non-EU/EEA										
Albania	250	(90.9)	123	(49.2)	32	(12.8)	0	(0.0)	155	(62.0)
Andorra	4	(100.0)	0	(0.0)	4	(100.0)	0	(0.0)	4	(100.0)
Armenia	*978*	*(89.7)*	*283*	*(28.9)*	*75*	*(7.7)*	*0*	*(0.0)*	*358*	*(36.6)*
Azerbaijan	*4272*	*(58.7)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*
Belarus	*3916*	*(76.7)*	*1269*	*(32.4)*	*915*	*(23.4)*	*0*	*(0.0)*	*2184*	*(55.8)*
Bosnia and Herzegovina	970	(90.9)	441	(45.5)	0	(0.0)	0	(0.0)	441	(45.5)
Croatia	565	(92.9)	183	(32.4)	63	(11.2)	65	(11.5)	311	(55.0)
Georgia	*3228*	*(86.1)*	*1758*	*(54.5)*	*343*	*(10.6)*	*10*	*(0.3)*	*2111*	*(65.4)*
Israel	265	(98.5)	101	(38.1)	103	(38.9)	0	(0.0)	204	(77.0)
Kazakhstan	*13514*	*(59.8)*	*3397*	*(25.1)*	*1595*	*(11.8)*	*84*	*(0.6)*	*5076*	*(37.6)*
Kyrgyzstan	*3673*	*(78.8)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*
Macedonia, the former Yugoslav Republic of	276	(89.3)	94	(34.1)	59	(21.4)	0	(0.0)	153	(55.4)
Moldova	*3340*	*(67.7)*	*884*	*(26.5)*	*431*	*(12.9)*	*16*	*(0.5)*	*1331*	*(39.9)*
Monaco	0	-	0	-	0	-	0	-	0	-
Montenegro	88	(88.0)	39	(44.3)	22	(25.0)	0	(0.0)	61	(69.3)
Russia	*99310*	*(68.1)*	*24069*	*(24.2)*	*14599*	*(14.7)*	*0*	*(0.0)*	*38668*	*(38.9)*
San Marino	-	-	-	-	-	-	-	-	-	-
Serbia	1677	(89.6)	655	(39.1)	266	(15.9)	1	(0.1)	922	(55.0)
Serbia excluding UN Administered Province of Kosovo[b]	1121	(87.2)	655	(58.4)	266	(23.7)	1	(0.1)	922	(82.2)
UN Administered Province of Kosovo[b]	556	(95.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Switzerland	232	(63.4)	78	(33.6)	19	(8.2)	103	(44.4)	200	(86.2)
Tajikistan	*4328*	*(86.8)*	*356*	*(8.2)*	*0*	*(0.0)*	*0*	*(0.0)*	*356*	*(8.2)*
Turkey	*9566*	*(89.1)*	*3834*	*(40.1)*	*1053*	*(11.0)*	*358*	*(3.7)*	*5245*	*(54.8)*
Turkmenistan	*2401*	*(96.7)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*
Ukraine	*27575*	*(85.1)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*
Uzbekistan	*11446*	*(83.8)*	*2700*	*(23.6)*	*272*	*(2.4)*	*0*	*(0.0)*	*2972*	*(26.0)*
Subtotal non-EU/EEA	**191874**	**(72.6)**	**40264**	**(21.0)**	**19851**	**(10.3)**	**637**	**(0.3)**	**60752**	**(31.7)**
Total European Region	**236368**	**(73.4)**	**58123**	**(24.6)**	**28030**	**(11.9)**	**3768**	**(1.6)**	**89921**	**(38.0)**
Subtotal 18 HPC	***204489***	***(72.4)***	***47149***	***(23.1)***	***21955***	***(10.7)***	***472***	***(0.2)***	***69576***	***(34.0)***

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
[a] Data reported to TESSy might differ from numbers reported in other tables.
[b] In accordance with Security Council Resolution 1244(1999)

New pulmonary TB cases								All pulmonary TB cases		All TB cases
Culture negative/not done										
Smear positive		Smear negative		Smear unknown		Total				
N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N
5	(1.7)	61	(21.1)	17	(5.9)	83	(28.7)	557	(81.0)	688
8	(1.4)	84	(14.4)	13	(2.2)	105	(18.0)	807	(72.4)	1115
48	*(3.1)*	*498*	*(32.0)*	*62*	*(4.0)*	*608*	*(39.1)*	*1851*	*(69.9)*	*2649*
0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	40	(65.6)	61
7	(1.3)	164	(30.8)	0	(0.0)	171	(32.1)	581	(85.7)	678
1	(0.5)	1	(0.5)	3	(1.4)	5	(2.3)	251	(69.9)	359
2	*(0.9)*	*31*	*(13.3)*	*11*	*(4.7)*	*44*	*(18.9)*	*308*	*(93.6)*	*329*
2	(0.9)	31	(13.6)	4	(1.8)	37	(16.2)	241	(73.7)	327
463	(23.4)	450	(22.8)	84	(4.3)	997	(50.5)	3719	(72.7)	5116
92	(3.5)	0	(0.0)	559	(21.3)	651	(24.8)	3314	(76.5)	4330
0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	420	(85.9)	489
25	(1.8)	536	(37.8)	341	(24.1)	902	(63.7)	1667	(95.7)	1741
1	(5.6)	0	(0.0)	1	(5.6)	2	(11.1)	18	(81.8)	22
7	(3.4)	19	(9.2)	29	(14.1)	55	(26.7)	274	(64.2)	427
311	(22.8)	264	(19.3)	353	(25.9)	928	(68.0)	2685	(82.6)	3249
12	*(1.6)*	*114*	*(15.4)*	*17*	*(2.3)*	*143*	*(19.4)*	*846*	*(90.6)*	*934*
0	*(0.0)*	*393*	*(29.1)*	*0*	*(0.0)*	*393*	*(29.1)*	*1713*	*(88.4)*	*1938*
0	(0.0)	0	(0.0)	4	(22.2)	4	(22.2)	23	(79.3)	29
0	(0.0)	3	(30.0)	2	(20.0)	5	(50.0)	19	(59.4)	32
8	(1.5)	35	(6.4)	44	(8.1)	87	(15.9)	586	(54.6)	1073
2	(1.3)	2	(1.3)	16	(10.1)	20	(12.6)	201	(59.3)	339
56	(0.9)	1906	(31.2)	149	(2.4)	2111	(34.6)	6992	(93.1)	7509
168	(9.9)	88	(5.2)	174	(10.2)	430	(25.2)	1881	(71.6)	2626
1253	*(9.6)*	*3035*	*(23.2)*	*191*	*(1.5)*	*4479*	*(34.3)*	*18008*	*(85.4)*	*21078*
9	(3.0)	113	(37.4)	3	(1.0)	125	(41.4)	372	(84.7)	439
0	(0.0)	4	(3.1)	4	(3.1)	8	(6.1)	142	(82.6)	172
364	(7.7)	503	(10.7)	861	(18.3)	1728	(36.8)	5238	(73.9)	7089
0	(0.0)	34	(9.9)	20	(5.8)	54	(15.7)	419	(62.1)	675
125	(3.3)	369	(9.8)	656	(17.5)	1150	(30.7)	4488	(52.9)	8483
2969	**(6.7)**	**8738**	**(19.6)**	**3618**	**(8.1)**	**15325**	**(34.4)**	**57661**	**(77.9)**	**73996**
22	(8.8)	68	(27.2)	5	(2.0)	95	(38.0)	275	(61.8)	445
0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	4	(57.1)	7
56	*(5.7)*	*564*	*(57.7)*	*0*	*(0.0)*	*620*	*(63.4)*	*1090*	*(61.2)*	*1780*
1997	*(46.7)*	*2275*	*(53.3)*	*0*	*(0.0)*	*4272*	*(100.0)*	*7274*	*(86.7)*	*8394*
0	*(0.0)*	*1732*	*(44.2)*	*0*	*(0.0)*	*1732*	*(44.2)*	*5107*	*(92.0)*	*5554*
0	(0.0)	529	(54.5)	0	(0.0)	529	(54.5)	1067	(76.8)	1390
0	(0.0)	58	(10.3)	196	(34.7)	254	(45.0)	608	(87.5)	695
382	*(11.8)*	*690*	*(21.4)*	*45*	*(1.4)*	*1117*	*(34.6)*	*3748*	*(64.7)*	*5796*
2	(0.8)	48	(18.1)	11	(4.2)	61	(23.0)	269	(78.4)	343
1372	*(10.2)*	*6996*	*(51.8)*	*70*	*(0.5)*	*8438*	*(62.4)*	*22614*	*(79.2)*	*28550*
1645	*(44.8)*	*2028*	*(55.2)*	*0*	*(0.0)*	*3673*	*(100.0)*	*4660*	*(74.0)*	*6295*
47	(17.0)	62	(22.5)	14	(5.1)	123	(44.6)	309	(73.6)	420
383	*(11.5)*	*1442*	*(43.2)*	*184*	*(5.5)*	*2009*	*(60.1)*	*4934*	*(90.6)*	*5447*
0	-	0	-	0	-	0	-	0	(0.0)	1
0	(0.0)	27	(30.7)	0	(0.0)	27	(30.7)	100	(87.7)	114
7347	*(7.4)*	*51996*	*(52.4)*	*1299*	*(1.3)*	*60642*	*(61.1)*	*145858*	*(89.7)*	*162553*
-	-	-	-	-	-	-	-	-	-	-
322	(19.2)	420	(25.0)	13	(0.8)	755	(45.0)	1871	(78.4)	2385
35	(3.1)	151	(13.5)	13	(1.2)	199	(17.8)	1286	(85.7)	1501
287	(51.6)	269	(48.4)	0	(0.0)	556	(100.0)	585	(66.2)	884
4	(1.7)	1	(0.4)	27	(11.6)	32	(13.8)	366	(66.7)	549
1934	*(44.7)*	*2038*	*(47.1)*	*0*	*(0.0)*	*3972*	*(91.8)*	*4985*	*(65.2)*	*7641*
1541	*(16.1)*	*1407*	*(14.7)*	*1373*	*(14.4)*	*4321*	*(45.2)*	*10740*	*(64.9)*	*16551*
1153	*(48.0)*	*1248*	*(52.0)*	*0*	*(0.0)*	*2401*	*(100.0)*	*2483*	*(76.9)*	*3230*
9976	*(36.2)*	*17599*	*(63.8)*	*0*	*(0.0)*	*27575*	*(100.0)*	*32405*	*(89.0)*	*36409*
2011	*(17.6)*	*6463*	*(56.5)*	*0*	*(0.0)*	*8474*	*(74.0)*	*13654*	*(67.2)*	*20330*
30194	**(15.7)**	**97691**	**(50.9)**	**3237**	**(1.7)**	**131122**	**(68.3)**	**264421**	**(84.0)**	**314879**
33163	**(14.0)**	**106429**	**(45.0)**	**6855**	**(2.9)**	**146447**	**(62.0)**	**322082**	**(82.8)**	**388875**
31112	***(15.2)***	***100549***	***(49.2)***	***3252***	***(1.6)***	***134913***	***(66.0)***	***282278***	***(84.1)***	***335458***

Table 8: New pulmonary sputum smear-positive tuberculosis cases, European Region, 2001–2010

Country	2001			2002			2003			2004			2005		
	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	254	(32.1)	3.2	253	(32.3)	3.1	251	(33.1)	3.1	242	(28.9)	3.0	232	(30.9)	2.8
Belgium	352	(49.4)	3.4	337	(47.1)	3.3	262	(49.7)	2.5	302	(48.0)	2.9	304	(50.3)	2.9
Bulgaria	*897*	*(26.1)*	*11.0*	*1,007*	*(34.0)*	*12.8*	*1254*	*(42.5)*	*16.0*	*1315*	*(45.0)*	*16.9*	*1214*	*(39.1)*	*15.6*
Cyprus	-	-	-	8	(66.7)	1.1	14	(50.0)	2.0	10	(40.0)	1.4	8	(38.1)	1.1
Czech Republic	380	(37.7)	3.7	323	(36.7)	3.2	340	(39.4)	3.3	308	(38.5)	3.0	310	(41.6)	3.0
Denmark	127	(26.7)	2.4	135	(35.0)	2.5	141	(38.3)	2.6	146	(41.1)	2.7	392	(100.0)	7.2
Estonia	*212*	*(44.0)*	*15.5*	*203*	*(45.0)*	*14.9*	*201*	*(45.7)*	*14.8*	*203*	*(47.4)*	*15.0*	*164*	*(43.0)*	*12.2*
Finland	154	(48.3)	3.0	137	(45.8)	2.6	146	(50.2)	2.8	124	(54.4)	2.4	130	(51.0)	2.5
France	1825	(42.8)	3.0	1759	(40.8)	2.9	1724	(40.2)	2.8	1682	(37.6)	2.7	1719	(39.5)	2.7
Germany	1360	(37.1)	1.7	1339	(35.5)	1.6	1239	(33.5)	1.5	1341	(35.0)	1.6	1212	(33.8)	1.5
Greece	213	(42.3)	1.9	99	(35.5)	0.9	219	(39.7)	2.0	152	(25.3)	1.4	182	(31.2)	1.6
Hungary	579	(24.3)	5.7	549	(25.3)	5.4	522	(26.4)	5.1	561	(30.9)	5.5	412	(27.7)	4.1
Iceland	3	(37.5)	1.1	2	(33.3)	0.7	1	(33.3)	0.3	2	(40.0)	0.7	2	(40.0)	0.7
Ireland	70	(37.6)	1.8	95	(41.7)	2.4	105	(49.8)	2.6	105	(49.1)	2.6	106	(49.1)	2.6
Italy	888	(34.2)	1.6	954	(44.3)	1.7	1215	(46.5)	2.1	850	(38.3)	1.5	1028	(45.3)	1.8
Latvia	*669*	*(38.7)*	*28.3*	*636*	*(41.3)*	*27.1*	*641*	*(43.3)*	*27.5*	*582*	*(49.8)*	*25.1*	*536*	*(49.2)*	*23.2*
Lithuania	*935*	*(42.0)*	*26.8*	*822*	*(39.2)*	*23.7*	*897*	*(49.0)*	*25.9*	*856*	*(52.0)*	*24.8*	*958*	*(54.7)*	*28.0*
Luxembourg	11	(45.8)	2.5	17	(63.0)	3.8	31	(62.0)	6.9	20	(69.0)	4.4	13	(39.4)	2.8
Malta	3	(21.4)	0.8	5	(26.3)	1.3	2	(66.7)	0.5	2	(14.3)	0.5	5	(29.4)	1.2
Netherlands	303	(21.9)	1.9	296	(25.3)	1.8	248	(22.9)	1.5	305	(27.2)	1.9	229	(36.8)	1.4
Norway	53	(30.8)	1.2	29	(24.4)	0.6	36	(25.0)	0.8	42	(27.6)	0.9	45	(31.3)	1.0
Poland	3228	(34.2)	8.4	3006	(32.7)	7.9	2981	(33.5)	7.8	2773	(33.3)	7.3	2822	(38.0)	7.4
Portugal	1815	(65.8)	17.7	1902	(65.2)	18.4	1613	(61.1)	15.5	1534	(60.7)	14.6	1408	(60.3)	13.4
Romania	*11412*	*(51.2)*	*50.9*	*11600*	*(51.0)*	*53.1*	*10605*	*(51.0)*	*48.7*	*10950*	*(53.5)*	*50.4*	*11069*	*(58.9)*	*51.1*
Slovakia	226	(32.3)	4.2	200	(29.5)	3.7	199	(30.6)	3.7	155	(32.6)	2.9	159	(32.0)	3.0
Slovenia	139	(49.3)	7.0	130	(49.6)	6.5	116	(53.5)	5.8	89	(48.6)	4.5	109	(50.0)	5.5
Spain	2237	(51.3)	5.5	2660	(51.6)	6.5	1978	(43.8)	4.7	2031	(42.0)	4.8	2330	(43.1)	5.4
Sweden	105	(26.6)	1.2	109	(29.5)	1.2	109	(28.8)	1.2	120	(28.0)	1.3	133	(25.0)	1.5
United Kingdom	1105	(22.6)	1.9	1037	(21.0)	1.8	1310	(25.6)	2.2	1296	(24.5)	2.2	1336	(22.3)	2.2
Subtotal EU/EEA	**29555**	**(32.9)**	**6.0**	**29649**	**(33.7)**	**6.1**	**28400**	**(33.6)**	**5.8**	**28098**	**(34.4)**	**5.7**	**28567**	**(40.5)**	**5.8**
Non-EU/EEA															
Albania	171	(53.1)	5.6	225	(60.3)	7.3	211	(63.0)	6.8	201	(60.4)	6.4	196	(59.4)	6.2
Andorra	3	(37.5)	4.5	2	(50.0)	2.9	7	(87.5)	9.7	3	(60.0)	4.0	5	(83.3)	6.4
Armenia	*572*	*(48.1)*	*18.7*	*511*	*(42.2)*	*16.7*	*575*	*(49.0)*	*18.8*	*602*	*(48.1)*	*19.7*	*581*	*(35.6)*	*19.0*
Azerbaijan	*927*	*(23.6)*	*11.3*	*1661*	*(39.2)*	*20.1*	*1161*	*(38.3)*	*13.9*	*1472*	*(40.1)*	*17.4*	*1561*	*(38.4)*	*18.2*
Belarus	*2341*	*(100.0)*	*23.4*	-	-	-	*1018*	*(21.5)*	*10.3*	*1109*	*(21.8)*	*11.2*	*1235*	*(25.0)*	*12.6*
Bosnia and Herzegovina	800	(40.0)	21.3	526	(38.5)	13.9	493	(34.1)	13.0	889	(43.5)	23.5	640	(36.7)	16.9
Croatia	421	(34.5)	9.4	437	(36.3)	9.8	438	(36.7)	9.8	416	(40.7)	9.3	372	(39.3)	8.4
Georgia	*1014*	*(36.4)*	*21.6*	*987*	*(31.5)*	*21.3*	*989*	*(35.3)*	*21.6*	*1311*	*(46.7)*	*29.0*	*1509*	*(49.8)*	*33.7*
Israel	206	(48.4)	3.4	192	(54.4)	3.1	189	(52.8)	3.0	151	(43.4)	2.3	142	(45.8)	2.2
Kazakhstan	*9079*	*(41.2)*	*60.9*	*9452*	*(40.2)*	*63.4*	*8665*	*(37.8)*	*57.9*	*7927*	*(35.6)*	*52.7*	*6911*	*(32.3)*	*45.6*
Kyrgyzstan	-	-	-	*1587*	*(41.3)*	*31.7*	*1643*	*(100.0)*	*32.8*	*1761*	*(46.0)*	*35.1*	*1972*	*(47.9)*	*39.1*
Macedonia, the former Yugoslav Republic of	164	(33.7)	8.1	200	(41.5)	9.9	200	(44.4)	9.9	200	(45.5)	9.8	178	(43.0)	8.7
Moldova	*1060*	*(37.9)*	*26.2*	*1146*	*(100.0)*	*28.9*	*1214*	*(100.0)*	*31.2*	*1536*	*(45.7)*	*40.1*	*1696*	*(43.1)*	*45.0*
Monaco	0	-	-	0	-	-	-	-	-	-	-	-	-	-	-
Montenegro	-	-	-	-	-	-	-	-	-	-	-	-	64	(49.2)	10.2
Russia	*26605*	*(21.8)*	*18.2*	*27865*	*(23.5)*	*19.1*	*28868*	*(25.3)*	*19.9*	*30890*	*(27.0)*	*21.4*	*32605*	*(30.5)*	*22.7*
San Marino	-	-	-	0	-	-	0	-	0.0	0	-	0.0	0	-	0.0
Serbia	-	-	-	-	-	-	-	-	-	-	-	-	1105	(25.2)	9.3
Serbia excluding UN Administered Province of Kosovo[a]		-		-	-	-	-	-	-	-	-	-	873	(32.5)	8.9
UN Administered Province of Kosovo[a]		-		-	-	-	-	-	-	-	-	-	232	(28.0)	11.2
Switzerland	116	(29.1)	1.6	123	(27.4)	1.7	107	(26.2)	1.5	119	(30.6)	1.6	108	(30.3)	1.5
Tajikistan	*719*	*(23.5)*	*11.5*	*687*	*(100.0)*	*10.9*	-	-	-	*1058*	*(34.5)*	*16.6*	*1745*	*(44.5)*	*27.0*
Turkey	*4444*	*(100.0)*	*6.9*	-	-	-	*5816*	*(100.0)*	*8.8*	*5870*	*(97.9)*	*8.7*	*7450*	*(55.6)*	*10.9*
Turkmenistan	*1243*	*(38.2)*	*27.3*	*1254*	*(40.1)*	*27.3*	*1197*	*(43.3)*	*25.8*	*1103*	*(42.7)*	*23.5*	*995*	*(39.9)*	*21.0*
Ukraine	-	-	-	-	-	-	*12785*	*(100.0)*	*26.8*	-	-	-	-	-	-
Uzbekistan	*4608*	*(81.4)*	*18.4*	*4783*	*(28.7)*	*18.9*	*4690*	*(26.7)*	*18.4*	*5119*	*(39.2)*	*19.9*	*5695*	*(42.0)*	*21.9*
Subtotal non-EU/EEA	**54493**	**(30.5)**	**16.8**	**51638**	**(28.6)**	**20.0**	**70266**	**(36.1)**	**18.4**	**61737**	**(33.2)**	**19.0**	**66765**	**(35.0)**	**19.7**
Total European Region	**84048**	**(47.1)**	**10.4**	**81287**	**(45.0)**	**10.9**	**98666**	**(50.7)**	**11.3**	**89835**	**(48.3)**	**11.0**	**95332**	**(49.9)**	**11.4**
Subtotal 18 HPC	***66737***	***(38.4)***	***20.0***	***64201***	***(36.4)***	***23.9***	***82219***	***(43.2)***	***21.5***	***73664***	***(40.6)***	***22.0***	***77896***	***(42.5)***	***23.2***

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
[a] In accordance with Security Council Resolution 1244(1999)

2006			2007			2008			2009			2010		
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
206	(28.7)	2.5	189	(28.0)	2.3	215	(35.4)	2.6	89	(25.0)	1.1	76	(26.3)	0.9
279	(49.6)	2.7	283	(47.6)	2.7	299	(51.6)	2.8	280	(50.1)	2.6	244	(41.8)	2.3
1307	*(43.4)*	*16.9*	*1082*	*(44.0)*	*14.1*	*1020*	*(47.7)*	*13.4*	*896*	*(50.2)*	*11.8*	*806*	*(51.9)*	*10.7*
8	(26.7)	1.0	8	(22.9)	1.0	2	(14.3)	0.3	14	(48.3)	1.8	8	(40.0)	1.0
290	(40.1)	2.8	261	(39.8)	2.5	249	(36.6)	2.4	217	(40.5)	2.1	200	(37.5)	1.9
123	(48.8)	2.3	135	(49.6)	2.5	105	(43.2)	1.9	103	(44.8)	1.9	115	(53.0)	2.1
150	*(43.2)*	*11.2*	*168*	*(44.6)*	*12.5*	*141*	*(43.7)*	*10.5*	*135*	*(43.8)*	*10.1*	*99*	*(42.5)*	*7.4*
88	(44.4)	1.7	90	(39.8)	1.7	100	(48.8)	1.9	92	(31.8)	1.7	82	(36.0)	1.5
1634	(38.6)	2.6	1453	(51.9)	2.3	1223	(52.3)	1.9	1011	(49.5)	1.6	960	(48.6)	1.5
1169	(35.0)	1.4	1107	(34.7)	1.3	991	(35.0)	1.2	1045	(36.8)	1.3	910	(34.7)	1.1
194	(34.2)	1.7	238	(52.0)	2.1	226	(48.9)	2.0	199	(49.8)	1.8	178	(58.0)	1.6
434	(30.0)	4.3	390	(30.5)	3.9	344	(27.5)	3.4	361	(32.0)	3.6	270	(19.1)	2.7
4	(57.1)	1.3	2	(28.6)	0.7	1	(50.0)	0.3	3	(60.0)	0.9	6	(33.3)	1.9
107	(45.9)	2.5	112	(44.4)	2.6	128	(47.6)	2.9	105	(44.5)	2.4	84	(40.8)	1.9
1137	(47.2)	1.9	1225	(47.7)	2.1	936	(37.3)	1.6	885	(50.6)	1.5	586	(42.9)	1.0
498	*(48.8)*	*21.7*	*478*	*(50.7)*	*21.0*	*400*	*(50.0)*	*17.6*	*367*	*(49.3)*	*16.2*	*339*	*(45.9)*	*15.1*
1028	*(57.7)*	*30.2*	*921*	*(54.2)*	*27.2*	*884*	*(54.3)*	*26.3*	*743*	*(51.5)*	*22.2*	*719*	*(53.2)*	*21.6*
22	(68.8)	4.7	-	-	-	-	-	-	-	-	-	0	(0.0)	0.0
4	(16.7)	1.0	8	(32.0)	2.0	15	(44.1)	3.7	12	(52.2)	2.9	4	(40.0)	1.0
208	(35.2)	1.3	195	(34.6)	1.2	193	(34.5)	1.2	203	(34.2)	1.2	176	(32.2)	1.1
40	(29.0)	0.9	34	(25.6)	0.7	49	(36.8)	1.0	45	(25.9)	0.9	49	(30.8)	1.0
2819	(40.9)	7.4	2831	(40.5)	7.4	2646	(40.8)	6.9	2658	(39.6)	7.0	2484	(40.7)	6.5
1372	(59.0)	13.0	1191	(57.2)	11.2	1073	(53.2)	10.1	1059	(56.2)	10.0	912	(53.6)	8.6
10073	*(60.0)*	*46.6*	*9656*	*(61.4)*	*44.8*	*9505*	*(61.1)*	*44.2*	*9112*	*(62.4)*	*42.4*	*7951*	*(60.9)*	*37.0*
149	(30.9)	2.8	169	(37.6)	3.1	126	(30.7)	2.3	121	(37.5)	2.2	112	(37.1)	2.1
83	(50.6)	4.1	91	(55.8)	4.5	81	(49.1)	4.0	85	(54.8)	4.2	64	(48.9)	3.1
1775	(35.6)	4.1	2159	(44.0)	4.9	2333	(45.0)	5.2	2236	(43.7)	4.9	2076	(44.2)	4.5
101	(21.5)	1.1	93	(32.6)	1.0	97	(37.6)	1.1	107	(37.7)	1.2	117	(34.1)	1.3
1377	(21.7)	2.3	1264	(39.2)	2.1	1242	(36.0)	2.0	1224	(32.7)	2.0	1201	(32.0)	1.9
26679	**(43.7)**	**5.4**	**25833**	**(48.7)**	**5.2**	**24624**	**(48.1)**	**4.9**	**23407**	**(48.5)**	**4.6**	**20828**	**(46.8)**	**4.1**
186	(63.7)	5.9	165	(61.1)	5.2	170	(66.1)	5.3	171	(61.1)	5.4	145	(58.0)	4.5
8	(80.0)	10.0	2	(66.7)	2.5	3	(75.0)	3.6	2	(33.3)	2.4	0	(0.0)	0.0
580	*(45.5)*	*18.9*	*497*	*(41.6)*	*16.2*	*487*	*(40.2)*	*15.8*	*440*	*(37.8)*	*14.3*	*339*	*(34.7)*	*11.0*
1454	*(39.0)*	*16.7*	*1356*	*(36.7)*	*15.4*	*1409*	*(34.1)*	*15.8*	*1487*	*(32.2)*	*16.4*	*1997*	*(46.7)*	*21.7*
1072	*(22.4)*	*11.0*	*1051*	*(23.2)*	*10.8*	*1060*	*(25.6)*	*10.9*	*1201*	*(28.6)*	*12.5*	*1269*	*(32.4)*	*13.2*
562	(38.2)	14.9	737	(37.1)	19.5	509	(35.6)	13.5	609	(41.4)	16.2	441	(45.5)	11.7
396	(43.2)	8.9	382	(49.2)	8.6	328	(38.9)	7.4	302	(42.4)	6.8	183	(32.4)	4.2
1831	*(59.8)*	*41.2*	*1867*	*(65.9)*	*42.3*	*1868*	*(63.7)*	*42.5*	*2055*	*(64.7)*	*47.0*	*2140*	*(66.3)*	*49.2*
108	(37.8)	1.6	126	(36.7)	1.8	95	(39.3)	1.3	119	(47.8)	1.6	103	(38.9)	1.4
6205	*(36.0)*	*40.5*	*6195*	*(33.9)*	*40.0*	*6193*	*(36.6)*	*39.6*	*5213*	*(35.9)*	*32.9*	*4769*	*(35.3)*	*29.8*
1833	*(46.2)*	*36.1*	*1720*	*(43.7)*	*33.5*	*1712*	*(45.7)*	*32.9*	*1609*	*(41.5)*	*30.5*	*1645*	*(44.8)*	*30.8*
178	(44.9)	8.7	200	(53.1)	9.8	188	(58.6)	9.2	198	(65.8)	9.6	141	(51.1)	6.8
1679	*(44.3)*	*45.2*	*1610*	*(44.1)*	*43.9*	*1533*	*(44.1)*	*42.2*	*1318*	*(39.5)*	*36.6*	*1267*	*(37.9)*	*35.5*
-	-	-	-	-	-	-	-	-	-	-	-	0	-	0.0
58	(43.9)	9.2	41	(34.5)	6.5	65	(63.1)	10.3	53	(55.2)	8.4	39	(44.3)	6.2
32335	*(30.6)*	*22.5*	*33103*	*(31.0)*	*23.1*	*33949*	*(30.9)*	*23.7*	*33351*	*(31.4)*	*23.3*	*31416*	*(31.6)*	*22.0*
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1136	(28.1)	9.5	1146	(31.1)	9.6	1172	(32.0)	9.8	1055	-	8.8	1014	(40.0)	8.4
843	(35.2)	8.6	905	(41.9)	9.2	848	(40.5)	8.6	801	(51.9)	8.1	690	(61.6)	7.0
293	(36.4)	14.0	241	(39.1)	11.3	324	(44.7)	15.0	254	-	11.6	324	(44.7)	14.7
112	(32.7)	1.5	95	(25.3)	1.3	64	(29.1)	0.8	73	(30.9)	1.0	82	(35.3)	1.1
2051	*(56.0)*	*31.4*	*2228*	*(51.3)*	*33.7*	*2057*	*(47.4)*	*30.7*	*1972*	*(47.2)*	*29.1*	*2290*	*(52.9)*	*33.3*
7866	*(60.8)*	*11.4*	*7527*	*(62.6)*	*10.8*	*6993*	*(61.8)*	*9.9*	*6007*	*(58.3)*	*8.4*	*5375*	*(56.2)*	*7.4*
1155	*(46.3)*	*24.1*	*1378*	*(51.7)*	*28.4*	*1331*	*(50.7)*	*27.1*	*1370*	*(52.8)*	*27.5*	*1153*	*(48.0)*	*22.9*
14206	*(41.3)*	*30.5*	*11028*	*(35.3)*	*23.8*	*14574*	*(45.4)*	*31.7*	*13632*	*(46.1)*	*29.8*	*9976*	*(36.2)*	*22.0*
7211	*(41.2)*	*27.5*	*6326*	*(46.9)*	*23.9*	*5117*	*(43.5)*	*19.1*	*4959*	*(41.7)*	*18.3*	*4711*	*(41.2)*	*17.2*
82222	**(37.2)**	**21.2**	**78780**	**(36.6)**	**20.3**	**80877**	**(37.7)**	**20.7**	**77196**	**(37.7)**	**19.7**	**70495**	**(36.8)**	**17.9**
108901	**(49.2)**	**12.3**	**104613**	**(48.6)**	**11.8**	**105501**	**(49.2)**	**11.8**	**100603**	**(49.2)**	**11.2**	**91323**	**(47.6)**	**10.2**
92534	***(43.1)***	***24.1***	***88191***	***(42.3)***	***23.0***	***90233***	***(43.3)***	***23.4***	***85867***	***(43.0)***	***22.2***	***78261***	***(41.7)***	***20.2***

Table 9: Tuberculosis cases confirmed by culture, European Region, 2006–2010

Country	2006		2007		2008		2009		2010	
	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	565	(62.4)	538	(61.6)	486	(59.5)	444	(63.6)	478	(69.5)
Belgium	884	(79.1)	798	(78.2)	806	(81.4)	800	(80.5)	861	(77.2)
Bulgaria	*1360*	*(42.1)*	*1360*	*(42.1)*	*1360*	*(43.2)*	*1280*	*(44.0)*	*1174*	*(44.3)*
Cyprus	23	(62.2)	33	(78.6)	36	(72.0)	41	(74.5)	59	(96.7)
Czech Republic	619	(65.1)	557	(65.8)	560	(64.8)	477	(68.6)	435	(64.2)
Denmark	301	(77.8)	292	(74.7)	287	(76.3)	245	(72.7)	284	(79.1)
Estonia	*352*	*(76.5)*	*384*	*(78.2)*	*348*	*(78.4)*	*308*	*(74.9)*	*259*	*(78.7)*
Finland	272	(91.6)	252	(72.4)	249	(72.4)	307	(73.6)	257	(78.6)
France	2412	(45.3)	2535	(45.5)	2532	(44.0)	2427	(46.0)	2386	(46.6)
Germany	3771	(70.1)	3477	(69.5)	3169	(70.1)	3176	(71.9)	3003	(69.4)
Greece	210	(30.8)	645	(100.0)	670	(100.0)	314	(52.9)	489	(100.0)
Hungary	832	(44.8)	772	(45.8)	760	(46.9)	706	(50.2)	623	(35.8)
Iceland	12	(92.3)	11	(78.6)	5	(83.3)	8	(88.9)	19	(86.4)
Ireland	316	(68.3)	315	(65.6)	312	(66.7)	340	(71.0)	270	(63.2)
Italy	1735	(38.5)	1840	(40.7)	1529	(34.6)	1381	(32.5)	2511	(77.3)
Latvia	*995*	*(74.9)*	*994*	*(79.2)*	*838*	*(78.3)*	*774*	*(79.1)*	*732*	*(78.4)*
Lithuania	*1787*	*(69.8)*	*1686*	*(70.0)*	*1616*	*(71.8)*	*1478*	*(71.0)*	*1363*	*(70.3)*
Luxembourg	33	(100.0)	26	(66.7)	0	(0.0)	-	-	20	(69.0)
Malta	15	(50.0)	19	(50.0)	25	(47.2)	20	(45.5)	16	(50.0)
Netherlands	755	(73.2)	718	(71.9)	743	(73.2)	760	(65.7)	783	(73.0)
Norway	225	(77.6)	214	(70.9)	225	(71.9)	285	(79.6)	275	(81.1)
Poland	5229	(60.9)	5410	(62.8)	5093	(63.0)	5223	(63.4)	4756	(63.3)
Portugal	2234	(64.6)	2076	(66.1)	2085	(69.5)	1981	(69.0)	1605	(61.1)
Romania	*16844*	*(63.3)*	*16189*	*(65.2)*	*14738*	*(59.7)*	*15243*	*(65.8)*	*12492*	*(59.3)*
Slovakia	401	(54.9)	396	(58.1)	383	(60.5)	235	(46.4)	234	(53.3)
Slovenia	184	(85.6)	189	(86.7)	201	(94.4)	179	(95.2)	155	(90.1)
Spain	3651	(45.5)	3950	(50.8)	4493	(54.7)	4095	(53.9)	3991	(56.3)
Sweden	397	(79.9)	365	(75.7)	436	(79.9)	515	(83.5)	526	(77.9)
United Kingdom	4961	(59.3)	4774	(57.3)	4850	(56.4)	5035	(56.5)	4908	(57.9)
Subtotal EU/EEA	**51375**	**(58.8)**	**50815**	**(60.4)**	**48835**	**(58.7)**	**48077**	**(60.3)**	**44964**	**(60.8)**
Non-EU/EEA										
Albania	197	(67.5)	179	(66.3)	-	-	204	(72.9)	245	(98.0)
Andorra	8	(80.0)	3	(100.0)	3	(75.0)	3	(50.0)	4	(100.0)
Armenia	*580*	*(45.5)*	*497*	*(41.6)*	*599*	*(49.5)*	*440*	*(37.8)*	*414*	*(42.3)*
Azerbaijan	*1454*	*(39.0)*	*1356*	*(36.7)*	-	-	*1487*	*(32.2)*	*4272*	*(100.0)*
Belarus	*2086*	*(43.6)*	*1988*	*(43.8)*	*1934*	*(46.8)*	*2160*	*(51.4)*	*2184*	*(55.8)*
Bosnia and Herzegovina	993	(67.5)	1,266	(63.7)	757	(53.0)	852	(57.9)	600	(61.9)
Croatia	583	(63.6)	575	(74.1)	440	(52.2)	450	(63.2)	456	(80.7)
Georgia	*1831*	*(59.8)*	*1979*	*(69.9)*	*2194*	*(74.9)*	*2349*	*(74.0)*	*2493*	*(77.2)*
Israel	206	(72.0)	242	(70.6)	178	(73.6)	202	(81.1)	204	(77.0)
Kazakhstan	*7227*	*(41.9)*	*7184*	*(39.4)*	-	-	*6494*	*(44.7)*	*5076*	*(37.6)*
Kyrgyzstan	*1833*	*(46.2)*	*1720*	*(43.7)*	-	-	*1609*	*(41.5)*	*1645*	*(44.8)*
Macedonia, the former Yugoslav Republic of	212	(53.5)	247	(65.5)	178	(55.5)	194	(64.5)	141	(51.1)
Moldova	*1679*	*(44.3)*	*1940*	*(53.1)*	*2161*	*(62.2)*	*1766*	*(53.0)*	*2833*	*(84.8)*
Monaco	-	-	-	-	-	-	-	-	0	(0.0)
Montenegro	101	(76.5)	76	(63.9)	74	(71.8)	78	(81.3)	61	(69.3)
Russia	*46491*	*(44.0)*	*50262*	*(47.1)*	*50168*	*(45.7)*	*48754*	*(45.9)*	*50113*	*(50.5)*
San Marino	-	-	-	-	-	-	-	-	0	(0.0)
Serbia	-	-	-	-	-	-	-	-	1,208	(72.0)
Serbia excluding UN Administered Province of Kosovo[a]	1271	(59.1)	1397	(68.1)	1316	(72.3)	1115	(65.8)	921	(82.2)
UN Administered Province of Kosovo[a]	-	-	-	-	-	-	-	-	287	(51.6)
Switzerland	308	(89.8)	331	(88.0)	185	(84.1)	203	(86.0)	204	(87.9)
Tajikistan	*2051*	*(56.0)*	*2228*	*(51.3)*	-	-	*1972*	*(47.2)*	*2290*	*(52.9)*
Turkey	*9142*	*(70.7)*	*8741*	*(72.7)*	*8178*	*(72.3)*	*7192*	*(69.9)*	*6786*	*(70.9)*
Turkmenistan	*1155*	*(46.3)*	-	-	*1331*	*(50.7)*	*1370*	*(52.8)*	*1153*	*(48.0)*
Ukraine	*14206*	*(41.3)*	*11028*	*(35.3)*	*14866*	*(46.3)*	*13632*	*(46.1)*	*13845*	*(50.2)*
Uzbekistan	*7211*	*(41.2)*	*6326*	*(46.9)*	*5117*	*(43.5)*	*4959*	*(41.7)*	*4711*	*(41.2)*
Subtotal non-EU/EEA	**100825**	**(45.7)**	**99565**	**(46.9)**	**89679**	**(48.7)**	**97485**	**(47.6)**	**100938**	**(52.2)**
Total European Region	**152200**	**(69.0)**	**150081**	**(70.7)**	**138514**	**(75.2)**	**145562**	**(71.1)**	**145902**	**(75.4)**
Subtotal 18 HPC	***118284***	***(55.2)***	***115862***	***(56.3)***	***105448***	***(58.8)***	***113267***	***(56.7)***	***113835***	***(60.7)***

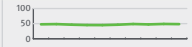
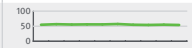
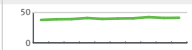
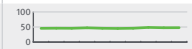
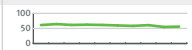
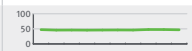
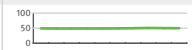
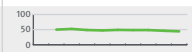
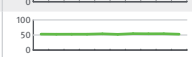
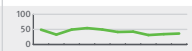
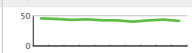
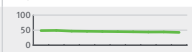
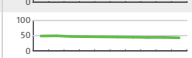
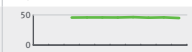
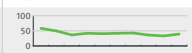
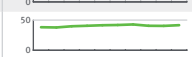
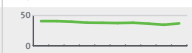
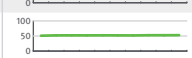
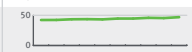
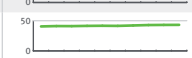
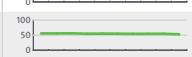
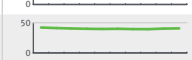
'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
[a] In accordance with Security Council Resolution 1244(1999)

Table 10: New TB cases by age group, European Region, 2010

Country	0–4		5–14		15–24		25–44		45–64		> 64		Unknown		Total
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	
EU/EEA															
Austria	8	(2.2)	8	(2.2)	38	(10.6)	102	(28.5)	114	(31.8)	88	(24.6)	0	(0.0)	358
Belgium	34	(4.2)	29	(3.6)	97	(11.9)	341	(41.9)	186	(22.9)	127	(15.6)	0	(0.0)	814
Bulgaria	*58*	*(2.5)*	*155*	*(6.7)*	*239*	*(10.4)*	*730*	*(31.7)*	*674*	*(29.3)*	*445*	*(19.3)*	*0*	*(0.0)*	*2301*
Cyprus	2	(6.1)	0	(0.0)	6	(18.2)	19	(57.6)	4	(12.1)	1	(3.0)	1	(3.0)	33
Czech Republic	1	(0.2)	2	(0.3)	32	(5.1)	182	(29.0)	217	(34.6)	193	(30.8)	0	(0.0)	627
Denmark	7	(2.2)	14	(4.5)	27	(8.6)	136	(43.5)	100	(31.9)	29	(9.3)	0	(0.0)	313
Estonia	*1*	*(0.4)*	*5*	*(2.0)*	*17*	*(6.8)*	*88*	*(35.2)*	*103*	*(41.2)*	*36*	*(14.4)*	*0*	*(0.0)*	*250*
Finland	1	(0.3)	5	(1.6)	37	(11.9)	65	(20.8)	70	(22.4)	134	(42.9)	0	(0.0)	312
France	78	(2.8)	75	(2.7)	308	(11.2)	999	(36.3)	664	(24.1)	628	(22.8)	0	(0.0)	2752
Germany	72	(2.1)	82	(2.4)	301	(8.8)	1013	(29.6)	984	(28.7)	975	(28.4)	1	(0.0)	3428
Greece	19	(5.3)	11	(3.1)	56	(15.7)	115	(32.3)	73	(20.5)	76	(21.3)	6	(1.7)	356
Hungary	3	(0.2)	8	(0.5)	87	(5.9)	352	(23.7)	666	(44.8)	371	(24.9)	0	(0.0)	1487
Iceland	0	(0.0)	0	(0.0)	5	(22.7)	12	(54.5)	4	(18.2)	1	(4.5)	0	(0.0)	22
Ireland	6	(1.9)	11	(3.4)	53	(16.6)	139	(43.6)	55	(17.2)	55	(17.2)	0	(0.0)	319
Italy	63	(3.7)	59	(3.5)	219	(12.9)	724	(42.8)	290	(17.1)	313	(18.5)	25	(1.5)	1693
Latvia	*23*	*(2.8)*	*22*	*(2.7)*	*90*	*(10.9)*	*361*	*(43.8)*	*260*	*(31.5)*	*69*	*(8.4)*	*0*	*(0.0)*	*825*
Lithuania	*21*	*(1.3)*	*71*	*(4.5)*	*142*	*(9.0)*	*542*	*(34.5)*	*580*	*(36.9)*	*217*	*(13.8)*	*0*	*(0.0)*	*1573*
Luxembourg	1	(4.2)	0	(0.0)	3	(12.5)	10	(41.7)	8	(33.3)	2	(8.3)	0	(0.0)	24
Malta	0	(0.0)	0	(0.0)	3	(15.0)	13	(65.0)	2	(10.0)	2	(10.0)	0	(0.0)	20
Netherlands	11	(1.1)	23	(2.3)	161	(15.9)	444	(43.8)	221	(21.8)	153	(15.1)	0	(0.0)	1013
Norway	2	(0.7)	8	(2.9)	56	(20.4)	155	(56.6)	37	(13.5)	16	(5.8)	0	(0.0)	274
Poland	20	(0.3)	41	(0.6)	340	(5.1)	1675	(25.3)	2917	(44.1)	1617	(24.5)	0	(0.0)	6610
Portugal	18	(0.8)	33	(1.4)	233	(9.7)	937	(39.1)	700	(29.2)	477	(19.9)	0	(0.0)	2398
Romania	*310*	*(1.9)*	*502*	*(3.1)*	*2704*	*(16.9)*	*5568*	*(34.9)*	*4751*	*(29.8)*	*2128*	*(13.3)*	*0*	*(0.0)*	*15963*
Slovakia	4	(1.1)	7	(1.9)	19	(5.3)	93	(25.8)	132	(36.6)	106	(29.4)	0	(0.0)	361
Slovenia	2	(1.2)	1	(0.6)	13	(8.1)	50	(31.1)	42	(26.1)	53	(32.9)	0	(0.0)	161
Spain	243	(3.8)	195	(3.1)	665	(10.4)	2673	(41.9)	1454	(22.8)	1141	(17.9)	6	(0.1)	6377
Sweden	12	(2.2)	25	(4.5)	125	(22.6)	253	(45.8)	64	(11.6)	73	(13.2)	0	(0.0)	552
United Kingdom	119	(1.6)	230	(3.2)	1120	(15.5)	3332	(46.2)	1484	(20.6)	929	(12.9)	5	(0.1)	7219
Subtotal EU/EEA	**1139**	**(1.9)**	**1622**	**(2.8)**	**7196**	**(12.3)**	**21123**	**(31.1)**	**16856**	**(28.8)**	**10455**	**(17.9)**	**44**	**(0.1)**	**58435**
Non-EU/EEA															
Albania	5	(1.2)	13	(3.1)	88	(21.2)	112	(27.0)	112	(27.0)	85	(20.5)	0	(0.0)	415
Andorra	0	(0.0)	0	(0.0)	1	(14.3)	2	(28.6)	3	(42.9)	1	(14.3)	0	(0.0)	7
Armenia	*22*	*(1.7)*	*37*	*(2.8)*	*253*	*(19.0)*	*488*	*(36.7)*	*417*	*(31.4)*	*112*	*(8.4)*	*0*	*(0.0)*	*1329*
Azerbaijan	*56*	*(1.1)*	*188*	*(3.6)*	*1607*	*(30.7)*	*1781*	*(34.0)*	*984*	*(18.8)*	*176*	*(3.4)*	*445*	*(8.5)*	*5237*
Belarus	*14*	*(0.3)*	*17*	*(0.4)*	*400*	*(9.2)*	*1865*	*(42.9)*	*1614*	*(37.1)*	*435*	*(10.0)*	*0*	*(0.0)*	*4345*
Bosnia and Herzegovina	1	(0.1)	12	(0.9)	135	(10.5)	253	(19.6)	389	(30.2)	499	(38.7)	0	(0.0)	1289
Croatia	0	(0.0)	18	(2.8)	37	(5.7)	141	(21.6)	226	(34.7)	230	(35.3)	0	(0.0)	652
Georgia	*56*	*(1.3)*	*193*	*(4.4)*	*966*	*(22.0)*	*1962*	*(44.8)*	*926*	*(21.1)*	*280*	*(6.4)*	*0*	*(0.0)*	*4383*
Israel	12	(3.5)	7	(2.1)	47	(13.9)	156	(46.0)	54	(15.9)	62	(18.3)	1	(0.3)	339
Kazakhstan	*176*	*(1.1)*	*557*	*(3.6)*	*4667*	*(29.8)*	*6567*	*(42.0)*	*2967*	*(19.0)*	*553*	*(3.5)*	*154*	*(1.0)*	*15641*
Kyrgyzstan	*98*	*(1.8)*	*433*	*(8.2)*	*1509*	*(28.4)*	*1996*	*(37.6)*	*981*	*(18.5)*	*291*	*(5.5)*	*0*	*(0.0)*	*5308*
Macedonia, the former Yugoslav Republic of	14	(3.8)	19	(5.2)	46	(12.5)	125	(34.0)	109	(29.6)	55	(14.9)	0	(0.0)	368
Moldova	*39*	*(1.0)*	*98*	*(2.6)*	*585*	*(15.6)*	*1671*	*(44.6)*	*1181*	*(31.5)*	*171*	*(4.6)*	*0*	*(0.0)*	*3745*
Monaco	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	1
Montenegro	1	(1.0)	2	(2.0)	12	(11.8)	24	(23.5)	37	(36.3)	26	(25.5)	0	(0.0)	102
Russia	*230*	*(0.2)*	*601*	*(0.5)*	*14469*	*(13.2)*	*52109*	*(47.4)*	*29788*	*(27.1)*	*5626*	*(5.1)*	*7081*	*(6.4)*	*109904*
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	3	(0.1)	13	(0.6)	211	(9.7)	426	(19.6)	469	(21.5)	485	(22.3)	571	(26.2)	2178
Serbia excluding UN Administered Province of Kosovo[a]	3	(0.2)	13	(1.0)	131	(9.9)	326	(24.6)	420	(31.7)	430	(32.5)	0	(0.0)	1,323
UN Administered Province of Kosovo[a]	0	(0.0)	0	(0.0)	80	(9.4)	100	(11.7)	49	(5.7)	55	(6.4)	571	(66.8)	855
Switzerland	8	(2.5)	4	(1.2)	49	(15.2)	151	(46.7)	63	(19.5)	48	(14.9)	0	(0.0)	323
Tajikistan	*135*	*(2.3)*	*356*	*(6.0)*	*1912*	*(32.1)*	*2262*	*(38.0)*	*974*	*(16.3)*	*320*	*(5.4)*	*0*	*(0.0)*	*5959*
Turkey	*218*	*(1.4)*	*661*	*(4.4)*	*3034*	*(20.0)*	*5306*	*(34.9)*	*4019*	*(26.5)*	*1945*	*(12.8)*	*0*	*(0.0)*	*15183*
Turkmenistan	*0*	*(0.0)*	*0*	*(0.0)*	*242*	*(7.7)*	*581*	*(18.5)*	*276*	*(8.8)*	*51*	*(1.6)*	*1998*	*(63.5)*	*3148*
Ukraine	*107*	*(0.3)*	*195*	*(0.6)*	*416*	*(1.3)*	*1521*	*(4.9)*	*814*	*(2.6)*	*302*	*(1.0)*	*27940*	*(89.3)*	*31295*
Uzbekistan	*315*	*(2.0)*	*1563*	*(9.9)*	*2852*	*(18.1)*	*5702*	*(36.2)*	*3611*	*(23.0)*	*1691*	*(10.7)*	*0*	*(0.0)*	*15734*
Subtotal non-EU/EEA	**1510**	**(0.7)**	**4987**	**(2.2)**	**33538**	**(14.8)**	**85201**	**(37.6)**	**50015**	**(22.0)**	**13444**	**(5.9)**	**38190**	**(16.8)**	**226885**
Total European Region	**2649**	**(0.9)**	**6609**	**(2.3)**	**40734**	**(14.3)**	**106324**	**(37.3)**	**66871**	**(23.4)**	**23899**	**(8.4)**	**38234**	**(13.4)**	**285320**
Subtotal 18 HPC	***1879***	***(0.8)***	***5654***	***(2.3)***	***36104***	***(14.9)***	***91100***	***(37.6)***	***54920***	***(22.7)***	***14848***	***(6.1)***	***37618***	***(15.5)***	***242123***

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
[a] In accordance with Security Council Resolution 1244(1999)

Table 11: Mean age of all TB cases, EU/EEA, 2001–2010[a]

Country	Mean age of all TB cases 2001-2010	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Mean annual % change in rate, 2001–2010[b]
EU/EEA												
Austria		47.7	48.4	46.5	45.3	45.1	46.4	48.7	47.4	48.9	48.3	0.17%
Belgium		45.0	44.9	43.2	43.8	43.7	42.2	42.4	42.6	43.4	42.3	-0.68%
Bulgaria		.	.	.	.	.	.	44.9	44.6	45.5	44.6	-
Cyprus		.	44.4	42.5	37.4	34.1	36.5	29.3	32.7	36.8	34.4	-
Czech Republic		54.9	56.7	55.6	56.1	56.0	57.3	54.9	54.2	55.1	54.1	-0.15%
Denmark		37.7	38.8	39.1	40.9	39.4	40.1	40.4	42.4	41.0	41.3	1.06%
Estonia		45.6	46.0	45.8	47.3	45.8	45.2	45.9	48.6	47.5	47.7	0.54%
Finland		61.2	64.3	61.5	62.3	61.5	59.8	58.3	60.9	54.8	56.0	-0.87%
France		47.2	45.7	45.9	45.6	45.9	46.1	45.9	47.6	47.5	46.7	-0.10%
Germany		49.4	49.0	49.0	49.1	49.1	49.4	50.0	50.8	50.3	50.0	0.15%
Greece		.	50.0	52.2	48.6	47.3	49.0	48.4	48.5	46.1	44.2	-
Hungary		52.9	52.6	52.7	52.7	53.9	52.3	54.5	54.1	54.2	52.7	-0.01%
Iceland		49.1	32.8	49.4	54.3	49.5	41.5	42.6	31.3	34.3	36.3	-0.66%
Ireland		45.6	44.6	43.1	44.0	42.5	42.2	40.1	42.3	43.5	41.4	-1.02%
Italy		48.7	49.3	47.0	46.4	45.8	45.3	44.7	44.0	44.2	42.7	-1.43%
Latvia		40.8	41.0	41.4	41.0	42.4	41.7	41.8	43.0	43.2	41.3	0.16%
Lithuania		.	.	45.6	45.8	45.8	45.7	46.3	45.4	45.9	44.8	-
Luxembourg		45.9	48.3	42.0	43.5	43.9	47.3	46.0	46.4	48.1	45.1	0.00%
Malta		58.3	49.5	36.3	41.8	40.4	41.8	42.7	36.1	33.0	39.3	-3.27%
Netherlands		38.2	37.8	39.8	40.6	41.5	41.9	42.8	40.6	40.4	41.6	1.02%
Norway		40.7	40.7	39.7	38.1	37.9	37.5	38.0	36.5	34.6	36.9	-1.03%
Poland		51.0	52.1	52.2	52.1	52.3	52.1	51.9	52.6	52.6	52.8	0.38%
Portugal		42.2	42.3	43.4	43.6	43.2	44.6	44.6	45.8	45.4	46.9	1.18%
Romania		40.5	41.1	41.0	41.4	41.6	41.4	42.1	42.8	43.0	43.1	0.70%
Slovakia		55.8	55.8	56.2	54.8	55.2	54.9	54.4	54.6	54.7	53.0	-0.57%
Slovenia		50.2	51.4	53.6	55.5	52.5	54.4	55.9	54.3	52.2	53.3	0.71%
Spain		.	.	.	.	.	.	42.1	41.0	41.6	43.3	-
Sweden		49.5	44.7	44.5	43.1	43.0	43.5	40.7	39.5	40.3	35.8	-3.43%
United Kingdom		42.0	41.1	40.4	39.9	39.6	39.9	39.4	39.3	40.2	40.6	-0.38%
Total EU/EEA		**45.0**	**45.0**	**44.9**	**44.8**	**44.8**	**44.7**	**44.7**	**44.8**	**45.0**	**45.1**	**0.01%**

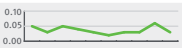
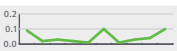
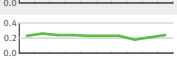
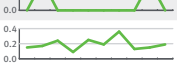
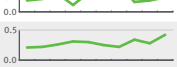
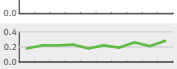
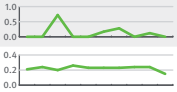
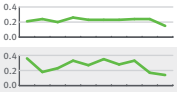
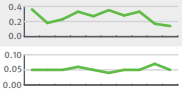
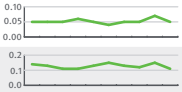
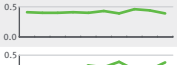
[a] Used crude mean age calculations.
[b] EU Epidemiological monitoring framework. Indicator 4.

Table 12: Tuberculosis cases in children (< 15 years old), European Region, 2006–2010

Country	2006			2007			2008			2009			2010		
	N	% of all pulmonary cases[a]	Cases per 100 000 child population	N	% of all pulmonary cases[a]	Cases per 100 000 child population	N	% of all pulmonary cases[a]	Cases per 100 000 child population	N	% of all pulmonary cases[a]	Cases per 100 000 child population	N	% of all pulmonary cases[a]	Cases per 100 000 child population
EU/EEA															
Austria	61	(6.7)	4.6	25	(2.9)	1.9	39	(4.8)	3.0	18	(2.6)	1.4	25	(3.6)	2.0
Belgium	63	(5.6)	3.5	67	(6.6)	3.7	52	(5.3)	2.9	64	(6.4)	3.5	73	(6.5)	4.0
Bulgaria	*197*	*(6.1)*	*18.8*	*196*	*(6.5)*	*19.0*	*227*	*(7.2)*	*22.0*	*210*	*(7.2)*	*20.6*	*217*	*(8.2)*	*21.1*
Cyprus	3	(8.1)	2.1	1	(2.4)	0.7	3	(6.0)	2.1	2	(3.6)	1.5	2	(3.3)	1.5
Czech Republic	4	(0.4)	0.3	4	(0.5)	0.3	4	(0.5)	0.3	7	(1.0)	0.5	3	(0.4)	0.2
Denmark	26	(6.7)	2.6	27	(6.9)	2.7	22	(5.9)	2.2	22	(6.5)	2.2	21	(5.8)	2.1
Estonia	*8*	*(1.7)*	*4.0*	*1*	*(0.2)*	*0.5*	*2*	*(0.5)*	*1.0*	*3*	*(0.7)*	*1.5*	*6*	*(1.8)*	*3.0*
Finland	1	(0.3)	0.1	4	(1.1)	0.4	4	(1.2)	0.4	7	(1.7)	0.8	6	(1.8)	0.7
France	298	(5.6)	2.5	331	(5.9)	2.8	292	(5.1)	2.5	253	(4.8)	2.1	232	(4.5)	1.9
Germany	192	(3.6)	1.6	180	(3.6)	1.6	124	(2.7)	1.1	142	(3.2)	1.3	158	(3.6)	1.4
Greece	45	(6.6)	2.8	36	(5.6)	2.3	37	(5.5)	2.3	36	(6.1)	2.2	33	(6.7)	2.0
Hungary	9	(0.5)	0.6	7	(0.4)	0.5	4	(0.2)	0.3	5	(0.4)	0.3	11	(0.6)	0.7
Iceland	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	1	(11.1)	1.5	0	(0.0)	0.0
Ireland	21	(4.5)	2.4	41	(8.5)	4.7	15	(3.2)	1.7	18	(3.8)	1.9	21	(4.9)	2.2
Italy	170	(3.8)	2.1	154	(3.4)	1.9	229	(5.2)	2.8	184	(4.3)	2.2	204	(6.3)	2.4
Latvia	*84*	*(6.3)*	*25.6*	*57*	*(4.5)*	*17.9*	*48*	*(4.5)*	*15.1*	*40*	*(4.1)*	*12.9*	*46*	*(4.9)*	*14.9*
Lithuania	*106*	*(4.1)*	*18.9*	*85*	*(3.5)*	*15.8*	*100*	*(4.4)*	*18.6*	*74*	*(3.6)*	*14.7*	*92*	*(4.7)*	*18.4*
Luxembourg	0	(0.0)	0.0	2	(5.1)	2.3	0	(0.0)	0.0	1	(3.7)	1.1	1	(3.4)	1.1
Malta	1	(3.3)	1.4	2	(5.3)	2.9	0	(0.0)	0.0	1	(2.3)	1.5	0	(0.0)	0.0
Netherlands	51	(4.9)	1.7	49	(4.9)	1.7	50	(4.9)	1.7	58	(5.0)	2.0	34	(3.2)	1.2
Norway	23	(7.9)	2.5	19	(6.3)	2.1	23	(7.3)	2.5	14	(3.9)	1.5	11	(3.2)	1.2
Poland	69	(0.8)	1.1	74	(0.9)	1.2	76	(0.9)	1.3	99	(1.2)	1.7	62	(0.8)	1.1
Portugal	94	(2.7)	5.7	71	(2.3)	4.3	65	(2.2)	4.0	78	(2.7)	4.8	52	(2.0)	3.2
Romania	*1055*	*(4.0)*	*31.4*	*1007*	*(4.1)*	*30.3*	*924*	*(3.7)*	*27.8*	*965*	*(4.2)*	*29.6*	*824*	*(3.9)*	*25.3*
Slovakia	23	(3.2)	2.6	16	(2.3)	1.8	14	(2.2)	1.6	11	(2.2)	1.3	11	(2.5)	1.3
Slovenia	8	(3.7)	2.8	6	(2.8)	2.1	3	(1.4)	1.1	6	(3.2)	2.1	3	(1.7)	1.0
Spain	544	(6.8)	8.6	477	(6.1)	7.4	600	(7.3)	9.3	537	(7.1)	7.9	454	(6.4)	6.6
Sweden	29	(5.8)	1.9	36	(7.5)	2.3	27	(4.9)	1.7	31	(5.0)	2.0	47	(7.0)	3.0
United Kingdom	386	(4.6)	3.6	490	(5.9)	4.6	497	(5.8)	4.6	428	(4.8)	4.0	386	(4.6)	3.6
Subtotal EU/EEA	**3571**	**(4.1)**	**4.5**	**3465**	**(4.1)**	**4.4**	**3481**	**(4.2)**	**4.4**	**3315**	**(4.2)**	**4.2**	**3035**	**(4.1)**	**3.8**
Non-EU/EEA															
Albania	42	(9.0)	5.3	27	(6.4)	3.5	19	(4.7)	2.5	17	(4.1)	2.3	18	(4.3)	2.5
Andorra	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0	0	(0.0)	0.0
Armenia	*92*	*(5.8)*	*13.9*	*41*	*(2.7)*	*6.3*	*85*	*(5.6)*	*13.4*	*65*	*(4.4)*	*10.4*	*59*	*(4.4)*	*9.5*
Azerbaijan	*217*	*(4.9)*	*10.5*	-	-	-	-	-	-	*255*	*(4.3)*	*13.1*	*244*	*(4.7)*	*12.7*
Belarus	*62*	*(1.2)*	*4.1*	*31*	*(0.6)*	*2.1*	*38*	*(0.8)*	*2.6*	*11*	*(0.2)*	*0.8*	*31*	*(0.7)*	*2.2*
Bosnia and Herzegovina	24	(1.4)	4.0	0	(0.0)	0.0	17	(1.0)	2.9	14	(0.8)	2.4	13	(1.0)	2.3
Croatia	28	(2.7)	4.0	-	-	-	27	(2.9)	4.0	25	(3.2)	3.7	18	(2.8)	2.7
Georgia	*347*	*(8.0)*	*43.4*	*306*	*(7.5)*	*39.6*	*267*	*(6.4)*	*35.6*	*281*	*(6.3)*	*38.4*	*249*	*(5.7)*	*34.5*
Israel	30	(9.0)	1.6	27	(6.9)	1.4	14	(4.4)	0.7	10	(3.0)	0.5	19	(5.6)	0.9
Kazakhstan	-	-	-	*1884*	*(8.7)*	*50.7*	*981*	*(5.0)*	*26.0*	*818*	*(4.9)*	*21.3*	*733*	*(4.7)*	*18.7*
Kyrgyzstan	*16*	*(0.3)*	*1.0*	*14*	*(0.2)*	*0.9*	*630*	*(10.1)*	*39.9*	*541*	*(10.0)*	*34.0*	*531*	*(10.0)*	*33.1*
Macedonia, the former Yugoslav Republic of	78	(14.7)	19.7	55	(11.1)	14.2	40	(9.4)	10.6	31	(7.4)	8.4	33	(9.0)	9.1
Moldova	-	-	-	*176*	*(4.2)*	*27.2*	*160*	*(4.0)*	*25.6*	*161*	*(4.2)*	*26.5*	*137*	*(3.7)*	*23.0*
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	0	(0.0)	0.0
Montenegro	1	(0.7)	0.8	2	(1.5)	1.6	1	(0.8)	0.8	2	(1.9)	1.6	3	(2.9)	2.5
Russia	-	-	-	*3422*	*(2.9)*	*16.2*	*3203*	*(2.7)*	*15.2*	*3111*	*(2.7)*	*14.6*	*831*	*(0.8)*	*3.9*
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia excluding UN Administered Province of Kosovo[b]	28	(1.0)	1.6	28	(1.0)	1.6	21	(0.8)	1.2	19	(1.1)	1.1	16	(1.2)	0.9
UN Administered Province of Kosovo[b]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Switzerland	15	(3.3)	1.3	19	(4.5)	1.6	3	(0.9)	0.3	16	(4.8)	1.4	12	(3.7)	1.0
Tajikistan	-	-	-	-	-	-	*547*	*(8.9)*	*21.5*	*456*	*(7.8)*	*17.9*	*491*	*(8.2)*	*19.3*
Turkey	*1113*	*(6.0)*	*5.8*	*952*	*(5.3)*	*4.9*	*949*	*(5.7)*	*4.9*	*940*	*(5.9)*	*4.9*	*879*	*(5.8)*	*4.6*
Turkmenistan	*0*	*(0.0)*	*0.0*	*8*	*(0.2)*	*0.5*	*0*	*(0.0)*	*0.0*	*0*	*(0.0)*	*0.0*	*0*	*(0.0)*	*0.0*
Ukraine	-	-	-	-	-	-	*581*	*(1.6)*	*8.9*	*580*	*(1.7)*	*9.0*	*302*	*(1.0)*	*4.7*
Uzbekistan	*2833*	*(12.3)*	*33.5*	*2583*	*(13.8)*	*31.0*	*2008*	*(12.6)*	*24.4*	*2263*	*(13.7)*	*27.8*	*1878*	*(11.9)*	*23.3*
Subtotal non-EU/EEA	**4898**	**(6.9)**	**11.8**	**9547**	**(4.7)**	**14.9**	**9570**	**(3.9)**	**13.0**	**9597**	**(4.0)**	**12.7**	**6481**	**(2.9)**	**8.6**
Total European Region	**8469**	**(5.4)**	**7.0**	**13012**	**(4.5)**	**9.1**	**13051**	**(4.0)**	**8.5**	**12912**	**(4.1)**	**8.3**	**9796**	**(3.2)**	**6.3**
Subtotal 18 HPC	***6130***	***(6.1)***	***14.8***	***10763***	***(4.6)***	***16.7***	***10750***	***(4.0)***	***14.7***	***10774***	***(4.1)***	***14.3***	***7550***	***(3.0)***	***10.0***

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
[a] For EU/EEA countries percentages calculated from all cases, for non EU/EEA countries from new cases, notified in particular year.
[b] In accordance with Security Council Resolution 1244(1999)

Table 13: Ratio of tuberculosis notification rate in children (< 15 years old) to adults (> 15 years old), EU/EEA, 2001–2010[a]

Country	Trend 2001–2010[b]	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Mean annual % change in rate, 2001–2010
EU/EEA												
Austria		0.32	0.18	0.25	0.27	0.23	0.38	0.16	0.28	0.15	0.22	7.43%
Belgium		0.29	0.28	0.32	0.30	0.34	0.29	0.34	0.27	0.34	0.34	3.16%
Bulgaria		0.24	0.26	0.35	0.40	0.36	0.41	0.44	0.50	0.50	0.57	10.42%
Cyprus		-	0.19	0.00	0.00	0.37	0.39	0.12	0.30	0.19	0.18	-
Czech Republic		0.05	0.03	0.05	0.04	0.03	0.02	0.03	0.03	0.06	0.03	5.13%
Denmark		0.46	0.38	0.40	0.34	0.43	0.31	0.32	0.27	0.31	0.28	-4.04%
Estonia		0.09	0.02	0.03	0.02	0.01	0.10	0.01	0.03	0.04	0.10	109.41%
Finland		0.05	0.06	0.04	0.07	0.06	0.02	0.06	0.06	0.08	0.09	29.44%
France		0.19	0.20	0.23	0.27	0.26	0.26	0.28	0.24	0.22	0.21	1.55%
Germany		0.23	0.26	0.24	0.24	0.23	0.23	0.23	0.18	0.21	0.24	1.69%
Greece		0.44	0.47	0.19	0.55	0.56	0.43	0.36	0.35	0.39	0.44	13.93%
Hungary		0.02	0.02	0.02	0.02	0.01	0.03	0.02	0.01	0.02	0.04	17.10%
Iceland		0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	-
Ireland		0.15	0.17	0.24	0.09	0.25	0.19	0.36	0.13	0.15	0.19	24.73%
Italy		0.21	0.22	0.26	0.31	0.30	0.25	0.22	0.34	0.28	0.42	10.50%
Latvia		0.39	0.32	0.36	0.40	0.28	0.40	0.29	0.29	0.27	0.32	0.43%
Lithuania		0.18	0.22	0.22	0.23	0.18	0.22	0.19	0.26	0.21	0.28	7.65%
Luxembourg		0.00	0.14	0.08	0.00	0.12	0.00	0.24	0.00	0.18	0.17	-
Malta		0.00	0.00	0.72	0.00	0.00	0.17	0.28	0.00	0.12	0.00	-
Netherlands		0.21	0.24	0.20	0.26	0.23	0.23	0.23	0.24	0.24	0.15	-1.56%
Norway		0.36	0.18	0.23	0.33	0.27	0.35	0.28	0.33	0.17	0.14	-3.67%
Poland		0.05	0.05	0.05	0.06	0.05	0.04	0.05	0.05	0.07	0.05	1.46%
Portugal		0.14	0.13	0.11	0.11	0.13	0.15	0.13	0.12	0.15	0.11	-1.08%
Romania		0.30	0.27	0.26	0.24	0.21	0.22	0.23	0.22	0.24	0.23	-2.80%
Slovakia		0.09	0.08	0.09	0.13	0.14	0.16	0.12	0.12	0.12	0.14	6.76%
Slovenia		0.19	0.18	0.18	0.11	0.15	0.23	0.17	0.09	0.20	0.11	5.85%
Spain		0.41	0.40	0.40	0.41	0.40	0.43	0.39	0.46	0.44	0.39	-0.23%
Sweden		0.14	0.21	0.20	0.21	0.33	0.30	0.39	0.26	0.26	0.38	15.71%
United Kingdom		0.31	0.27	0.23	0.28	0.26	0.22	0.29	0.29	0.24	0.23	-2.40%
Subtotal EU/EEA		**0.20**	**0.19**	**0.19**	**0.20**	**0.19**	**0.19**	**0.20**	**0.20**	**0.20**	**0.20**	**-0.34%**

'European Region' comprises the 53 countries of the WHO European Region.
[a] Crude age grouping.
[b] EU Epidemiological monitoring framework. Indicator 3.

Table 14a: Tuberculosis cases by geographical origin and sex ratio, European Region, 2010

Country	Criterion	Native			Foreign[a]			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	385	(56.0)	1.7	299	(43.5)	1.4	4	(0.6)	1.0	688	1.5
Belgium	citizenship	506	(45.4)	1.7	609	(54.6)	2.1	0	(0.0)	-	1115	1.9
Bulgaria	*birthplace*	*2647*	*(99.9)*	*1.9*	*2*	*(0.1)*	*1.0*	*0*	*(0.0)*	-	*2649*	*1.9*
Cyprus	birthplace	11	(18.0)	1.8	50	(82.0)	1.3	0	(0.0)	-	61	1.3
Czech Republic	birthplace	561	(82.7)	1.7	117	(17.3)	2.7	0	(0.0)	-	678	1.8
Denmark[b]	birthplace	143	(39.8)	1.8	216	(60.2)	1.2	0	(0.0)	-	359	1.4
Estonia	*birthplace*	*271*	*(82.4)*	*2.8*	*58*	*(17.6)*	*2.4*	*0*	*(0.0)*	-	*329*	*2.7*
Finland	birthplace	217	(66.4)	1.5	105	(32.1)	1.6	5	(1.5)	1.5	327	1.5
France	birthplace	2264	(44.3)	1.3	2469	(48.3)	1.8	383	(7.5)	1.4	5116	1.5
Germany	birthplace	2213	(51.1)	1.7	1978	(45.7)	1.4	139	(3.2)	1.6	4330	1.6
Greece	citizenship	258	(52.8)	2.0	231	(47.2)	3.3	0	(0.0)	-	489	2.5
Hungary	citizenship	1720	(98.8)	1.8	21	(1.2)	4.3	0	(0.0)	-	1741	1.8
Iceland	birthplace	6	(27.3)	1.0	16	(72.7)	0.5	0	(0.0)	-	22	0.6
Ireland	birthplace	243	(56.9)	1.7	171	(40.0)	1.4	13	(3.0)	3.3	427	1.6
Italy	birthplace	1418	(43.6)	1.4	1809	(55.7)	1.3	22	(0.7)	2.7	3249	1.4
Latvia	*birthplace*	*872*	*(93.4)*	*2.0*	*62*	*(6.6)*	*1.7*	*0*	*(0.0)*	-	*934*	*2.0*
Lithuania	*birthplace*	*1891*	*(97.6)*	*2.5*	*47*	*(2.4)*	*3.7*	*0*	*(0.0)*	-	*1938*	*2.5*
Luxembourg	birthplace	12	(41.4)	2.0	17	(58.6)	1.4	0	(0.0)	-	29	1.6
Malta	birthplace	7	(21.9)	2.5	25	(78.1)	2.1	0	(0.0)	-	32	2.2
Netherlands	birthplace	275	(25.6)	1.3	789	(73.5)	1.3	9	(0.8)	0.8	1073	1.3
Norway	birthplace	50	(14.7)	2.1	289	(85.3)	1.1	0	(0.0)	-	339	1.2
Poland	citizenship	7463	(99.4)	2.2	46	(0.6)	2.5	0	(0.0)	-	7509	2.2
Portugal	birthplace	2197	(83.7)	2.0	425	(16.2)	2.1	4	(0.2)	N/F	2626	2.0
Romania	*birthplace*	*21040*	*(99.8)*	*2.3*	*38*	*(0.2)*	*1.1*	*0*	*(0.0)*	-	*21078*	*2.3*
Slovakia	birthplace	431	(98.2)	1.9	8	(1.8)	7.0	0	(0.0)	-	439	2.0
Slovenia	birthplace	131	(76.2)	1.5	41	(23.8)	2.7	0	(0.0)	-	172	1.7
Spain	birthplace	4652	(65.6)	1.8	2268	(32.0)	1.6	169	(2.4)	1.8	7089	1.7
Sweden	birthplace	96	(14.2)	1.0	579	(85.8)	1.2	0	(0.0)	-	675	1.2
United Kingdom	birthplace	2131	(25.1)	1.3	5816	(68.6)	1.3	536	(6.3)	1.5	8483	1.3
Subtotal EU/EEA		**54111**	**(73.1)**	**2.0**	**18601**	**(25.1)**	**1.5**	**1284**	**(1.7)**	**1.5**	**73996**	**1.8**
Non-EU/EEA												
Albania	citizenship	444	(99.8%)	2.3	1	(0.2%)	-	0	(0.0%)	-	445	2.3
Andorra	citizenship	7	(100%)	1.3	0	(0.0%)	-	0	(0.0%)	-	7	1.3
Armenia	*citizenship*	*1779*	*(99.9%)*	*2.8*	*1*	*(0.1%)*	*0.0*	*0*	*(0.0%)*	-	*1780*	*2.7*
Azerbaijan	*citizenship*	-	-	-	-	-	-	*8394*	*(100%)*	-	*8394*	-
Belarus	*citizenship*	*5153*	*(92.8%)*	*2.6*	*0*	*(0.0%)*	-	*401*	*(7.2%)*	-	*5554*	*2.6*
Bosnia and Herzegovina	citizenship	1390	(100%)	1.4	0	(0.0%)	-	0	(0.0%)	-	1390	1.4
Croatia	birthplace	691	(99.4%)	1.7	4	(0.6%)	1.0	0	(0.0%)	-	695	1.7
Georgia	*citizenship*	*5796*	*(100%)*	*3.1*	*0*	*(0.0%)*	-	*0*	*(0.0%)*	-	*5796*	*3.1*
Israel	birthplace	51	(14.9%)	2.2	292	(85.1%)	1.9	0	(0.0%)	-	343	2.0
Kazakhstan	*birthplace*	*24847*	*(87.0%)*	*1.5*	*0*	*(0.0%)*	-	*3703*	*(13.0%)*	-	*28550*	*1.5*
Kyrgyzstan	*birthplace*	*5308*	*(84.3%)*	*1.3*	*0*	*(0.0%)*	-	*987*	*(15.7%)*	-	*6295*	*1.3*
Macedonia, the former Yugoslav Republic of	birthplace	398	(94.8%)	-	22	(5.2%)	-	0	(0.0%)	-	420	-
Moldova	*citizenship*	*5416*	*(99.4%)*	*2.9*	*31*	*(0.6%)*	*2.4*	*0*	*(0.0%)*	-	*5447*	*2.9*
Monaco	birthplace	0	(0.0%)	-	1	(100%)	0.0	0	(0.0%)	-	1	o.o
Montenegro	citizenship	113	(99.1%)	1.3	1	(0.9%)	-	0	(0.0%)	-	114	1.3
Russia	*citizenship*	*107794*	*(66.3%)*	*2.3*	*2110*	*(1.3%)*	*3.4*	*52649*	*(32.4%)*	-	*162553*	*2.3*
San Marino	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	2380	(99.8%)	-	5	(0.2%)	-	0	(0.0%)	-	2385	-
Serbia excluding UN Administered Province of Kosovo[c]	citizenship	1496	(99.7%)	1.5	5	(0.3%)	4.0	0	(0.0%)	-	1,501	1.5
UN Administered Province of Kosovo[c]	birthplace	884	(100%)	1.0	-	(0.0%)	-	0	(0.0%)	-	884	1.0
Switzerland	birthplace	150	(27.3%)	1.3	377	(68.7%)	1.1	22	(4.0%)	-	549	1.2
Tajikistan	*birthplace*	*5959*	*(78.0%)*	*1.3*	-	-	-	*1682*	*(22.0%)*	-	*7641*	*1.3*
Turkey	*birthplace*	*16372*	*(98.9%)*	*1.5*	*179*	*(1.1%)*	*1.4*	*0*	*(0.0%)*	-	*16551*	-
Turkmenistan	*citizenship*	*3230*	*(100%)*	*1.6*	*0*	*(1.1%)*	-	*0*	*(0.0%)*	-	*3230*	-
Ukraine	*citizenship*	-	-	-	-	-	-	*36409*	*(100%)*	-	*36409*	-
Uzbekistan	*birthplace*	*20301*	*(99.9%)*	*1.4*	*4*	*(0.0%)*	*3.0*	*25*	*(100%)*	-	*20330*	-
Subtotal non-EU/EEA		**207579**	**(65.8%)**	**1.9**	**3028**	**(1.0%)**	**2.5**	**104272**	**(48.8%)**	**-**	**314879**	**2.1**
Total European Region		**261690**	**(67.3%)**	**1.9**	**21639**	**(5.4%)**	**2.5**	**105556**	**(39.8%)**	**-**	**388875**	**2.1**
Subtotal 18 HPC		***228676***	***(68.2%)***	***1.9***	***2532***	***(0.8%)***	***3.3***	***104250***	***(44.8%)***	**-**	***335458***	***2.1***

'European Region' comprises the 53 countries of the WHO European Region.
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.
[c] In accordance with Security Council Resolution 1244(1999)

Table 14b: Tuberculosis cases in children (< 15 years old), by age group and origin, European Region, 2010

Country	Native origin				Foreign origin				Unknown				Total	
	0–4		5–14		0–4		5–14		0–4		5–14			
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)[a]
EU/EEA														
Austria	3	(12.0)	4	(16.0)	7	(28.0)	10	(40.0)	1	(4.0)	0	(0.0)	25	(3.6)
Belgium	24	(32.9)	21	(28.8)	15	(20.5)	13	(17.8)	0	(0.0)	0	(0.0)	73	(6.5)
Bulgaria	*59*	*(27.2)*	*158*	*(72.8)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*217*	*(8.2)*
Cyprus	0	(0.0)	0	(0.0)	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(3.3)
Czech Republic	1	(33.3)	1	(33.3)	0	(0.0)	1	(33.3)	0	(0.0)	0	(0.0)	3	(0.4)
Denmark[a]	5	(23.8)	11	(52.4)	2	(9.5)	3	(14.3)	0	(0.0)	0	(0.0)	21	(5.8)
Estonia	*1*	*(16.7)*	*5*	*(83.3)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*6*	*(1.8)*
Finland	1	(16.7)	1	(16.7)	0	(0.0)	4	(66.7)	0	(0.0)	0	(0.0)	6	(1.8)
France	86	(37.1)	65	(28.0)	25	(10.8)	46	(19.8)	6	(2.6)	4	(1.7)	232	(4.5)
Germany	58	(36.7)	49	(31.0)	12	(7.6)	33	(20.9)	3	(1.9)	3	(1.9)	158	(3.6)
Greece	14	(42.4)	7	(21.2)	7	(21.2)	5	(15.2)	0	(0.0)	0	(0.0)	33	(6.7)
Hungary	3	(27.3)	8	(72.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	11	(0.6)
Iceland	0	-	0	-	0	-	0	-	0	-	0	-	0	(0.0)
Ireland	5	(23.8)	10	(47.6)	2	(9.5)	4	(19.0)	0	(0.0)	0	(0.0)	21	(4.9)
Italy	80	(39.2)	36	(17.6)	19	(9.3)	67	(32.8)	2	(1.0)	0	(0.0)	204	(6.3)
Latvia	*23*	*(50.0)*	*23*	*(50.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*46*	*(4.9)*
Lithuania	*20*	*(21.7)*	*71*	*(77.2)*	*1*	*(1.1)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*92*	*(4.7)*
Luxembourg	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(3.4)
Malta	0	-	0	-	0	-	0	-	0	-	0	-	0	(0.0)
Netherlands	9	(26.5)	11	(32.4)	2	(5.9)	11	(32.4)	0	(0.0)	1	(2.9)	34	(3.2)
Norway	2	(18.2)	0	(0.0)	0	(0.0)	9	(81.8)	0	(0.0)	0	(0.0)	11	(3.2)
Poland	20	(32.3)	42	(67.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	62	(0.8)
Portugal	16	(30.8)	26	(50.0)	2	(3.8)	8	(15.4)	0	(0.0)	0	(0.0)	52	(2.0)
Romania	*306*	*(37.1)*	*511*	*(62.0)*	*5*	*(0.6)*	*2*	*(0.2)*	*0*	*(0.0)*	*0*	*(0.0)*	*824*	*(3.9)*
Slovakia	4	(36.4)	7	(63.6)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	11	(2.5)
Slovenia	2	(66.7)	0	(0.0)	0	(0.0)	1	(33.3)	0	(0.0)	0	(0.0)	3	(1.7)
Spain	218	(48.0)	133	(29.3)	32	(7.0)	67	(14.8)	2	(0.4)	2	(0.4)	454	(6.4)
Sweden	4	(8.5)	1	(2.1)	9	(19.1)	33	(70.2)	0	(0.0)	0	(0.0)	47	(7.0)
United Kingdom	103	(26.7)	151	(39.1)	12	(3.1)	89	(23.1)	13	(3.4)	18	(4.7)	386	(4.6)
Subtotal EU/EEA	**1068**	**(35.2)**	**1352**	**(44.5)**	**154**	**(5.1)**	**406**	**(13.4)**	**27**	**(0.9)**	**28**	**(0.9)**	**3035**	**(4.1)**
Non-EU/EEA														
Albania	5	(27.8)	13	(72.2)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	18	(4.0)
Andorra	0	-	0	-	0	-	0	-	0	-	0	-	0	(0.0)
Armenia	*23*	*(38.3)*	*37*	*(61.7)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*60*	*(3.4)*
Azerbaijan	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*56*	*(23.0)*	*188*	*(77.0)*	*244*	*(2.9)*
Belarus	*14*	*(43.8)*	*18*	*(56.3)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*32*	*(0.6)*
Bosnia and Herzegovina	1	(7.7)	12	(92.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	13	(0.9)
Croatia	0	(0.0)	18	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	18	(2.6)
Georgia	*57*	*(22.3)*	*199*	*(77.7)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*256*	*(4.4)*
Israel	9	(47.4)	4	(21.1)	3	(15.8)	3	(15.8)	0	(0.0)	0	(0.0)	19	(5.5)
Kazakhstan	*179*	*(23.2)*	*594*	*(76.8)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*773*	*(2.7)*
Kyrgyzstan	*98*	*(18.5)*	*433*	*(81.5)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*531*	*(8.4)*
Macedonia, the former Yugoslav Republic of	14	(42.4)	19	(57.6)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	33	(7.9)
Moldova	*39*	*(27.9)*	*101*	*(72.1)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*140*	*(2.6)*
Monaco	0	-	0	-	0	-	0	-	0	-	0	-	0	(0.0)
Montenegro	1	(33.3)	2	(66.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	3	(2.6)
Russia	*1162*	*(35.6)*	*2007*	*(61.5)*	*18*	*(0.6)*	*76*	*(2.3)*	*0*	*(0.0)*	*0*	*(0.0)*	*3263*	*(2.0)*
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	3	(6.7)	42	(93.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	45	(1.9)
Serbia excluding UN Administered Province of Kosovo[b]	3	(18.8)	13	(81.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	16	(1.1)
UN Administered Province of Kosovo[b]	0	(0.0)	29	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	29	(3.3)
Switzerland	5	(27.8)	1	(5.6)	5	(27.8)	7	(38.9)	0	(0.0)	0	(0.0)	18	(3.3)
Tajikistan	*135*	*(27.5)*	*356*	*(72.5)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*491*	*(6.4)*
Turkey	*222*	*(24.7)*	*671*	*(74.6)*	*1*	*(0.1)*	*6*	*(0.7)*	*0*	*(0.0)*	*0*	*(0.0)*	*900*	*(5.4)*
Turkmenistan	*0*	-	*0*	-	*0*	-	*0*	-	*0*	-	*0*	-	*0*	*(0.0)*
Ukraine	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*107*	*(35.4)*	*195*	*(64.6)*	*302*	*(0.8)*
Uzbekistan	*330*	*(16.5)*	*1670*	*(83.5)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*2000*	*(9.8)*
Subtotal non-EU/EEA	**2297**	**(25.1)**	**6197**	**(67.7)**	**27**	**(0.3)**	**92**	**(1.0)**	**163**	**(1.8)**	**383**	**(4.2)**	**9159**	**(4.0)**
Total European Region	**3365**	**(27.6)**	**7549**	**(61.9)**	**181**	**(1.5)**	**498**	**(4.1)**	**190**	**(1.6)**	**411**	**(3.4)**	**12194**	**(4.3)**
Subtotal 18 HPC	***2668***	***(26.2)***	***6854***	***(67.3)***	***25***	***(0.2)***	***84***	***(0.8)***	***163***	***(1.6)***	***383***	***(3.8)***	***10177***	***(4.2)***

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
[a] By birthplace of parents for Danish-born cases under 26 years of age.
[b] In accordance with Security Council Resolution 1244(1999)

Table 15: Laboratory practices and quality assurance for anti-TB drug susceptibility testing, European Region, 2010[a]

Country	No. of labs performing				External quality assurance (international)				External quality assurance for DST					
					Smear microscopy		Culture		National[b]		International			
	Microscopy	Culture	DST	Line Probe Assay	Year	Laboratories with acceptable performance (N)	Year	Laboratories with acceptable performance (N)		No. labs		Year	% agreement of results for: Isoniazid	% agreement of results for: Rifampicin
EU/EEA														
Austria	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Belgium	115	114	14	5	-	-	-	-	Yes	13	Yes	2010	100	100
Bulgaria	*36*	*30*	*21*	*1*	*2010*	*36*	*2010*	*27*	*Yes*	*3*	*Yes*	*2010*	*100*	*100*
Cyprus	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Czech Republic	44	44	17	3	2010	40	2010	42	Yes	16	Yes	2010	100	100
Denmark	10	1	1	1	2010	.	2010	1	No	-	Yes	2010	100	100
Estonia	*8*	*2*	*2*	*2*	*2010*	*6*	*2010*	*2*	*Yes*	*1*	*Yes*	*2010*	*100*	*100*
Finland	11	11	2	5	2010	.	2010	.	Yes	-	Yes	2010	100	100
France	210	210	80	.	-	-	-	-	Yes	34	Yes	2010	100	100
Germany	250	191	73	.	-	-	-	-	-	-	Yes	2010	100	100
Greece	-	-	-	0	-	-	-	-	-	-	-	-	-	-
Hungary	12	12	7	2	2010	12	2010	6	Yes	2	Yes	2010	100	100
Iceland	1	1	0	0	-	-	-	-	-	-	-	-	-	-
Ireland	13	13	3	3	2010	12	2010	12	Yes	2	Yes	2010	100	100
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	*16*	*4*	*1*	*1*	*2010*	*16*	*2010*	*4*	*No*	*-*	*Yes*	*2010*	*100*	*100*
Lithuania	*13*	*6*	*6*	*1*	*2010*	*4*	*2010*	*4*	*Yes*	*3*	*Yes*	*2008*	*100*	*100*
Luxembourg	1	1	1	1	2010	1	2010	1	No	-	Yes	2010	100	100
Malta	1	1	0	0	2010	1	-	-	-	-	-	-	-	-
Netherlands	42	37	1	1	2010	42	2010	1	-	-	Yes	2009	100	100
Norway	18	10	3	4	2010	18	2010	10	Yes	2	Yes	2010	100	100
Poland	85	85	47	-	-	-	-	-	Yes	.	Yes	2010	100	100
Portugal	88	88	22	18	2010	34	2010	.	Yes	11	Yes	2010	100	100
Romania	*122*	*97*	*44*	*0*	*2010*	*87*	*2010*	*44*	*Yes*	*34*	*Yes*	*2010*	*100*	*100*
Slovakia	7	7	2	2	2010	1	2010	1	Yes	-	Yes	2010	90	95
Slovenia	3	3	1	1	2010	3	2010	2	No	-	Yes	2009	100	100
Spain	-	-	-	-	-	-	-	-	.	.	Yes	2010	100	100
Sweden	5	5	5	5	2010	5	2010	5	Yes	4	Yes	2010	100	100
United Kingdom	199	124	7	10	2010	193	2010	118	Yes	5	Yes	2010	100	100
Subtotal EU/EEA	**1310**	**1097**	**360**	**66**	**19**	**511**	**18**	**280**	**16**	**130**	**23**	**2009-10**	**99.5**	**99.8**
Non-EU/EEA														
Albania	17	1	1	0	2010	17	2010	0	Yes	1	Yes	2010	100	100
Andorra	8	8	8	0	-	-	-	-	-	-	-	-	-	-
Armenia	*44*	*1*	*1*	*1*	*2010*	*22*	*2010*	*-*	*Yes*	*-*	*Yes*	*2009*	*100*	*100*
Azerbaijan[c]	*69*	*2*	*2*	*-*		*-*	*2009*	*1*	*Yes*	*1*	*Yes*	*2009*	*100*	*100*
Belarus	*-*	*-*	*0*	*-*	*-*	*-*	*-*	*-*	*-*	*-*	*Yes*	*2010*	*100*	*100*
Bosnia and Herzegovina	4	11	4	0	2010	4	2010	11	Yes	4	Yes	2009	100	100
Croatia	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Georgia	*29*	*2*	*1*	*1*	*2010*	*29*	*2010*	*2*	*Yes*	*1*	*Yes*	*2010*	*97*	*100*
Israel	20	20	2	1	2009	-	2009	-	Yes	2	Yes	2009	100	100
Kazakhstan	*466*	*100*	*22*	*0*	*2010*	*466*	*2010*	*100*	*Yes*	*22*	*Yes*	*2009*	*98*	*98*
Kyrgyzstan	*122*	*8*	*3*	*1*	*2010*	*41*	*2010*	*8*	*Yes*	*3*	*Yes*	*2009*	*97*	*100*
Macedonia, the former Yugoslav Republic of	10	3	1	0	2010	10	2010	3	Yes	1	Yes	2010	100	100
Moldova	*59*	*4*	*4*	*1*	*2010*	*47*	*2010*	*4*	*Yes*	*4*	*Yes*	*2010*	*100*	*100*
Monaco	3	3	0	0	-	-	-	-	-	-	-	-	-	-
Montenegro	1	1	1	0	2010	1	2010	1	Yes	1	Yes	2010	100	100
Russia[c]	*3999*	*397*	*272*	*-*	*2010*	*-*	*2010*	*-*	*Yes*	*51*	*-*	*-*	*-*	*-*
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	43	31	7	1	-	-	-	-	-	-	-	-	-	-
Serbia excluding UN Administered Province of Kosovo[c]	31	29	5	1	2010	21	2010	0	Yes	4	Yes	2010	100	100
UN Administered Province of Kosovo[c]	12	2	2	-	-	-	-	-	-	-	-	-	-	-
Switzerland	42	24	10	-	2010	40	2010	24	Yes	9	Yes	2010	100	100
Tajikistan	*93*	*3*	*1*	*0*	*2010*	*43*	*2010*	*1*	*Yes*	*1*	*Yes*	*2010*	*100*	*100*
Turkey	*416*	*172*	*69*	*19*	*2010*	*-*	*2010*	*-*	*Yes*	*-*	*Yes*	*2010*	*100*	*100*
Turkmenistan	*61*	*2*	*1*	*2*	*2010*	*57*	*2010*	*1*	*Yes*	*1*	*Yes*	*2009*	*100*	*100*
Ukraine	*1011*	*103*	*46*	*-*	*2010*	*-*	*2010*	*-*	*Yes*	*1*	*Yes*	*2010*	*100*	*100*
Uzbekistan	*312*	*4*	*2*	*2*	*2010*	*284*	*2010*	*2*	*Yes*	*2*	*Yes*	*2010*	*100*	*100*
Subtotal Non-EU/EEA	**6829**	**900**	**458**	**29**	**18**	**1061**	**19**	**158**	**19**	**105**	**19**	**2009-10**	**99.6**	**99.9**
Total European Region	**8139**	**1997**	**818**	**95**	**37**	**1572**	**37**	**438**	**35**	**235**	**42**	**2009-10**	**99.6**	**99.8**
Subtotal 18 HPC	***6876***	***937***	***498***	***32***	***15***	***1138***	***17***	***200***	***18***	***128***	***18***	***2009-10***	***99.5***	***99.9***

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
[a] TME data reported to TME have been analysed for the report.
[b] For countries with more than one DST laboratory; national reference laboratory not included as these laboratories report the International EQA result.
[c] In accordance with Security Council Resolution 1244(1999)

Table 16: Characteristics of anti-TB drug resistance surveillance of all culture positive cases, European Region, 2010

Country	Source of data	Coverage	Culture-confirmed cases (%)	Cases included			MDR cases		Cases resistant to any anti-TB drug[b]		Data completeness[b]
				Total culture-positive[a]	DST results (isoniazid and rifampicin)						
					N	(%)	N	(%)	N	(%)	
EU/EEA											
Austria	TESSy	national	69.5	478	472	(98.7)	15	(3.2)	60	(12.7)	Y
Belgium	TESSy	national	77.2	861	825	(95.8)	19	(2.3)	61	(7.4)	Y
Bulgaria	*TESSy*	*national*	*44.3*	*1174*	*966*	*(82.3)*	*56*	*(5.8)*	*155*	*(16.0)*	*N*
Cyprus	TESSy	national	96.7	59	37	(62.7)	0	(0.0)	22	(59.5)	N
Czech Republic	TESSy	national	64.2	435	420	(96.6)	9	(2.1)	34	(8.1)	Y
Denmark	TESSy	national	79.1	284	281	(98.9)	2	(0.7)	23	(8.2)	Y
Estonia	*TESSy*	*national*	*78.7*	*259*	*258*	*(99.6)*	*63*	*(24.4)*	*100*	*(38.8)*	*Y*
Finland	TESSy	national	78.6	257	247	(96.1)	6	(2.4)	19	(7.7)	Y
France	NRL-TME**	national	46.6	2386	1473	(61.7)	23	(1.6)	-	-	N
Germany	TESSy	national	69.4	3003	2670	(88.9)	48	(1.8)	295	(11.0)	Y
Greece	TESSy	national	100.0	489	169	(34.6)	2	(1.2)	19	(11.2)	N
Hungary	TESSy	national	35.8	623	570	(91.5)	19	(3.3)	72	(12.6)	N
Iceland	TESSy	national	86.4	19	19	(100.0)	0	(0.0)	6	(31.6)	Y
Ireland	TESSy	national	63.2	270	257	(95.2)	2	(0.8)	18	(7.0)	Y
Italy	NRL-TME**	national	80.6	2618	2597	(99.2)	87	(3.4)	-	-	N
Latvia	*TESSy*	*national*	*78.4*	*732*	*715*	*(97.7)*	*87*	*(12.2)*	*211*	*(29.5)*	*Y*
Lithuania	*TESSy*	*national*	*70.3*	*1363*	*1363*	*(100.0)*	*310*	*(22.7)*	*506*	*(37.1)*	*Y*
Luxembourg	TESSy	national	69.0	20	20	(100.0)	0	(0.0)	1	(5.0)	Y
Malta	TESSy	national	50.0	16	16	(100.0)	1	(6.3)	4	(25.0)	Y
Netherlands	TESSy	national	73.0	783	783	(100.0)	11	(1.4)	108	(13.8)	Y
Norway	TESSy	national	81.1	275	274	(99.6)	8	(2.9)	37	(13.5)	Y
Poland	TESSy	national	63.3	4756	3706	(77.9)	30	(0.8)	256	(6.9)	Y
Portugal	TESSy	national	61.1	1605	1225	(76.3)	19	(1.6)	153	(12.5)	Y
Romania	*TESSy*	*national*	*59.3*	*12492*	*5349*	*(42.8)*	*502*	*(9.4)*	*849*	*(15.9)*	*N*
Slovakia	TESSy	national	53.3	234	234	(100.0)	1	(0.4)	11	(4.7)	N
Slovenia	TESSy	national	90.1	155	155	(100.0)	0	(0.0)	2	(1.3)	Y
Spain	NRL-TME**	partial national	56.3	3991	1416	(35.5)	49	(3.5)	-	-	N
Sweden	TESSy	national	77.9	526	524	(99.6)	18	(3.4)	64	(12.2)	Y
United Kingdom	TESSy	national	57.9	4908	4603	(93.8)	60	(1.3)	397	(8.6)	Y
Subtotal EU/EEA			**60.9**	**45071**	**31644**	**(70.2)**	**1447**	**(4.6)**	**3483**	**(11.0)**	
Non-EU/EEA											
Albania	NRL-TME**	national	46.1	205	205	(100.0)	2	(1.0)	-	-	N
Andorra	NRL-TME**	national	57.1	4	4	(100.0)	0	(0.0)	-	-	Y
Armenia	*NRL-TME**	*national*	*38.8*	*691*	*691*	*(100.0)*	*177*	*(25.6)*	-	-	*N*
Azerbaijan	*NRL-TME**	*partial national*	*35.2*	*2957*	*1761*	*(59.6)*	*552*	*(31.3)*	-	-	*N*
Belarus	*NRL-TME**	*national*	*68.1*	*3783*	*3783*	*(100.0)*	*1576*	*(41.7)*	-	-	*Y*
Bosnia and Herzegovina	NRL-TME**	national	46.5	647	647	(100.0)	2	(0.3)	-	-	N
Croatia	NRL-TME**	-	70.8	492	-	-	-	-	-	-	N
Georgia	*NRL-TME**	*national*	*47.0*	*2724*	*2545*	*(93.4)*	*359*	*(14.1)*	-	-	*N*
Israel	NRL-TME**	national	72.0	247	247	(100.0)	12	(4.9)	-	-	Y
Kazakhstan	*NRL-TME**	*national*	*40.5*	*11571*	*11571*	*(100.0)*	*4033*	*(34.9)*	-	-	*N*
Kyrgyzstan	*NRL-TME**	*partial national*	*14.9*	*941*	*941*	*(100.0)*	*489*	*(52.0)*	-	-	*N*
Macedonia, the former Yugoslav Republic of	NRL-TME**	national	44.5	187	181	(96.8)	7	(3.9)	-	-	N
Moldova	*NRL-TME**	*national*	*47.9*	*2609*	*2521*	*(96.6)*	*1082*	*(42.9)*	-	-	*N*
Monaco	NRL-TME**	national	0.0	0	1	-	0	(0.0)	-	-	Y
Montenegro	NRL-TME**	national	64.9	74	73	(98.6)	0	(0.0)	-	-	Y
Russia	*NRL-TME**	*national*	*33.3*	*54208*	*49267*	*(90.9)*	*12387*	*(25.1)*	-	-	*N*
San Marino	-	-	-	-	-	-	-	-	-	-	N
Serbia	-	-	47.0	1122	-	-	-	-	-	-	N
Serbia excluding UN Administered Province of Kosovo[c]	NRL-TME**	national	74.8	1,122	928	(82.7)	12	(1.3)	-	-	Y
UN Administered Province of Kosovo[c]	-	-	0.0	0	-	-	-	-	-	-	N
Switzerland	NRL-TME**	national	85.4	469	454	(96.8)	9	(2.0)	-	-	Y
Tajikistan	*NRL-TME**	*partial national*	*8.5*	*648*	*383*	*(59.1)*	*266*	*(69.5)*	-	-	*N*
Turkey	*NRL-TME**	*partial national*	*30.0*	*4965*	*4957*	*(99.8)*	*250*	*(5.0)*	-	-	*N*
Turkmenistan	*NRL-TME**	*partial national*	*5.2*	*169*	*144*	*(85.2)*	*38*	*(26.4)*	-	-	*N*
Ukraine	*NRL-TME**	*national*	*40.9*	*14876*	*14034*	*(94.3)*	*5336*	*(38.0)*	-	-	*N*
Uzbekistan	*NRL-TME**	*partial national*	*20.5*	*4167*	*4025*	*(96.6)*	*1023*	*(25.4)*	-	-	*N*
Subtotal non-EU/EEA			**34.3**	**107756**	**99363**	**(92.2)**	**27612**	**(27.8)**	**-**	**-**	
Total European Region			**39.3**	**152827**	**131007**	**(85.7)**	**29059**	**(22.2)**	**-**	**-**	
Subtotal 18 HPC			***35.9***	***120329***	***105274***	***(87.5)***	***28586***	***(27.2)***	**-**	**-**	

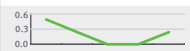
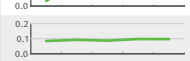
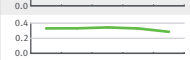
'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
DST: Drug Susceptibility Testing; NRL: National Reference Laboratory; TME: WHO Tuberculosis Monitoring and Evaluation Database
[a] In areas included in drug-resistance surveillance; may differ from data shown elsewhere in this report.
[b] Data considered complete when national coverage has been 100% or culturing available for 90% of all cases, 50% of all cases were culture-positive, and 75% of them had reported DST results and EQA results matched.
[c] In accordance with Security Council Resolution 1244(1999)

Table 17: Multidrug-resistant TB cases by previous history of TB treatment, European Region, 2010[a]

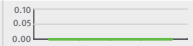
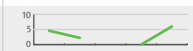
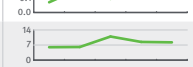
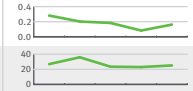
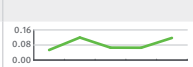
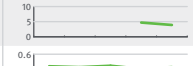
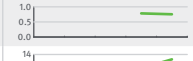
Country	Source of data / coverage	New			Previously treated			Previous treatment unknown			All TB cases reported[b]		
		Cases with DST results	Multidrug-resistant		Cases with DST results	Multidrug-resistant		Cases with DST results	Multidrug-resistant		Cases with DST results	Multidrug-resistant	
			N	(%)		N	(%)		N	(%)		N	(%)
EU/EEA													
Austria	TESSy / national	240	5	(2.1)	16	3	(18.8)	216	7	(3.2)	472	15	(3.2)
Belgium[c]	TESSy / national	619	10	(1.6)	60	9	(15.0)	146	0	(0.0)	825	19	(2.3)
Bulgaria	*TESSy / national*	*801*	*16*	*(2.0)*	*165*	*40*	*(24.2)*	*0*	*0*	-	*966*	*56*	*(5.8)*
Cyprus	TESSy / national	20	0	(0.0)	0	0	-	17	0	(0.0)	37	0	(0.0)
Czech Republic	TESSy / national	390	7	(1.8)	30	2	(6.7)	0	0	-	420	9	(2.1)
Denmark[c]	TESSy / national	248	2	(0.8)	33	0	(0.0)	0	0	-	281	2	(0.7)
Estonia	*TESSy / national*	*197*	*36*	*(18.3)*	*61*	*27*	*(44.3)*	*0*	*0*	-	*258*	*63*	*(24.4)*
Finland	TESSy / national	239	5	(2.1)	8	1	(12.5)	0	0	-	247	6	(2.4)
France	NRL-TME** / national	1187	13	(1.1)	91	8	(8.8)	195	2	(1.0)	1473	23	(1.6)
Germany	TESSy / national	2183	29	(1.3)	183	11	(6.0)	304	8	(2.6)	2670	48	(1.8)
Greece	TESSy / national	125	1	(0.8)	16	1	(6.3)	28	0	(0.0)	169	2	(1.2)
Hungary	TESSy / national	490	12	(2.4)	80	7	(8.8)	0	0	-	570	19	(3.3)
Iceland	TESSy / national	19	0	(0.0)	0	0	-	0	0	-	19	0	(0.0)
Ireland[c]	TESSy / national	200	2	(1.0)	22	0	(0.0)	35	0	(0.0)	257	2	(0.8)
Italy	NRL-TME** / national	836	23	(2.8)	279	29	(10.4)	1482	35	(2.4)	2597	87	(3.4)
Latvia	*TESSy / national*	*613*	*63*	*(10.3)*	*102*	*24*	*(23.5)*	*0*	*0*	-	*715*	*87*	*(12.2)*
Lithuania	*TESSy / national*	*998*	*128*	*(12.8)*	*364*	*181*	*(49.7)*	*1*	*1*	*(100.0)*	*1363*	*310*	*(22.7)*
Luxembourg	TESSy / national	17	0	(0.0)	0	0	-	3	0	(0.0)	20	0	(0.0)
Malta	TESSy / national	11	0	(0.0)	2	1	(50.0)	3	0	(0.0)	16	1	(6.3)
Netherlands	TESSy / national	741	10	(1.3)	29	1	(3.4)	13	0	(0.0)	783	11	(1.4)
Norway[c]	TESSy / national	223	6	(2.7)	34	2	(5.9)	17	0	(0.0)	274	8	(2.9)
Poland	TESSy / national	3238	13	(0.4)	468	17	(3.6)	0	0	-	3706	30	(0.8)
Portugal	TESSy / national	1121	13	(1.2)	104	6	(5.8)	0	0	-	1225	19	(1.6)
Romania	*TESSy / national*	*3338*	*96*	*(2.9)*	*2011*	*406*	*(20.2)*	*0*	*0*	-	*5349*	*502*	*(9.4)*
Slovakia	TESSy / national	185	0	(0.0)	32	1	(3.1)	17	0	(0.0)	234	1	(0.4)
Slovenia	TESSy / national	146	0	(0.0)	9	0	(0.0)	0	0	-	155	0	(0.0)
Spain	NRL-TME**/partial national	1009	20	(2.0)	110	13	(11.8)	297	16	(5.4)	1416	49	(3.5)
Sweden	TESSy / national	440	11	(2.5)	30	7	(23.3)	54	0	(0.0)	524	18	(3.4)
United Kingdom[c]	TESSy / national	3970	42	(1.1)	247	11	(4.5)	386	7	(1.8)	4603	60	(1.3)
Subtotal EU/EEA		**23844**	**563**	**(2.4)**	**4586**	**808**	**(17.6)**	**3214**	**76**	**(2.4)**	**31644**	**1447**	**(4.6)**
Non-EU/EEA													
Albania	NRL-TME**/national	186	1	(0.5)	19	1	(5.3)	0	0	-	205	2	(1.0)
Andorra	NRL-TME**/national	4	0	(0.0)	0	0	-	0	0	-	4	0	(0.0)
Armenia	*NRL-TME**/national*	*471*	*59*	*(12.5)*	*220*	*118*	*(53.6)*	*0*	*0*	-	*691*	*177*	*(25.6)*
Azerbaijan	*NRL-TME**/partial national*	*801*	*93*	*(11.6)*	*960*	*459*	*(47.8)*	*0*	*0*	-	*1761*	*552*	*(31.3)*
Belarus	*NRL-TME**/national*	*1972*	*507*	*(25.7)*	*1697*	*1021*	*(60.2)*	*114*	*48*	*(42.1)*	*3783*	*1576*	*(41.7)*
Bosnia and Herzegovina	NRL-TME**/national	600	1	(0.2)	47	1	(2.1)	0	0	-	647	2	(0.3)
Croatia	NRL-TME**/-	-	-	-	-	-	-	-	-	-	-	-	-
Georgia	*NRL-TME**/national*	*1987*	*188*	*(9.5)*	*558*	*171*	*(30.6)*	*0*	*0*	-	*2545*	*359*	*(14.1)*
Israel	NRL-TME**/national	245	12	(4.9)	2	0	(0.0)	0	0	-	247	12	(4.9)
Kazakhstan	*NRL-TME**/national*	*5214*	*1408*	*(27.0)*	*4655*	*2099*	*(45.1)*	*1702*	*526*	*(30.9)*	*11571*	*4033*	*(34.9)*
Kyrgyzstan	*NRL-TME**/partial national*	*619*	*225*	*(36.3)*	*322*	*264*	*(82.0)*	*0*	*0*	-	*941*	*489*	*(52.0)*
Macedonia, the former Yugoslav Republic of	NRL-TME**/national	153	2	(1.3)	28	5	(17.9)	0	0	-	181	7	(3.9)
Moldova	*NRL-TME**/national*	*1381*	*336*	*(24.3)*	*1140*	*746*	*(65.4)*	*0*	*0*	-	*2521*	*1082*	*(42.9)*
Monaco	NRL-TME**/national	1	0	(0.0)	0	0	-	0	0	-	1	0	(0.0)
Montenegro	NRL-TME**/national	61	0	(0.0)	12	0	(0.0)	0	0	-	73	0	(0.0)
Russia	*NRL-TME**/national*	*35862*	*6218*	*(17.3)*	*13405*	*6169*	*(46.0)*	*0*	*0*	-	*49267*	*12387*	*(25.1)*
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	811	-	-	-	-	-	-	-	-	-	-	-
Serbia excluding UN Administered Province of Kosovo[d]	NRL-TME**/national	811	4	(0.5)	113	8	(7.1)	4	0	(0.0)	928	12	(1.3)
UN Administered Province of Kosovo[d]	-	0	-	-	-	-	-	-	-	-	-	-	-
Switzerland	NRL-TME**/national	270	1	(0.4)	33	3	(9.1)	151	5	(3.3)	454	9	(2.0)
Tajikistan	*NRL-TME**/partial national*	*160*	*92*	*(57.5)*	*223*	*174*	*(78.0)*	*0*	*0*	-	*383*	*266*	*(69.5)*
Turkey	*NRL-TME**/partial national*	*4342*	*110*	*(2.5)*	*615*	*140*	*(22.8)*	*0*	*0*	-	*4957*	*250*	*(5.0)*
Turkmenistan	*NRL-TME**/partial national*	*81*	*19*	*(23.5)*	*63*	*19*	*(30.2)*	*0*	*0*	-	*144*	*38*	*(26.4)*
Ukraine	*NRL-TME**/national*	*9194*	*1492*	*(16.2)*	*4840*	*3844*	*(79.4)*	*0*	*0*	-	*14034*	*5336*	*(38.0)*
Uzbekistan	*NRL-TME**/partial national*	*2845*	*430*	*(15.1)*	*1180*	*593*	*(50.3)*	*0*	*0*	-	*4025*	*1023*	*(25.4)*
Subtotal non-EU/EEA		**67260**	**11198**	**(16.6)**	**30132**	**15835**	**(52.6)**	**1971**	**579**	**(29.4)**	**99363**	**27612**	**(27.8)**
Total European Region		**91104**	**11761**	**(12.9)**	**34718**	**16643**	**(47.9)**	**5185**	**655**	**(12.6)**	**131007**	**29059**	**(22.2)**
Subtotal 18 HPC		***70876***	***11516***	***(16.2)***	***32581***	***16495***	***(50.6)***	***1817***	***575***	***(31.6)***	***105274***	***28586***	***(27.2)***

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
DST: Drug Susceptibility Testing; NRL: National Reference Laboratory
[a] Distribution of cases by previous anti-TB treatment, except where indicated (previous diagnosis).
[b] For EU/EEA countries percentages calculated from all cases, for non EU/EEA countries from pulmonary TB cases.
[c] Distribution by previous diagnosis.
[d] In accordance with Security Council Resolution 1244(1999)

Table 18: Multidrug-resistant TB notification among all culture positive TB cases with available drug susceptibility testing, European Region, 2006–2010

Country	Trend in rates 2006–2010	2006			2007			2008			2009			2010			Mean annual % change in rate, 2006–2010
		N	(%)	Rate[a]	N	(%)	Rate[a]	N	(%)	Rate[a]	N	(%)	Rate[a]	N	(%)	Rate[a]	
EU/EEA																	
Austria		10	1.9	0.1	9	1.8	0.1	15	3.1	0.2	23	5.3	0.3	15	3.2	0.2	18.3%
Belgium		18	2.2	0.2	14	1.9	0.1	21	2.7	0.2	10	1.3	0.1	19	2.3	0.2	15.4%
Bulgaria		*53*	*4.0*	*0.7*	*76*	*7.5*	*1.0*	*31*	*3.3*	*0.4*	*43*	*5.1*	*0.6*	*56*	*5.8*	*0.7*	*13.9%*
Cyprus		0	0.0	0.0	3	10.3	0.4	1	2.8	0.1	4	12.9	0.5	0	0.0	0.0	-
Czech Republic		12	2.1	0.1	8	1.5	0.1	11	2.1	0.1	8	1.8	0.1	9	2.1	0.1	-3.28%
Denmark		3	1.0	0.1	2	0.7	0.0	0	0.0	0.0	2	0.8	0.0	2	0.7	0.0	-
Estonia		*55*	*15.6*	*4.1*	*82*	*21.4*	*6.1*	*74*	*21.3*	*5.5*	*85*	*27.8*	*6.3*	*63*	*24.4*	*4.7*	*7.18%*
Finland		2	0.7	0.0	2	0.8	0.0	1	0.4	0.0	6	2.0	0.1	6	2.4	0.1	111.5%
France		30	2.0	0.0	20	1.3	0.0	27	1.7	0.0	30	1.9	0.0	23	1.6	0.0	-3.2%
Germany		82	2.3	0.1	65	2.0	0.1	48	1.6	0.1	62	2.1	0.1	48	1.8	0.1	-9.9%
Greece		13	2.6	0.1	14	2.6	0.1	0	-	0.0	14	8.0	0.1	2	1.2	0.0	-
Hungary		14	2.6	0.1	12	2.6	0.1	13	2.8	0.1	18	4.0	0.2	19	3.3	0.2	9.7%
Iceland		0	0.0	0.0	1	9.1	0.3	1	20.0	0.3	0	0.0	0.0	0	0.0	0.0	-
Ireland		4	1.4	0.1	7	2.4	0.2	2	0.7	0.0	1	0.3	0.0	2	0.8	0.0	11.9%
Italy		28	3.3	0.0	56	3.3	0.1	71	3.7	0.1	82	3.3	0.1	87	3.4	0.1	36.2%
Latvia		*142*	*14.7*	*6.2*	*99*	*10.1*	*4.3*	*128*	*15.5*	*5.6*	*131*	*17.4*	*5.8*	*87*	*12.2*	*3.9*	*-7.6%*
Lithuania		*332*	*18.6*	*9.8*	*314*	*18.6*	*9.3*	*276*	*17.1*	*8.2*	*322*	*21.8*	*9.6*	*310*	*22.7*	*9.3*	*-0.6%*
Luxembourg		0	0.0	0.0	0	0.0	0.0	-	-	-	0	0.0	0.0	0	0.0	0.0	-
Malta		2	14.3	0.5	1	5.3	0.2	0	0.0	0.0	0	0.0	0.0	1	6.3	0.2	-
Netherlands		6	0.8	0.0	6	0.8	0.0	15	2.0	0.1	20	2.6	0.1	11	1.4	0.1	34.1%
Norway		3	1.3	0.1	3	1.2	0.1	4	1.8	0.1	8	2.8	0.2	8	2.9	0.2	31.8%
Poland		32	0.9	0.1	22	0.6	0.1	19	0.5	0.0	21	0.5	0.1	30	0.8	0.1	2.1%
Portugal		22	1.3	0.2	34	2.0	0.3	32	1.8	0.3	24	1.4	0.2	19	1.6	0.2	0.5%
Romania		*673*	*14.8*	*3.1*	*673*	*17.6*	*3.1*	*792*	*14.3*	*3.7*	*624*	*10.0*	*2.9*	*502*	*9.4*	*2.3*	*-5.6%*
Slovakia		7	1.7	0.1	7	1.8	0.1	4	1.0	0.1	1	0.4	0.0	1	0.4	0.0	-29.6%
Slovenia		1	0.5	0.0	0	0.0	0.0	2	1.0	0.1	1	0.6	0.0	0	0.0	0.0	-
Spain		50	3.8	0.1	59	4.3	0.1	76	4.7	0.2	56	3.2	0.1	49	3.5	0.1	0.7%
Sweden		3	0.8	0.0	15	4.1	0.2	11	2.6	0.1	13	2.5	0.1	18	3.4	0.2	105.9%
United Kingdom		51	1.0	0.1	56	1.2	0.1	53	1.1	0.1	60	1.2	0.1	60	1.3	0.1	3.7%
Subtotal EU/EEA		**1648**	**5.1**	**0.3**	**1660**	**5.2**	**0.3**	**1728**	**5.3**	**0.3**	**1669**	**4.9**	**0.3**	**1447**	**4.6**	**0.3**	**-3.4%**

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
[a] Cases per 100 000 population

Country	Trend in rates 2006–2010	2006			2007			2008			2009			2010			Mean annual % change in rate, 2006–2010
		N	(%)	Rate[a]	N	(%)	Rate[a]	N	(%)	Rate[a]	N	(%)	Rate[a]	N	(%)	Rate[a]	
Non-EU/EEA																	
Albania		1	0.2	0.0	3	0.7	0.1	2	0.5	0.1	0	0.0	0.0	2	0.4	0.1	16.1%
Andorra		0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	-
Armenia		*215*	*10.0*	*7.0*	*125*	*5.9*	*4.1*	*128*	*6.0*	*4.2*	*156*	*7.8*	*5.1*	*177*	*9.9*	*5.7*	*-1.2%*
Azerbaijan		*398*	*5.3*	*4.6*	*196*	*2.7*	*2.2*	-	-		*0*	*0.0*	*0.0*	*552*	*6.6*	*6.0*	*59.5%*
Belarus		*651*	*10.7*	*6.7*	*870*	*15.1*	*8.9*	*923*	*16.8*	*9.5*	*1342*	*24.4*	*13.9*	*1576*	*28.4*	*16.4*	*26.2%*
Bosnia and Herzegovina		7	0.4	0.2	8	0.3	0.2	12	0.7	0.3	2	0.1	0.1	2	0.1	0.1	-4.6%
Croatia		3	0.3	0.1	7	0.7	0.2	4	0.4	0.1	7	0.8	0.2	-	-		16.6%
Georgia		*266*	*4.2*	*6.0*	*269*	*4.6*	*6.1*	*481*	*8.2*	*10.9*	*369*	*6.2*	*8.4*	*359*	*6.2*	*8.2*	*14.1%*
Israel		19	5.6	0.3	14	3.5	0.2	13	4.0	0.2	6	1.7	0.1	12	3.5	0.2	0.8%
Kazakhstan		*4117*	*10.7*	*26.9*	*5568*	*14.8*	*36.0*	*3676*	*12.7*	*23.5*	*3644*	*11.9*	*23.0*	*4033*	*14.1*	*25.2*	*1.6%*
Kyrgyzstan		*336*	*5.0*	*6.6*	*322*	*4.8*	*6.3*	*269*	*3.8*	*5.2*	*785*	*12.3*	*14.9*	*489*	*7.8*	*9.2*	*31.7%*
Macedonia, the former Yugoslav Republic of		6	1.0	0.3	9	1.6	0.4	2	0.4	0.1	1	0.2	0.0	7	1.7	0.3	130.1%
Moldova		*1204*	*19.7*	*32.4*	*896*	*14.1*	*24.4*	*1048*	*18.0*	*28.8*	*1069*	*19.1*	*29.7*	*1082*	*19.9*	*30.3*	*-0.4%*
Monaco		-	-		-	-		-	-		-	-		0	0.0	0.0	-
Montenegro		2	1.2	0.3	2	1.3	0.3	0	0.0	0.0	1	0.8	0.2	0	0.0	0.0	-62.6%
Russia		-	-		*5297*	*2.5*	*3.7*	*6960*	*3.2*	*4.9*	*14686*	*9.4*	*10.3*	*12387*	*7.6*	*8.7*	*42.4%*
San Marino		-	-		-	-		-	-		-	-		-	-		-
Serbia		-	-		-	-		18	0.6	0.2	-	-		-	-		-
Serbia excluding UN Administered Province of Kosovo[b]		10	0.5	0.1	25	1.2	0.3	16	0.9	0.2	-	-		12	0.8	0.1	-
UN Administered Province of Kosovo[b]		-	-		-	-		2	0.2	0.1	-	-		-	-		-
Switzerland		4	0.8	0.1	9	1.9	0.1	5	1.0	0.1	5	0.9	0.1	9	1.6	0.1	39.2%
Tajikistan		-	-		-	-		-	-		*319*	*4.3*	*4.7*	*266*	*3.5*	*3.9*	*-17.8%*
Turkey		*249*	*1.2*	*0.4*	*240*	*1.2*	*0.3*	*263*	*1.4*	*0.4*	*222*	*1.3*	*0.3*	*250*	*1.5*	*0.3*	*-0.6%*
Turkmenistan		*16*	*0.5*	*0.3*	-	-		-	-		*39*	*1.2*	*0.8*	*38*	*1.2*	*0.8*	*65.6%*
Ukraine		-	-		-	-		-	-		*3482*	*9.0*	*7.6*	*5336*	*14.7*	*11.7*	*54.1%*
Uzbekistan		*83*	*0.3*	*0.3*	*484*	*2.1*	*1.8*	*342*	*1.6*	*1.3*	*654*	*3.0*	*2.4*	*1023*	*5.0*	*3.7*	*147.6%*
Subtotal non-EU/EEA		**7587**	**5.8**	**4.0**	**14344**	**4.3**	**4.4**	**14128**	**4.5**	**4.4**	**26789**	**8.5**	**7.1**	**27612**	**8.8**	**7.1**	**17.7%**
Total European Region		**9235**	**4.3**	**1.3**	**16004**	**3.8**	**1.9**	**15856**	**4.0**	**1.9**	**28458**	**7.2**	**3.2**	**29059**	**7.5**	**3.3**	**27.9%**
Subtotal 18 HPC		***8790***	***5.6***	***4.7***	***15511***	***4.3***	***4.8***	***15391***	***4.5***	***4.8***	***27972***	***8.2***	***7.2***	***23212***	***7.8***	***6.9***	***11.9%***

[b] In accordance with Security Council Resolution 1244(1999)

Table 19: Anti-TB drug resistance among new pulmonary TB cases[a], European Region, 2010

Country	Cases resistant to at least[b]:								New culture-positive pulmonary TB cases		New pulmonary TB cases
	Cases with DST results		Isoniazid		Rifampicin		Isoniazid and rifampicin (multidrug resistant)				
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N
EU/EEA											
Austria	203	(98.5)	20	(9.9)	5	(2.5)	5	(2.5)	206	(71.3)	289
Belgium	466	(97.3)	21	(4.5)	9	(1.9)	7	(1.5)	479	(82.0)	584
Bulgaria	*785*	*(83.0)*	*51*	*(6.5)*	*22*	*(2.8)*	*15*	*(1.9)*	*946*	*(60.9)*	*1554*
Cyprus	14	(70.0)	0	(0.0)	0	(0.0)	0	(0.0)	20	(100.0)	20
Czech Republic	352	(97.2)	17	(4.8)	17	(4.8)	7	(2.0)	362	(67.9)	533
Denmark	209	(98.6)	14	(6.7)	1	(0.5)	1	(0.5)	212	(97.7)	217
Estonia	*188*	*(99.5)*	*50*	*(26.6)*	*36*	*(19.1)*	*35*	*(18.6)*	*189*	*(81.1)*	*233*
Finland	184	(96.3)	11	(6.0)	5	(2.7)	4	(2.2)	191	(83.8)	228
France	-	-	-	-	-	-	-	-	-	-	-
Germany	1784	(90.5)	121	(6.8)	30	(1.7)	25	(1.4)	1972	(75.2)	2623
Greece	115	(37.5)	5	(4.3)	1	(0.9)	1	(0.9)	307	(100.0)	307
Hungary	474	(92.0)	39	(8.2)	12	(2.5)	10	(2.1)	515	(36.3)	1417
Iceland	16	(100.0)	5	(31.3)	0	(0.0)	0	(0.0)	16	(88.9)	18
Ireland	145	(96.0)	4	(2.8)	3	(2.1)	2	(1.4)	151	(73.3)	206
Italy	-	-	-	-	-	-	-	-	-	-	-
Latvia	*585*	*(98.2)*	*155*	*(26.5)*	*63*	*(10.8)*	*63*	*(10.8)*	*596*	*(80.6)*	*739*
Lithuania	*959*	*(100.0)*	*235*	*(24.5)*	*125*	*(13.0)*	*121*	*(12.6)*	*959*	*(70.9)*	*1352*
Luxembourg	14	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	14	(77.8)	18
Malta	5	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	5	(50.0)	10
Netherlands	459	(100.0)	37	(8.1)	9	(2.0)	8	(1.7)	459	(84.1)	546
Norway	139	(100.0)	14	(10.1)	4	(2.9)	4	(2.9)	139	(87.4)	159
Poland	3116	(77.9)	117	(3.8)	16	(0.5)	11	(0.4)	3998	(65.4)	6109
Portugal	982	(77.1)	52	(5.3)	12	(1.2)	12	(1.2)	1273	(74.8)	1703
Romania	*3338*	*(38.9)*	*235*	*(7.0)*	*117*	*(3.5)*	*96*	*(2.9)*	*8585*	*(65.7)*	*13064*
Slovakia	177	(100.0)	5	(2.8)	0	(0.0)	0	(0.0)	177	(58.6)	302
Slovenia	123	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	123	(93.9)	131
Spain	-	-	-	-	-	-	-	-	-	-	-
Sweden	288	(99.7)	28	(9.7)	10	(3.5)	9	(3.1)	289	(84.3)	343
United Kingdom	2439	(93.7)	138	(5.7)	32	(1.3)	25	(1.0)	2602	(69.3)	3752
Subtotal EU/EEA	**17559**	**(70.8)**	**1374**	**(7.8)**	**529**	**(3.0)**	**461**	**(2.6)**	**24785**	**(68.0)**	**36457**
Non-EU/EEA											
Albania	186	(100.0)	5	(2.7)	0	(0.0)	1	(0.5)	186	(74.4)	250
Andorra	4	(100.0)	1	(25.0)	0	(0.0)	0	(0.0)	4	(100.0)	4
Armenia	*471*	*(100.0)*	*86*	*(18.3)*	*3*	*(0.6)*	*59*	*(12.5)*	*471*	*(48.2)*	*978*
Azerbaijan	*801*	*(40.1)*	*84*	*(10.5)*	*5*	*(0.6)*	*93*	*(11.6)*	*1997*	*(46.7)*	*4272*
Belarus	*1972*	*(100.0)*	*148*	*(7.5)*	*30*	*(1.5)*	*507*	*(25.7)*	*1972*	*(50.4)*	*3916*
Bosnia and Herzegovina	600	(100.0)	1	(0.2)	0	(0.0)	1	(0.2)	600	(61.9)	970
Croatia	-	-	-	-	-	-	-	-	456	(80.7)	565
Georgia	*1987*	*(94.1)*	*271*	*(13.6)*	*7*	*(0.4)*	*188*	*(9.5)*	*2111*	*(65.4)*	*3228*
Israel	245	(100.0)	16	(6.5)	6	(2.4)	12	(4.9)	245	(92.5)	265
Kazakhstan	*5214*	*(100.0)*	*721*	*(13.8)*	*115*	*(2.2)*	*1408*	*(27.0)*	*5214*	*(38.6)*	*13514*
Kyrgyzstan	*619*	*(100.0)*	*134*	*(21.6)*	*4*	*(0.6)*	*225*	*(36.3)*	*619*	*(16.9)*	*3673*
Macedonia, the former Yugoslav Republic of	153	(96.8)	4	(2.6)	0	(0.0)	2	(1.3)	158	(57.2)	276
Moldova	*1381*	*(96.2)*	*136*	*(9.8)*	*27*	*(2.0)*	*336*	*(24.3)*	*1435*	*(43.0)*	*3340*
Monaco	1	-	0	(0.0)	0	(0.0)	0	(0.0)	0	-	0
Montenegro	61	(98.4)	3	(4.9)	0	(0.0)	0	(0.0)	62	(70.5)	88
Russia	*35862*	*(92.7)*	-	-	-	-	*6218*	*(17.3)*	*38668*	*(38.9)*	*99310*
San Marino	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-	980	(58.4)	1677
Serbia excluding UN Administered Province of Kosovo[c]	811	(82.8)	10	(1.2)	2	(0.2)	4	(0.5)	980	(87.4)	1121
UN Administered Province of Kosovo[c]	0	-	-	-	-	-	-	-	0	(0.0)	556
Switzerland	270	(100.0)	3	(1.1)	0	(0.0)	1	(0.4)	200	(86.2)	232
Tajikistan	*160*	*(44.9)*	*115*	*(71.9)*	*102*	*(63.8)*	*92*	*(57.5)*	*356*	*(8.2)*	*4328*
Turkey	*4342*	*(99.8)*	*338*	*(7.8)*	*66*	*(1.5)*	*110*	*(2.5)*	*4350*	*(45.5)*	*9566*
Turkmenistan	*81*	*(81.8)*	*18*	*(22.2)*	*2*	*(2.5)*	*19*	*(23.5)*	*99*	*(4.1)*	*2401*
Ukraine	*9194*	*(94.2)*	*583*	*(6.3)*	*383*	*(4.2)*	*1492*	*(16.2)*	*9762*	*(35.4)*	*27575*
Uzbekistan	*2845*	*(95.7)*	*304*	*(10.7)*	*16*	*(0.6)*	*430*	*(15.1)*	*2972*	*(26.0)*	*11446*
Subtotal non-EU/EEA	**67260**	**(92.2)**	**2981**	**(4.4)**	**768**	**(1.1)**	**11198**	**(16.6)**	**72917**	**(38.0)**	**191874**
Total European Region	**84819**	**(86.8)**	**4355**	**(5.1)**	**1297**	**(1.5)**	**11659**	**(13.7)**	**97702**	**(42.8)**	**228331**
Subtotal 18 HPC	***70784***	***(87.1)***	***3664***	***(5.2)***	***1123***	***(1.6)***	***11507***	***(16.3)***	***81301***	***(39.8)***	***204489***

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
DST: Drug Susceptibility Testing
[a] Cases classified according to previous TB treatment history (see Chapter 1).
[b] Any resistance to isoniazid, rifampicin, ethambutol or streptomycin; expressed as a percentage of cases with DST results available at least to isoniasid and rifampicin. Testing for ethambutol and streptomycin not routine in all countries.
[c] In accordance with Security Council Resolution 1244(1999)

Table 20: Anti-TB drug resistance among previously treated pulmonary TB cases[a], European Region, 2010

Country	Cases resistant to at least[b]:								Previously treated culture-positive pulmonary TB cases		Previously treated pulmonary TB cases
	Cases with DST results		Isoniazid		Rifampicin		Isoniazid and rifampicin (multidrug resistant)				
	N	(%)[c]	N	(%)[d]	N	(%)[d]	N	(%)[d]	N	(%)[e]	N
EU/EEA											
Austria	15	(100.0)	3	(20.0)	3	(20.0)	3	(20.0)	15	(55.6)	27
Belgium	52	(100.0)	11	(21.2)	9	(17.3)	9	(17.3)	52	(77.6)	67
Bulgaria	*164*	*(83.7)*	*58*	*(35.4)*	*47*	*(28.7)*	*40*	*(24.4)*	*196*	*(66.0)*	*297*
Cyprus	0	-	0	-	0	-	0	-	0	-	0
Czech Republic	28	(93.3)	2	(7.1)	3	(10.7)	2	(7.1)	30	(62.5)	48
Denmark	30	(100.0)	2	(6.7)	0	(0.0)	0	(0.0)	30	(88.2)	34
Estonia	*58*	*(100.0)*	*31*	*(53.4)*	*27*	*(46.6)*	*27*	*(46.6)*	*58*	*(77.3)*	*75*
Finland	7	(87.5)	1	(14.3)	1	(14.3)	1	(14.3)	8	(61.5)	13
France	-	-	-	-	-	-	-	-	-	-	-
Germany	157	(84.9)	27	(17.2)	13	(8.3)	10	(6.4)	185	(61.3)	302
Greece	15	(38.5)	2	(13.3)	1	(6.7)	1	(6.7)	39	(100.0)	39
Hungary	80	(92.0)	13	(16.3)	7	(8.8)	7	(8.8)	87	(34.8)	250
Iceland	0	-	0	-	0	-	0	-	0	-	0
Ireland	18	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	18	(78.3)	23
Italy	-	-	-	-	-	-	-	-	-	-	-
Latvia	*101*	*(96.2)*	*39*	*(38.6)*	*24*	*(23.8)*	*24*	*(23.8)*	*105*	*(98.1)*	*107*
Lithuania	*360*	*(100.0)*	*217*	*(60.3)*	*182*	*(50.6)*	*181*	*(50.3)*	*360*	*(100.0)*	*360*
Luxembourg	0	-	0	-	0	-	0	-	0	-	0
Malta	2	(100.0)	1	(50.0)	1	(50.0)	1	(50.0)	2	(66.7)	3
Netherlands	23	(100.0)	3	(13.0)	1	(4.3)	1	(4.3)	23	(76.7)	30
Norway	21	(100.0)	3	(14.3)	2	(9.5)	2	(9.5)	21	(80.8)	26
Poland	462	(78.7)	46	(10.0)	18	(3.9)	17	(3.7)	587	(66.5)	883
Portugal	94	(74.0)	10	(10.6)	5	(5.3)	5	(5.3)	127	(71.3)	178
Romania	*2011*	*(51.5)*	*551*	*(27.4)*	*438*	*(21.8)*	*406*	*(20.2)*	*3907*	*(79.0)*	*4944*
Slovakia	29	(100.0)	3	(10.3)	1	(3.4)	1	(3.4)	29	(59.2)	49
Slovenia	9	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	9	(81.8)	11
Spain	-	-	-	-	-	-	-	-	-	-	-
Sweden	24	(100.0)	10	(41.7)	5	(20.8)	5	(20.8)	24	(68.6)	35
United Kingdom	178	(95.2)	14	(7.9)	9	(5.1)	9	(5.1)	187	(55.2)	339
Subtotal EU/EEA	**3938**	**(64.6)**	**1047**	**(26.6)**	**797**	**(20.2)**	**752**	**(19.1)**	**6099**	**(74.9)**	**8140**
Non-EU/EEA											
Albania	19	(100.0)	5	(26.3)	1	(5.3)	1	(5.3)	19	(76.0)	25
Andorra	-	-	-	-	-	-	-	-	-	-	-
Armenia	*220*	*(100.0)*	*27*	*(12.3)*	*7*	*(3.2)*	*118*	*(53.6)*	*220*	*(196.4)*	*112*
Azerbaijan	*960*	*(100.0)*	*0*	*(0.0)*	*0*	*(0.0)*	*459*	*(47.8)*	*960*	*(32.0)*	*3002*
Belarus	*1697*	*(100.0)*	*110*	*(6.5)*	*34*	*(2.0)*	*1021*	*(60.2)*	*1697*	*(142.5)*	*1191*
Bosnia and Herzegovina	47	(100.0)	0	(0.0)	0	(0.0)	1	(2.1)	47	(48.5)	97
Croatia	-	-	-	-	-	-	-	-	36	(83.7)	43
Georgia	*558*	*(91.0)*	*75*	*(13.4)*	*3*	*(0.5)*	*171*	*(30.6)*	*613*	*(117.9)*	*520*
Israel	2	(100.0)	1	(50.0)	0	(0.0)	0	(0.0)	2	(50.0)	4
Kazakhstan	*4655*	*(100.0)*	*636*	*(13.7)*	*151*	*(3.2)*	*2099*	*(45.1)*	*4655*	*(51.2)*	*9100*
Kyrgyzstan	*322*	*(100.0)*	*51*	*(15.8)*	*5*	*(1.6)*	*264*	*(82.0)*	*322*	*(32.6)*	*987*
Macedonia, the former Yugoslav Republic of	28	(96.6)	0	(0.0)	0	(0.0)	5	(17.9)	29	(87.9)	33
Moldova	*1140*	*(97.1)*	*93*	*(8.2)*	*14*	*(1.2)*	*746*	*(65.4)*	*1174*	*(73.7)*	*1594*
Monaco	-	-	-	-	-	-	-	-	-	-	-
Montenegro	12	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	12	(100.0)	12
Russia	*13405*	*(86.3)*	*0*	*(0.0)*	*0*	*(0.0)*	*6169*	*(46.0)*	*15540*	-	*46548*
San Marino	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-	137	(70.6)	194
Serbia excluding UN Administered Province of Kosovo[f]	113	(82.5)	1	(0.9)	2	(1.8)	8	(7.1)	137	(83.0)	165
UN Administered Province of Kosovo[f]	-	-	-	-	-	-	-	-	0	(0.0)	29
Switzerland	33	(97.1)	8	(24.2)	1	(3.0)	3	(9.1)	34	(25.4)	134
Tajikistan	*223*	*(76.4)*	*201*	*(90.1)*	*185*	*(83.0)*	*174*	*(78.0)*	*292*	*(44.4)*	*657*
Turkey	*615*	*(100.0)*	*70*	*(11.4)*	*19*	*(3.1)*	*140*	*(22.8)*	*615*	*(52.4)*	*1174*
Turkmenistan	*63*	*(90.0)*	*9*	*(14.3)*	*3*	*(4.8)*	*19*	*(30.2)*	*70*	*(85.4)*	*82*
Ukraine	*4840*	*(94.6)*	*389*	*(8.0)*	*336*	*(6.9)*	*3844*	*(79.4)*	*5114*	*(105.9)*	*4830*
Uzbekistan	*1180*	*(98.7)*	*99*	*(8.4)*	*3*	*(0.3)*	*593*	*(50.3)*	*1195*	*(54.1)*	*2208*
Subtotal non-EU/EEA	**30132**	**(91.9)**	**1775**	**(5.9)**	**764**	**(2.5)**	**15835**	**(52.6)**	**32783**	**(45.2)**	**72547**
Total European Region	**34070**	**(87.6)**	**2822**	**(8.3)**	**1561**	**(4.6)**	**16587**	**(48.7)**	**38882**	**(48.2)**	**80687**
Subtotal 18 HPC	***32572***	***(87.8)***	***2656***	***(8.2)***	***1478***	***(4.5)***	***16495***	***(50.6)***	***37093***	***(47.7)***	***77788***

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
DST: Drug Susceptibility Testing
[a] Cases classified according to previous TB treatment history (see Chapter 1).
[b] Any resistance to isoniazid, rifampicin, ethambutol or streptomycin; expressed as a percentage of cases with DST results available at least to isoniasid and rifampicin. Testing for ethambutol and streptomycin not routine in all countries.
c Percentage of prviously treated pulmonary culture-positive cases.
d Percentage of prviously treated pulmonary culture-positive cases with DST results reported.
e Percentage of prviously treated pulmonary cases reported.
f In accordance with Security Council Resolution 1244 (1999)

Table 21: Notified XDR TB cases, European Region[a], 2009–2010

Country	2009					2010				
	Total culture positive with FLD DST	Total MDR TB	Total MDR TB with SLD DST	Total XDR TB	XDR/MDR	Total culture positive with FLD DST	Total MDR TB	Total MDR TB with SLD DST	Total XDR TB	XDR/MDR
EU/EEA										
Austria	439	23	15	2	(13.3)	472	15	15	1	(6.7)
Belgium	774	10	10	3	(30.0)	825	19	19	2	(10.5)
Bulgaria	*844*	*43*	-	-	-	*966*	*56*	-	-	-
Cyprus	31	4	2	0	(0.0)	37	0	-	0	-
Czech Republic	452	8	4	1	(25.0)	420	9	4	1	(25.0)
Denmark	242	2	1	0	(0.0)	281	2	2	0	(0.0)
Estonia	*307*	*85*	*84*	*10*	*(11.9)*	*258*	*63*	*61*	*12*	*(19.7)*
Finland	302	6	-	-	-	247	6	-	-	-
France	3150	30	-	-	-	1473	23	-	-	-
Germany	2809	62	-	-	-	2670	48	-	-	-
Greece	174	14	9	4	(44.4)	169	2	2	0	(0.0)
Hungary	542	18	-	-	-	570	19	18	2	(11.1)
Iceland	8	0	-	-	-	19	0	-	0	-
Ireland	208	1	-	-	-	257	2	-	-	-
Italy	248	82	32	1	(3.1)	2597	87	10	0	(0.0)
Latvia	*752*	*131*	*130*	*16*	*(12.3)*	*715*	*87*	*86*	*13*	*(15.1)*
Lithuania	*1478*	*322*	*322*	-	-	*1363*	*310*	*309*	*50*	*(16.2)*
Luxembourg	27	0	-	-	-	20	0	-	-	-
Malta	17	0	-	-	-	16	1	1	0	(0.0)
Netherlands	760	20	-	-	-	783	11	-	-	-
Norway	283	8	4	0	(0.0)	274	8	8	0	(0.0)
Poland	0	21	-	1	-	3706	30	12	1	(8.3)
Portugal	1539	24	-	-	-	1225	19	-	-	-
Romania	*3867*	*624*	*133*	*26*	*(19.5)*	*5349*	*502*	*165*	*20*	*(12.1)*
Slovakia	235	1	1	0	(0.0)	234	1	1	0	(0.0)
Slovenia	175	1	-	-	-	155	0	-	-	-
Spain	1750	56	56	5	(8.9)	1416	49	49	3	(6.1)
Sweden	515	13	9	0	(0.0)	524	18	-	0	-
United Kingdom	4991	60	40	1	(2.5)	4603	60	57	3	(5.3)
Subtotal EU/EEA	**26919**	**1669**	**852**	**70**	**(8.2)**	**31644**	**1447**	**819**	**108**	**(13.2)**
Non-EU/EEA										
Albania	128	0	0	0	-	205	2	2	0	(0.0)
Andorra	3	0	0	0	-	4	0	-	-	-
Armenia	*680*	*156*	-	-	-	*691*	*177*	*177*	*21*	*(11.9)*
Azerbaijan	*0*	*0*	-	-	-	*1761*	*552*	-	-	-
Belarus	*3985*	*1342*	-	-	-	*3783*	*1576*	-	-	-
Bosnia and Herzegovina	920	2	-	-	-	647	2	-	-	-
Croatia	517	7	-	-	-	0	0	-	-	-
Georgia	*2372*	*369*	*306*	*32*	*(10.5)*	*2545*	*359*	*313*	*30*	*(9.6)*
Israel	266	6	6	0	(0.0)	247	12	12	1	(8.3)
Kazakhstan	*9578*	*3644*	*282*	*216*	*(76.6)*	*11571*	*4033*	-	-	-
Kyrgyzstan	*1930*	*785*	*6*	*6*	*(100.0)*	*941*	*489*	*32*	*32*	*(100.0)*
Macedonia, the former Yugoslav Republic of	219	1	0	0	-	181	7	5	1	(20.0)
Moldova	*2413*	*1069*	-	-	-	*2521*	*1082*	-	-	-
Monaco	-	-	-	-	-	1	0	-	-	-
Montenegro	89	1	1	0	(0.0)	73	0	-	-	-
Russia	*58716*	*14686*	-	-	-	*49267*	*12387*	-	-	-
San Marino	-	-	-	-	-	0	0	-	-	-
Serbia	-	-	-	-	-	-	-	-	-	-
Serbia excluding UN Administered Province of Kosovo[b]	-	-	-	-	-	928	12	-	-	-
UN Administered Province of Kosovo[b]	-	-	-	-	-	-	-	-	-	-
Switzerland	453	5	-	-	-	454	9	9	0	(0.0)
Tajikistan	*1413*	*319*	*52*	*11*	*(21.2)*	*383*	*266*	*0*	-	-
Turkey	*4313*	*222*	-	-	-	*4957*	*250*	*5*	*3*	*(60.0)*
Turkmenistan	*275*	*39*	-	-	-	*144*	*38*	-	-	-
Ukraine	*18355*	*3482*	-	-	-	*14034*	*5336*	-	-	-
Uzbekistan	*1303*	*654*	*58*	*13*	*(22.4)*	*4025*	*1023*	*364*	*16*	*(4.4)*
Subtotal non-EU/EEA	**107928**	**26789**	**711**	**278**	**(39.1)**	**99363**	**27612**	**919**	**104**	**(11.3)**
Total European Region	**134847**	**28458**	**1563**	**348**	**(22.3)**	**131007**	**29059**	**1738**	**212**	**(12.2)**
Subtotal 18 HPC	***112581***	***27972***	***1373***	***330***	***(24.0)***	***105274***	***28586***	***1512***	***197***	***(13.0)***

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region TB High Priority Countries presented in italics.
[a] Includes only countries reporting second-line anti-TB drug susceptibility testing.
[b] In accordance with Security Council Resolution 1244(1999).

Table 22: Anti-TB drug resistance among all TB cases of foreign origin, EU/EEA, 2010

Country	Criterion	Cases with DST results	Cases resistant to at least[a]:					
			Isoniazid		Rifampicin		Isoniazid and rifampicin (multidrug resistant)	
			N	(%)	N	(%)	N	(%)
Austria	citizenship	207	31	(15.0)	15	(7.2)	15	(7.2)
Belgium	citizenship	444	40	(9.0)	19	(4.3)	18	(4.1)
Bulgaria	birthplace	2	2	(100.0)	2	(100.0)	2	(100.0)
Cyprus	birthplace	29	1	(3.4)	0	(0.0)	0	(0.0)
Czech Republic	birthplace	82	12	(14.6)	12	(14.6)	7	(8.5)
Denmark	birthplace	176	12	(6.8)	1	(0.6)	1	(0.6)
Estonia	birthplace	40	9	(22.5)	7	(17.5)	7	(17.5)
Finland	birthplace	78	14	(17.9)	6	(7.7)	5	(6.4)
France	birthplace	-	-	-	-	-	-	-
Germany	birthplace	1256	140	(11.1)	47	(3.7)	39	(3.1)
Greece	citizenship	101	5	(5.0)	0	(0.0)	0	(0.0)
Hungary	citizenship	4	1	(25.0)	0	(0.0)	0	(0.0)
Iceland	birthplace	13	5	(38.5)	0	(0.0)	0	(0.0)
Ireland	birthplace	112	9	(8.0)	3	(2.7)	2	(1.8)
Italy	birthplace	1676	199	(11.9)	81	(4.8)	76	(4.5)
Latvia	birthplace	46	12	(26.1)	3	(6.5)	3	(6.5)
Lithuania	birthplace	33	14	(42.4)	11	(33.3)	11	(33.3)
Luxembourg	birthplace	14	0	(0.0)	0	(0.0)	0	(0.0)
Malta	birthplace	13	3	(23.1)	1	(7.7)	1	(7.7)
Netherlands	birthplace	593	57	(9.6)	11	(1.9)	11	(1.9)
Norway	birthplace	243	27	(11.1)	9	(3.7)	8	(3.3)
Poland	citizenship	17	2	(11.8)	1	(5.9)	1	(5.9)
Portugal	birthplace	179	17	(9.5)	9	(5.0)	9	(5.0)
Romania	birthplace	6	0	(0.0)	0	(0.0)	0	(0.0)
Slovakia	birthplace	4	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	birthplace	38	0	(0.0)	0	(0.0)	0	(0.0)
Spain	birthplace	-	-	-	-	-	-	-
Sweden	birthplace	449	52	(11.6)	18	(4.0)	18	(4.0)
United Kingdom	birthplace	3232	223	(6.9)	58	(1.8)	50	(1.5)
Total EU/EEA		**9087**	**887**	**(9.8)**	**314**	**(3.5)**	**284**	**(3.1)**

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.

Table 23: Combined anti-TB drug resistance among all TB cases of national origin, EU/EEA, 2010

Country	Criterion	Cases with DST results	Cases resistant to at least[a]:					
			Isoniazid		Rifampicin		Isoniazid and rifampicin (multidrug resistant)	
			N	(%)	N	(%)	N	(%)
Austria	citizenship	262	12	(4.6)	0	(0.0)	0	(0.0)
Belgium	citizenship	381	11	(2.9)	5	(1.3)	1	(0.3)
Bulgaria	birthplace	964	109	(11.3)	68	(7.1)	54	(5.6)
Cyprus	birthplace	8	0	(0.0)	0	(0.0)	0	(0.0)
Czech Republic	birthplace	338	7	(2.1)	9	(2.7)	2	(0.6)
Denmark	birthplace	105	11	(10.5)	1	(1.0)	1	(1.0)
Estonia	birthplace	218	73	(33.5)	57	(26.1)	56	(25.7)
Finland	birthplace	165	3	(1.8)	1	(0.6)	1	(0.6)
France	birthplace	-	-	-	-	-	-	-
Germany	birthplace	1357	59	(4.3)	10	(0.7)	8	(0.6)
Greece	citizenship	68	4	(5.9)	2	(2.9)	2	(2.9)
Hungary	citizenship	566	53	(9.4)	21	(3.7)	19	(3.4)
Iceland	birthplace	6	1	(16.7)	0	(0.0)	0	(0.0)
Ireland	birthplace	138	4	(2.9)	1	(0.7)	0	(0.0)
Italy	birthplace	897	61	(6.8)	17	(1.9)	9	(1.0)
Latvia	birthplace	669	186	(27.8)	84	(12.6)	84	(12.6)
Lithuania	birthplace	1330	451	(33.9)	304	(22.9)	299	(22.5)
Luxembourg	birthplace	6	0	(0.0)	0	(0.0)	0	(0.0)
Malta	birthplace	3	0	(0.0)	0	(0.0)	0	(0.0)
Netherlands	birthplace	186	12	(6.5)	1	(0.5)	0	(0.0)
Norway	birthplace	31	2	(6.5)	0	(0.0)	0	(0.0)
Poland	citizenship	-	-	-	-	-	-	-
Portugal	birthplace	1044	51	(4.9)	10	(1.0)	10	(1.0)
Romania	birthplace	5343	786	(14.7)	555	(10.4)	502	(9.4)
Slovakia	birthplace	230	9	(3.9)	1	(0.4)	1	(0.4)
Slovenia	birthplace	117	0	(0.0)	0	(0.0)	0	(0.0)
Spain	birthplace	-	-	-	-	-	-	-
Sweden	birthplace	75	4	(5.3)	2	(2.7)	0	(0.0)
United Kingdom	birthplace	1076	60	(5.6)	10	(0.9)	8	(0.7)
Total EU/EEA		**15583**	**1969**	**(12.6)**	**1159**	**(7.4)**	**1057**	**(6.8)**

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.

Table 24: Tuberculosis cases with HIV infection[a], European Region, 2008–2010

Country	% known HIV status (2009)[b]	2008				2009				2010			
		TB cases	TB cases with known HIV status	HIV positive		TB cases	TB cases with known HIV status	HIV positive		TB cases	TB cases with known HIV status	HIV positive	
				N	(%)			N	(%)			N	(%)
EU/EEA													
Austria	unknown	817	-	-	-	698	-	-	-	688	-	-	-
Belgium	(86.9)	990	913	56	(6.1)	994	930	43	(4.6)	1115	969	66	(6.8)
Bulgaria	*(66.9)*	*3150*	*732*	*0*	*(0.0)*	*2910*	*1155*	*1*	*(0.1)*	*2649*	*1773*	*2*	*(0.1)*
Cyprus	-	50	36	2	(5.6)	55	0	0	-	61	-	-	-
Czech Republic	(26.1)	864	171	6	(3.5)	695	160	6	(3.8)	678	177	5	(2.8)
Denmark	unknown	376	177	11	(6.2)	337	207	9	(4.3)	359	9	9	-
Estonia	*(89.7)*	*444*	*400*	*41*	*(10.3)*	*411*	*379*	*40*	*(10.6)*	*329*	*295*	*34*	*(11.5)*
Finland	unknown	344	5	6	-	417	-	6	-	327	-	4	-
France	-	5758	-	-	-	5276	-	-	-	5116	-	-	-
Germany	-	4519	-	-	-	4419	-	-	-	4330	-	-	-
Greece	-	670	-	-	-	594	-	-	-	489	-	-	-
Hungary	-	1619	-	2	-	1407	-	2	-	1741	-	1	-
Iceland	(95.5)	6	5	1	(20.0)	9	7	0	(0.0)	22	21	1	(4.8)
Ireland	(15.9)	468	86	17	(19.8)	479	136	11	(8.1)	427	68	12	(17.6)
Italy	-	4418	-	-	-	4244	-	-	-	3249	-	-	-
Latvia	*(80.1)*	*1070*	*910*	*72*	*(7.9)*	*978*	*830*	*73*	*(8.8)*	*934*	*748*	*71*	*(9.5)*
Lithuania	-	*2250*	-	-	-	*2081*	-	*14*	-	*1938*	-	-	-
Luxembourg	(100.0)	28	-	-	-	27	-	-	-	29	29	0	(0.0)
Malta	(81.3)	53	45	5	(11.1)	44	38	4	(10.5)	32	26	3	(11.5)
Netherlands	(34.5)	1015	285	39	(13.7)	1157	380	42	(11.1)	1073	370	47	(12.7)
Norway	-	313	-	-	-	358	-	-	-	339	-	-	-
Poland	unknown	8080	35	35	-	8236	27	27	-	7509	22	22	-
Portugal	(65.5)	3002	2648	442	(16.7)	2871	2455	392	(16.0)	2626	1720	229	(13.3)
Romania	*(33.8)*	*24680*	*6123*	*202*	*(3.3)*	*23164*	*6443*	*214*	*(3.3)*	*21078*	*7120*	*229*	*(3.2)*
Slovakia	(97.9)	633	537	0	(0.0)	506	500	1	(0.2)	439	430	1	(0.2)
Slovenia	(76.2)	213	131	0	(0.0)	188	132	0	(0.0)	172	131	1	(0.8)
Spain	(53.2)	8216	3991	508	(12.7)	7592	3599	425	(11.8)	7089	3773	354	(9.4)
Sweden	-	546	-	-	-	617	-	-	-	675	-	-	-
United Kingdom[c]	unknown	8606	-	553	-	8917	-	-	-	8483	-	-	-
Subtotal EU/EEA	**(23.9)**	**83198**	**17195**	**1402**	**(8.2)**	**79681**	**18181**	**1334**	**(7.3)**	**73996**	**17650**	**1055**	**(6.0)**
Non-EU/EEA													
Albania	(41.8)	434	177	4	(2.3)	447	211	6	(2.8)	445	186	0	(0.0)
Andorra	(0.0)	4	0	-	-	9	0	-	-	7	0	-	-
Armenia	*(69.8)*	*2125*	*335*	*12*	*(3.6)*	*2006*	*521*	*17*	*(3.3)*	*1780*	*1242*	*17*	*(1.4)*
Azerbaijan	-	*10078*	*5945*	*0*	*(0.0)*	*10417*	*0*	-	-	*8394*	*0*	-	-
Belarus	*(92.8)*	*5483*	*5227*	*156*	*(3.0)*	*5511*	*5227*	*190*	*(3.6)*	*5554*	*5153*	*187*	*(3.6)*
Bosnia and Herzegovina	-	1736	0	-	-	1772	0	-	-	1390	0	-	-
Croatia	-	980	0	-	-	855	0	-	-	695	0	-	-
Georgia	*(29.7)*	*5836*	*1482*	*20*	*(1.3)*	*5978*	*1289*	*33*	*(2.6)*	*5796*	*1723*	*30*	*(1.7)*
Israel	(89.8)	322	283	12	(4.2)	347	288	22	(7.6)	343	308	13	(4.2)
Kazakhstan	*(83.6)*	*28913*	*28237*	*238*	*(0.8)*	*30578*	*29597*	*325*	*(1.1)*	*28550*	*23854*	*333*	*(1.4)*
Kyrgyzstan	*(100.0)*	*7127*	*6508*	*117*	*(1.8)*	*6358*	*6617*	*88*	*(1.3)*	*6295*	*6295*	*183*	*(2.8)*
Macedonia, the former Yugoslav Republic of	(9.0)	483	99	2	(2.0)	473	43	0	(0.0)	420	38	0	(0.0)
Moldova	*(95.3)*	*5838*	*5171*	*260*	*(5.0)*	*5591*	*5107*	*260*	*(5.1)*	*5447*	*5192*	*308*	*(5.9)*
Monaco	-	-	0	-	-	-	0	-	-	1	0	-	-
Montenegro	(73.7)	133	73	0	(0.0)	120	91	0	(0.0)	114	84	1	(1.2)
Russia[d]	*(100.0)*	*214905*	*214905*	*5892*	*(2.7)*	*156222*	*156222*	*7064*	*(4.5)*	*162553*	*162553*	*8653*	*(5.3)*
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	2813	-	-	-	2595	-	-	-	2385	-	-	-
Serbia excluding UN Administered Province of Kosovo[e]	(0.8)	1821	-	5	-	1694	-	5	-	1501	-	12	-
UN Administered Province of Kosovo[e]	-	992	-	-	-	901	-	-	-	884	0	-	-
Switzerland	-	516	0	-	-	554	0	-	-	549	0	-	-
Tajikistan	*(53.0)*	*7996*	*3949*	*48*	*(1.2)*	*7482*	*3714*	*49*	*(1.3)*	*7641*	*4049*	*100*	*(2.5)*
Turkey	*(3.5)*	*18452*	*0*	-	-	*17402*	-	-	-	*16551*	*581*	*14*	*(2.4)*
Turkmenistan	*(100.0)*	*3909*	*0*	*0*	-	*3157*	*0*	*0*	-	*3230*	*3230*	*0*	*(0.0)*
Ukraine	*(95.1)*	*37832*	*35739*	*3375*	*(9.4)*	*38901*	*33424*	*3771*	*(11.3)*	*36409*	*34621*	*4501*	*(13.0)*
Uzbekistan	*(100.0)*	*21194*	*21194*	*256*	*(1.2)*	*21453*	*21453*	*357*	*(1.7)*	*20330*	*20330*	*427*	*(2.1)*
Subtotal non-EU/EEA	**(85.6)**	**377109**	**329324**	**10397**	**(3.2)**	**318228**	**263804**	**12187**	**(4.6)**	**314879**	**269439**	**14779**	**(5.5)**
Total European Region	**(73.8)**	**460307**	**346519**	**11799**	**(3.4)**	**397909**	**281985**	**13521**	**(4.8)**	**388875**	**287089**	**15834**	**(5.5)**
Subtotal 18 HPC	***(83.1)***	***401282***	***336857***	***10689***	***(3.2)***	***340600***	***271978***	***12496***	***(4.6)***	***335458***	***278759***	***15089***	***(5.4)***

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
[a] Data from TESSy (highlighted) or TME (see technical note Chapter 1), % are calculated only if denominators have been provided
[b] Indicator 8 for 'Progressing towards elimination: A Follow up to the Framework Action Plan to Fight Tuberculosis in the European Union'
[c] HIV positive are excluding Scotland and cases below age 15.
[d] TB cases with known HIV status includes patients notified in previous year but HIV status tested during current calendar year
[e] In accordance with Security Council Resolution 1244(1999).

Table 25: Treatment outcome of new laboratory-confirmed pulmonary TB cases, European Region, 2009

Country	Method of laboratory confirmation	Cases notified in 2009	Success		Died		Failed		Defaulted		Still on treatment		Transferred or unknown	
			N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA														
Austria	culture	226	150	(66.4)	21	(9.3)	0	(0.0)	18	(8.0)	37	(16.4)	0	(0.0)
Belgium[a]	culture	485	370	(76.3)	39	(8.0)	0	(0.0)	55	(11.3)	5	(1.0)	16	(3.3)
Bulgaria	*culture*	*1055*	*900*	*(85.3)*	*94*	*(8.9)*	*16*	*(1.5)*	*37*	*(3.5)*	*1*	*(0.1)*	*7*	*(0.7)*
Cyprus	culture	28	8	(28.6)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	20	(71.4)
Czech Republic	culture	402	271	(67.4)	86	(21.4)	0	(0.0)	27	(6.7)	7	(1.7)	11	(2.7)
Denmark[a]	culture	175	92	(52.6)	7	(4.0)	1	(0.6)	1	(0.6)	3	(1.7)	71	(40.6)
Estonia	*culture*	*240*	*141*	*(58.8)*	*36*	*(15.0)*	*5*	*(2.1)*	*14*	*(5.8)*	*43*	*(17.9)*	*1*	*(0.4)*
Finland	culture	227	154	(67.8)	38	(16.7)	0	(0.0)	3	(1.3)	9	(4.0)	23	(10.1)
France	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	culture	2220	1715	(77.3)	264	(11.9)	2	(0.1)	33	(1.5)	52	(2.3)	154	(6.9)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	culture	597	341	(57.1)	58	(9.7)	111	(18.6)	44	(7.4)	23	(3.9)	20	(3.4)
Iceland	culture	4	3	(75.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(25.0)
Ireland[a]	culture	188	126	(67.0)	17	(9.0)	0	(0.0)	2	(1.1)	9	(4.8)	34	(18.1)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	*culture*	*592*	*443*	*(74.8)*	*51*	*(8.6)*	*3*	*(0.5)*	*32*	*(5.4)*	*63*	*(10.6)*	*0*	*(0.0)*
Lithuania	*culture*	*1033*	*758*	*(73.4)*	*100*	*(9.7)*	*18*	*(1.7)*	*92*	*(8.9)*	*63*	*(6.1)*	*2*	*(0.2)*
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	culture	10	8	(80.0)	0	(0.0)	0	(0.0)	0	(0.0)	2	(20.0)	0	(0.0)
Netherlands[a]	culture	454	362	(79.7)	40	(8.8)	0	(0.0)	14	(3.1)	16	(3.5)	22	(4.8)
Norway[a]	culture	146	119	(81.5)	6	(4.1)	2	(1.4)	0	(0.0)	6	(4.1)	13	(8.9)
Poland	culture	4391	2957	(67.3)	234	(5.3)	7	(0.2)	451	(10.3)	10	(0.2)	732	(16.7)
Portugal	culture	1565	1318	(84.2)	88	(5.6)	0	(0.0)	48	(3.1)	79	(5.0)	32	(2.0)
Romania	*culture*	*10737*	*9165*	*(85.4)*	*475*	*(4.4)*	*415*	*(3.9)*	*610*	*(5.7)*	*72*	*(0.7)*	*0*	*(0.0)*
Slovakia	culture	174	143	(82.2)	25	(14.4)	0	(0.0)	3	(1.7)	0	(0.0)	3	(1.7)
Slovenia	culture	149	130	(87.2)	13	(8.7)	1	(0.7)	1	(0.7)	1	(0.7)	3	(2.0)
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden[a]	culture	255	217	(85.1)	15	(5.9)	0	(0.0)	3	(1.2)	5	(2.0)	15	(5.9)
United Kingdom[a]	culture	2569	2119	(82.5)	145	(5.6)	0	(0.0)	125	(4.9)	96	(3.7)	84	(3.3)
Subtotal EU/EEA		**27922**	**22010**	**(78.8)**	**1852**	**(6.6)**	**581**	**(2.1)**	**1613**	**(5.8)**	**602**	**(2.2)**	**1264**	**(4.5)**
Non-EU/EEA														
Albania	smear	171	153	(89.5)	4	(2.3)	2	(1.2)	6	(3.5)	-	-	6	(3.5)
Andorra	smear and/or culture	3	3	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Armenia	*smear*	*440*	*319*	*(72.5)*	*31*	*(7.0)*	*12*	*(2.7)*	*33*	*(7.5)*	-	-	*45*	*(10.2)*
Azerbaijan	*smear and/or culture*	*1480*	*918*	*(62.0)*	*46*	*(3.1)*	*108*	*(7.3)*	*237*	*(16.0)*	-	-	*171*	*(11.6)*
Belarus	*smear and/or culture*	*2160*	*1389*	*(64.3)*	*225*	*(10.4)*	*89*	*(4.1)*	*17*	*(0.8)*	-	-	*440*	*(20.4)*
Bosnia and Herzegovina	culture	852	845	(99.2)	2	(0.2)	1	(0.1)	1	(0.1)	-	-	3	(0.4)
Croatia	smear and/or culture	234	148	(63.2)	62	(26.5)	0	(0.0)	8	(3.4)	-	-	16	(6.8)
Georgia	*smear and/or culture*	*2352*	*1773*	*(75.4)*	*67*	*(2.8)*	*272*	*(11.6)*	*176*	*(7.5)*	-	-	*64*	*(2.7)*
Israel	smear and/or culture	202	173	(85.6)	21	(10.4)	0	(0.0)	2	(1.0)	-	-	6	(3.0)
Kazakhstan	*smear*	*5355*	*3341*	*(62.4)*	*197*	*(3.7)*	*1582*	*(29.5)*	*153*	*(2.9)*	-	-	*82*	*(1.5)*
Kyrgyzstan	*smear and/or culture*	*1543*	*1272*	*(82.4)*	*51*	*(3.3)*	*64*	*(4.1)*	*91*	*(5.9)*	-	-	*65*	*(4.2)*
Macedonia, the former Yugoslav Republic of	smear	199	180	(90.5)	7	(3.5)	3	(1.5)	9	(4.5)	-	-	0	(0.0)
Moldova	*smear*	*1318*	*715*	*(54.2)*	*135*	*(10.2)*	*219*	*(16.6)*	*186*	*(14.1)*	-	-	*63*	*(4.8)*
Monaco	smear and/or culture	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	smear and/or culture	78	67	(85.9)	6	(7.7)	0	(0.0)	3	(3.8)	-	-	2	(2.6)
Russia	*smear*	*32316*	*17862*	*(55.3)*	*3683*	*(11.4)*	*6618*	*(20.5)*	*2633*	*(8.1)*	-	-	*1520*	*(4.7)*
San Marino	culture	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	1392	1197	(86.0)	89	(6.4)	17	(1.2)	60	(4.3)	-	-	29	(2.1)
Serbia excluding UN Administered Province of Kosovo[b]	smear and/or culture	1137	967	(85.0)	77	(6.8)	15	(1.3)	53	(4.7)	-	-	25	(2.2)
UN Administered Province of Kosovo[b]	smear	255	230	(90.2)	12	(4.7)	2	(0.8)	7	(2.7)	-	-	4	(1.6)
Switzerland	culture	-	-	-	-	-	-	-	-	-	-	-	-	-
Tajikistan	*smear*	*1972*	*1604*	*(81.3)*	*87*	*(4.4)*	*160*	*(8.1)*	*94*	*(4.8)*	-	-	*27*	*(1.4)*
Turkey	*smear*	*6007*	*5456*	*(90.8)*	*187*	*(3.1)*	*44*	*(0.7)*	*141*	*(2.3)*	-	-	*179*	*(3.0)*
Turkmenistan	*smear*	*1375*	*1152*	*(83.8)*	*65*	*(4.7)*	*85*	*(6.2)*	*63*	*(4.6)*	-	-	*10*	*(0.7)*
Ukraine	*smear and/or culture*	*13111*	*7822*	*(59.7)*	*1712*	*(13.1)*	*2084*	*(15.9)*	*1037*	*(7.9)*	-	-	*456*	*(3.5)*
Uzbekistan	*smear*	*4959*	*4037*	*(81.4)*	*296*	*(6.0)*	*270*	*(5.4)*	*232*	*(4.7)*	-	-	*124*	*(2.5)*
Subtotal non-EU/EEA		**77519**	**50426**	**(65.0)**	**6973**	**(9.0)**	**11630**	**(15.0)**	**5182**	**(6.7)**	**-**	**-**	**3308**	**(4.3)**
Total European Region		**105441**	**72436**	**(68.7)**	**8825**	**(8.4)**	**12211**	**(11.6)**	**6795**	**(6.4)**	**-**	**-**	**4572**	**(4.3)**
Subtotal 18 HPC		***88045***	***59067***	***(67.1)***	***7538***	***(8.6)***	***12064***	***(13.7)***	***5878***	***(6.7)***	**-**	**-**	***3256***	***(3.7)***

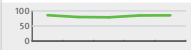
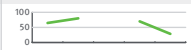
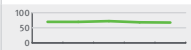
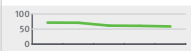
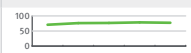
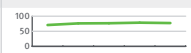
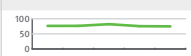
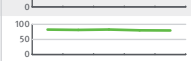
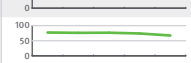
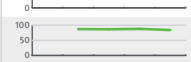
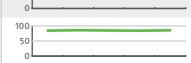
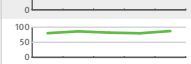
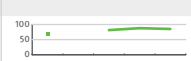
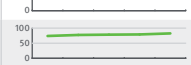
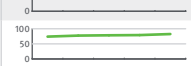
'European Region' comprises the 53 countries of the WHO European Region. WHO European Region 18 TB High Priority Countries presented in italics.
[a] Not previously diagnosed cases.
[b] In accordance with Security Council Resolution 1244(1999).

Table 26: Treatment outcome of previously treated laboratory-confirmed pulmonary TB cases[a], European Region, 2009

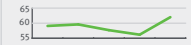
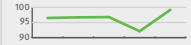
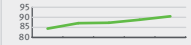
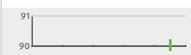
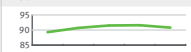
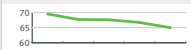
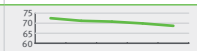
Country	Method of laboratory confirmation	Cases notified in 2009	Success		Died		Failed		Defaulted		Still on treatment		Transferred or unknown	
			N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA[a]														
Austria	culture	22	5	(22.7)	0	(0.0)	0	(0.0)	9	(40.9)	8	(36.4)	0	(0.0)
Belgium[b]	culture	50	36	(72.0)	7	(14.0)	0	(0.0)	2	(4.0)	4	(8.0)	1	(2.0)
Bulgaria	*culture*	*190*	*107*	*(56.3)*	*29*	*(15.3)*	*16*	*(8.4)*	*22*	*(11.6)*	*11*	*(5.8)*	*5*	*(2.6)*
Cyprus	culture	4	1	(25.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(25.0)	2	(50.0)
Czech Republic	culture	38	25	(65.8)	8	(21.1)	0	(0.0)	1	(2.6)	3	(7.9)	1	(2.6)
Denmark[b]	culture	28	15	(53.6)	1	(3.6)	0	(0.0)	0	(0.0)	0	(0.0)	12	(42.9)
Estonia	*culture*	*62*	*28*	*(45.2)*	*8*	*(12.9)*	*5*	*(8.1)*	*6*	*(9.7)*	*14*	*(22.6)*	*1*	*(1.6)*
Finland	culture	6	5	(83.3)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(16.7)
France	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	culture	181	116	(64.1)	25	(13.8)	0	(0.0)	9	(5.0)	11	(6.1)	20	(11.0)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	culture	86	43	(50.0)	7	(8.1)	23	(26.7)	5	(5.8)	5	(5.8)	3	(3.5)
Iceland	culture	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Ireland[b]	culture	25	17	(68.0)	3	(12.0)	0	(0.0)	0	(0.0)	1	(4.0)	4	(16.0)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	*culture*	*142*	*63*	*(44.4)*	*19*	*(13.4)*	*0*	*(0.0)*	*20*	*(14.1)*	*38*	*(26.8)*	*2*	*(1.4)*
Lithuania	*culture*	*401*	*117*	*(29.2)*	*98*	*(24.4)*	*19*	*(4.7)*	*87*	*(21.7)*	*78*	*(19.5)*	*2*	*(0.5)*
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	culture	0	0	-	0	-	0	-	0	-	0	-	0	-
Netherlands	culture	25	17	(68.0)	0	(0.0)	0	(0.0)	1	(4.0)	2	(8.0)	5	(20.0)
Norway[b]	culture	15	12	(80.0)	1	(6.7)	0	(0.0)	0	(0.0)	1	(6.7)	1	(6.7)
Poland	culture	633	384	(60.7)	32	(5.1)	3	(0.5)	93	(14.7)	3	(0.5)	118	(18.6)
Portugal	culture	176	119	(67.6)	12	(6.8)	0	(0.0)	15	(8.5)	26	(14.8)	4	(2.3)
Romania	*culture*	*4506*	*2465*	*(54.7)*	*426*	*(9.5)*	*650*	*(14.4)*	*755*	*(16.8)*	*210*	*(4.7)*	*0*	*(0.0)*
Slovakia	culture	35	27	(77.1)	6	(17.1)	1	(2.9)	0	(0.0)	1	(2.9)	0	(0.0)
Slovenia	culture	7	6	(85.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	1	(14.3)
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden[b]	culture	25	19	(76.0)	3	(12.0)	0	(0.0)	1	(4.0)	1	(4.0)	1	(4.0)
United Kingdom[b]	culture	263	184	(70.0)	23	(8.7)	0	(0.0)	23	(8.7)	25	(9.5)	8	(3.0)
Subtotal EU/EEA		**6921**	**3812**	**(55.1)**	**708**	**(10.2)**	**717**	**(10.4)**	**1049**	**(15.2)**	**443**	**(6.4)**	**192**	**(2.8)**
Non-EU/EEA[c]														
Albania	smear	21	16	(76.2)	2	(9.5)	0	(0.0)	2	(9.5)	-	-	1	(4.8)
Andorra	smear and/or culture	2	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Armenia	*smear*	*542*	*344*	*(63.5)*	*41*	*(7.6)*	*21*	*(3.9)*	*83*	*(15.3)*	-	-	*53*	*(9.8)*
Azerbaijan	*smear and/or culture*	*1687*	*897*	*(53.2)*	*96*	*(5.7)*	*158*	*(9.4)*	*325*	*(19.3)*	-	-	*211*	*(12.5)*
Belarus	*smear and/or culture*	*616*	*258*	*(41.9)*	*80*	*(13.0)*	*42*	*(6.8)*	*7*	*(1.1)*	-	-	*229*	*(37.2)*
Bosnia and Herzegovina	culture	116	97	(83.6)	6	(5.2)	4	(3.4)	3	(2.6)	-	-	6	(5.2)
Croatia	smear and/or culture	22	11	(50.0)	8	(36.4)	1	(4.5)	1	(4.5)	-	-	1	(4.5)
Georgia	*smear and/or culture*	*1521*	*908*	*(59.7)*	*78*	*(5.1)*	*261*	*(17.2)*	*225*	*(14.8)*	-	-	*49*	*(3.2)*
Israel	smear and/or culture	9	6	(66.7)	1	(11.1)	0	(0.0)	0	(0.0)	-	-	2	(22.2)
Kazakhstan	*smear*	*9392*	*4549*	*(48.4)*	*850*	*(9.1)*	*3216*	*(34.2)*	*538*	*(5.7)*	-	-	*239*	*(2.5)*
Kyrgyzstan	*smear and/or culture*	*924*	*655*	*(70.9)*	*67*	*(7.3)*	*52*	*(5.6)*	*69*	*(7.5)*	-	-	*81*	*(8.8)*
Macedonia, the former Yugoslav Republic of	smear	56	44	(78.6)	4	(7.1)	1	(1.8)	6	(10.7)	-	-	1	(1.8)
Moldova	*smear*	*1663*	*569*	*(34.2)*	*255*	*(15.3)*	*429*	*(25.8)*	*336*	*(20.2)*	-	-	*74*	*(4.4)*
Monaco	smear and/or culture	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	smear and/or culture	11	8	(72.7)	1	(9.1)	0	(0.0)	0	(0.0)	-	-	2	(18.2)
Russia	*smear*	*16726*	*5663*	*(33.9)*	*2171*	*(13.0)*	*5377*	*(32.1)*	*2060*	*(12.3)*	-	-	*1455*	*(8.7)*
San Marino	culture	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	244	180	(73.8)	23	(9.4)	0	(0.0)	30	(12.3)	-	-	11	(4.5)
Serbia excluding UN Administered Province of Kosovo[d]	smear and/or culture	205	152	(74.1)	19	(9.3)	0	(0.0)	25	(12.2)	-	-	9	(4.4)
UN Administered Province of Kosovo[d]	smear	39	28	(71.8)	4	(10.3)	0	(0.0)	5	(12.8)	-	-	2	(5.1)
Switzerland	culture	-	-	-	-	-	-	-	-	-	-	-	-	-
Tajikistan	*smear*	*1618*	*1165*	*(72.0)*	*173*	*(10.7)*	*165*	*(10.2)*	*96*	*(5.9)*	-	-	*19*	*(1.2)*
Turkey	*smear*	*1459*	*1069*	*(73.3)*	*47*	*(3.2)*	*33*	*(2.3)*	*125*	*(8.6)*	-	-	*185*	*(12.7)*
Turkmenistan	*smear*	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	*smear and/or culture*	*10424*	*4909*	*(47.1)*	*1487*	*(14.3)*	*2295*	*(22.0)*	*1203*	*(11.5)*	-	-	*530*	*(5.1)*
Uzbekistan	*smear*	*2451*	*1689*	*(68.9)*	*274*	*(11.2)*	*162*	*(6.6)*	*215*	*(8.8)*	-	-	*111*	*(4.5)*
Subtotal non-EU/EEA		**49504**	**23039**	**(46.5)**	**5664**	**(11.4)**	**12217**	**(24.7)**	**5324**	**(10.8)**	**-**	**-**	**3260**	**(6.6)**
Total European Region		**56425**	**26851**	**(47.6)**	**6372**	**(11.3)**	**12934**	**(22.9)**	**6373**	**(11.3)**	**-**	**-**	**3452**	**(6.1)**
Subtotal 18 HPC		***54324***	***25455***	***(46.9)***	***6199***	***(11.4)***	***12901***	***(23.7)***	***6172***	***(11.4)***	**-**	**-**	***3246***	***(6.0)***

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
[a] Previously treated pulmonary culture positive-positive for EU/EEA countries.
[b] Previously diagnosed cases.
[c] Previously treated pulmonary smear-positive (and/or culture-positive) have reported for Other European Region.
[d] In accordance with Security Council Resolution 1244(1999).

Table 27: Treatment success of new laboratory-confirmed pulmonary TB cases reported in 2005–2009, European Region

Country	TOM Success 2005–2009[a]	2005			2006			2007			2008			2009		
		Cases reported	Success		Cases reported	Success		Cases reported	Success		Cases reported	Success		Cases reported	Success	
			N	(%)		N	(%)		N	(%)		N	(%)		N	(%)
EU/EEA[b]																
Austria		508	387	(76.2)	461	318	(69.0)	422	160	(37.9)	380	205	(53.9)	226	150	(66.4)
Belgium		505	351	(69.5)	479	346	(72.2)	499	342	(68.5)	502	380	(75.7)	485	370	(76.3)
Bulgaria		1342	1152	(85.8)	1308	1043	(79.7)	1233	972	(78.8)	1193	1013	(84.9)	1055	900	(85.3)
Cyprus		17	11	(64.7)	20	16	(80.0)	-	-	-	10	7	(70.0)	28	8	(28.6)
Czech Republic		538	375	(69.7)	527	367	(69.6)	459	331	(72.1)	468	319	(68.2)	402	271	(67.4)
Denmark[c]		-	-	-	201	168	(83.6)	213	172	(80.8)	200	81	(40.5)	175	92	(52.6)
Estonia		295	211	(71.5)	272	193	(71.0)	301	185	(61.5)	257	156	(60.7)	240	141	(58.8)
Finland		-	-	-	-	-	-	181	130	(71.8)	170	123	(72.4)	227	154	(67.8)
France		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany		2644	1873	(70.8)	2526	1926	(76.2)	2428	1863	(76.7)	2158	1697	(78.6)	2220	1715	(77.3)
Greece		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary		607	306	(50.4)	687	342	(49.8)	612	311	(50.8)	602	317	(52.7)	597	341	(57.1)
Iceland		5	5	(100.0)	6	4	(66.7)	7	6	(85.7)	1	0	(0.0)	4	3	(75.0)
Ireland		158	117	(74.1)	182	119	(65.4)	181	127	(70.2)	202	156	(77.2)	188	126	(67.0)
Italy		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia		849	649	(76.4)	776	594	(76.5)	772	634	(82.1)	641	484	(75.5)	592	443	(74.8)
Lithuania		1248	951	(76.2)	1293	988	(76.4)	1209	860	(71.1)	1211	870	(71.8)	1033	758	(73.4)
Luxembourg		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta		9	8	(88.9)	11	11	(100.0)	12	9	(75.0)	13	12	(92.3)	10	8	(80.0)
Netherlands		535	442	(82.6)	493	402	(81.5)	459	380	(82.8)	460	369	(80.2)	454	362	(79.7)
Norway		113	103	(91.2)	111	96	(86.5)	114	103	(90.4)	105	88	(83.8)	146	119	(81.5)
Poland		4514	3483	(77.2)	4318	3286	(76.1)	4510	3449	(76.5)	4228	3128	(74.0)	4391	2957	(67.3)
Portugal		-	-	-	1825	1593	(87.3)	1694	1467	(86.6)	1669	1468	(88.0)	1565	1318	(84.2)
Romania		12650	10676	(84.4)	11688	10026	(85.8)	11247	9532	(84.8)	10082	8502	(84.3)	10737	9165	(85.4)
Slovakia		263	237	(90.1)	288	238	(82.6)	294	257	(87.4)	269	234	(87.0)	174	143	(82.2)
Slovenia		197	158	(80.2)	145	125	(86.2)	150	123	(82.0)	159	127	(79.9)	149	130	(87.2)
Spain		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden		276	192	(69.6)	-	-	-	237	193	(81.4)	222	195	(87.8)	255	217	(85.1)
United Kingdom		2258	1672	(74.0)	2437	1886	(77.4)	2238	1755	(78.4)	2312	1828	(79.1)	2569	2119	(82.5)
Subtotal EU/EEA		**29531**	**23359**	**(79.1)**	**30054**	**24087**	**(80.1)**	**29472**	**23361**	**(79.3)**	**27514**	**21759**	**(79.1)**	**27922**	**22010**	**(78.8)**

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
DST: Drug Susceptibility Testing; NRL: National Reference Laboratory
[a] Core indicator for the Framework Action Plan 7
[b] All pulmonary culture-positive for EU/EEA countries except Bulgaria 2005, 2006.
[c] All pulmonary smear-positive (and/or culture-positive) have reported for non-EU/EEA and Bulgaria 2005, 2006.

Country	TOM Success 2005–2009[a]	2005			2006			2007			2008			2009		
		Cases reported	Success N	Success (%)	Cases reported	Success N	Success (%)	Cases reported	Success N	Success (%)	Cases reported	Success N	Success (%)	Cases reported	Success N	Success (%)
Non-EU/EEA[c]																
Albania		196	154	(78.6)	186	168	(90.3)	181	153	(84.5)	170	154	(90.6)	171	153	(89.5)
Andorra		5	4	(80.0)	8	6	(75.0)	2	2	(100.0)	3	3	(100.0)	3	3	(100.0)
Armenia		*581*	*421*	*(72.5)*	*580*	*402*	*(69.3)*	*490*	*343*	*(70.0)*	*487*	*357*	*(73.3)*	*440*	*319*	*(72.5)*
Azerbaijan		*1561*	*922*	*(59.1)*	*1454*	*867*	*(59.6)*	*1356*	*782*	*(57.7)*	*1392*	*782*	*(56.2)*	*1480*	*918*	*(62.0)*
Belarus		-	-		*1072*	*750*	*(70.0)*	*1987*	*1466*	*(73.8)*	*1902*	*1355*	*(71.2)*	*2160*	*1389*	*(64.3)*
Bosnia and Herzegovina		1035	999	(96.5)	993	960	(96.7)	1267	1227	(96.8)	757	697	(92.1)	852	845	(99.2)
Croatia		391	181	(46.3)	898	265	(29.5)	637	389	(61.1)	602	347	(57.6)	234	148	(63.2)
Georgia		*1489*	*1081*	*(72.6)*	*1813*	*1368*	*(75.5)*	*1975*	*1523*	*(77.1)*	*2196*	*1596*	*(72.7)*	*2352*	*1773*	*(75.4)*
Israel		227	191	(84.1)	206	168	(81.6)	242	194	(80.2)	178	157	(88.2)	202	173	(85.6)
Kazakhstan		*6884*	*4894*	*(71.1)*	*6113*	*4408*	*(72.1)*	*6140*	*4206*	*(68.5)*	*6167*	*3949*	*(64.0)*	*5355*	*3341*	*(62.4)*
Kyrgyzstan		*1897*	*1607*	*(84.7)*	*1833*	*1507*	*(82.2)*	*1718*	*1455*	*(84.7)*	*1640*	*1385*	*(84.5)*	*1543*	*1272*	*(82.4)*
Macedonia, the former Yugoslav Republic of		179	151	(84.4)	178	155	(87.1)	197	172	(87.3)	188	167	(88.8)	199	180	(90.5)
Moldova		*1690*	*1048*	*(62.0)*	*1671*	*1041*	*(62.3)*	*1599*	*991*	*(62.0)*	*1533*	*943*	*(61.5)*	*1318*	*715*	*(54.2)*
Monaco		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro		63	19	(30.2)	58	19	(32.8)	76	60	(78.9)	65	55	(84.6)	78	67	(85.9)
Russia		*25692*	*14805*	*(57.6)*	*30745*	*17922*	*(58.3)*	*31857*	*18378*	*(57.7)*	*32356*	*18579*	*(57.4)*	*32316*	*17862*	*(55.3)*
San Marino		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia		-	-	-	-	-	-	-	-	-	-	-	-	1392	1197	(86.0)
Serbia excluding UN Administered Province of Kosovo[d]		1154	976	(84.6)	1157	971	(83.9)	1145	967	(84.5)	1391	1191	(85.6)	1137	967	(85.0)
UN Administered Province of Kosovo[d]		-	-	-	-	-	-	-	-	-	-	-	-	255	230	(90.2)
Switzerland		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tajikistan		*1729*	*1422*	*(82.2)*	*1932*	*1636*	*(84.7)*	*2073*	*1713*	*(82.6)*	*2044*	*1682*	*(82.3)*	*1972*	*1604*	*(81.3)*
Turkey		*7450*	*6653*	*(89.3)*	*7865*	*7132*	*(90.7)*	*7510*	*6870*	*(91.5)*	*6993*	*6408*	*(91.6)*	*6007*	*5456*	*(90.8)*
Turkmenistan		*995*	*844*	*(84.8)*	*1155*	*998*	*(86.4)*	*1288*	*1077*	*(83.6)*	*1331*	*1107*	*(83.2)*	*1375*	*1152*	*(83.8)*
Ukraine		-	-		*10351*	*6127*	*(59.2)*	*11068*	*6533*	*(59.0)*	*14407*	*8927*	*(62.0)*	*13111*	*7822*	*(59.7)*
Uzbekistan		*5336*	*4296*	*(80.5)*	*5642*	*4550*	*(80.6)*	*6326*	*5010*	*(79.2)*	*5117*	*4158*	*(81.3)*	*4959*	*4037*	*(81.4)*
Subtotal non-EU/EEA		**58554**	**40668**	**(69.5)**	**75910**	**51420**	**(67.7)**	**79134**	**53511**	**(67.6)**	**80919**	**53999**	**(66.7)**	**77519**	**50426**	**(65.0)**
Total European Region		**86743**	**62875**	**(72.5)**	**104656**	**74464**	**(71.2)**	**108606**	**76872**	**(70.8)**	**108433**	**75758**	**(69.9)**	**105441**	**72436**	**(68.7)**
Subtotal 18 HPC		***70346***	***50480***	***(71.8)***	***86255***	***60509***	***(70.2)***	***90149***	***62530***	***(69.4)***	***90949***	***62253***	***(68.4)***	***88045***	***59067***	***(67.1)***

[d] In accordance with Security Council Resolution 1244(1999).

Table 28: Treatment outcome at 24 months, all culture-confirmed MDR TB cases, European Region, 2008[a]

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	15	1	(6.7)	0	(0.0)	0	(0.0)	6	(40.0)	3	(20.0)	5	(33.3)
Belgium	21	14	(66.7)	1	(4.8)	1	(4.8)	3	(14.3)	2	(9.5)	0	(0.0)
Bulgaria	*31*	*7*	*(22.6)*	*12*	*(38.7)*	*3*	*(9.7)*	*0*	*(0.0)*	*9*	*(29.0)*	*0*	*(0.0)*
Cyprus	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Czech Republic	11	6	(54.5)	0	(0.0)	2	(18.2)	2	(18.2)	1	(9.1)	0	(0.0)
Denmark	0	0	-	0	-	0	-	0	-	0	-	0	-
Estonia	*74*	*34*	*(45.9)*	*9*	*(12.2)*	*8*	*(10.8)*	*15*	*(20.3)*	*8*	*(10.8)*	*0*	*(0.0)*
Finland	-	-	-	-	-	-	-	-	-	-	-	-	-
France	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	48	28	(58.3)	2	(4.2)	0	(0.0)	6	(12.5)	5	(10.4)	7	(14.6)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	13	4	(30.8)	3	(23.1)	6	(46.2)	0	(0.0)	0	(0.0)	0	(0.0)
Iceland	-	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	2	0	(0.0)	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	*128*	*79*	*(61.7)*	*25*	*(19.5)*	*6*	*(4.7)*	*13*	*(10.2)*	*5*	*(3.9)*	*0*	*(0.0)*
Lithuania	-	-	-	-	-	-	-	-	-	-	-	-	-
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	0	0	-	0	-	0	-	0	-	0	-	0	-
Netherlands	15	14	(93.3)	0	(0.0)	0	(0.0)	1	(6.7)	0	(0.0)	0	(0.0)
Norway	4	2	(50.0)	1	(25.0)	0	(0.0)	0	(0.0)	1	(25.0)	0	(0.0)
Poland	19	9	(47.4)	5	(26.3)	1	(5.3)	2	(10.5)	1	(5.3)	1	(5.3)
Portugal	-	-	-	-	-	-	-	-	-	-	-	-	-
Romania	*792*	*130*	*(16.4)*	*176*	*(22.2)*	*258*	*(32.6)*	*165*	*(20.8)*	*63*	*(8.0)*	*0*	*(0.0)*
Slovakia	4	1	(25.0)	2	(50.0)	0	(0.0)	0	(0.0)	1	(25.0)	0	(0.0)
Slovenia	2	1	(50.0)	1	(50.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	11	10	(90.9)	1	(9.1)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
United Kingdom	53	34	(64.2)	2	(3.8)	0	(0.0)	8	(15.1)	4	(7.5)	5	(9.4)
Subtotal EU/EEA	**1244**	**375**	**(30.1)**	**242**	**(19.5)**	**285**	**(22.9)**	**221**	**(17.8)**	**103**	**(8.3)**	**18**	**(1.4)**
Non-EU/EEA													
Albania	0	-	-	-	-	-	-	-	-	-	-	-	-
Andorra	0	-	-	-	-	-	-	-	-	-	-	-	-
Armenia	*77*	*42*	*(54.5)*	*2*	*(2.6)*	*8*	*(10.4)*	*22*	*(28.6)*	-	-	*3*	*(3.9)*
Azerbaijan	*23*	*13*	*(56.5)*	*2*	*(8.7)*	*8*	*(34.8)*	*0*	*(0.0)*	-	-	*0*	*(0.0)*
Belarus	-	-	-	-	-	-	-	-	-	-	-	-	-
Bosnia and Herzegovina	-	-	-	-	-	-	-	-	-	-	-	-	-
Croatia	-	-	-	-	-	-	-	-	-	-	-	-	-
Georgia	*417*	*235*	*(56.4)*	*48*	*(11.5)*	*26*	*(6.2)*	*87*	*(20.9)*	-	-	*21*	*(5.0)*
Israel	11	10	(90.9)	1	(9.1)	0	(0.0)	0	(0.0)	-	-	0	(0.0)
Kazakhstan	*2268*	*1680*	*(74.1)*	*120*	*(5.3)*	*112*	*(4.9)*	*89*	*(3.9)*	-	-	*267*	*(11.8)*
Kyrgyzstan	*262*	*130*	*(49.6)*	*21*	*(8.0)*	*38*	*(14.5)*	*72*	*(27.5)*	-	-	*1*	*(0.4)*
Macedonia, the former Yugoslav Republic of	2	0	(0.0)	0	(0.0)	0	(0.0)	1	(50.0)	-	-	1	(50.0)
Moldova	*522*	*253*	*(48.5)*	*52*	*(10.0)*	*79*	*(15.1)*	*137*	*(26.2)*	-	-	*1*	*(0.2)*
Monaco	-	-	-	-	-	-	-	-	-	-	-	-	-
Montenegro	-	-	-	-	-	-	-	-	-	-	-	-	-
Russia	*1537*	*783*	*(50.9)*	*125*	*(8.1)*	*216*	*(14.1)*	*266*	*(17.3)*	-	-	*147*	*(9.6)*
San Marino	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia	-	-	-	-	-	-	-	-	-	-	-	-	-
Serbia excluding UN Administered Province of Kosovo[b]	-	-	-	-	-	-	-	-	-	-	-	-	-
UN Administered Province of Kosovo[b]	-	-	-	-	-	-	-	-	-	-	-	-	-
Switzerland	-	-	-	-	-	-	-	-	-	-	-	-	-
Tajikistan	-	-	-	-	-	-	-	-	-	-	-	-	-
Turkey	*263*	*180*	*(68.4)*	*17*	*(6.5)*	*3*	*(1.1)*	*18*	*(6.8)*	-	-	*45*	*(17.1)*
Turkmenistan	-	-	-	-	-	-	-	-	-	-	-	-	-
Ukraine	-	-	-	-	-	-	-	-	-	-	-	-	-
Uzbekistan	*294*	*193*	*(65.6)*	*15*	*(5.1)*	*18*	*(6.1)*	*64*	*(21.8)*	-	-	*4*	*(1.4)*
Subtotal non-EU/EEA	**5676**	**3519**	**(62.0)**	**403**	**(7.1)**	**508**	**(8.9)**	**756**	**(13.3)**	**-**	**-**	**490**	**(8.6)**
Total European Region	**6920**	**3894**	**(56.3)**	**645**	**(9.3)**	**793**	**(11.5)**	**977**	**(14.1)**	**-**	**-**	**508**	**(7.3)**
Subtotal 18 HPC	***6688***	***3759***	***(56.2)***	***624***	***(9.3)***	***783***	***(11.7)***	***948***	***(14.2)***	**-**	**-**	***489***	***(7.3)***

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
DST: Drug susceptibility testing
[a] For EU/EEA countries included all MDR TB cases notified in 2008, for non-EU countries included only cases enrolled in treatment.
[b] In accordance with Security Council Resolution 1244(1999).

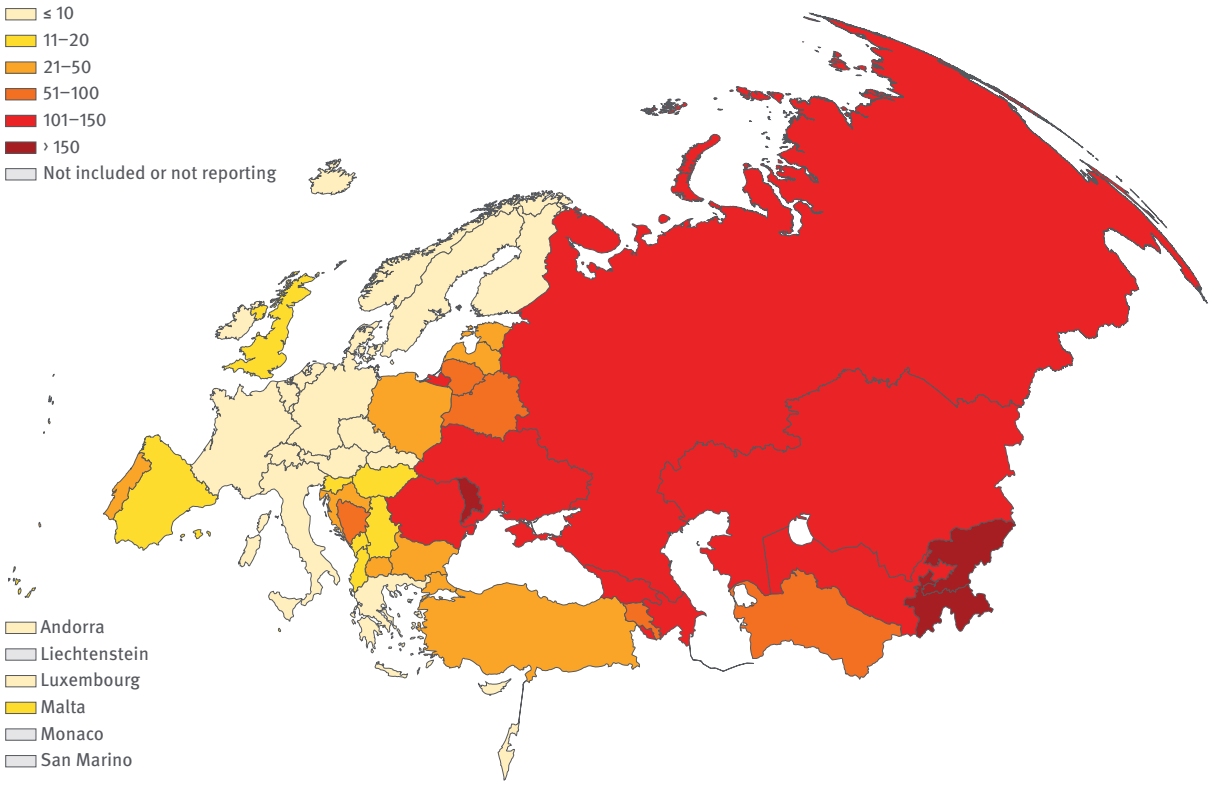
Table 29: Treatment outcome at 24 months, new culture-confirmed pulmonary MDR TB cases, EU/EEA, 2008[a]

Country	Total number of new pulmonary MDR cases	Success		Died		Failed		Defaulted		Still on treatment		Transferred or unknown	
		N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
EU/EEA													
Austria	11	0	(0.0)	0	(0.0)	0	(0.0)	5	(45.5)	3	(27.3)	3	(27.3)
Belgium	11	8	(72.7)	0	(0.0)	0	(0.0)	1	(9.1)	2	(18.2)	0	(0.0)
Bulgaria	13	3	(23.1)	4	(30.8)	0	(0.0)	0	(0.0)	6	(46.2)	0	(0.0)
Cyprus	0	0	-	0	-	0	-	0	-	0	-	0	-
Czech Republic	10	6	(60.0)	0	(0.0)	1	(10.0)	2	(20.0)	1	(10.0)	0	(0.0)
Denmark	0	0	-	0	-	0	-	0	-	0	-	0	-
Estonia	42	23	(54.8)	6	(14.3)	4	(9.5)	3	(7.1)	6	(14.3)	0	(0.0)
Finland	-	-	-	-	-	-	-	-	-	-	-	-	-
France	-	-	-	-	-	-	-	-	-	-	-	-	-
Germany	19	12	(63.2)	1	(5.3)	0	(0.0)	3	(15.8)	1	(5.3)	2	(10.5)
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-
Hungary	7	2	(28.6)	1	(14.3)	4	(57.1)	0	(0.0)	0	(0.0)	0	(0.0)
Iceland	-	-	-	-	-	-	-	-	-	-	-	-	-
Ireland	2	0	(0.0)	2	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Italy	-	-	-	-	-	-	-	-	-	-	-	-	-
Latvia	76	47	(61.8)	15	(19.7)	2	(2.6)	8	(10.5)	4	(5.3)	0	(0.0)
Lithuania	-	-	-	-	-	-	-	-	-	-	-	-	-
Luxembourg	-	-	-	-	-	-	-	-	-	-	-	-	-
Malta	0	0	-	0	-	0	-	0	-	0	-	0	-
Netherlands	11	11	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Norway	0	0	-	0	-	0	-	0	-	0	-	0	-
Poland	9	4	(44.4)	3	(33.3)	0	(0.0)	2	(22.2)	0	(0.0)	0	(0.0)
Portugal	-	-	-	-	-	-	-	-	-	-	-	-	-
Romania	117	39	(33.3)	12	(10.3)	39	(33.3)	18	(15.4)	9	(7.7)	0	(0.0)
Slovakia	1	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Slovenia	1	0	(0.0)	1	(100.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
Spain	-	-	-	-	-	-	-	-	-	-	-	-	-
Sweden	6	5	(83.3)	1	(16.7)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)
United Kingdom	23	16	(69.6)	1	(4.3)	0	(0.0)	1	(4.3)	3	(13.0)	2	(8.7)
Subtotal EU/EEA	**359**	**177**	**(49.3)**	**47**	**(13.1)**	**50**	**(13.9)**	**43**	**(12.0)**	**35**	**(9.7)**	**7**	**(1.9)**

'European Region' comprises the 53 countries of the WHO European Region.
WHO European Region 18 TB High Priority Countries presented in italics.
[a] Indicator 7 in 'Progressing towards elimination: A Follow up to the Framework Action Plan to Fight Tuberculosis in the European Union'.

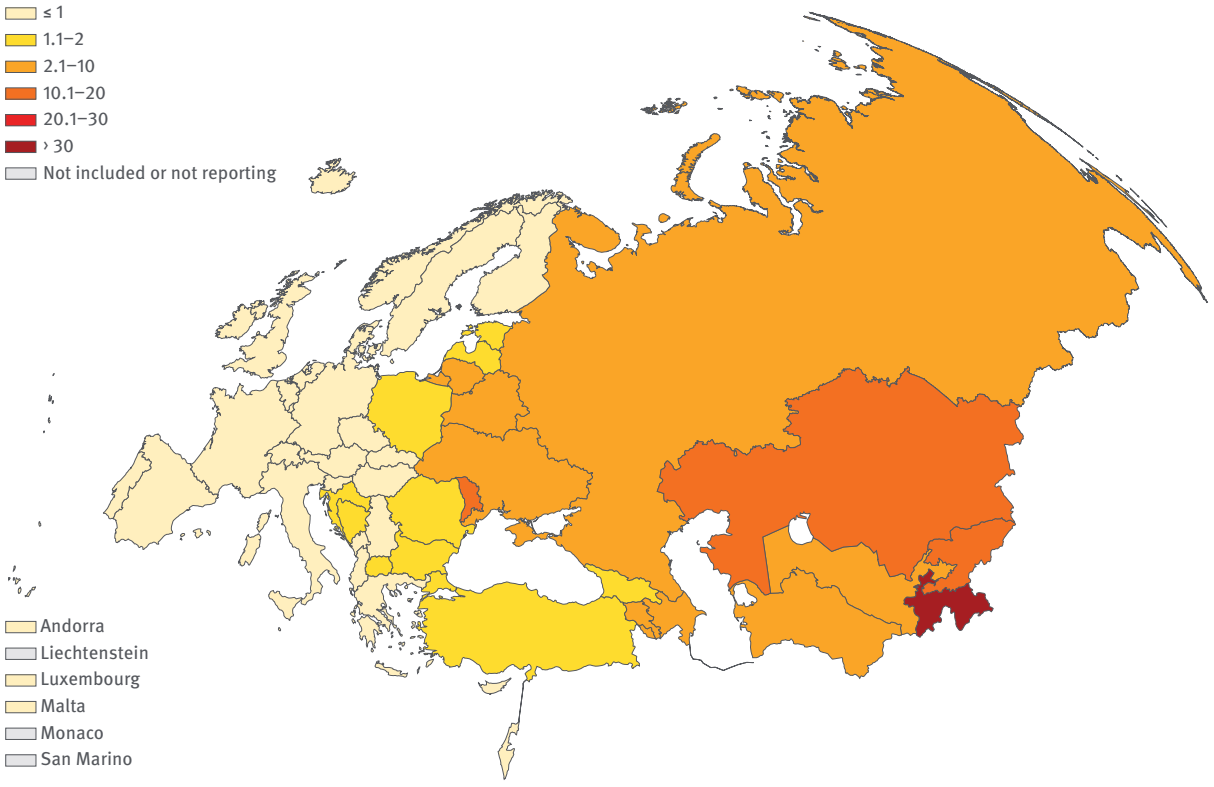
5. Maps & figures

Map 1a: Estimated TB incidence per 100 000 population, European Region, 2010[a]



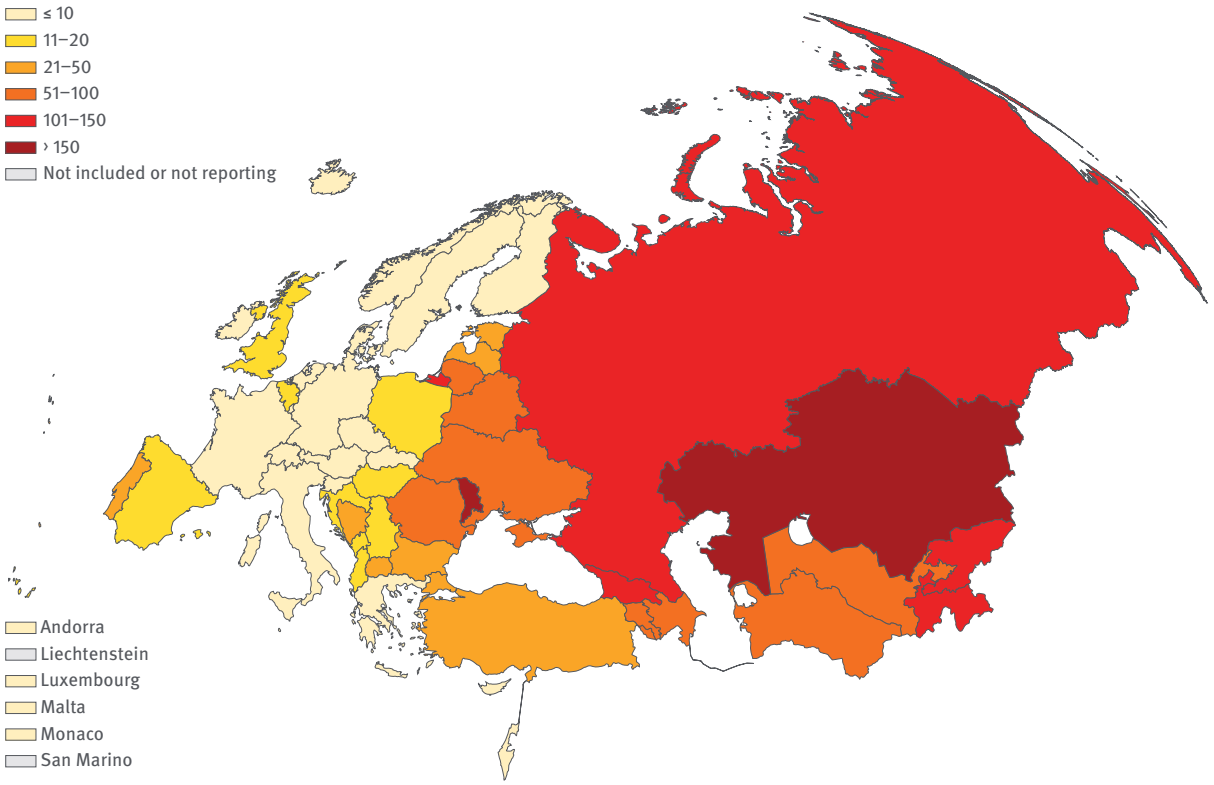
[a] Data from UN Administrated Province of Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 1b: Estimated TB mortality per 100 000 population, European Region, 2010[a]



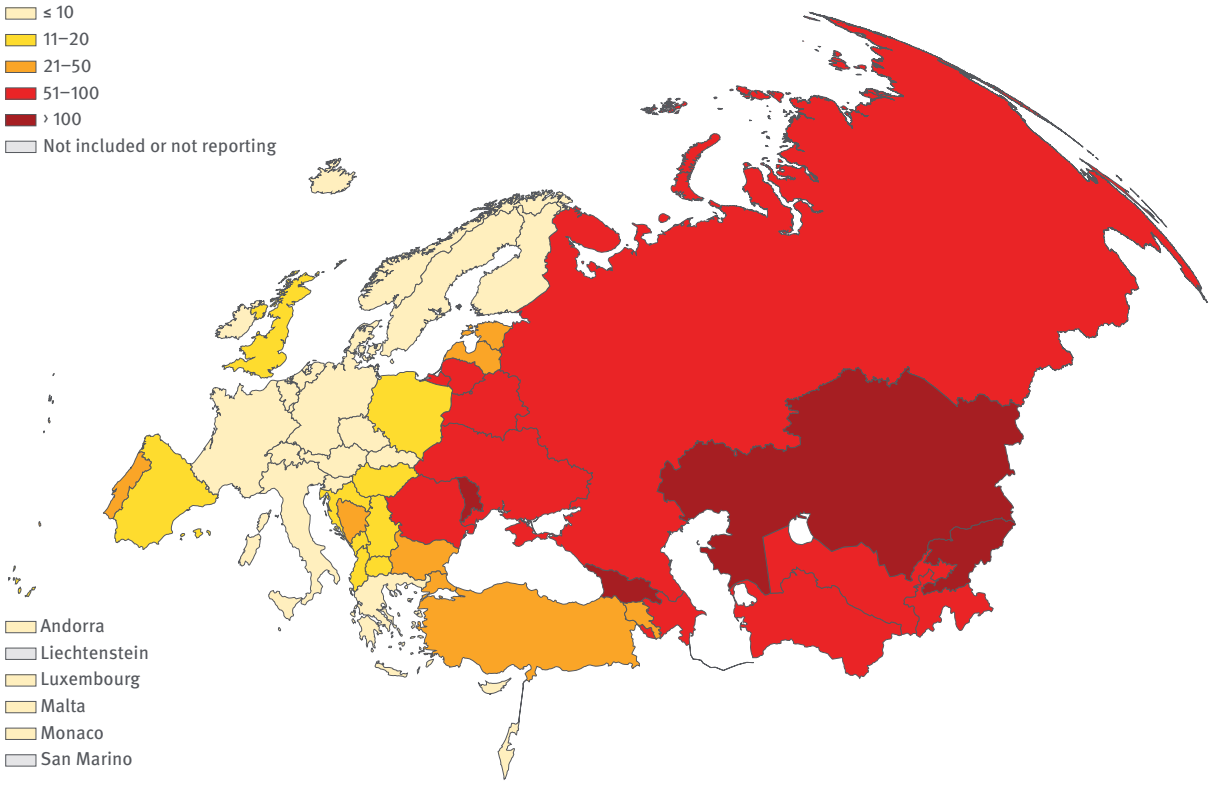
[a] Data from UN Administrated Province of Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 2: TB notification rates per 100 000 population, Europeean Region, 2010[a]



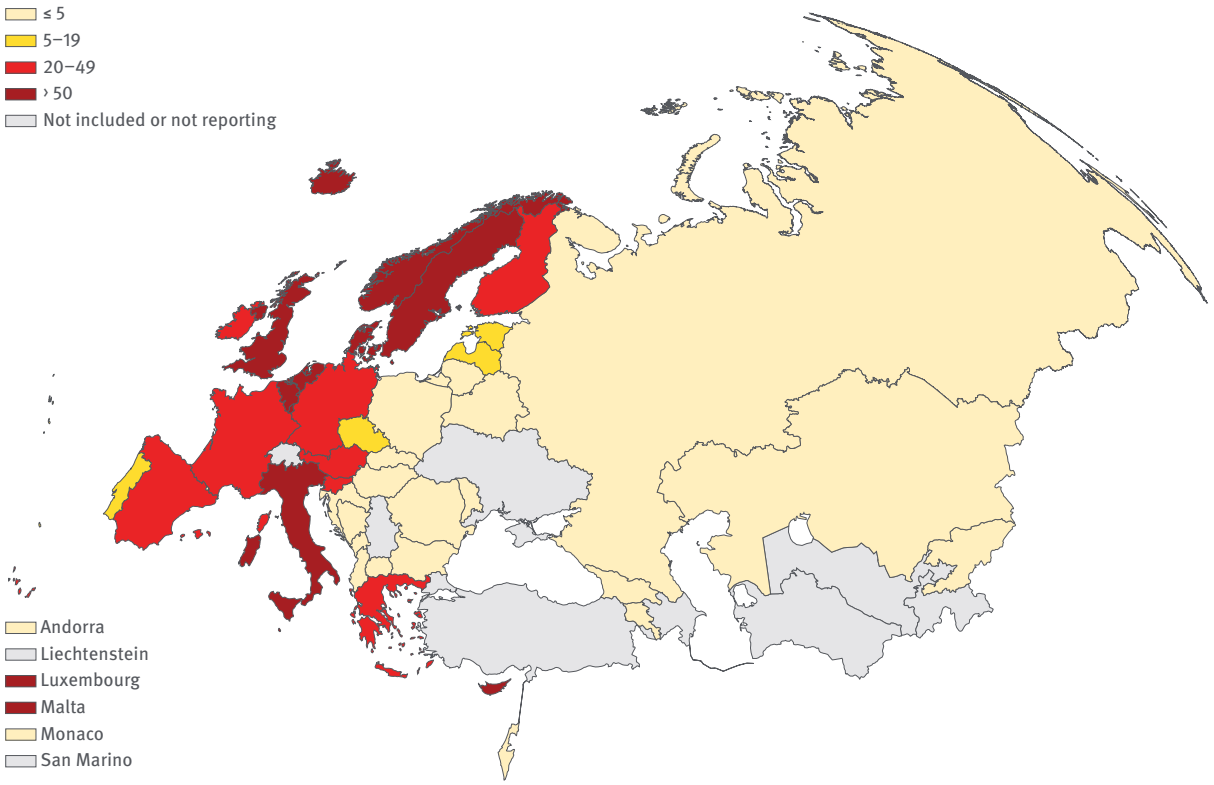
[a] Data from UN Administrated Province of Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 3: TB notification rates, New and Relapse cases per 100 000 population, European Region, 2010[a]



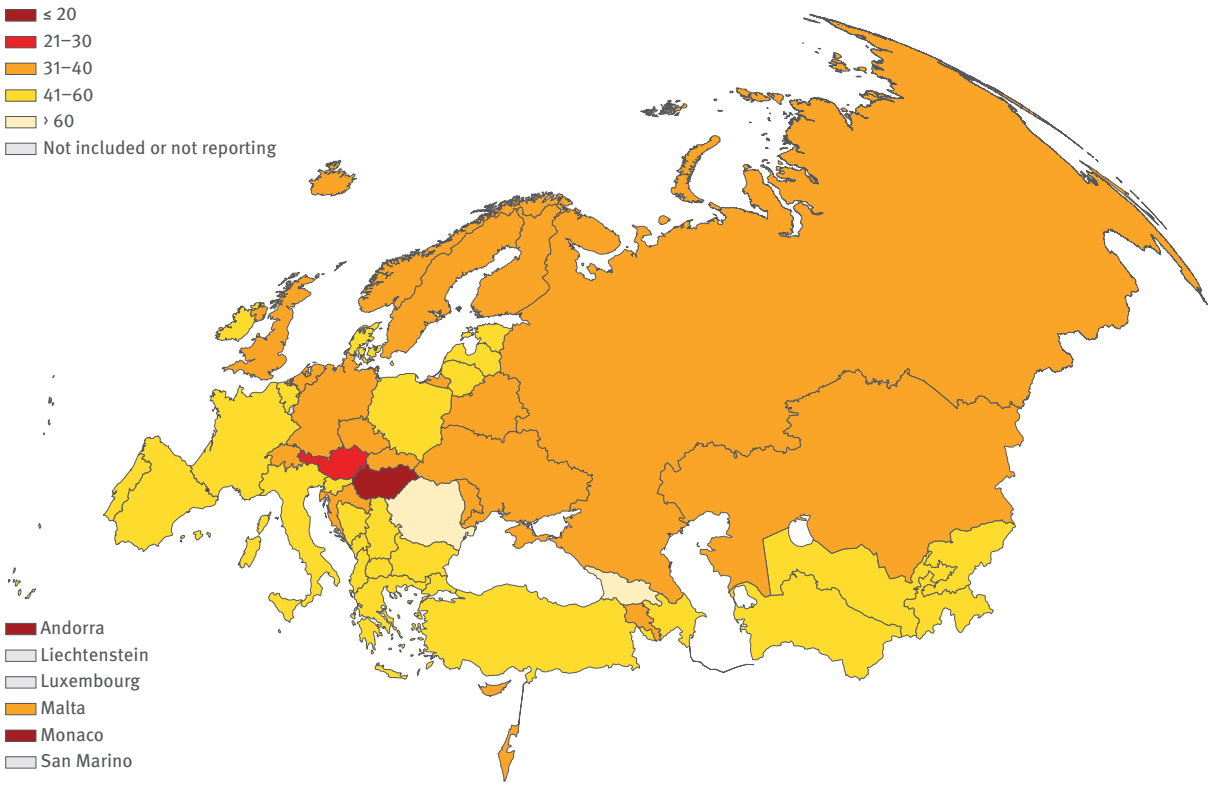
[a] Data from UN Administrated Province of Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 4: Percentages of notified TB cases of foreign origin among all TB cases, European Region, 2010[a]



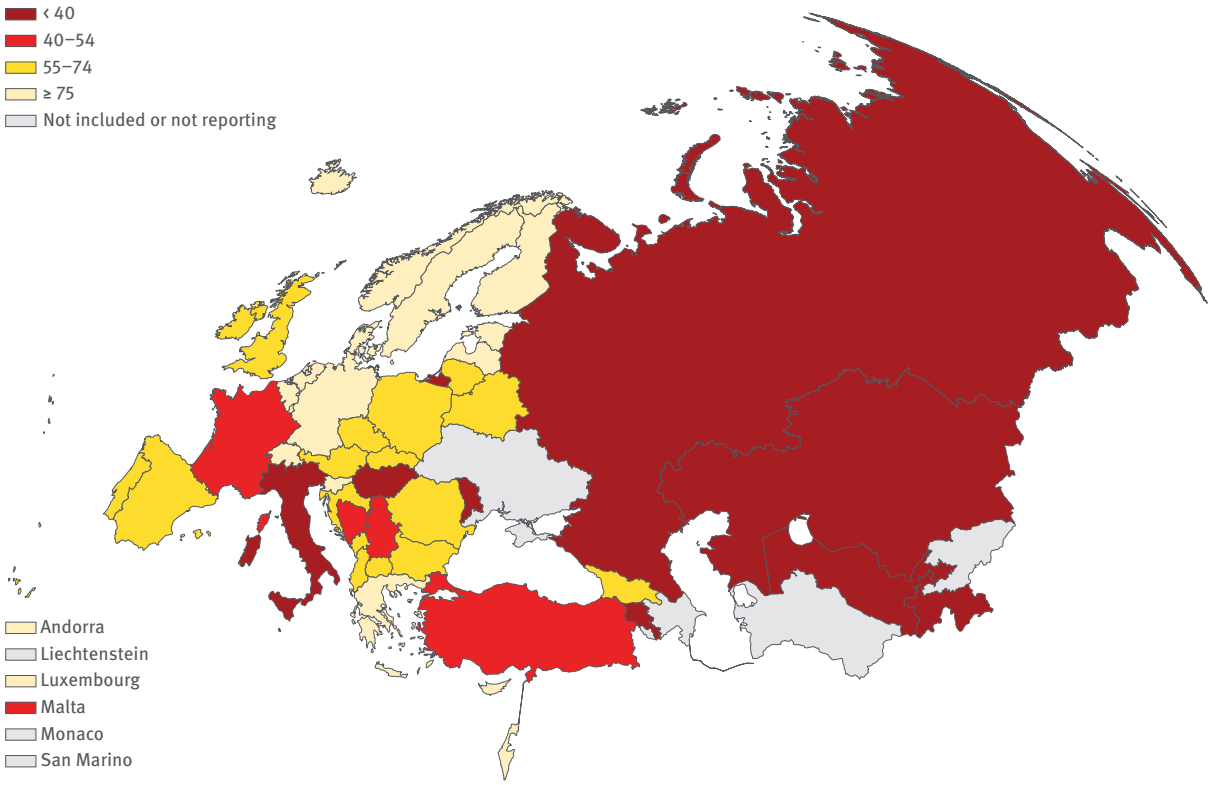
[a] Data from UN Administrated Province of Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 5 Percentages of smear positive pulmonary TB cases among new pulmonary TB, European Region, 2010[a]



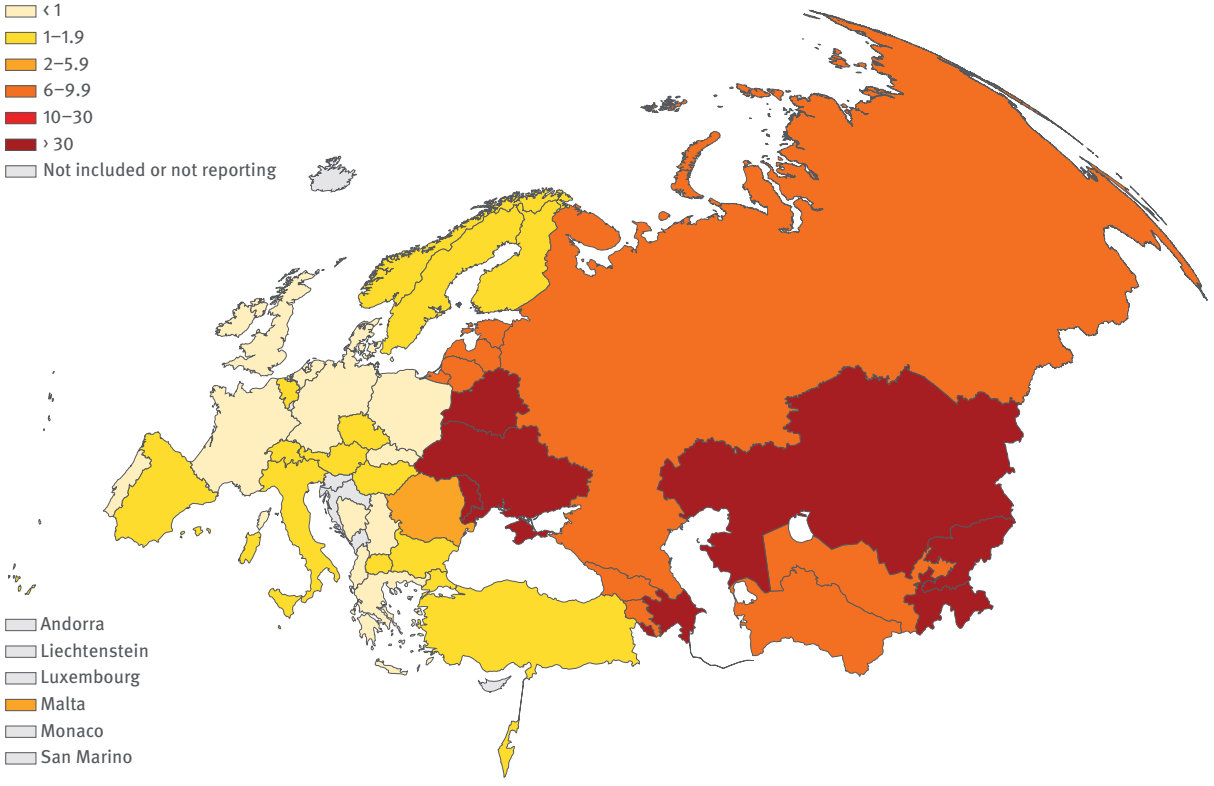
[a] Data from UN Administrated Province of Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 6: Percentage of TB cases confirmed by culture among new pulmonary TB cases, European Region, 2010[a]



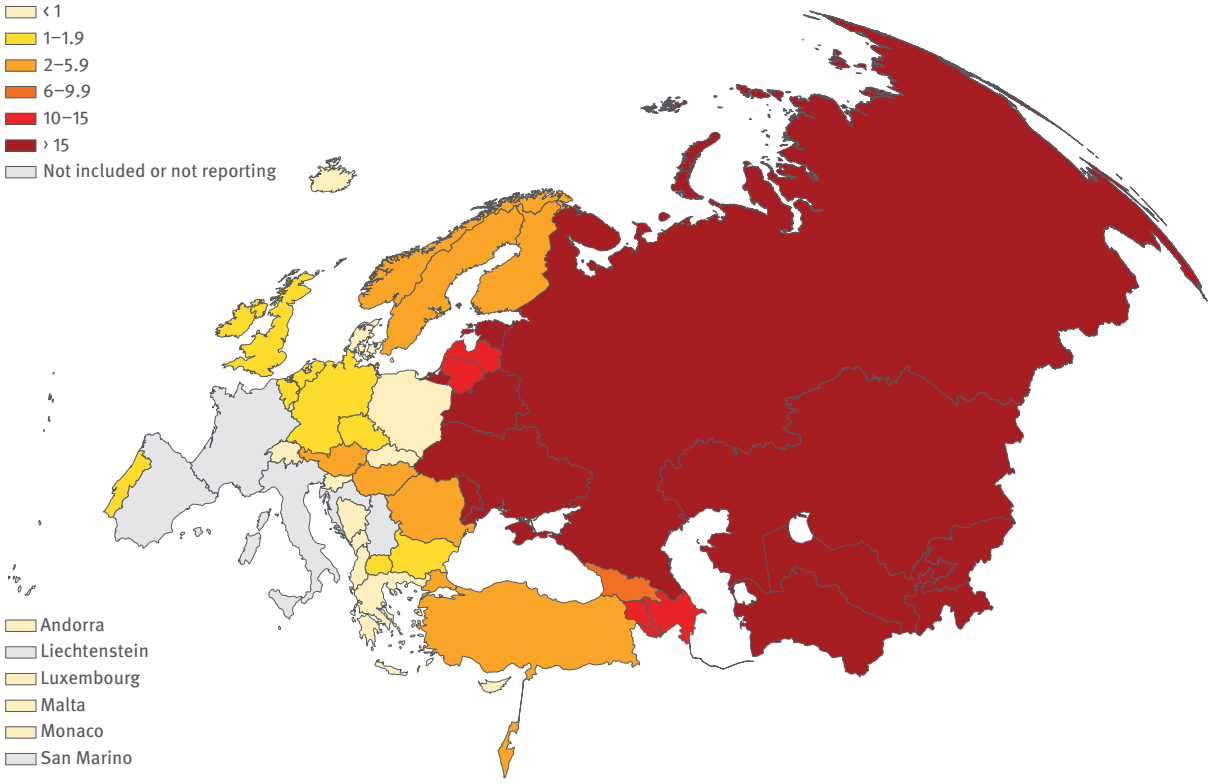
[a] Data from UN Administrated Province of Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 7: Percentage of notified TB cases with multidrug resistance among all TB cases with DST results, European Region, 2010[a]



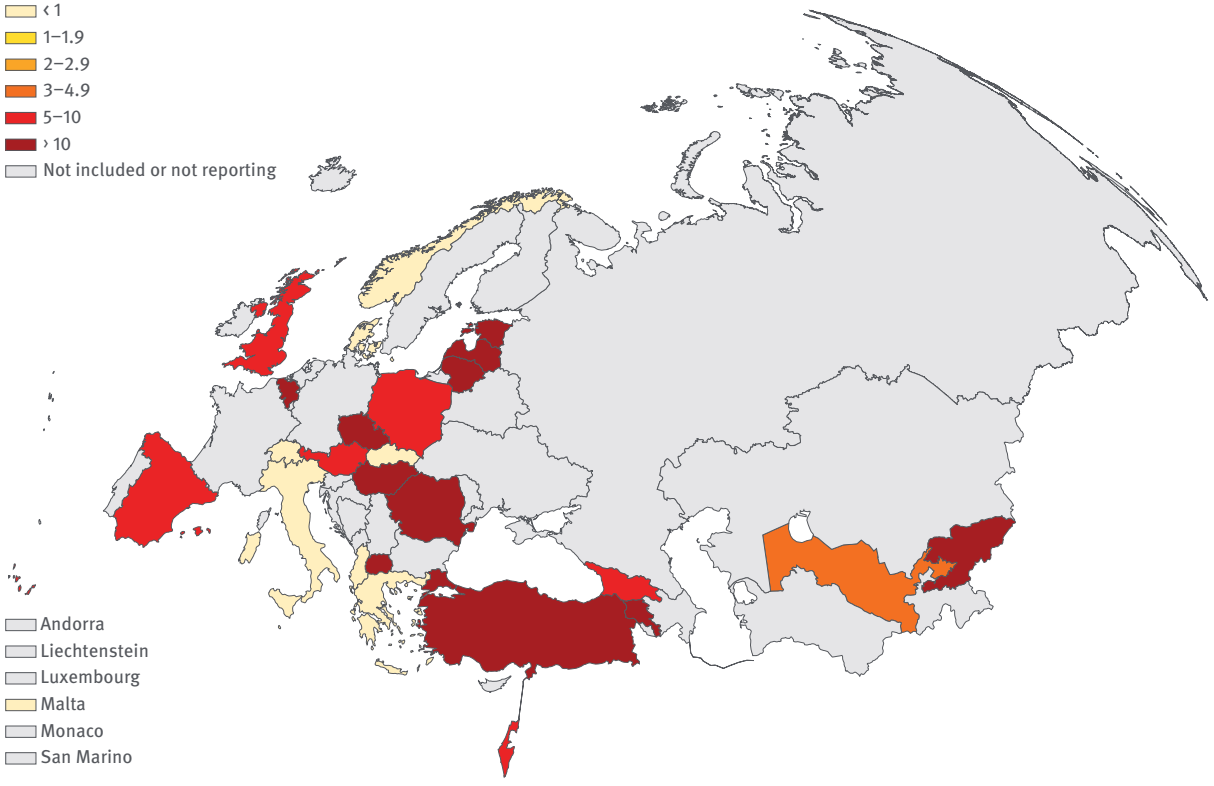
[a] Data from UN Administrated Province of Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 8: Percentage of notified TB cases with multidrug resistance among new pulmonary TB cases with DST results, European Region, 2010[a]



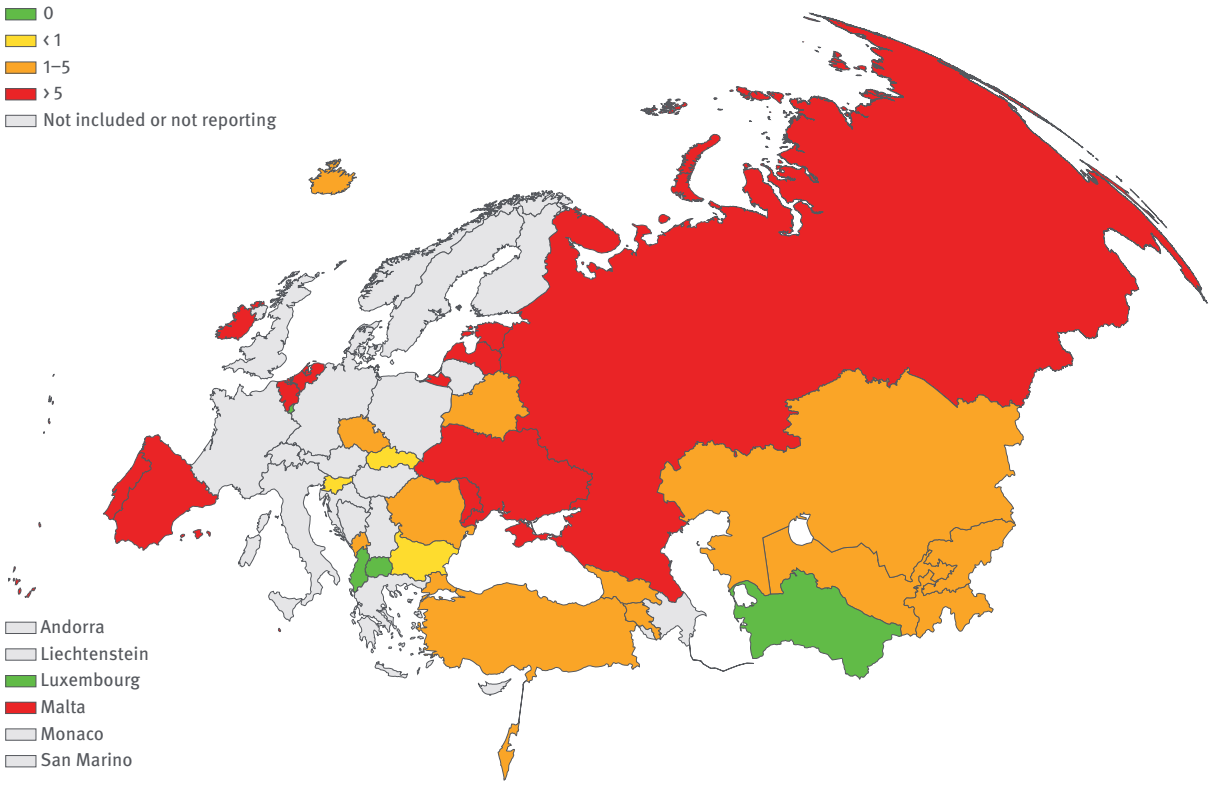
[a] Data from UN Administrated Province of Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 9: Percentage of notified TB cases with extensive drug resistance among MDR TB cases with DST results, European Region, 2009[a]



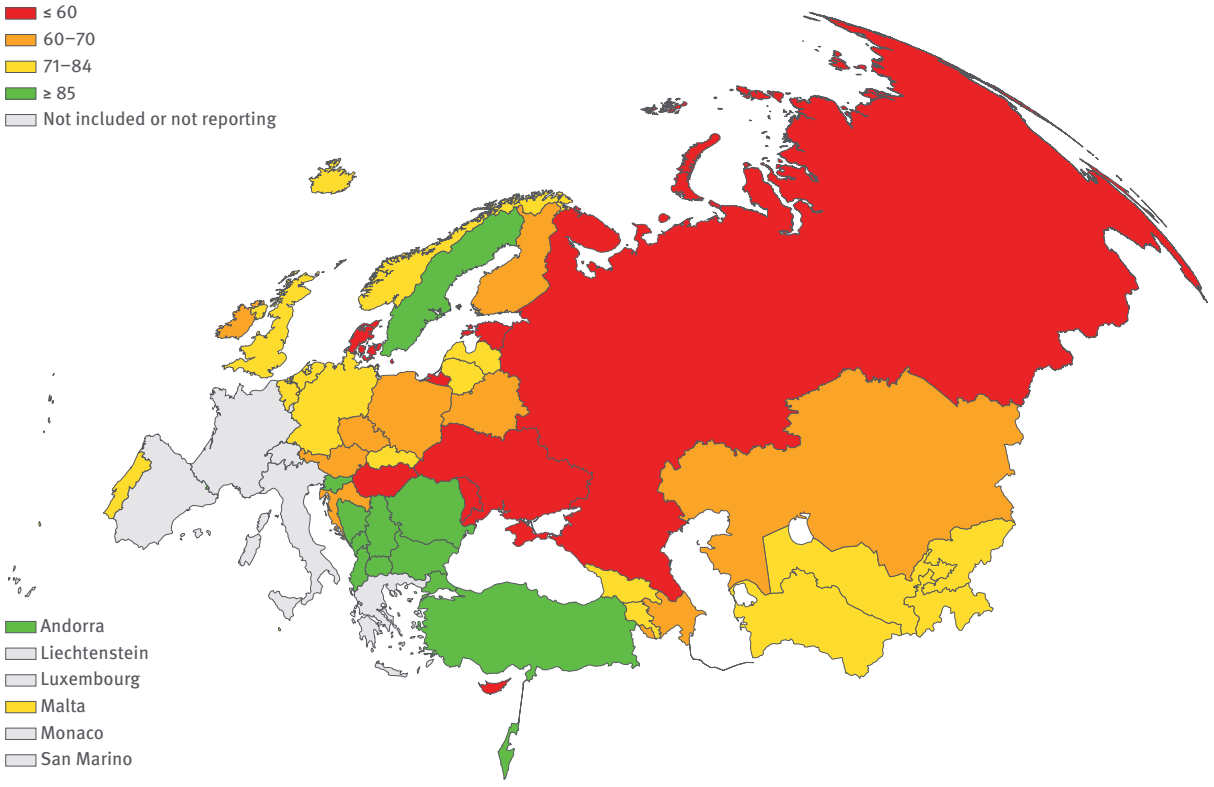
[a] Data from UN Administrated Province of Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 10: Percentage of HIV positive TB cases among tesed cases for HIV, European Region, 2010[a]



[a] Data from UN Administrated Province of Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Map 11: Success rate of laboratory-confirmed new pulmonary TB cases, European Region, 2009[a]



[a] Data from UN Administrated Province of Kosovo (in accordance with Security Council Resolution 1244 (1999)) is not included in the figures reported for Serbia

Figure 1a: TB incidence and notification per 100 000 population, European Region, 1990–2010

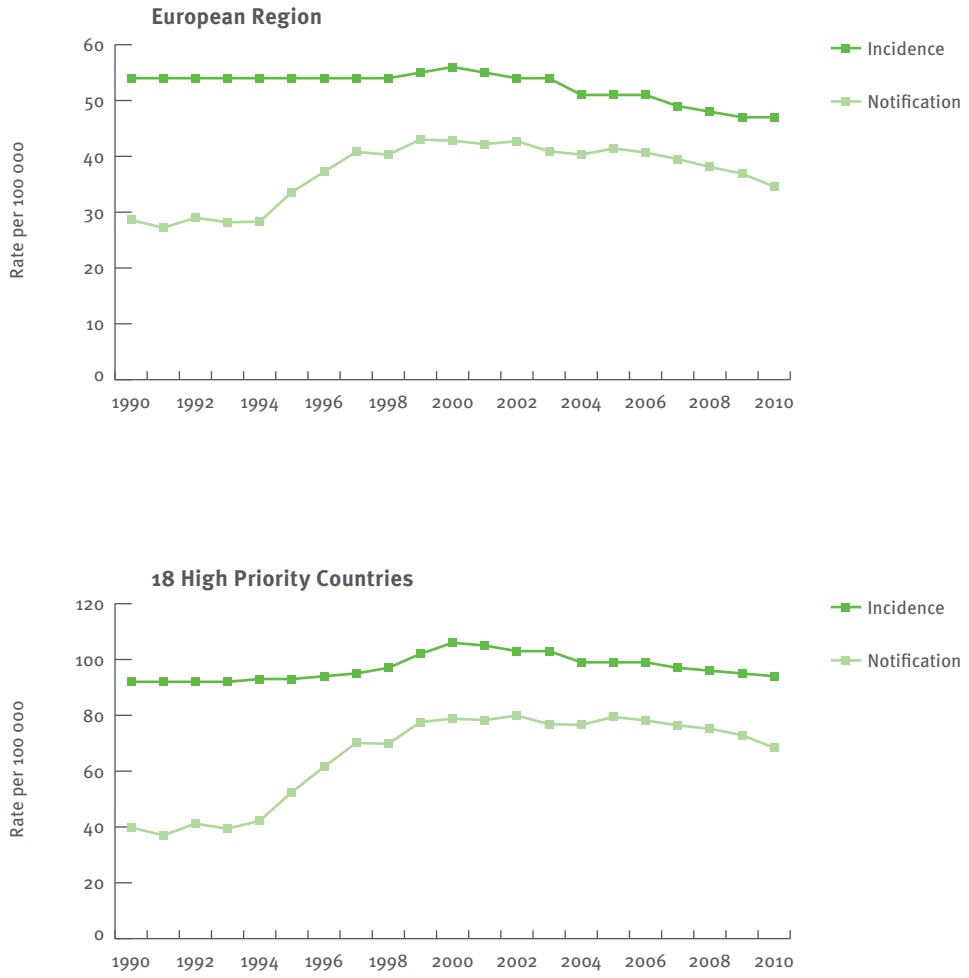


Figure 1b: Estimated TB prevalence per 100 000 population, European Region, 1990–2010

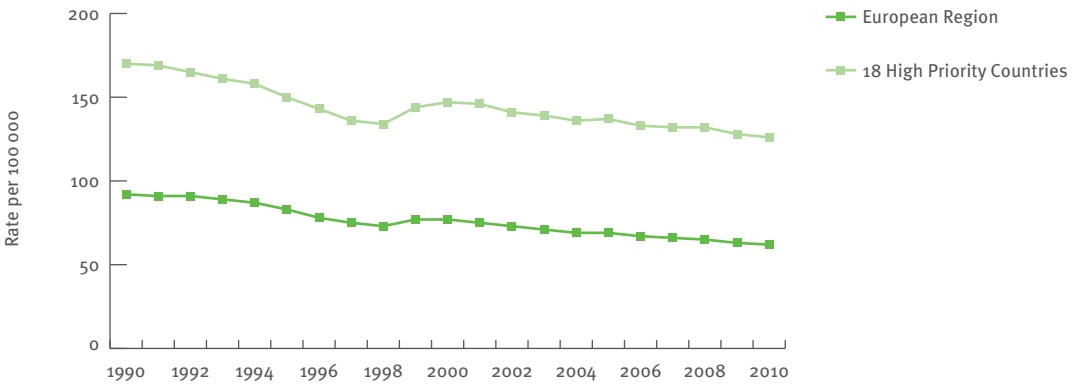


Figure 1c: Estimated TB mortality per 100 000 population, European Region, 1990–2010

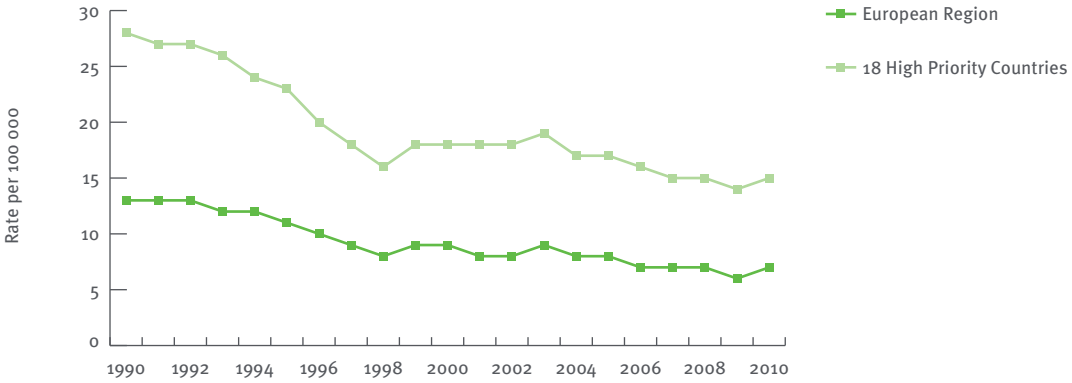
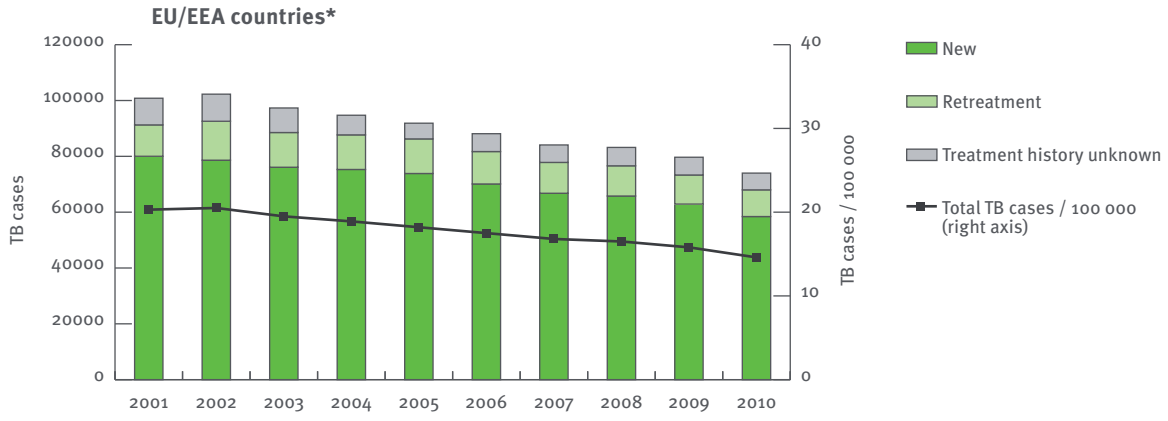
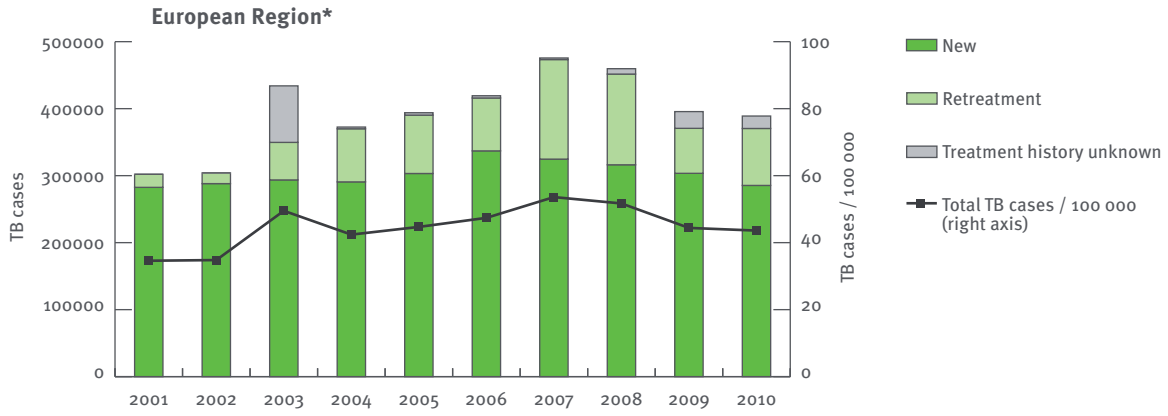


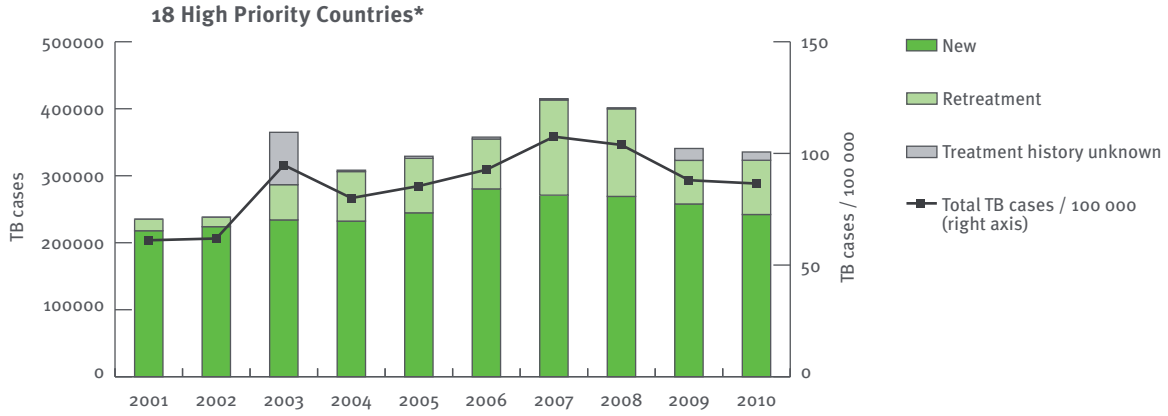
Figure 2: Total TB notifications by previous treatment history and total TB case rates, Europe, 2001–2010



* Excluded: 2001: Cyprus, Liechtenstein; 2002–2010: Liechtenstein



* Excluded: 2001: Belarus, Cyprus, Kyrgyzstan, Liechtenstein, Montenegro, Turkey, Ukraine; 2002: Belarus, Liechtenstein, Montenegro, Russian Federation, 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: Monaco, San Marino; 2008: Austria, Liechtenstein, Monaco,San Marino; 2009: Liechtenstein, Monaco, San Marino; 2010: San Marino

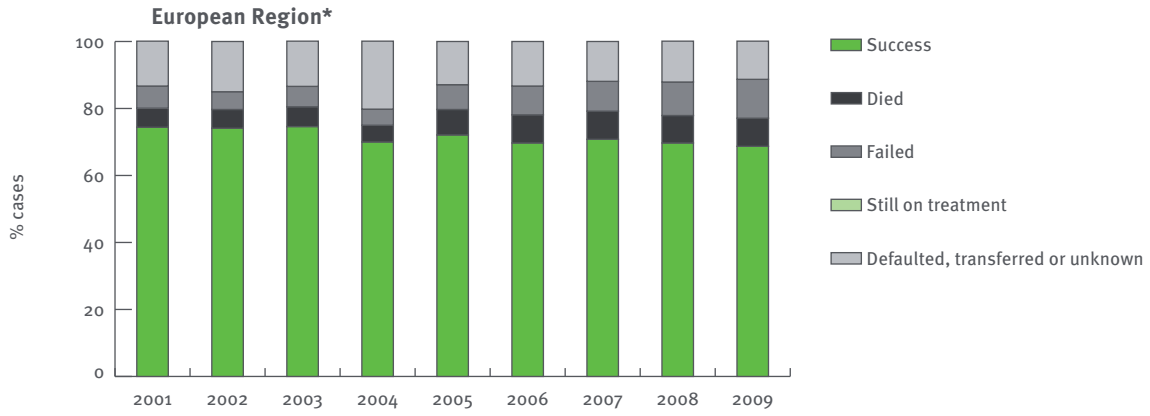


* Exluded: 2001: Belarus, Kyrgyzstan, Turkey, Ukraine; 2002: Belarus, Russian Federation, Tajikistan, Turkey, Ukraine; 2003: Belarus, Tajikistan, Ukraine; 2004: Kyrgyzstan, Turkey, Ukraine; 2005: Ukraine

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

Figure 3: Treatment outcome by area, new culture-confirmed pulmonary cases, Europe, 2001–2009

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



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

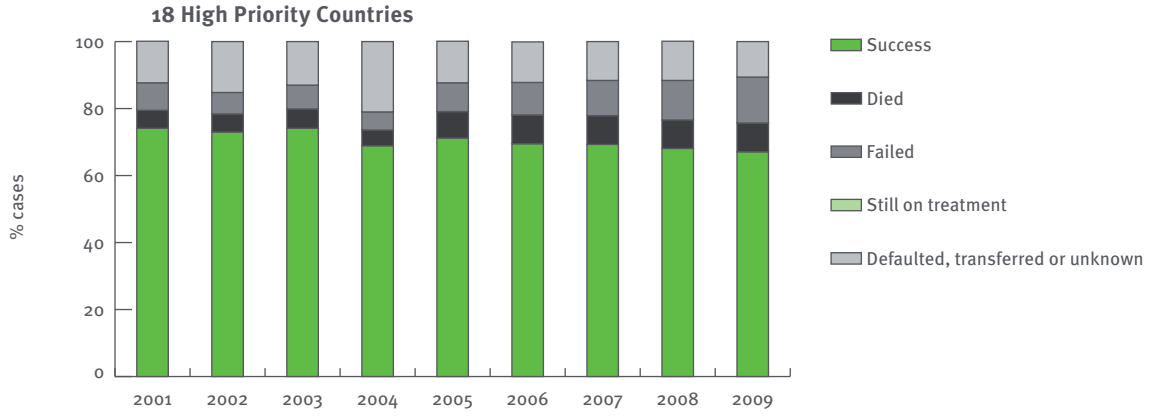
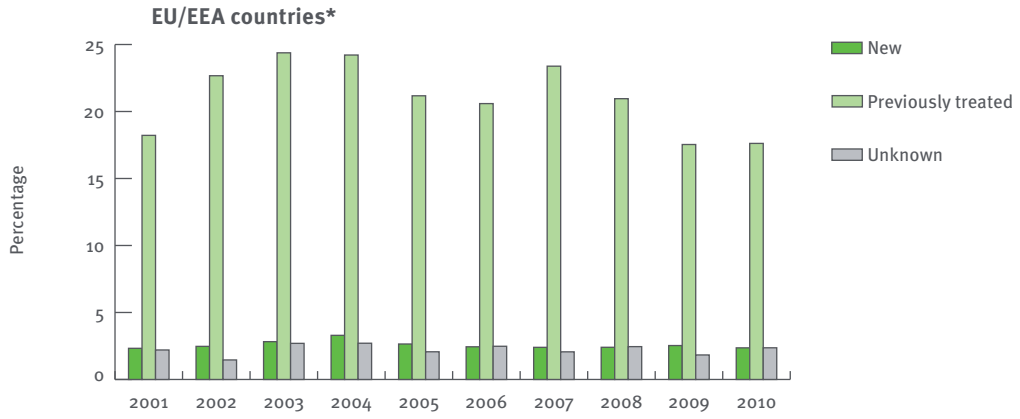
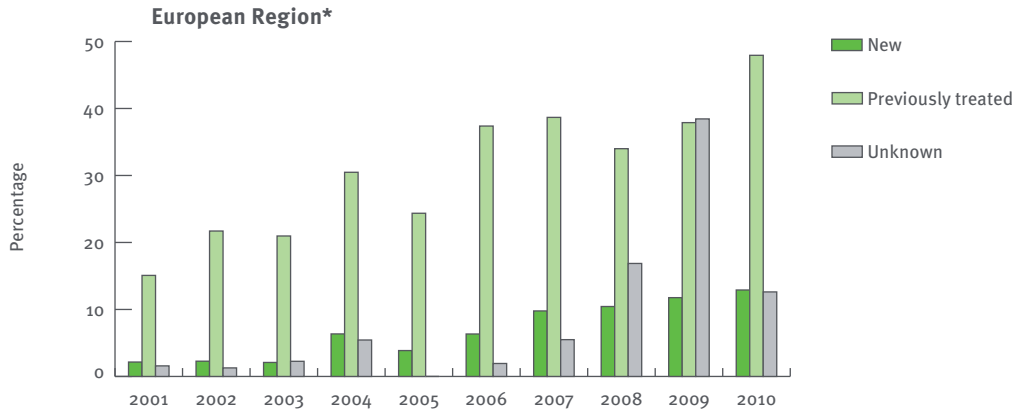


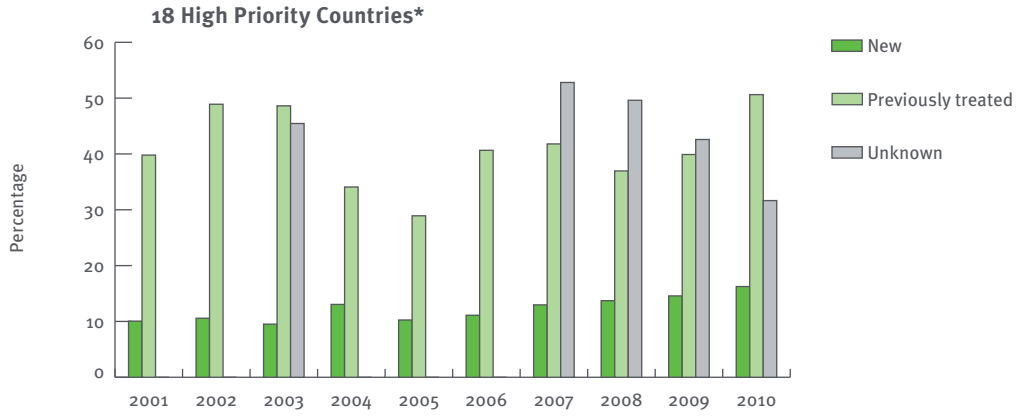
Figure 4: Percentage of MDR among tested TB cases, Europe, 2001–2010



* Excluded: 2001: Bulgaria, Cyprus, Greece; 2002: Bulgaria, Poland; 2003: Poland, Romania; 2008: Luxembourg

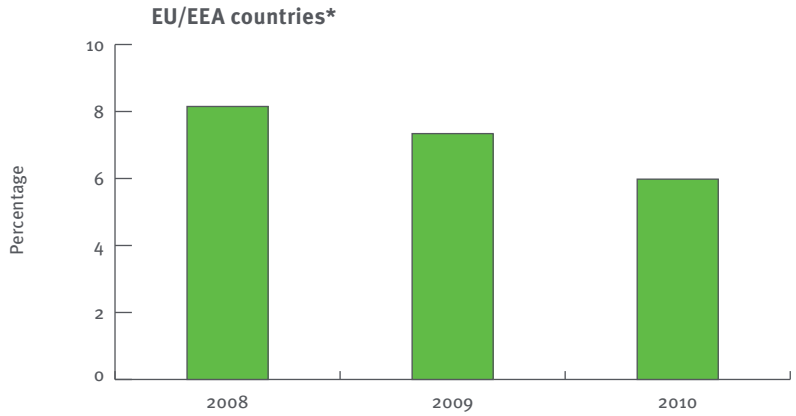


* Excluded: 2001: Albania, Andorra, Armenia, Azerbaijan, Belarus, Bulgaria, Cyprus, Georgia, Greece, Kazakhstan, Kyrgyzstan, Macedonia, the former Yugoslav Republic of, Moldova, Monaco, Russia, San Marino, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan; 2002: Albania, Andorra, Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Macedonia, the former Yugoslav Republic of, Moldova, Monaco, Poland, Russia, San Marino, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan; 2003: Albania, Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Macedonia, the former Yugoslav Republic of, Moldova, Monaco, Poland, Romania, Russia, San Marino, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan; 2004: Georgia, Moldova, Monaco, Russia, San Marino, Spain, Tajikistan, Turkey, Turkmenistan, Ukraine; 2005: Belarus, Kazakhstan, Monaco, Russia, San Marino, Tajikistan, Turkmenistan, Ukraine; 2006: Monaco, Russia, San Marino, Tajikistan, Ukraine; 2007: Monaco, San Marino, Tajikistan, Turkmenistan, Ukraine; 2008: Azerbaijan, Luxembourg, Monaco, San Marino, Tajikistan, Turkmenistan, Ukraine

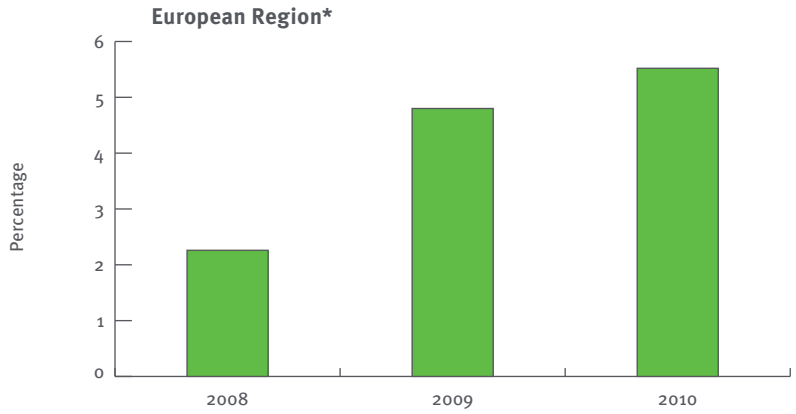


* Excluded: 2001: Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan; 2002: Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan; 2003: Armenia, Azerbaijan, Belarus, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Monaco, Romania, Russia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan; 2004: Georgia, Moldova, Monaco, Russia, San Marino, Spain, Tajikistan, Turkey, Turkmenistan, Ukraine; 2005: Belarus, Kazakhstan, Monaco, Russia, San Marino, Tajikistan, Turkmenistan, Ukraine; 2006: Monaco, Russia, San Marino, Tajikistan, Ukraine; 2007: Monaco, San Marino, Tajikistan, Turkmenistan, Ukraine

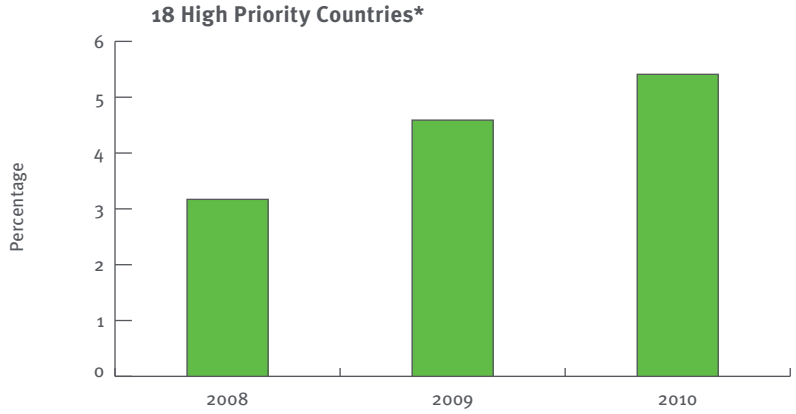
Figure 5: Percentage of TB cases with HIV infection among all TB cases, Europe, 2008–2010



* Excluded: 2008: Austria, Finland, France, Germany, Greece, Hungary, Italy, Lithuania, Luxembourg, Norway, Poland, Romania, Sweden, United Kingdom; 2009: Austria, Cyprus, Finland, France, Germany, Greece, Hungary, Italy, Lithuania, Luxembourg, Norway, Poland, Sweden, United Kingdom; 2010: Austria, Cyprus, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Lithuania, Norway, Poland, Sweden, United Kingdom

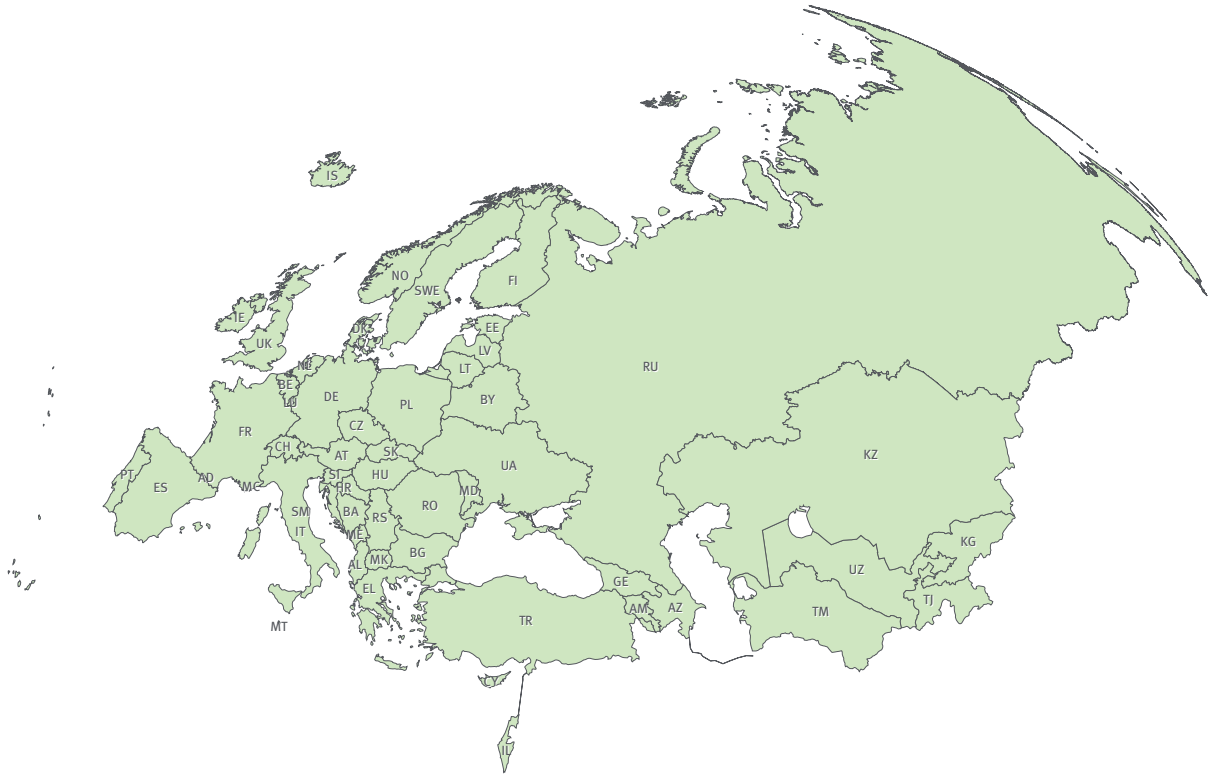


* Excluded: 2008: Andorra, Austria, Bosnia and Herzegovina, Croatia, Finland, France, Germany, Greece, Hungary, Italy, Lithuania, Luxembourg, Monaco, Norway, Poland, San Marino, Serbia, Sweden, Switzerland, Turkey, Turkmenistan, United Kingdom; 2009: Andorra, Austria, Azerbaijan, Bosnia and Herzegovina, Croatia, Cyprus, Finland, France, Germany, Greece, Hungary, Italy, Lithuania, Luxembourg, Monaco, Norway, Poland, San Marino, Serbia, Sweden, Switzerland, Turkey, Turkmenistan, United Kingdom; 2010: Andorra, Austria, Azerbaijan, Bosnia and Herzegovina, Croatia, Cyprus, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Lithuania, Monaco, Norway, Poland, San Marino, Serbia, Sweden, Switzerland, United Kingdom



* Excluded: 2008: Lithuania, Turkey, Turkmenistan; 2009: Azerbaijan, Lithuania, Turkey, Turkmenistan; 2010: Azerbaijan, Lithuania

6. Country profiles



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

Albania

Population estimate 2010 by UN Statistical Database: 3 204 284

Tuberculosis case notifications, 2010

Total number of cases	445	
Notification rate per 100 000	13.9	
New & relapses (lab+) number	431	(96.9%)
New & relapses (lab+) notification rate per 100 000	13.5	
New pulmonary	250	(90.9%)
of which smear-positive	145	(58.0%)
Culture positive of new TB cases	155	(62.0%)
Mean age (age group) of new TB cases	15–24 years	
Foreign citizens of all TB cases	1	(0.2%)
New (not previously treated)	415	(93.3%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	205	(100.0%)
Cases resistant to isoniazid	10	(4.9%)
Cases resistant to rifampicin	1	(0.5%)
MDR cases	2	(1.0%)
including DST results on SLD	2	(100.0%)
of which XDR cases	0	(0.0%)
TB cases tested for HIV	186	(41.8%)
HIV-positive TB cases	0	(0.0%)

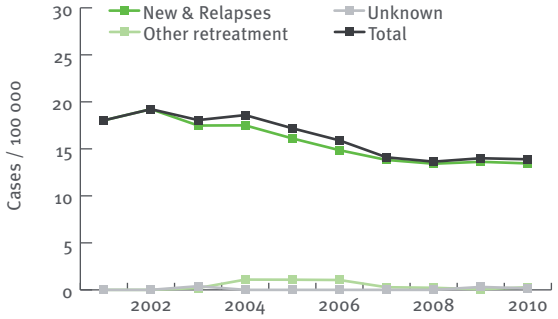
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

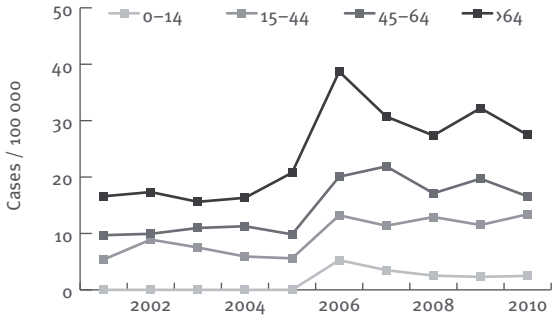
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary smear positive	
Case-linked data reporting	Yes	
Notified in 2009	171	
Success	153	(89.5%)
Died	4	(2.3%)
Failed	2	(1.2%)
Defaulted	6	(3.5%)
Lost to follow up	6	(3.5%)

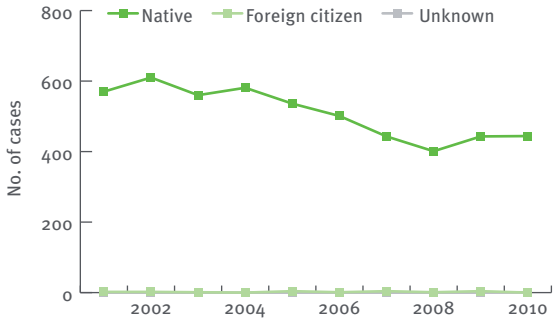
Tuberculosis notification rates by treatment history, 2001–2010



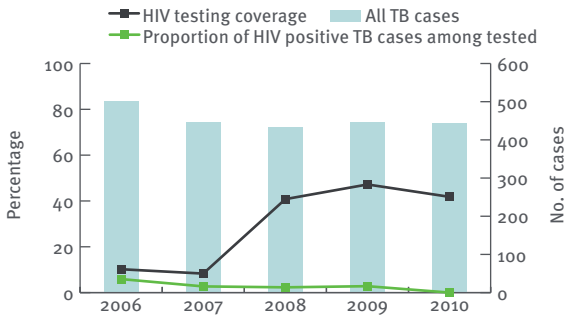
New TB cases - notification rates by age group, 2001–2010



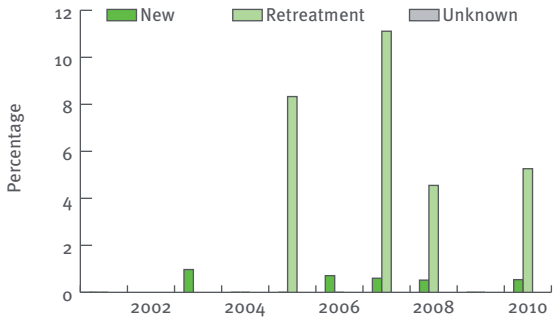
Tuberculosis cases by geographical origin, 2001–2010



TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary smear-positive cases, 2001–2009

Andorra

Population estimate 2010 by UN Statistical Database: 84 864

Tuberculosis case notifications, 2010

Total number of cases	7	
Notification rate per 100 000	8.2	
New & relapses (lab+) number	7	(100.0%)
New & relapses (lab+) notification rate per 100 000	8.2	
New pulmonary	4	(100.0%)
of which smear-positive	0	(0.0%)
Culture positive of new TB cases	4	(100.0%)
Mean age (age group) of new TB cases	45–64 years	
Foreign citizens of all TB cases	0	(0.0%)
New (not previously treated)	7	(100.0%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	4	(100.0%)
Cases resistant to isoniazid	1	(25.0%)
Cases resistant to rifampicin	0	(0.0%)
MDR cases	0	(0.0%)
including DST results on SLD	0	-
of which XDR cases	-	-
TB cases tested for HIV	0	(0.0%)
HIV-positive TB cases	-	-

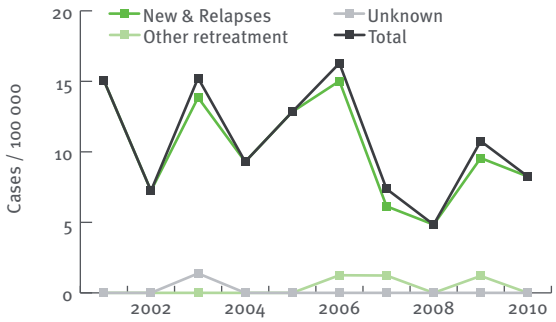
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

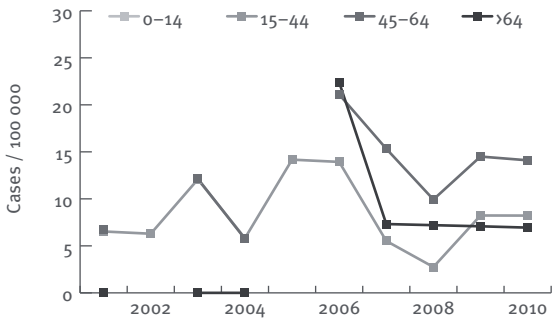
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	3	
Success	3	(100.0%)
Died	0	(0.0%)
Failed	0	(0.0%)
Defaulted	0	(0.0%)
Lost to follow up	0	(0.0%)

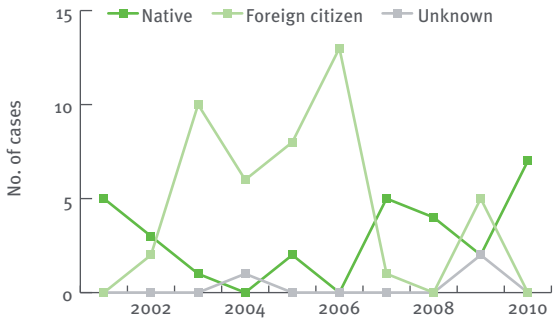
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



Tuberculosis cases by geographical origin, 2001–2010



TB-HIV co-infection, 2006–2010

Not available

MDR TB cases by previous treatment history, 2001–2010

No MDR cases reported

Treatment outcome, new pulmonary culture-positive cases, 2001–2009

Armenia

Population estimate 2010 by UN Statistical Database: 3092072

Tuberculosis case notifications, 2010

Total number of cases	1780	
Notification rate per 100000	57.6	
New & relapses (lab+) number	1410	(79.2%)
New & relapses (lab+) notification rate per 100000	45.6	
New pulmonary	978	(89.7%)
of which smear-positive	339	(34.7%)
Culture positive of new TB cases	358	(36.6%)
Mean age (age group) of new TB cases	25–44 years	
Foreign citizens of all TB cases	1	(0.1%)
New (not previously treated)	1329	(74.7%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	No	
Cases with DST results	691	(100.0%)
Cases resistant to isoniazid	113	(16.4%)
Cases resistant to rifampicin	10	(1.4%)
MDR cases	177	(25.6%)
including DST results on SLD	177	(100.0%)
of which XDR cases	21	(11.9%)
TB cases tested for HIV	1242	(69.8%)
HIV-positive TB cases	17	(1.4%)

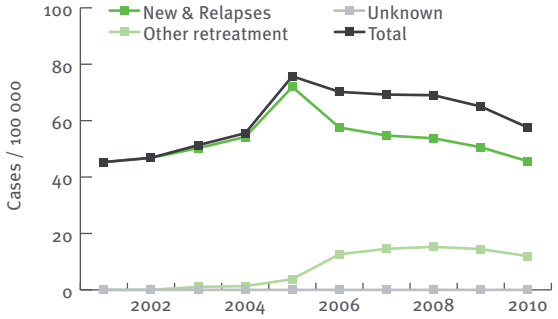
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

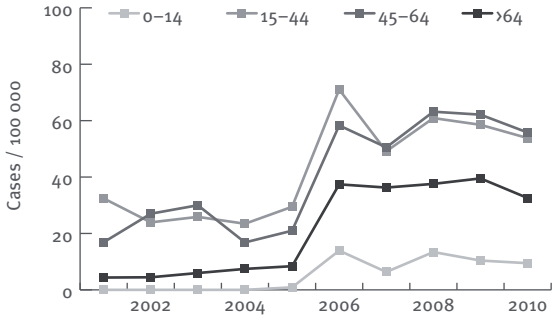
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary smear positive	
Case-linked data reporting	Yes	
Notified in 2009	440	
Success	319	(72.5%)
Died	31	(7.0%)
Failed	12	(2.7%)
Defaulted	33	(7.5%)
Lost to follow up	45	(10.2%)

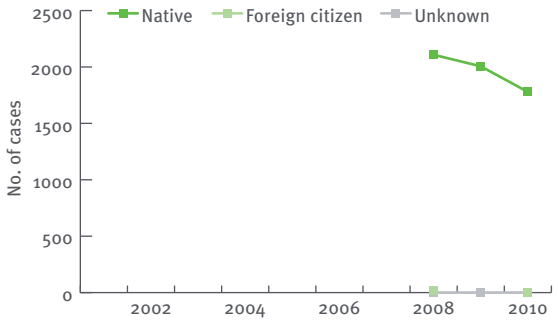
Tuberculosis notification rates by treatment history, 2001–2010



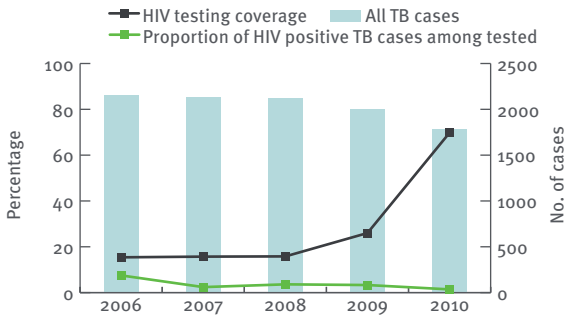
New TB cases - notification rates by age group, 2001–2010



Tuberculosis cases by geographical origin, 2001–2010



TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010

Treatment outcome, new pulmonary smear-positive cases, 2001–2009*

Austria

Total population at 1 January 2010 by EUROSTAT: 8 375 290

Tuberculosis case notifications, 2010

Total number of cases	688	
Notification rate per 100 000	8.2	
New & relapses (lab+) number	358	(52.0%)
New & relapses (lab+) notification rate per 100 000	4.3	
Pulmonary	557	(81.0%)
of which smear-positive	128	(23.0%)
Culture positive of all TB cases	478	(69.5%)
Mean age of new TB cases, nationals	54.6 years	
Mean age of new TB cases, non-nationals	38.3 years	
Foreign citizens of all TB cases	299	(43.5%)
New (not previously treated)	358	(52.0%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	-	
Case-linked data reporting	Yes	
Cases with DST results	472	(98.7%)
Cases resistant to isoniazid	44	(9.3%)
Cases resistant to rifampicin	15	(3.2%)
MDR cases	15	(3.2%)
of which XDR cases	1	(6.7%)
Cases resistant to ethambutol	8	(1.7%)
Cases resistant to streptomycin	42	(8.9%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-

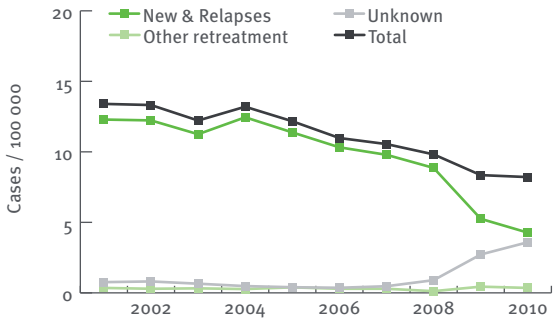
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

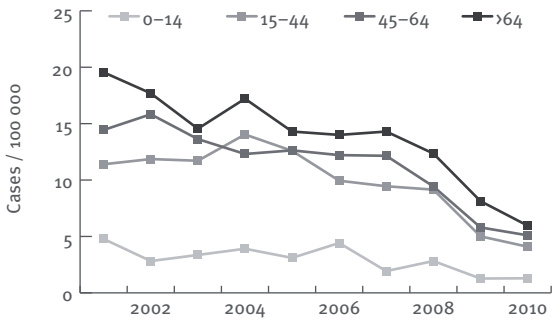
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	226	
Success	150	(66.4%)
Died	21	(9.3%)
Failed	0	(0.0%)
Defaulted	18	(8.0%)
Still on treatment	37	(16.4%)
Lost to follow up	0	(0.0%)

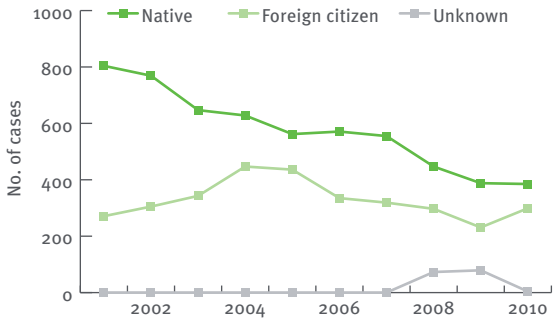
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



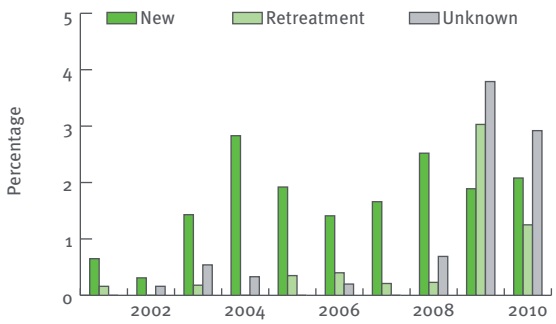
Tuberculosis cases by geographical origin, 2001–2010



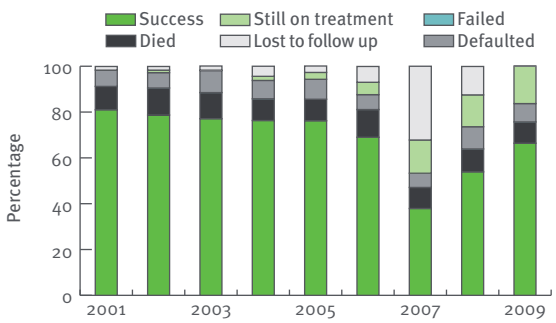
TB-HIV co-infection, 2006–2010

Data not available

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Azerbaijan

Population estimate 2010 by UN Statistical Database: 9187783

Tuberculosis case notifications, 2010

Total number of cases	8394	
Notification rate per 100000	91.4	
New & relapses (lab+) number	6390	(76.1%)
New & relapses (lab+) notification rate per 100000	69.5	
New pulmonary	4272	(58.7%)
of which smear-positive	1997	(46.7%)
Culture positive of new TB cases	0	(0.0%)
Mean age (age group) of new TB cases, nationals	25–44 years	
Foreign citizens of all TB cases	-	-
New (not previously treated)	5237	(62.4%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	1761	(59.6%)
Cases resistant to isoniazid	84	(4.8%)
Cases resistant to rifampicin	5	(0.3%)
MDR cases	552	(31.3%)
including DST results on SLD	-	-
of which XDR cases	-	-
TB cases tested for HIV	0	(0.0%)
HIV-positive TB cases	-	-

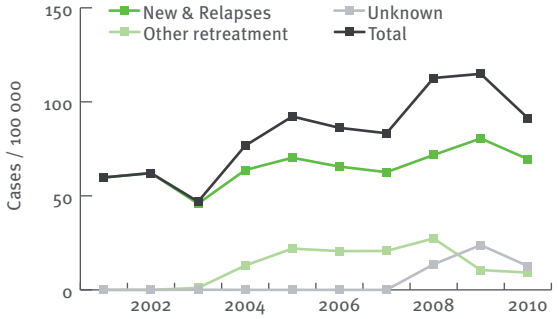
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

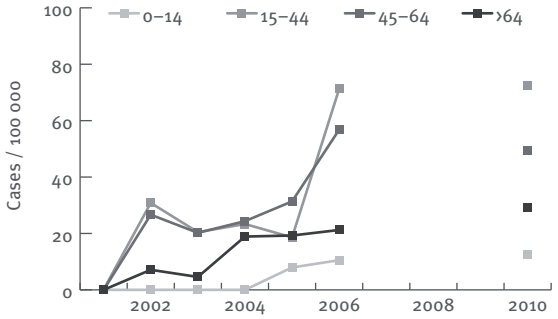
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary smear positive	
Case-linked data reporting	Yes	
Notified in 2009	1480	
Success	918	(62.0%)
Died	46	(3.1%)
Failed	108	(7.3%)
Defaulted	237	(16.0%)
Lost to follow up	171	(11.6%)

Tuberculosis notification rates by treatment history, 2001–2010



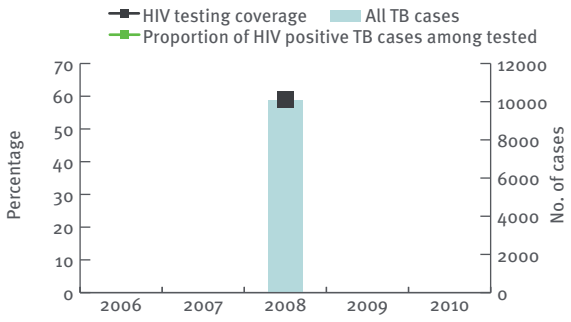
New TB cases - notification rates by age group, 2001–2010



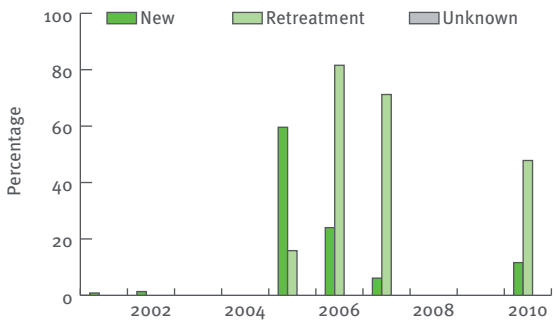
Tuberculosis cases by geographical origin, 2001–2010

Foreign citizens not reported

TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary smear-positive cases, 2001–2009

Belarus

Population estimate 2010 by UN Statistical Database: 9595421

Tuberculosis case notifications, 2010

Total number of cases	5554	
Notification rate per 100000	57.9	
New & relapses (lab+) number	5003	(90.1%)
New & relapses (lab+) notification rate per 100000	52.1	
New pulmonary	3916	(76.7%)
of which smear-positive	1269	(32.4%)
Culture positive of new TB cases	2184	(55.8%)
Mean age of new TB cases	25–44 years	
Foreign citizens of all TB cases	0	(0.0%)
New (not previously treated)	4345	(78.2%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	No	
Cases with DST results	3783	(100.0%)
Cases resistant to isoniazid	270	(7.1%)
Cases resistant to rifampicin	68	(1.8%)
MDR cases	1576	(41.7%)
including DST results on SLD	-	-
of which XDR cases	-	-
TB cases tested for HIV	5153	(92.8%)
HIV-positive TB cases	187	(3.6%)

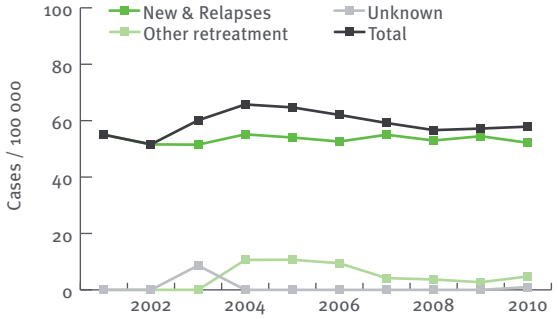
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

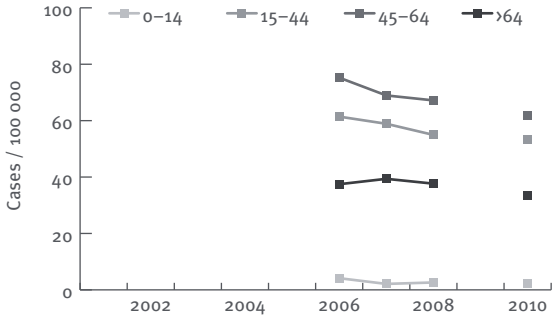
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary smear positive	
Case-linked data reporting	Yes	
Notified in 2009	2160	
Success	1389	(64.3%)
Died	225	(10.4%)
Failed	89	(4.1%)
Defaulted	17	(0.8%)
Lost to follow up	440	(20.4%)

Tuberculosis notification rates by treatment history, 2001–2010



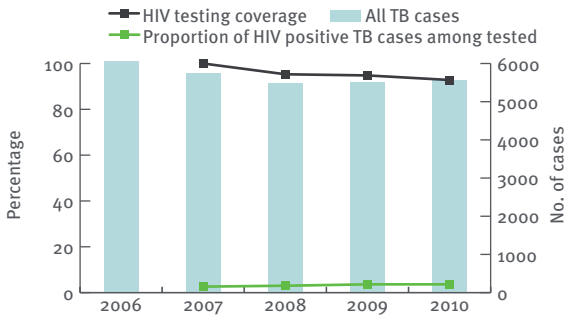
New TB cases - notification rates by age group, 2001–2010



Tuberculosis cases by geographical origin, 2001–2010

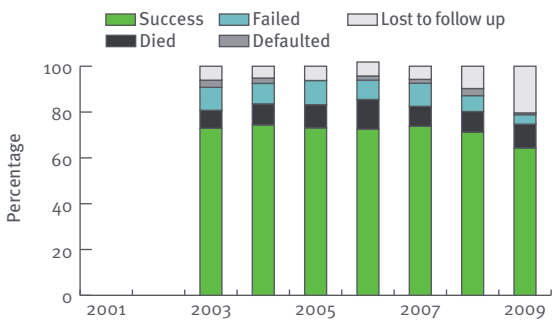
Foreign citizens not reported

TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010

Treatment outcome, new pulmonary definite cases, 2001–2010



Belgium

Total population at 1 January 2010 by EUROSTAT: 10 839 905

Tuberculosis case notifications, 2010

Total number of cases	1115	
Notification rate per 100 000	10.3	
New & relapses (lab+) number	814	(73.0%)
New & relapses (lab+) notification rate per 100 000*	7.5	
Pulmonary	807	(72.4%)
of which smear-positive	339	(42.0%)
Culture positive of all TB cases	861	(77.2%)
Mean age of new TB cases, nationals	45.6 years	
Mean age of new TB cases, non-nationals	36.3 years	
Foreign citizens of all TB cases	609	(54.6%)
New (not previously treated)	814	(73.0%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	825	(95.8%)
Cases resistant to isoniazid	51	(6.2%)
Cases resistant to rifampicin	24	(2.9%)
MDR cases	19	(2.3%)
of which XDR cases	2	(10.5%)
Cases resistant to ethambutol	21	(2.5%)
Cases resistant to streptomycin	0	(0.0%)
TB cases tested for HIV	969	(86.9%)
HIV-positive TB cases	66	(6.8%)

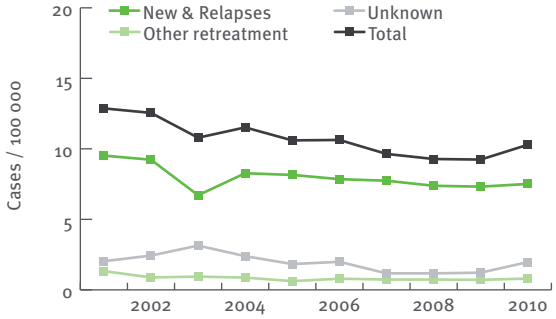
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

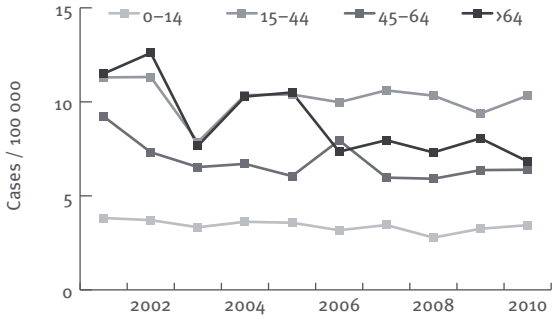
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	485	
Success	370	(76.3%)
Died	39	(8.0%)
Failed	0	(0.0%)
Defaulted	55	(11.3%)
Still on treatment	5	(1.0%)
Lost to follow up	16	(3.3%)

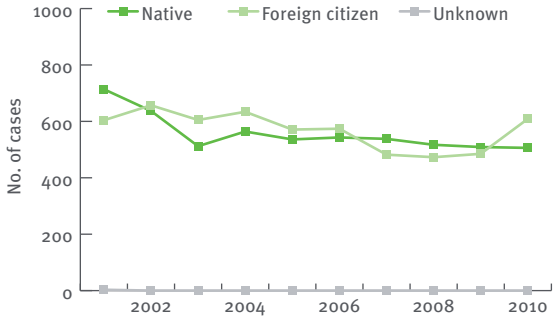
Tuberculosis notification rates by treatment history, 2001–2010



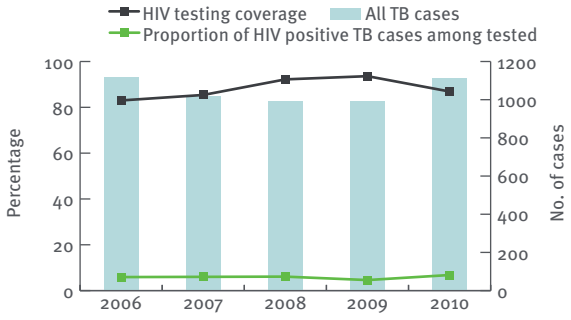
New TB cases - notification rates by age group, 2001–2010



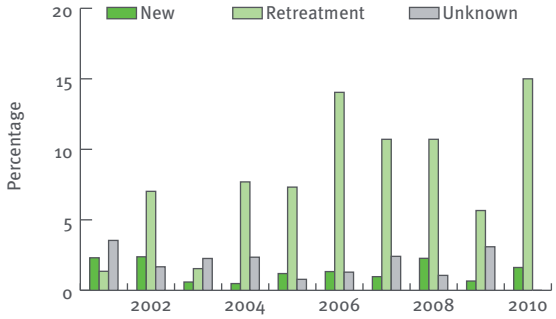
Tuberculosis cases by geographical origin, 2001–2010



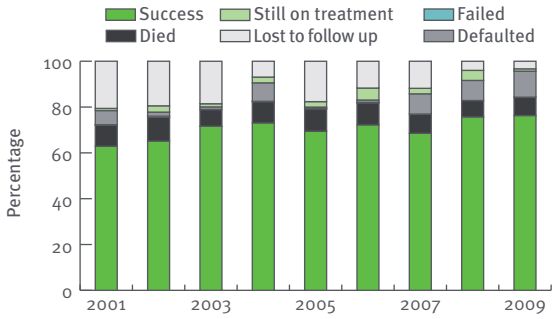
TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Bosnia and Herzegovina

Population estimate 2010 by UN Statistical Database: 3760149

Tuberculosis case notifications, 2010

Total number of cases	1390	
Notification rate per 100 000	37.0	
New & relapses (lab+) number	1321	(95.0%)
New & relapses (lab+) notification rate per 100 000	35.1	
New pulmonary	970	(90.9%)
of which smear-positive	441	(45.5%)
Culture positive of new TB cases	441	(45.5%)
Mean age (age group) of new TB cases	› 65 years	
Foreign citizens of all TB cases	0	(0.0%)
New (not previously treated)	1289	(92.7%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	647	(100.0%)
Cases resistant to isoniazid	1	(0.2%)
Cases resistant to rifampicin	0	(0.0%)
MDR cases	2	(0.3%)
including DST results on SLD	-	-
of which XDR cases	-	-
TB cases tested for HIV	0	(0.0%)
HIV-positive TB cases	-	-

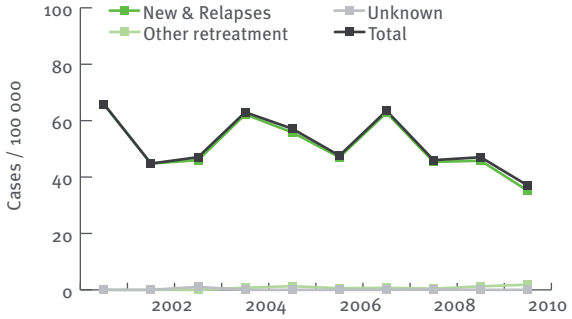
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

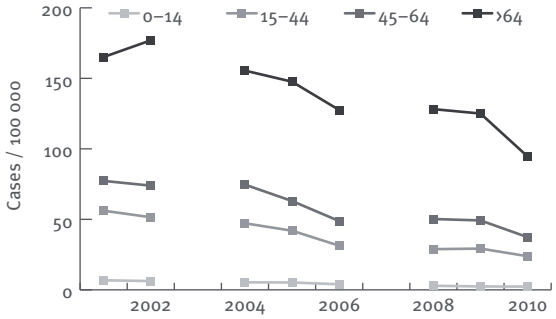
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	852	
Success	845	(99.2%)
Died	2	(0.2%)
Failed	1	(0.1%)
Defaulted	1	(0.1%)
Lost to follow up	3	(0.4%)

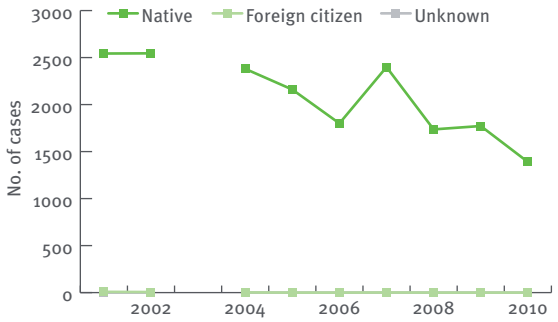
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



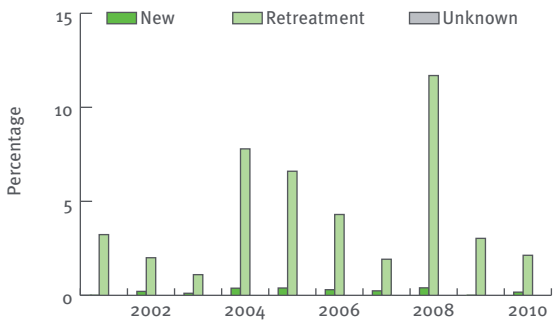
Tuberculosis cases by geographical origin, 2001–2010



TB-HIV co-infection, 2006–2010

HIV status not reported

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary smear/culture-positive cases, 2001–2009

Bulgaria

Total population at 1 January 2010 by EUROSTAT: 7563710

Tuberculosis case notifications, 2010

Total number of cases	2649	
Notification rate per 100000	35.0	
New & relapses (lab+) number	2413	(91.1%)
New & relapses (lab+) notification rate per 100000	31.9	
Pulmonary	1851	(69.9%)
of which smear-positive	994	(53.7%)
Culture positive of all TB cases	1174	(44.3%)
Mean age of new TB cases, nationals	44.0 years	
Mean age of new TB cases, non-nationals	25.0 years	
Foreign citizens of all TB cases	2	(0.1%)
New (not previously treated)	2301	(86.9%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	966	(82.3%)
Cases resistant to isoniazid	111	(11.5%)
Cases resistant to rifampicin	70	(7.2%)
MDR cases	56	(5.8%)
of which XDR cases	0	(0.0%)
Cases resistant to ethambutol	36	(3.7%)
Cases resistant to streptomycin	53	(5.5%)
TB cases tested for HIV	1773	(66.9%)
HIV-positive TB cases	2	(0.1%)

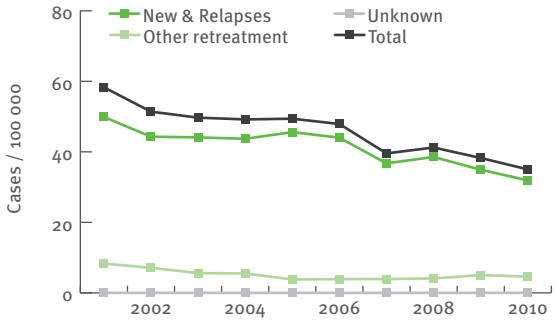
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

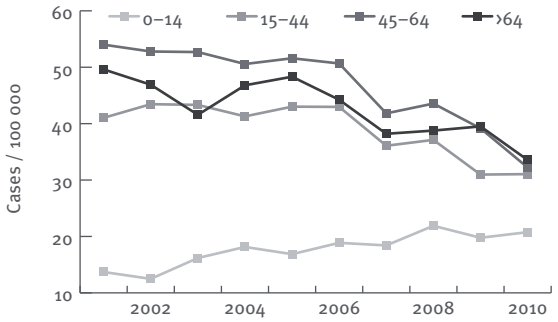
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	1055	
Success	900	(85.3%)
Died	94	(8.9%)
Failed	16	(1.5%)
Defaulted	37	(3.5%)
Still on treatment	1	(0.1%)
Lost to follow up	7	(0.7%)

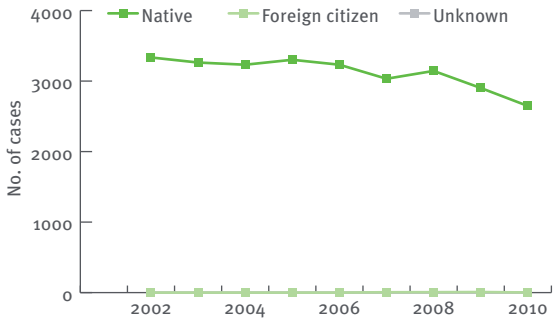
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010

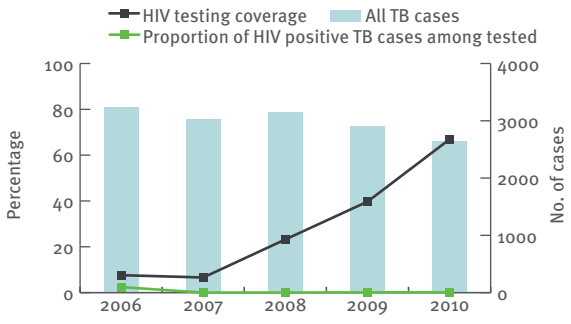


Tuberculosis cases by geographical origin, 2001–2010*

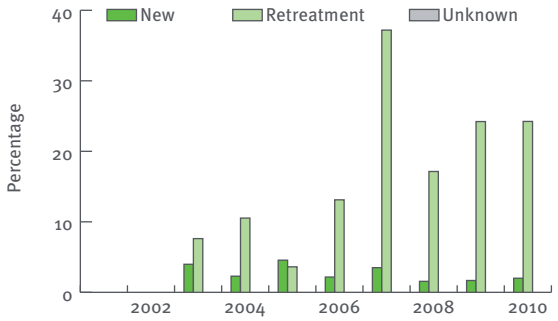


* Historical data used for the period 2002–2006

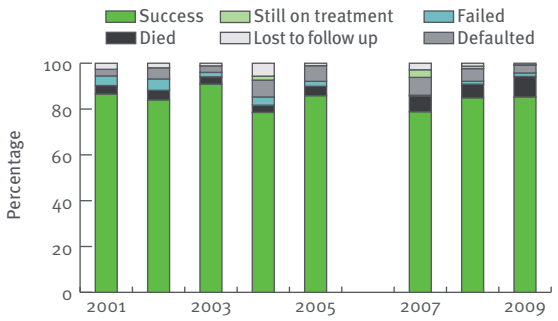
TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary definite cases, 2001–2009



Croatia

Population estimate 2010 by UN Statistical Database: 4403330

Tuberculosis case notifications, 2010

Total number of cases	695	
Notification rate per 100000	15.8	
New & relapses (lab+) number	688	(99.0%)
New & relapses (lab+) notification rate per 100000	15.6	
New pulmonary	565	(92.9%)
of which smear-positive	183	(32.4%)
Culture positive of new TB cases	311	(55.0%)
Mean age (age group) of new TB cases	>65 years	
Foreign citizens of all TB cases	4	(0.6%)
New (not previously treated)	652	(93.8%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	No	
Case-linked data reporting	No	
Cases with DST results	0	(0.0%)
Cases resistant to isoniazid	-	-
Cases resistant to rifampicin	-	-
MDR cases	-	-
including DST results on SLD	-	-
of which XDR cases	-	-
TB cases tested for HIV	0	(0.0%)
HIV-positive TB cases	-	-

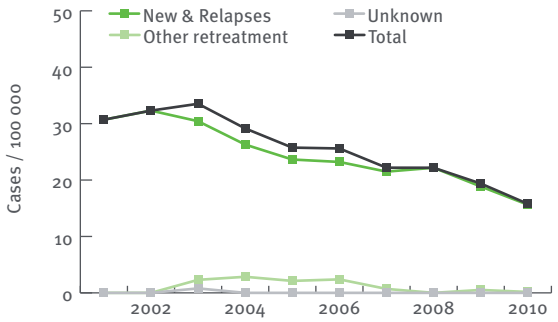
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

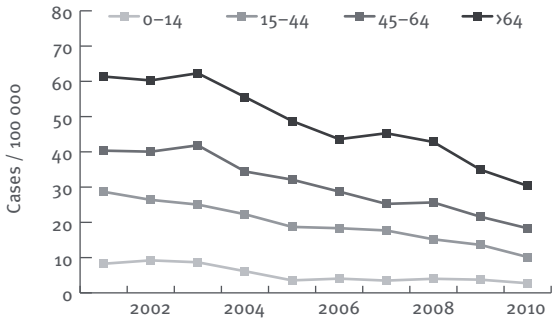
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	234	
Success	148	(63.2%)
Died	62	(26.5%)
Failed	0	(0.0%)
Defaulted	8	(3.4%)
Lost to follow up	16	(6.8%)

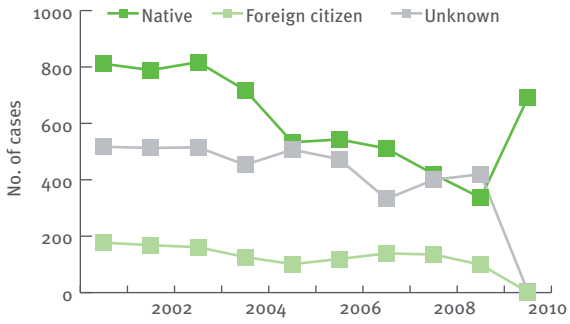
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



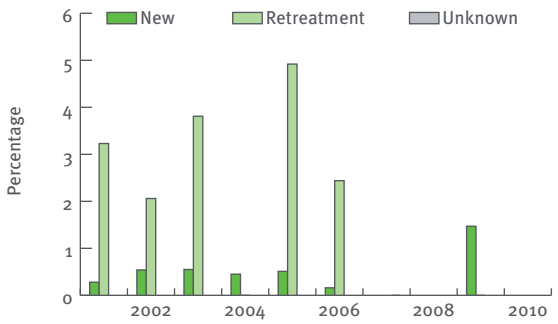
Tuberculosis cases by geographical origin, 2001–2010



TB-HIV co-infection, 2006–2010

Not reported

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009*

Cyprus

Total population at 1 January 2010 by EUROSTAT: 803 147

Tuberculosis case notifications, 2010

Total number of cases	61	
Notification rate per 100 000	7.6	
New & relapses (lab+) number	33	(54.1%)
New & relapses (lab+) notification rate per 100 000	4.1	
Pulmonary	40	(65.6%)
of which smear-positive	18	(45.0%)
Culture positive of all TB cases	59	(96.7%)
Mean age of new TB cases, nationals	40.7 years	
Mean age of new TB cases, non-nationals	28.9 years	
Foreign citizens of all TB cases	50	(82.0%)
New (not previously treated)	33	(54.1%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	-	
Case-linked data reporting	Yes	
Cases with DST results	37	(62.7%)
Cases resistant to isoniazid	1	(2.7%)
Cases resistant to rifampicin	0	(0.0%)
MDR cases	0	(0.0%)
of which XDR cases	0	-
Cases resistant to ethambutol	0	(0.0%)
Cases resistant to streptomycin	21	(56.8%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-

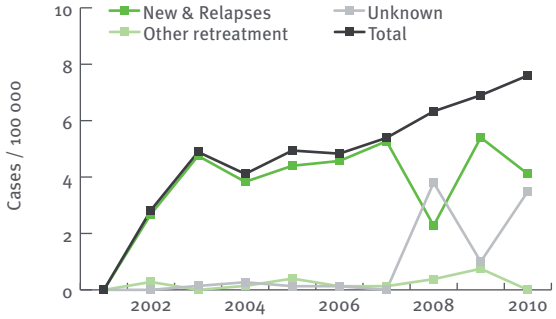
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

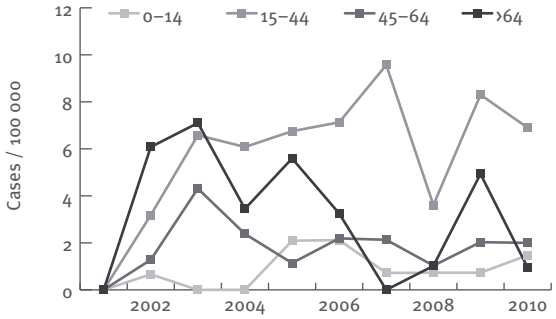
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	28	
Success	8	(28.6%)
Died	0	(0.0%)
Failed	0	(0.0%)
Defaulted	0	(0.0%)
Still on treatment	0	(0.0%)
Lost to follow up	20	(71.4%)

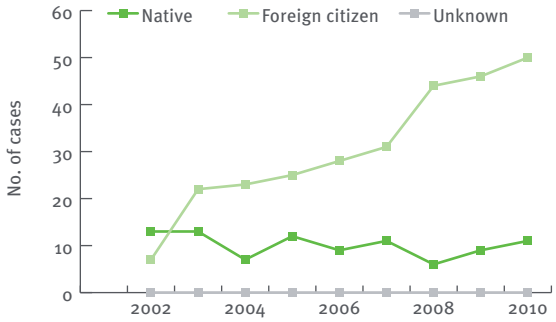
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



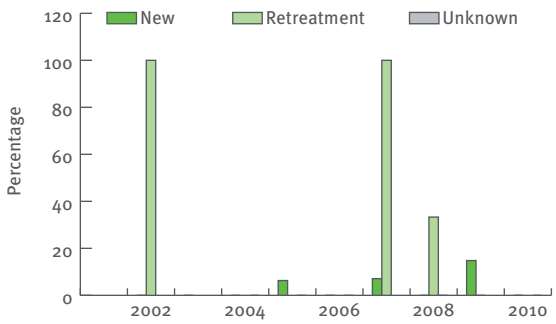
Tuberculosis cases by geographical origin, 2001–2010



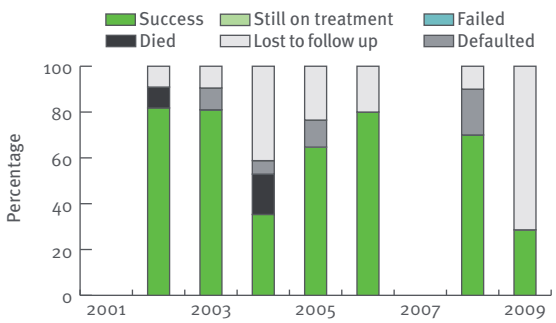
TB-HIV co-infection, 2006–2010

Data not available

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary smear-positive cases, 2001–2009



Czech Republic

Total population at 1 January 2010 by EUROSTAT: 10 506 813

Tuberculosis case notifications, 2010

Total number of cases	678	
Notification rate per 100 000	6.5	
New & relapses (lab+) number	627	(92.5%)
New & relapses (lab+) notification rate per 100 000	6.0	
Pulmonary	581	(85.7%)
of which smear-positive	209	(36.0%)
Culture positive of all TB cases	435	(64.2%)
Mean age of new TB cases, nationals	57.3 years	
Mean age of new TB cases, non-nationals	36.7 years	
Foreign citizens of all TB cases	117	(17.3%)
New (not previously treated)	627	(92.5%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	420	(96.6%)
Cases resistant to isoniazid	19	(4.5%)
Cases resistant to rifampicin	21	(5.0%)
MDR cases	9	(2.1%)
of which XDR cases	1	(11.1%)
Cases resistant to ethambutol	8	(1.9%)
Cases resistant to streptomycin	13	(3.1%)
TB cases tested for HIV	177	(26.1%)
HIV-positive TB cases	5	(2.8%)

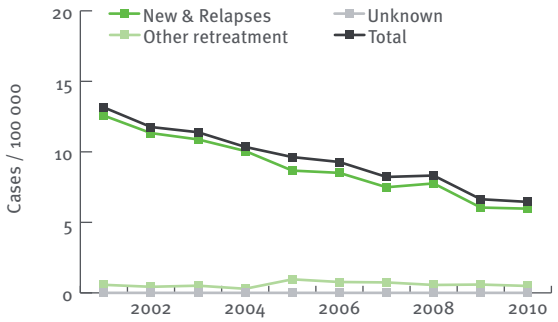
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

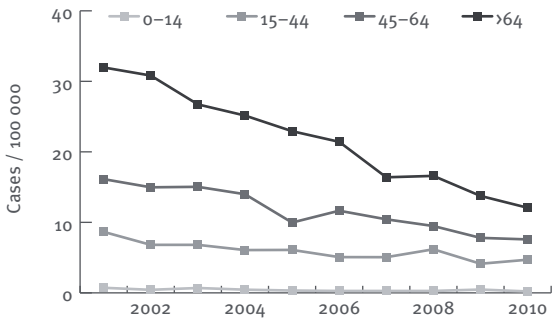
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	402	
Success	271	(67.4%)
Died	86	(21.4%)
Failed	0	(0.0%)
Defaulted	27	(6.7%)
Still on treatment	7	(1.7%)
Lost to follow up	11	(2.7%)

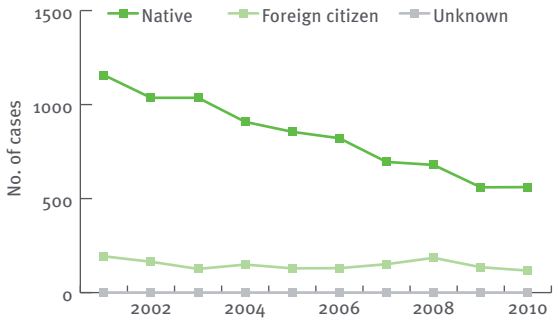
Tuberculosis notification rates by treatment history, 2001–2010



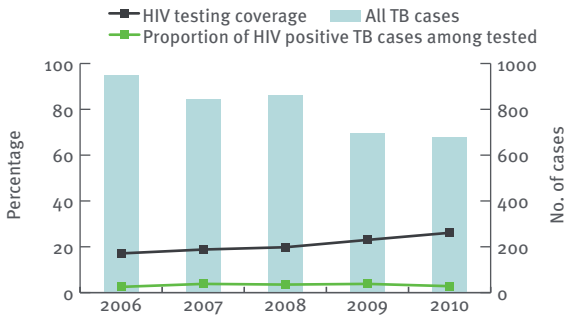
New TB cases - notification rates by age group, 2001–2010



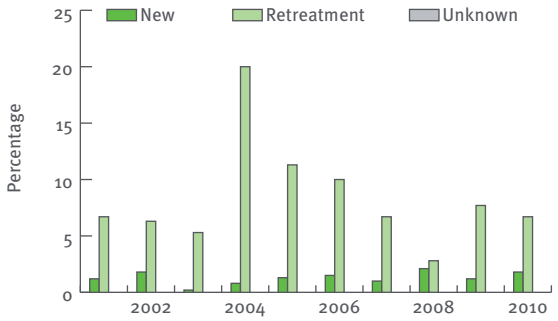
Tuberculosis cases by geographical origin, 2001–2010



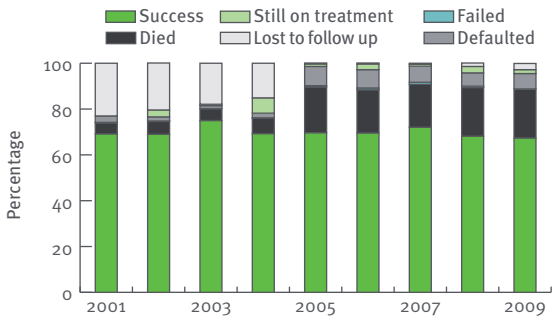
TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Denmark

Total population at 1 January 2010 by EUROSTAT: 5534738

Tuberculosis case notifications, 2010

Total number of cases*	359	
Notification rate per 100000	6.5	
New & relapses (lab+) number	313	(87.2%)
New & relapses (lab+) notification rate per 100000	5.7	
Pulmonary	251	(69.9%)
of which smear-positive	136	(54.2%)
Culture positive of all TB cases	284	(79.1%)
Mean age of new TB cases, nationals	44.3 years	
Mean age of new TB cases, non-nationals	38.4 years	
Foreign citizens of all TB cases	216	(60.2%)
New (not previously treated)	313	(87.2%)

* 114 cases from Greenland

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	281	(98.9%)
Cases resistant to isoniazid	23	(8.2%)
Cases resistant to rifampicin	2	(0.7%)
MDR cases	2	(0.7%)
of which XDR cases	0	(0.0%)
Cases resistant to ethambutol	0	(0.0%)
Cases resistant to streptomycin	1	(0.4%)
TB cases tested for HIV	9	(2.5%)
HIV-positive TB cases	9	(100.0%)

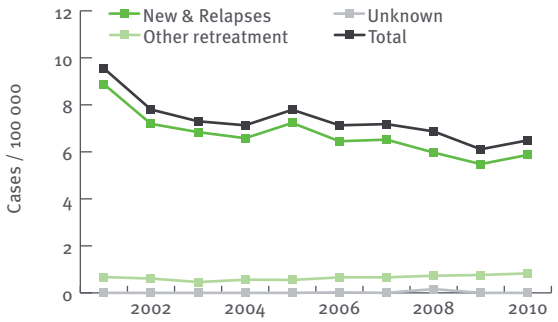
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

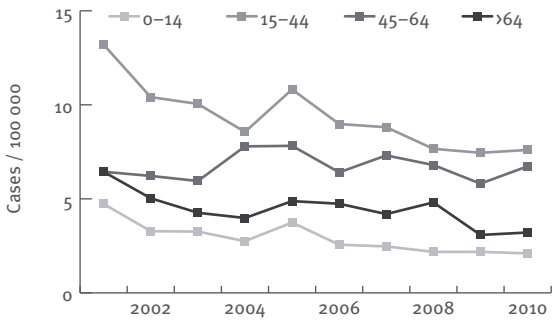
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	175	
Success	92	(52.6%)
Died	7	(4.0%)
Failed	1	(0.6%)
Defaulted	1	(0.6%)
Still on treatment	3	(1.7%)
Lost to follow up	71	(40.6%)

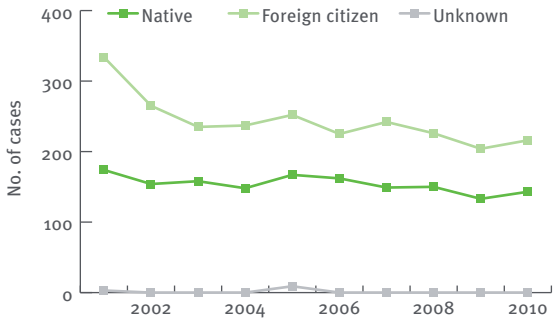
Tuberculosis notification rates by treatment history, 2001–2010



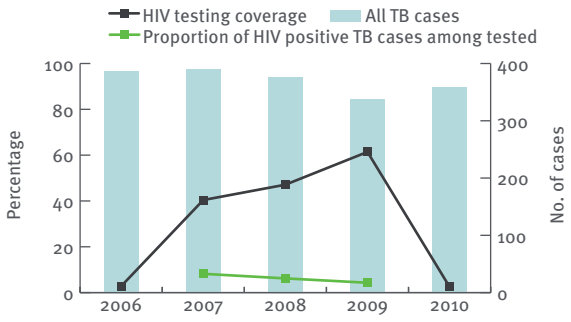
New TB cases - notification rates by age group, 2001–2010



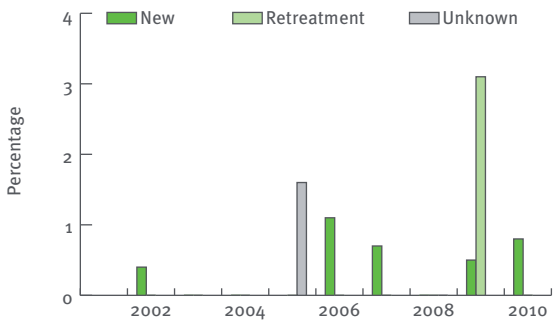
Tuberculosis cases by geographical origin, 2001–2010



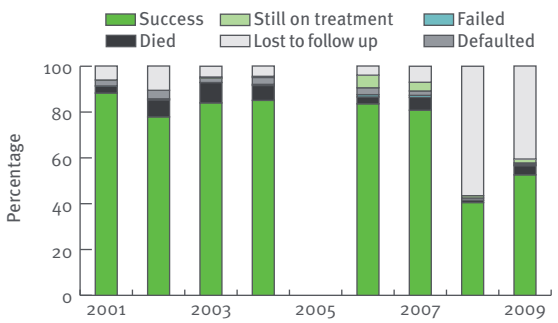
TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Estonia

Total population at 1 January 2008 by EUROSTAT: 1340127

Tuberculosis case notifications, 2010

Total number of cases	329	
Notification rate per 100000	24.5	
New & relapses (lab+) number	286	(86.9%)
New & relapses (lab+) notification rate per 100000	21.3	
Pulmonary	308	(93.6%)
of which smear-positive	135	(43.8%)
Culture positive of all TB cases	259	(78.7%)
Mean age of new TB cases, nationals	44.8 years	
Mean age of new TB cases, non-nationals	56.4 years	
Foreign citizens of all TB cases	58	(17.6%)
New (not previously treated)	250	(76.0%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	258	(99.6%)
Cases resistant to isoniazid	82	(31.8%)
Cases resistant to rifampicin	64	(24.8%)
MDR cases	63	(24.4%)
of which XDR cases	12	(19.0%)
Cases resistant to ethambutol	60	(23.3%)
Cases resistant to streptomycin	90	(34.9%)
TB cases tested for HIV	295	(89.7%)
HIV-positive TB cases	34	(11.5%)

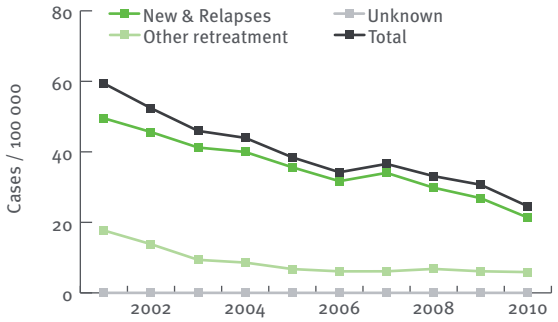
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

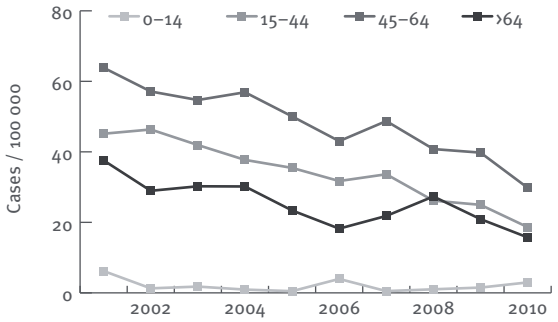
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	240	
Success	141	(58.8%)
Died	36	(15.0%)
Failed	5	(2.1%)
Defaulted	14	(5.8%)
Still on treatment	43	(17.9%)
Lost to follow up	1	(0.4%)

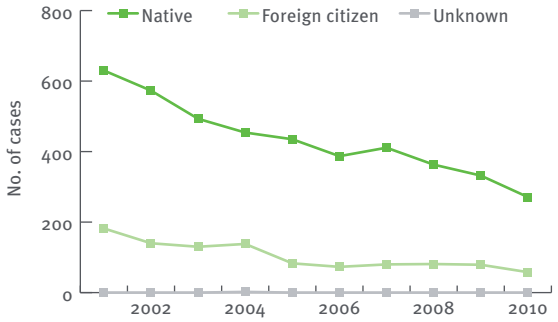
Tuberculosis notification rates by treatment history, 2001–2010



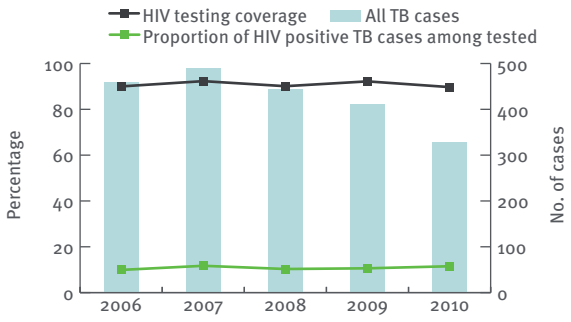
New TB cases - notification rates by age group, 2001–2010



Tuberculosis cases by geographical origin, 2001–2010

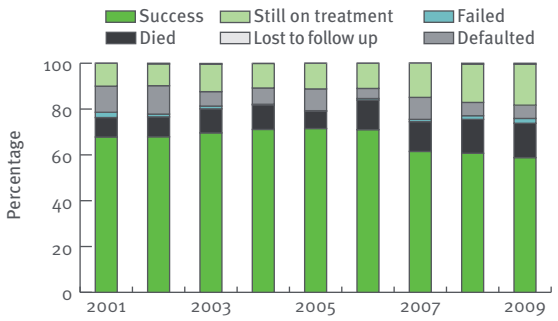


TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010

Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Finland

Total population at 1 January 2010 by EUROSTAT: 5 351 427

Tuberculosis case notifications, 2010

Total number of cases	327	
Notification rate per 100 000	6.1	
New & relapses (lab+) number	312	(95.4%)
New & relapses (lab+) notification rate per 100 000	5.8	
Pulmonary	241	(73.7%)
of which smear-positive	88	(36.5%)
Culture positive of all TB cases	257	(78.6%)
Mean age of new TB cases, nationals	67.5 years	
Mean age of new TB cases, non-nationals	32.3 years	
Foreign citizens of all TB cases	105	(32.1%)
New (not previously treated)	312	(95.4%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	-	
Case-linked data reporting	Yes	
Cases with DST results	247	(96.1%)
Cases resistant to isoniazid	17	(6.9%)
Cases resistant to rifampicin	7	(2.8%)
MDR cases	6	(2.4%)
of which XDR cases	0	(0.0%)
Cases resistant to ethambutol	4	(1.6%)
Cases resistant to streptomycin	12	(4.9%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-

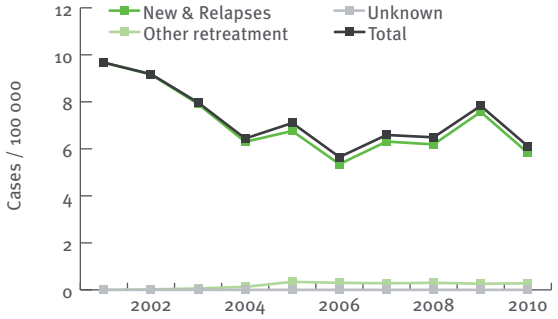
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

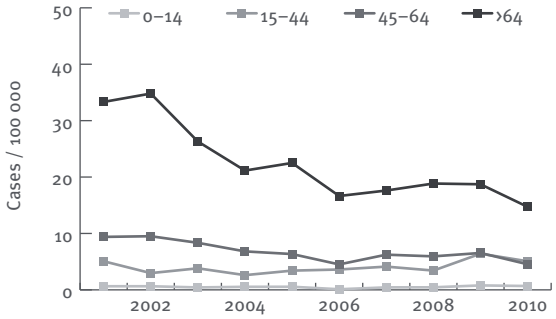
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	227	
Success	154	(67.8%)
Died	38	(16.7%)
Failed	0	(0.0%)
Defaulted	3	(1.3%)
Still on treatment	9	(4.0%)
Lost to follow up	23	(10.1%)

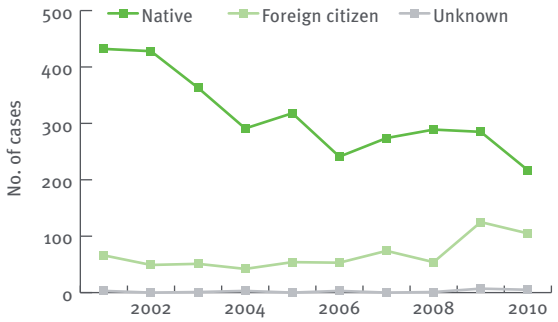
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



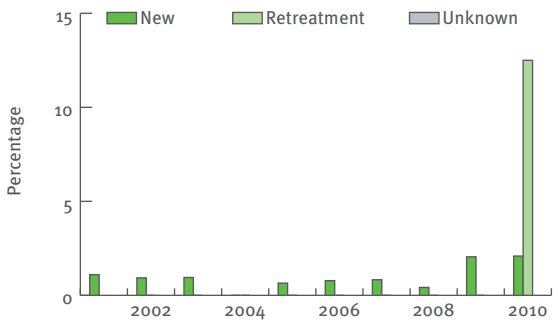
Tuberculosis cases by geographical origin, 2001–2010



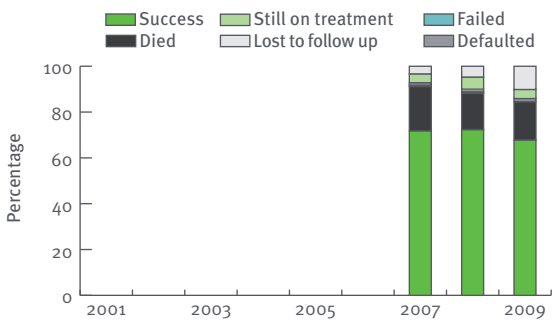
TB-HIV co-infection, 2006–2010

Data not available

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



France

Total population at 1 January 2010 by EUROSTAT: 64 716 213

Tuberculosis case notifications, 2010

Total number of cases	5,116	
Notification rate per 100 000	7.9	
New & relapses (lab+) number	2,752	(53.8%)
New & relapses (lab+) notification rate per 100 000	4.3	
Pulmonary	3,719	(72.7%)
of which smear-positive	1,795	(48.3%)
Culture positive of all TB cases	2,386	(46.6%)
Mean age of new TB cases, nationals	50.5 years	
Mean age of new TB cases, non-nationals	40.4 years	
Foreign citizens of all TB cases	2469	(48.3%)
New (not previously treated)	2752	(53.8%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	-	
Case-linked data reporting	Yes	
Cases with DST results	1473	(61.7%)
Cases resistant to isoniazid	92	(6.2%)
Cases resistant to rifampicin	28	(1.9%)
MDR cases	23	(1.6%)
of which XDR cases	-	-
Cases resistant to ethambutol	-	-
Cases resistant to streptomycin	-	-
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-

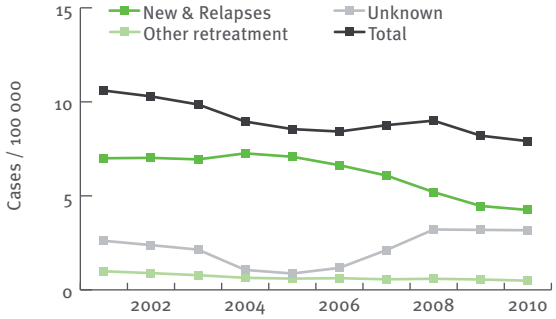
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

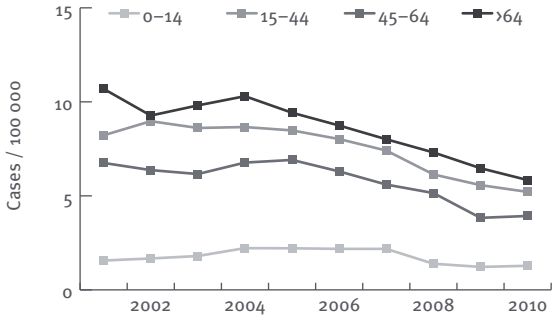
Treatment outcome monitoring, 2009

Not available

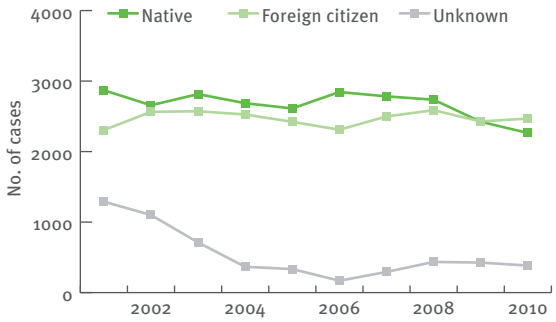
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



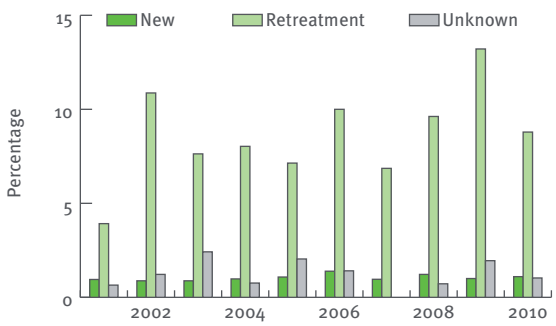
Tuberculosis cases by geographical origin, 2001–2010



TB-HIV co-infection, 2006–2010

Data not available

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009

Not available

Georgia

Population estimate 2010 by UN Statistical Database: 4 352 244

Tuberculosis case notifications, 2010

Total number of cases	5796	
Notification rate per 100 000	133.2	
New & relapses (lab+) number	4 674	(80.6%)
New & relapses (lab+) notification rate per 100 000	107.4	
New pulmonary	3 228	(86.1%)
of which smear-positive	2140	(66.3%)
Culture positive of new TB cases	2111	(65.4%)
Mean age (age group) of new TB cases	25–44 years	
Foreign citizens of all TB cases	0	(0.0%)
New (not previously treated)	4383	(75.6%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	2545	(93.4%)
Cases resistant to isoniazid	346	(13.6%)
Cases resistant to rifampicin	10	(0.4%)
MDR cases	359	(14.1%)
including DST results on SLD	313	(87.2%)
of which XDR cases	30	(9.6%)
TB cases tested for HIV	1723	(29.7%)
HIV-positive TB cases	30	(1.7%)

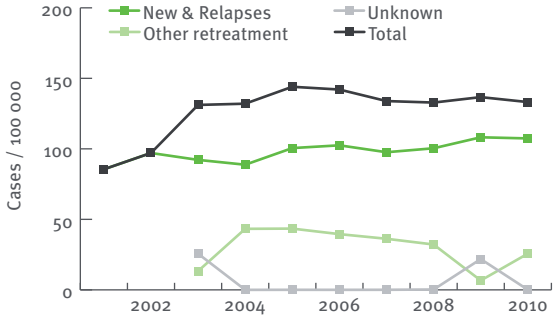
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

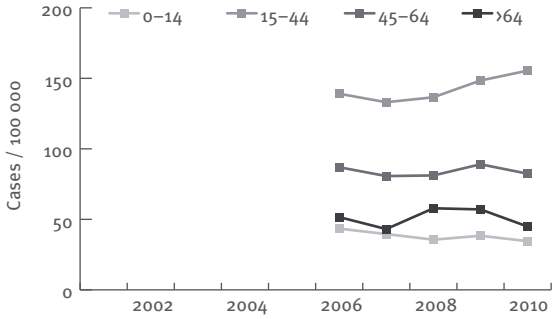
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	2352	
Success	1773	(75.4%)
Died	67	(2.8%)
Failed	272	(11.6%)
Defaulted	176	(7.5%)
Lost to follow up	64	(2.7%)

Tuberculosis notification rates by treatment history, 2001–2010



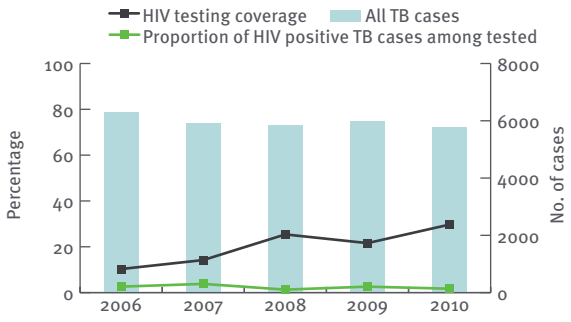
New TB cases - notification rates by age group, 2001–2010



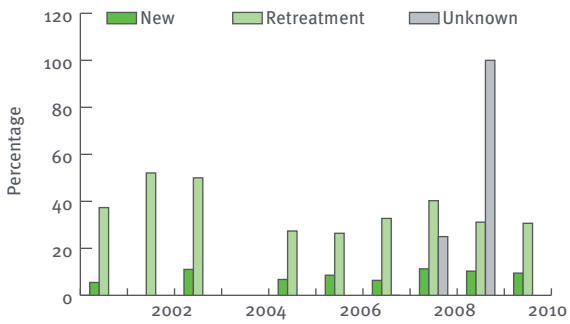
Tuberculosis cases by geographical origin, 2001–2010

Foreign citizens not reported

TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary smear-positive cases, 2001–2009

Germany

Total population at 1 January 2010 by EUROSTAT: 81802257

Tuberculosis case notifications, 2010

Total number of cases	4330	
Notification rate per 100000	5.3	
New & relapses (lab+) number	3526	(81.4%)
New & relapses (lab+) notification rate per 100000	4.3	
Pulmonary	3314	(76.5%)
of which smear-positive	1122	(33.9%)
Culture positive of all TB cases	3003	(69.4%)
Mean age of new TB cases, nationals	54.5 years	
Mean age of new TB cases, non-nationals	42.7 years	
Foreign citizens of all TB cases	1978	(45.7%)
New (not previously treated)	3428	(79.2%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	-	
Case-linked data reporting	Yes	
Cases with DST results	2670	(88.9%)
Cases resistant to isoniazid	201	(7.5%)
Cases resistant to rifampicin	59	(2.2%)
MDR cases	48	(1.8%)
of which XDR cases	0	(0.0%)
Cases resistant to ethambutol	26	(1.0%)
Cases resistant to streptomycin	199	(7.5%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-

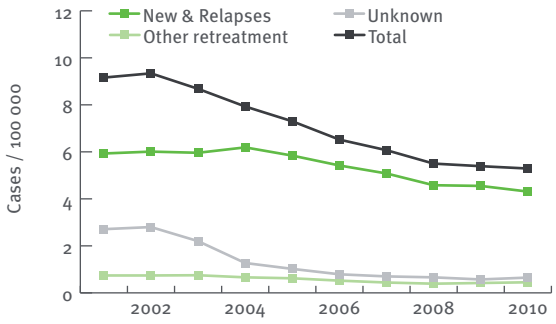
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

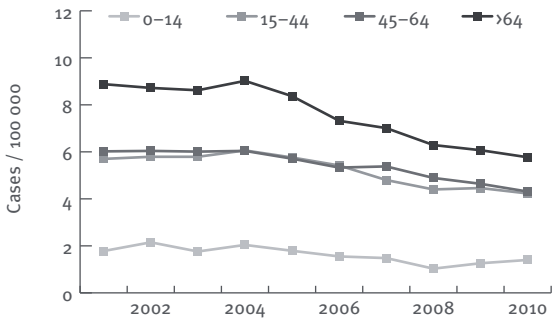
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	2220	
Success	1715	(77.3%)
Died	264	(11.9%)
Failed	2	(0.1%)
Defaulted	33	(1.5%)
Still on treatment	52	(2.3%)
Lost to follow up	154	(6.9%)

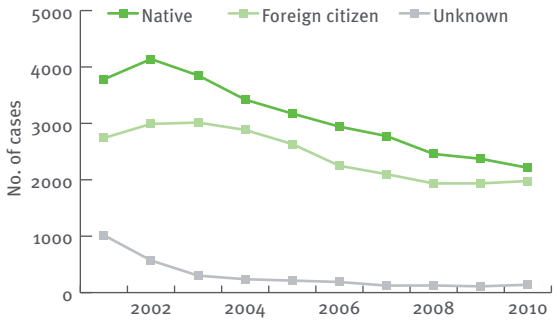
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



Tuberculosis cases by geographical origin, 2001–2010

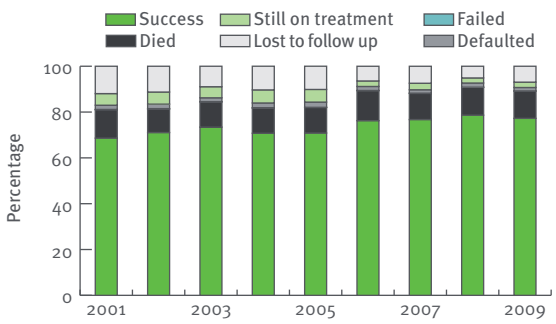


TB-HIV co-infection, 2006–2010

Not available

MDR TB cases by previous treatment history, 2001–2010

Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Greece

Total population at 1 January 2010 by EUROSTAT: 11305118

Tuberculosis case notifications, 2010

Total number of cases	489	
Notification rate per 100000	4.3	
New & relapses (lab+) number	356	(72.8%)
New & relapses (lab+) notification rate per 100000	3.1	
Pulmonary	420	(85.9%)
of which smear-positive	227	(54.0%)
Culture positive of all TB cases	489	(100.0%)
Mean age of new TB cases, nationals	54.4 years	
Mean age of new TB cases, non-nationals	29.2 years	
Foreign citizens of all TB cases	231	(47.2%)
New (not previously treated)	356	(72.8%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	-	
Case-linked data reporting	Yes	
Cases with DST results	12	(2.5%)
Cases resistant to isoniazid	0	(0.0%)
Cases resistant to rifampicin	0	(0.0%)
MDR cases	0	(0.0%)
of which XDR cases	0	-
Cases resistant to ethambutol	0	(0.0%)
Cases resistant to streptomycin	1	(8.3%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-

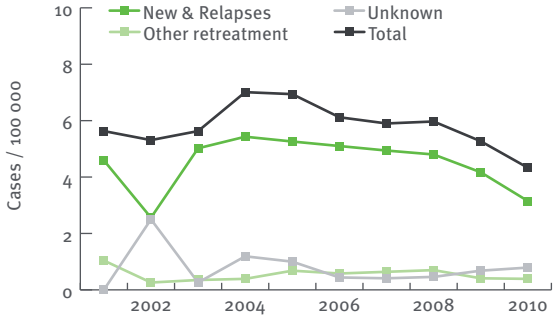
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

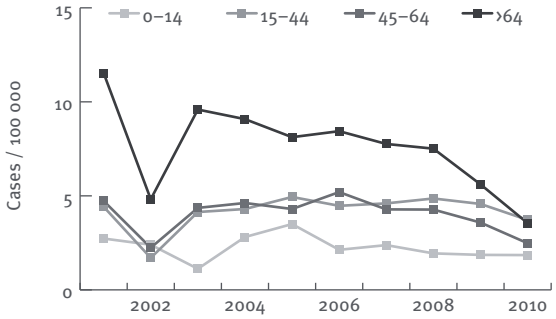
Treatment outcome monitoring, 2009

Not available

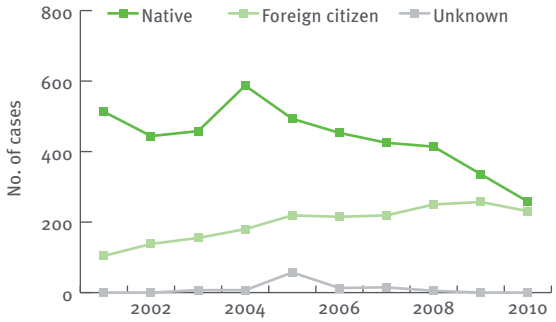
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



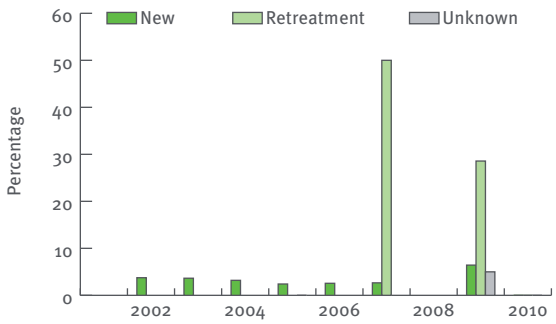
Tuberculosis cases by geographical origin, 2001–2010



TB-HIV co-infection, 2006–2010

Data not available

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009

Not available

Hungary

Total population at 1 January 2010 by EUROSTAT: 10 014 324

Tuberculosis case notifications, 2010

Total number of cases	1741	
Notification rate per 100 000	17.4	
New & relapses (lab+) number	1543	(88.6%)
New & relapses (lab+) notification rate per 100 000	15.4	
Pulmonary	1667	(95.7%)
of which smear-positive	320	(19.2%)
Culture positive of all TB cases	623	(35.8%)
Mean age of new TB cases, nationals	53.2 years	
Mean age of new TB cases, non-nationals	37.1 years	
Foreign citizens of all TB cases	21	(1.2%)
New (not previously treated)	1487	(85.4%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	-	
Case-linked data reporting	Yes	
Cases with DST results	570	(91.5%)
Cases resistant to isoniazid	54	(9.5%)
Cases resistant to rifampicin	21	(3.7%)
MDR cases	19	(3.3%)
of which XDR cases	2	(10.5%)
Cases resistant to ethambutol	16	(2.8%)
Cases resistant to streptomycin	39	(6.8%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-

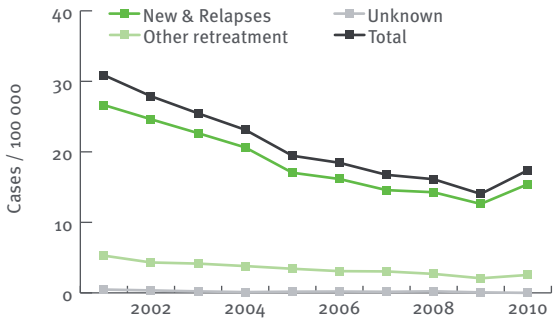
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

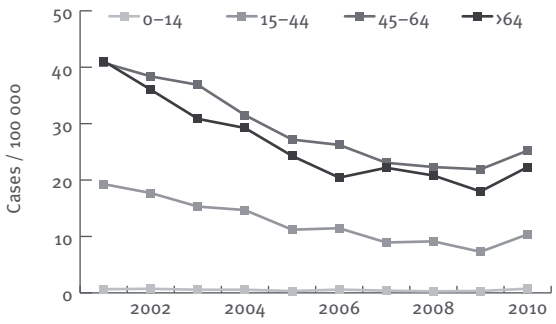
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	597	
Success	341	(57.1%)
Died	58	(9.7%)
Failed	111	(18.6%)
Defaulted	44	(7.4%)
Still on treatment	23	(3.9%)
Lost to follow up	20	(3.4%)

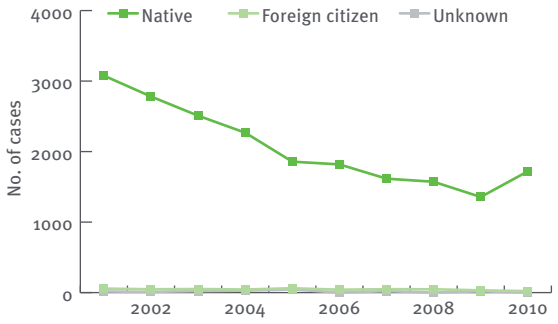
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



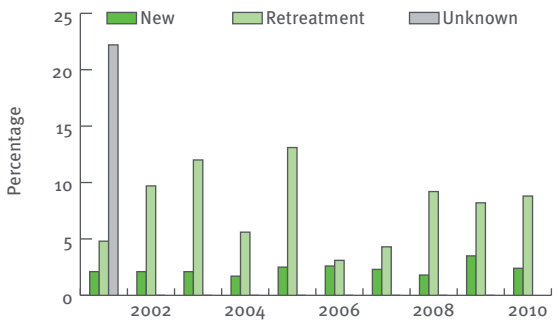
Tuberculosis cases by geographical origin, 2001–2010



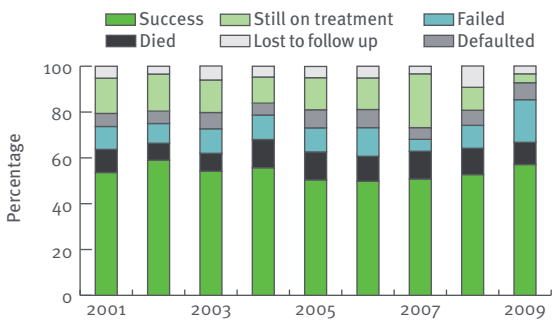
TB-HIV co-infection, 2006–2010

Data not available

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Iceland

Total population at 1 January 2010 by EUROSTAT: 317 630

Tuberculosis case notifications, 2010

Total number of cases	22	
Notification rate per 100 000	6.9	
New & relapses (lab+) number	22	(100.0%)
New & relapses (lab+) notification rate per 100 000	6.9	
Pulmonary	18	(81.8%)
of which smear-positive	6	(33.3%)
Culture positive of all TB cases	19	(86.4%)
Mean age of new TB cases, nationals	36.7 years	
Mean age of new TB cases, non-nationals	36.2 years	
Foreign citizens of all TB cases	16	(72.7%)
New (not previously treated)	22	(100.0%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	19	(100.0%)
Cases resistant to isoniazid	6	(31.6%)
Cases resistant to rifampicin	0	(0.0%)
MDR cases	0	(0.0%)
of which XDR cases	0	-
Cases resistant to ethambutol	1	(5.3%)
Cases resistant to streptomycin	1	(5.3%)
TB cases tested for HIV	21	(95.5%)
HIV-positive TB cases	1	(4.8%)

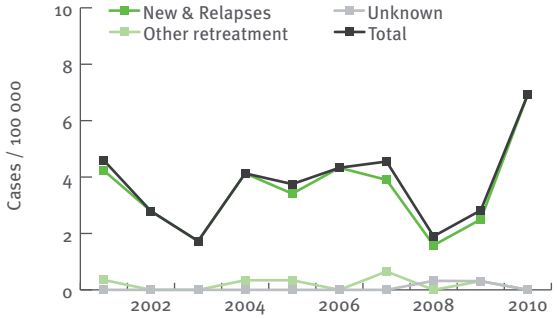
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

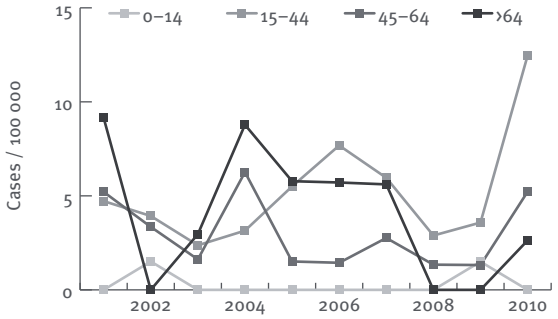
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	4	
Success	3	(75.0%)
Died	0	(0.0%)
Failed	0	(0.0%)
Defaulted	0	(0.0%)
Still on treatment	0	(0.0%)
Lost to follow up	1	(25.0%)

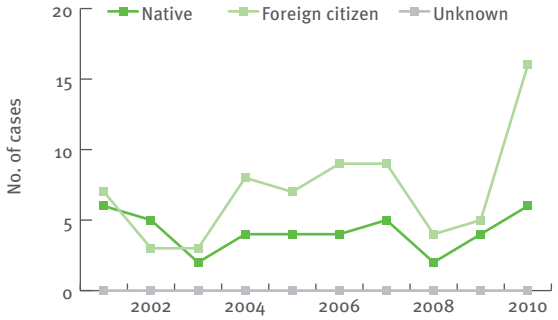
Tuberculosis notification rates by treatment history, 2001–2010



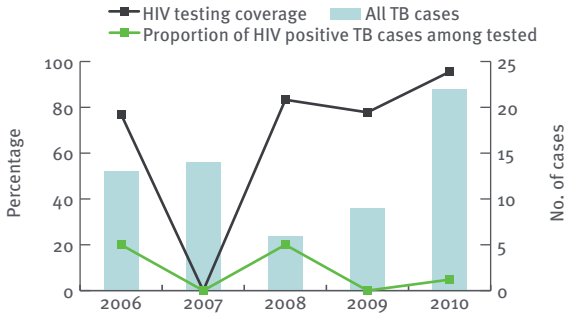
New TB cases - notification rates by age group, 2001–2010



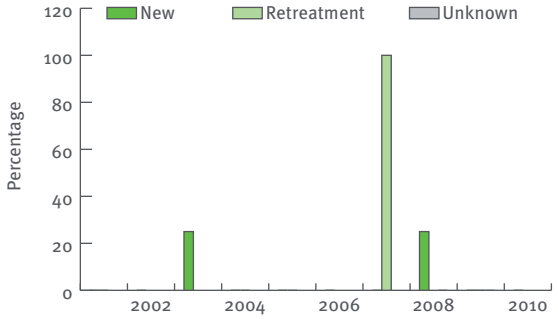
Tuberculosis cases by geographical origin, 2001–2010



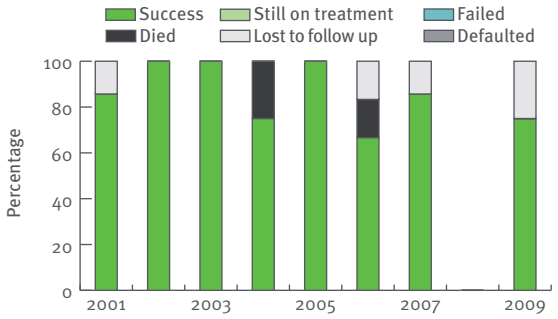
TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Ireland

Total population at 1 January 2010 by EUROSTAT: 4 467 854

Tuberculosis case notifications, 2010

Total number of cases	427	
Notification rate per 100 000	9.6	
New & relapses (lab+) number	319	(74.7%)
New & relapses (lab+) notification rate per 100 000	7.1	
Pulmonary	274	(64.2%)
of which smear-positive	113	(41.2%)
Culture positive of all TB cases	270	(63.2%)
Mean age of new TB cases, nationals	46.3 years	
Mean age of new TB cases, non-nationals	31.7 years	
Foreign citizens of all TB cases	171	(40.0%)
New (not previously treated)	319	(74.7%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	257	(95.2%)
Cases resistant to isoniazid	13	(5.1%)
Cases resistant to rifampicin	4	(1.6%)
MDR cases	2	(0.8%)
of which XDR cases	0	(0.0%)
Cases resistant to ethambutol	3	(1.2%)
Cases resistant to streptomycin	6	(2.3%)
TB cases tested for HIV	68	(15.9%)
HIV-positive TB cases	12	(17.6%)

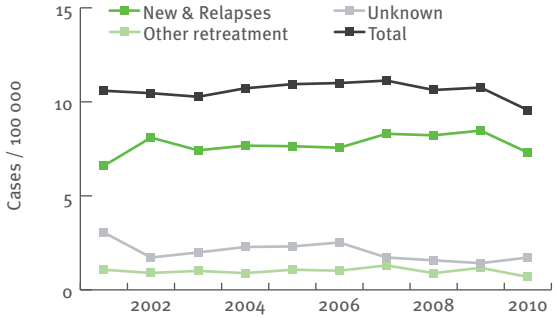
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

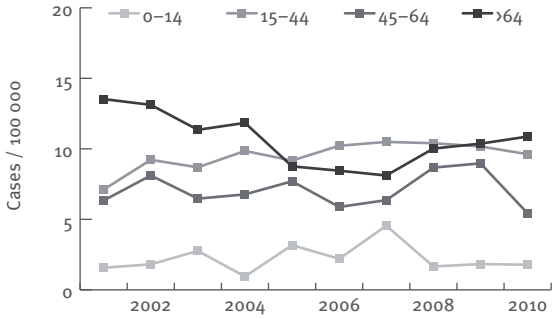
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	188	
Success	126	(67.0%)
Died	17	(9.0%)
Failed	0	(0.0%)
Defaulted	2	(1.1%)
Still on treatment	9	(4.8%)
Lost to follow up	34	(18.1%)

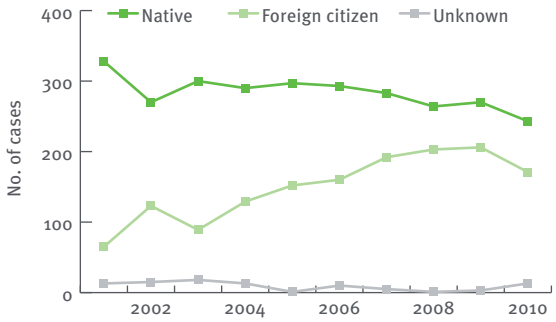
Tuberculosis notification rates by treatment history, 2001–2010



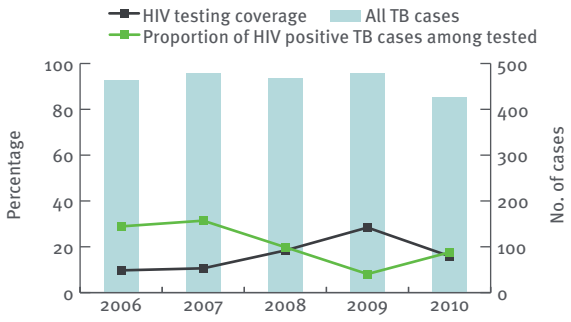
New TB cases - notification rates by age group, 2001–2010



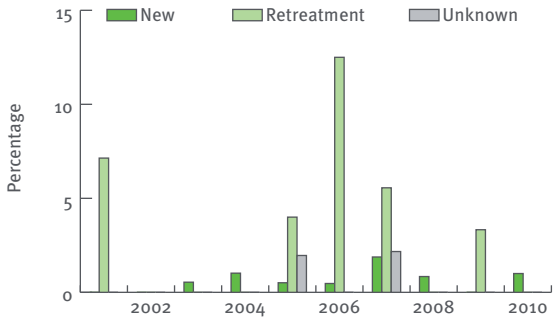
Tuberculosis cases by geographical origin, 2001–2010



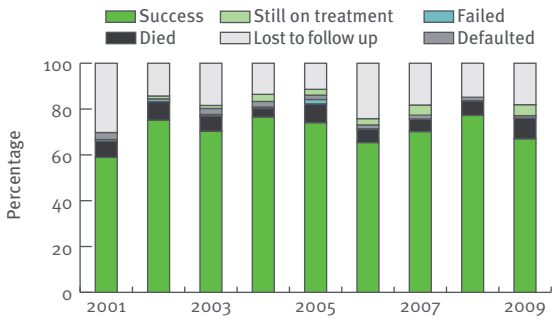
TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Israel

Population estimate 2010 by UN Statistical Database: 7418400

Tuberculosis case notifications, 2010

Total number of cases	343	
Notification rate per 100000	4.6	
New & relapses (lab+) number	340	(99.1%)
New & relapses (lab+) notification rate per 100000	4.6	
New pulmonary	265	(98.5%)
of which smear-positive	103	(38.9%)
Culture positive of new TB cases	204	(77.0%)
Mean age (age group) of new TB cases	25–44 years	
Foreign citizens of all TB cases	292	(85.1%)
New (not previously treated)	339	(98.8%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	247	(100.0%)
Cases resistant to isoniazid	17	(6.9%)
Cases resistant to rifampicin	6	(2.4%)
MDR cases	12	(4.9%)
including DST results on SLD	12	(100.0%)
of which XDR cases	1	(8.3%)
TB cases tested for HIV	308	(89.8%)
HIV-positive TB cases	13	(4.2%)

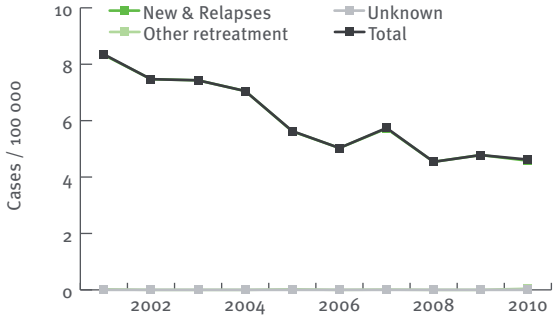
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

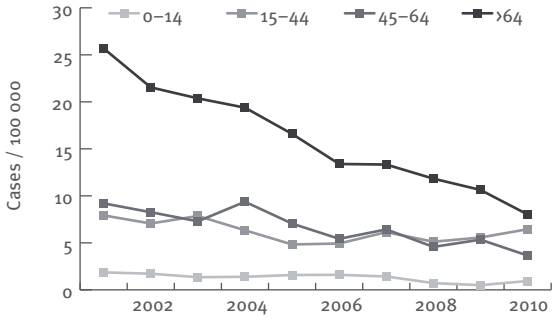
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	202	
Success	173	(85.6%)
Died	21	(10.4%)
Failed	0	(0.0%)
Defaulted	2	(1.0%)
Lost to follow up	6	(3.0%)

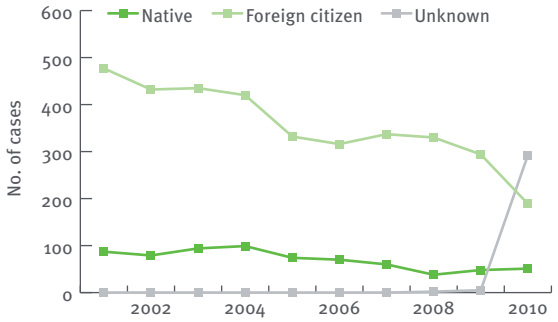
Tuberculosis notification rates by treatment history, 2001–2010



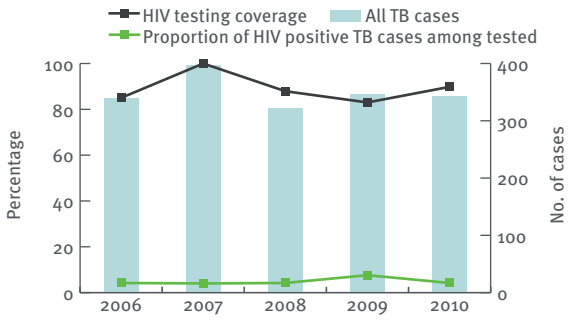
New TB cases - notification rates by age group, 2001–2010



Tuberculosis cases by geographical origin, 2001–2010



TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010

Treatment outcome, new pulmonary culture-positive cases, 2001–2009

Italy

Total population at 1 January 2010 by EUROSTAT: 60 340 328

Tuberculosis case notifications, 2010

Total number of cases	3 249	
Notification rate per 100 000	5.4	
New & relapses (lab+) number	1693	(52.1%)
New & relapses (lab+) notification rate per 100 000	2.8	
Pulmonary	2 685	(82.6%)
of which smear-positive	1096	(40.8%)
Culture positive of all TB cases	2618	(80.6%)
Mean age of new TB cases, nationals	53.7 years	
Mean age of new TB cases, non-nationals	33.2 years	
Foreign citizens of all TB cases	1809	(55.7%)
New (not previously treated)	1693	(52.1%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	-	
Case-linked data reporting	No	
Cases with DST results	2597	(99.2%)
Cases resistant to isoniazid	280	(10.8%)
Cases resistant to rifampicin	111	(4.3%)
MDR cases	87	(3.4%)
of which XDR cases	0	(0.0%)
Cases resistant to ethambutol	76	(2.9%)
Cases resistant to streptomycin	234	(9.0%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-

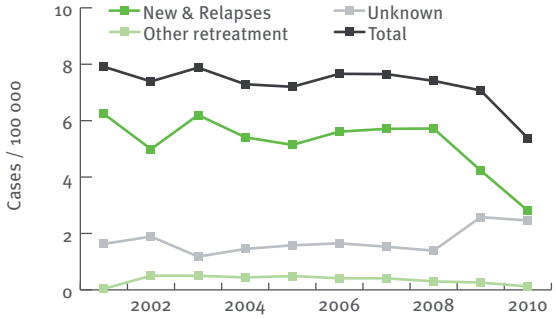
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

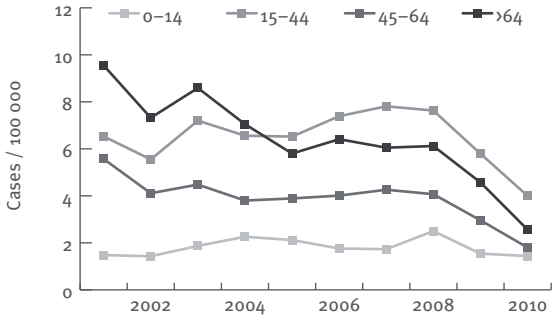
Treatment outcome monitoring, 2009

Not available

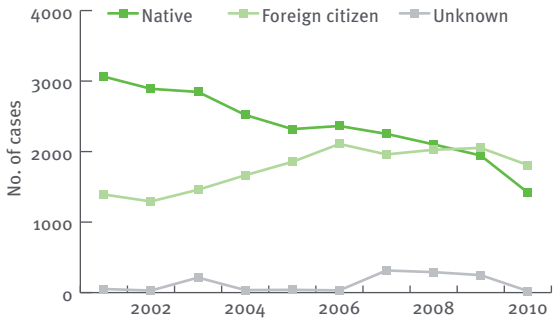
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



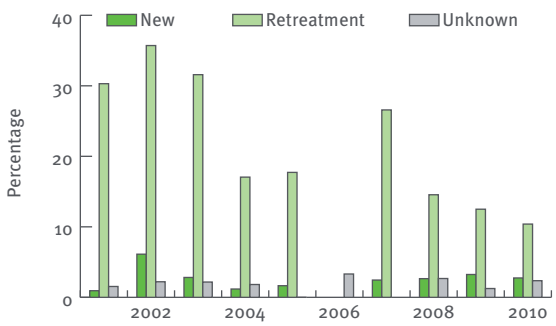
Tuberculosis cases by geographical origin, 2001–2010



TB-HIV co-infection, 2006–2010

Not available

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009

Not available

Kazakhstan

Population estimate 2010 by UN Statistical Database: 16 026 367

Tuberculosis case notifications, 2010

Total number of cases	28 550	
Notification rate per 100 000	178.1	
New & relapses (lab+) number	19 703	(69.0%)
New & relapses (lab+) notification rate per 100 000	122.9	
New pulmonary	13 514	(59.8%)
of which smear-positive	4 769	(35.3%)
Culture positive of new TB cases	5 076	(37.6%)
Mean age (age group) of new TB cases	25–44 years	
Foreign citizens of all TB cases	0	(0.0%)
New (not previously treated)	15 641	(54.8%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	11 571	(100.0%)
Cases resistant to isoniazid	1 611	(13.9%)
Cases resistant to rifampicin	305	(2.6%)
MDR cases	4 033	(34.9%)
including DST results on SLD	-	-
of which XDR cases	-	-
TB cases tested for HIV	23 854	(83.6%)
HIV-positive TB cases	333	(1.4%)

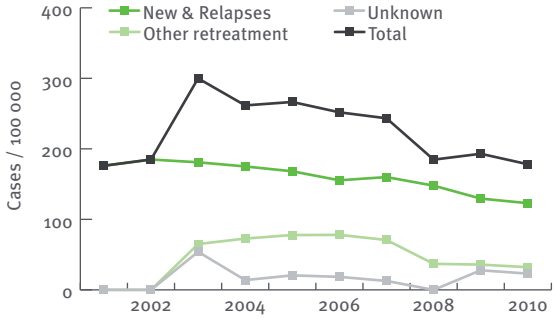
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

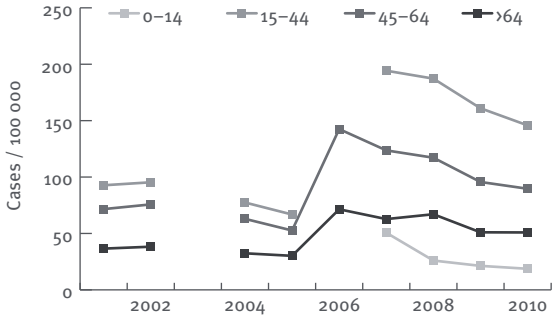
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary smear positive	
Case-linked data reporting	Yes	
Notified in 2009	5 355	
Success	3 341	(62.4%)
Died	197	(3.7%)
Failed	1582	(29.5%)
Defaulted	153	(2.9%)
Lost to follow up	82	(1.5%)

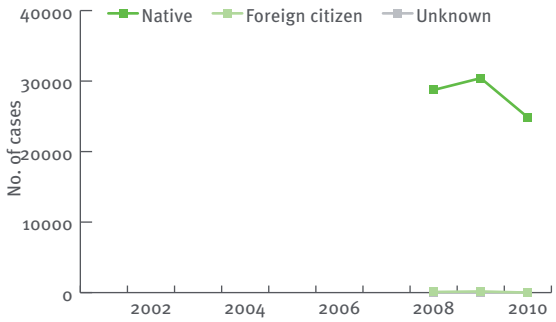
Tuberculosis notification rates by treatment history, 2001–2010



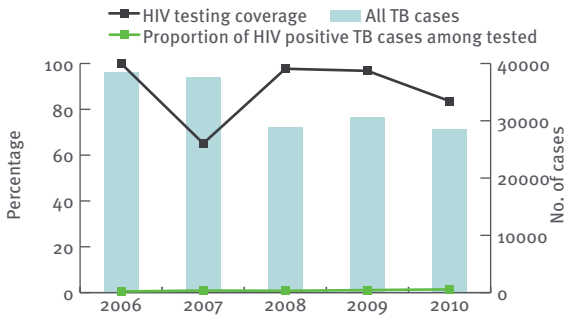
New TB cases - notification rates by age group, 2001–2010



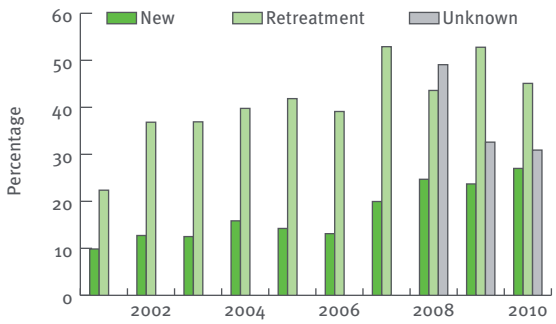
Tuberculosis cases by geographical origin, 2001–2010



TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary smear-positive cases, 2001–2009

Kyrgyzstan

Population estimate 2010 by UN Statistical Database: 5334223

Tuberculosis case notifications, 2010

Total number of cases	6295	
Notification rate per 100000	118.0	
New & relapses (lab+) number	5652	(89.8%)
New & relapses (lab+) notification rate per 100000	106.0	
New pulmonary	3673	(78.8%)
of which smear-positive	1645	(44.8%)
Culture positive of new TB cases	0	(0.0%)
Mean age (age group) of new TB cases	25–44 years	
Foreign citizens of all TB cases	0	(0.0%)
New (not previously treated)	5308	(84.3%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	941	(100.0%)
Cases resistant to isoniazid	185	(19.7%)
Cases resistant to rifampicin	9	(1.0%)
MDR cases	489	(52.0%)
including DST results on SLD	32	(6.5%)
of which XDR cases	32	(100.0%)
TB cases tested for HIV	6295	(100.0%)
HIV-positive TB cases	183	(2.8%)

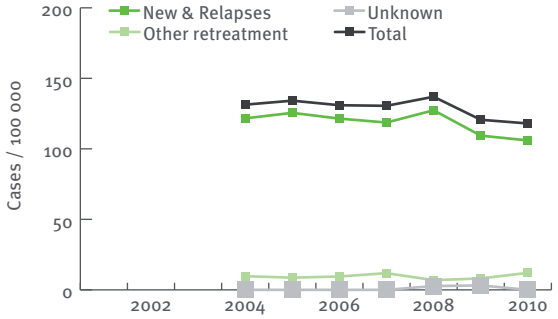
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

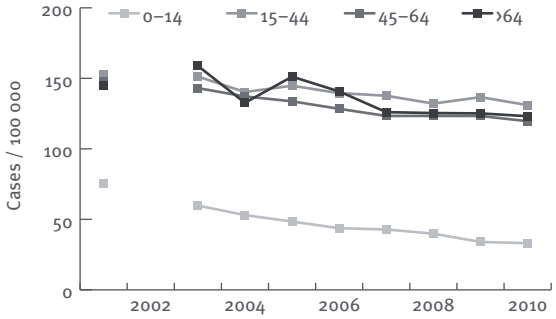
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary smear positive	
Case-linked data reporting	Yes	
Notified in 2009	1543	
Success	1272	(82.4%)
Died	51	(3.3%)
Failed	64	(4.1%)
Defaulted	91	(5.9%)
Lost to follow up	65	(4.2%)

Tuberculosis notification rates by treatment history, 2001–2010



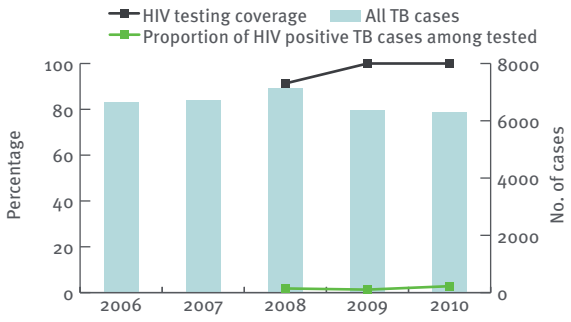
New TB cases - notification rates by age group, 2001–2010



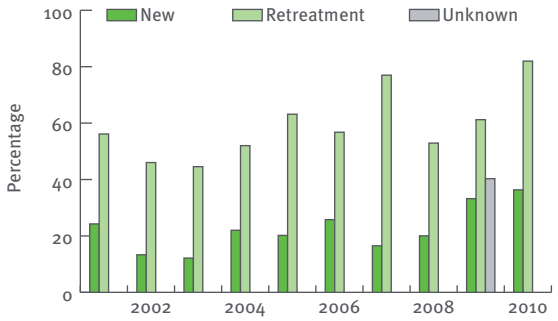
Tuberculosis cases by geographical origin, 2001–2010

Foreign citizens not reported

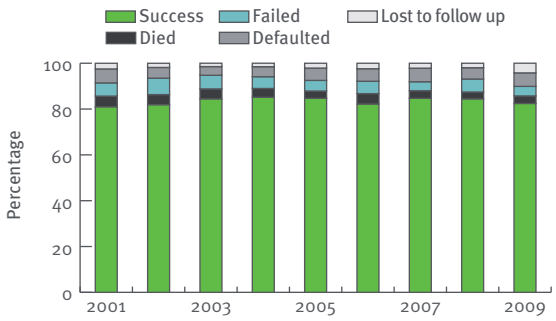
TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Latvia

Total population at 1 January 2010 by EUROSTAT: 2 248 374

Tuberculosis case notifications, 2010

Total number of cases	934	
Notification rate per 100 000	41.5	
New & relapses (lab+) number	915	(98.0%)
New & relapses (lab+) notification rate per 100 000	40.7	
Pulmonary	846	(90.6%)
of which smear-positive	409	(48.3%)
Culture positive of all TB cases	732	(78.4%)
Mean age of new TB cases, nationals	39.7 years	
Mean age of new TB cases, non-nationals	53.2 years	
Foreign citizens of all TB cases	62	(6.6%)
New (not previously treated)	825	(88.3%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	715	(97.7%)
Cases resistant to isoniazid	198	(27.7%)
Cases resistant to rifampicin	87	(12.2%)
MDR cases	87	(12.2%)
of which XDR cases	13	(14.9%)
Cases resistant to ethambutol	78	(10.9%)
Cases resistant to streptomycin	173	(24.2%)
TB cases tested for HIV	748	(80.1%)
HIV-positive TB cases	71	(9.5%)

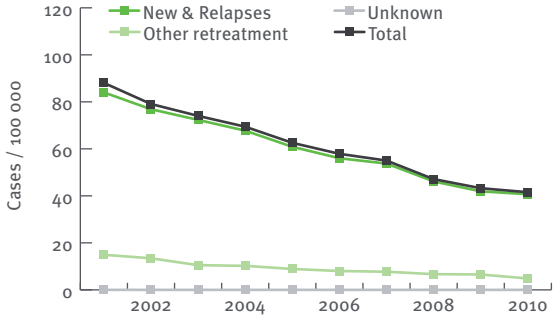
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

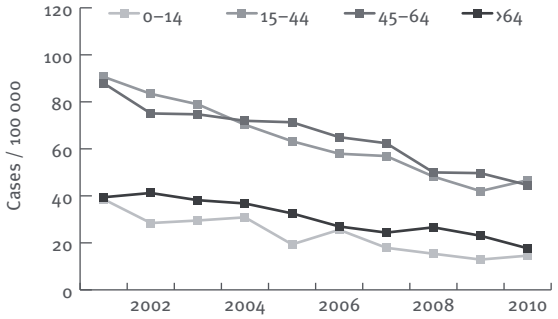
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	592	
Success	443	(74.8%)
Died	51	(8.6%)
Failed	3	(0.5%)
Defaulted	32	(5.4%)
Still on treatment	63	(10.6%)
Lost to follow up	0	(0.0%)

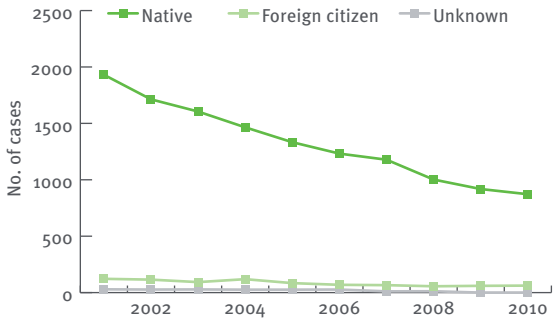
Tuberculosis notification rates by treatment history, 2001–2010



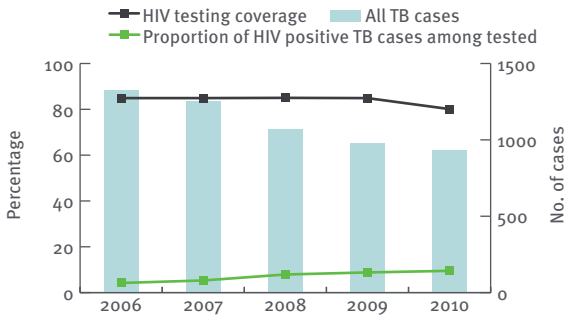
New TB cases - notification rates by age group, 2001–2010



Tuberculosis cases by geographical origin, 2001–2010

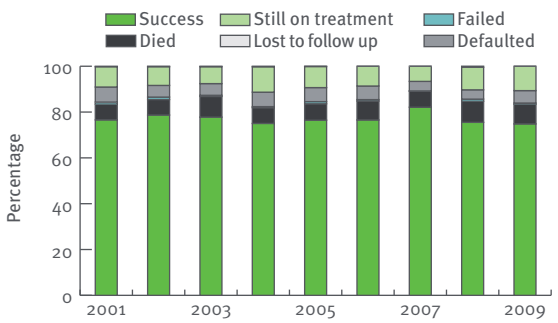


TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010

Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Lithuania

Total population at 1 January 2010 by EUROSTAT: 3329039

Tuberculosis case notifications, 2010

Total number of cases	1938	
Notification rate per 100 000	58.2	
New & relapses (lab+) number	1754	(90.5%)
New & relapses (lab+) notification rate per 100 000	52.7	
Pulmonary	1713	(88.4%)
of which smear-positive	1026	(59.9%)
Culture positive of all TB cases	1363	(70.3%)
Mean age of new TB cases, nationals	44.0 years	
Mean age of new TB cases, non-nationals	51.0 years	
Foreign citizens of all TB cases	47	(2.4%)
New (not previously treated)	1573	(81.2%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	1363	(100.0%)
Cases resistant to isoniazid	465	(34.1%)
Cases resistant to rifampicin	315	(23.1%)
MDR cases	310	(22.7%)
of which XDR cases	50	(16.1%)
Cases resistant to ethambutol	199	(14.6%)
Cases resistant to streptomycin	428	(31.4%)
TB cases tested for HIV	-	-
HIV-positive TB cases	19	-

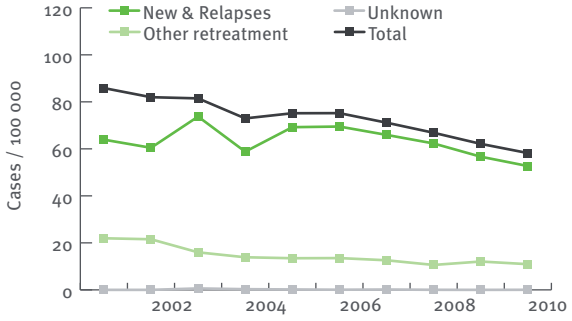
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

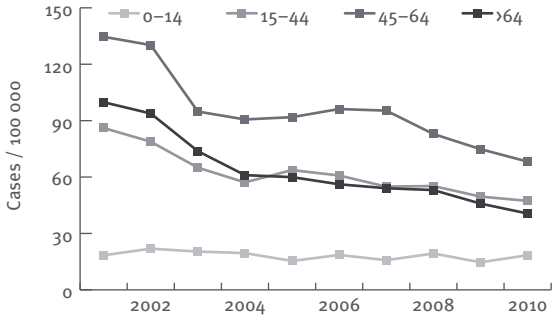
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	1033	
Success	758	(73.4%)
Died	100	(9.7%)
Failed	18	(1.7%)
Defaulted	92	(8.9%)
Still on treatment	63	(6.1%)
Lost to follow up	2	(0.2%)

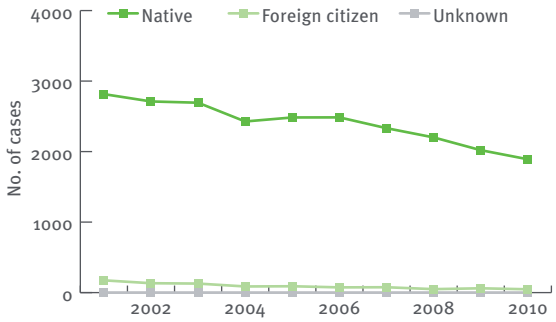
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



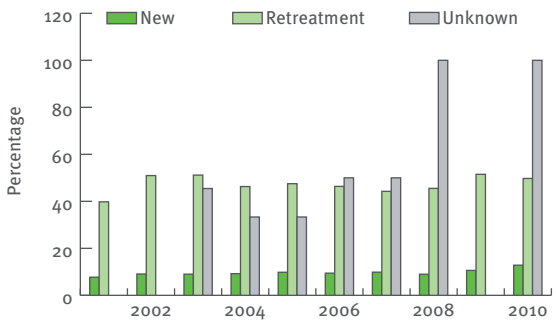
Tuberculosis cases by geographical origin, 2001–2010



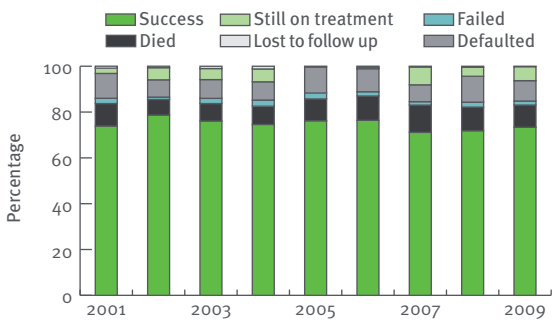
TB-HIV co-infection, 2006–2010

Testing coverage data not available

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Luxembourg

Total population at 1 January 2010 by EUROSTAT: 502066

Tuberculosis case notifications, 2010

Total number of cases	29	
Notification rate per 100000	5.8	
New & relapses (lab+) number	24	(82.8%)
New & relapses (lab+) notification rate per 100000	4.8	
Pulmonary	23	(79.3%)
of which smear-positive	0	(0.0%)
Culture positive of all TB cases	20	(69.0%)
Mean age of new TB cases, nationals	43.4 years	
Mean age of new TB cases, non-nationals	39.1 years	
Foreign citizens of all TB cases	17	(58.6%)
New (not previously treated)	24	(82.8%)

Drug resistance surveillance & TB-HIV co-infection, 2010

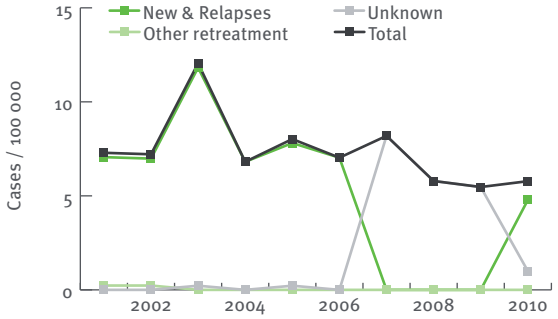
Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	20	(100.0%)
Cases resistant to isoniazid	0	(0.0%)
Cases resistant to rifampicin	0	(0.0%)
MDR cases	0	(0.0%)
of which XDR cases	0	(0.0%)
Cases resistant to ethambutol	0	(0.0%)
Cases resistant to streptomycin	1	(5.0%)
TB cases tested for HIV	29	(100.0%)
HIV-positive TB cases	0	(0.0%)

* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%
** More than 50% of TB cases tested for HIV

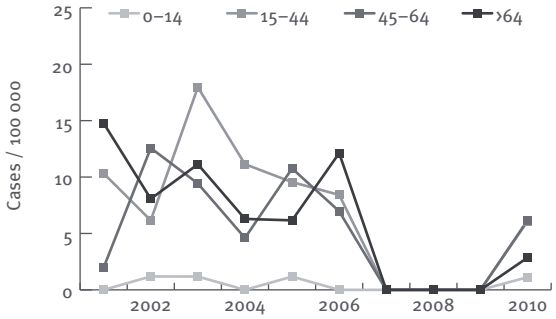
Treatment outcome monitoring, 2009

Not available

Tuberculosis notification rates by treatment history, 2001–2010

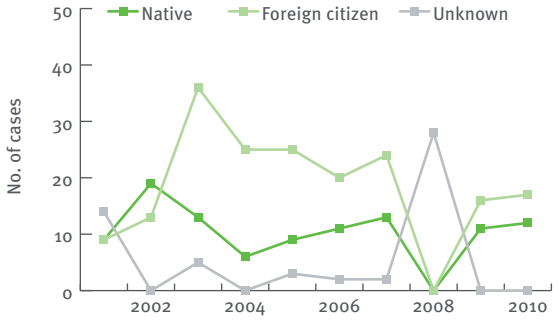


New TB cases - notification rates by age group, 2001–2010*

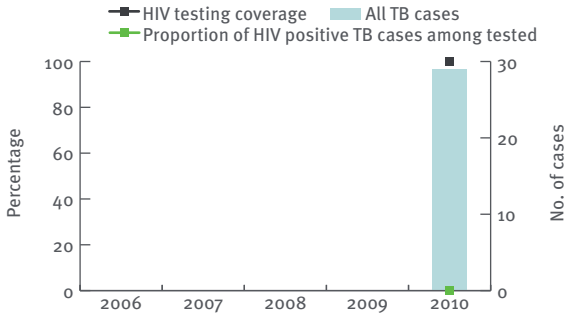


* No previous treatment history reported for 2007–2009

Tuberculosis cases by geographical origin, 2001–2010

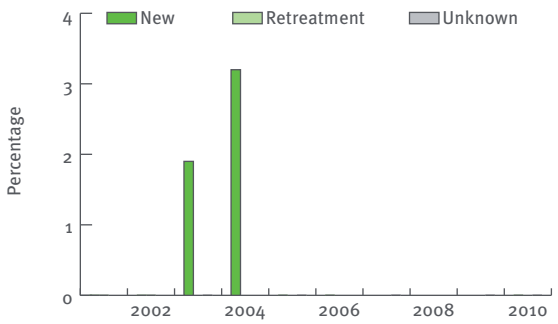


TB-HIV co-infection, 2006–2010*



* No data available for 2006 -2009

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009

Not available

The former Yugoslav Republic of Macedonia

Population estimate 2010 by UN Statistical Database: 2060563

Tuberculosis case notifications, 2010

Total number of cases	420	
Notification rate per 100000	20.4	
New & relapses (lab+) number	384	(91.4%)
New & relapses (lab+) notification rate per 100000	18.6	
New pulmonary	276	(89.3%)
of which smear-positive	141	(51.1%)
Culture positive of new TB cases	153	(55.4%)
Mean age (age group) of new TB cases	25–44 years	
Foreign citizens of all TB cases	22	(5.2%)
New (not previously treated)	368	(87.6%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	181	(96.8%)
Cases resistant to isoniazid	4	(2.2%)
Cases resistant to rifampicin	0	(0.0%)
MDR cases	7	(3.9%)
including DST results on SLD	5	(71.4%)
of which XDR cases	1	(20.0%)
TB cases tested for HIV	38	(9.0%)
HIV-positive TB cases	0	(0.0%)

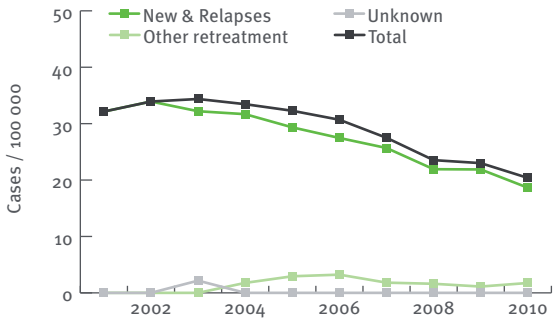
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

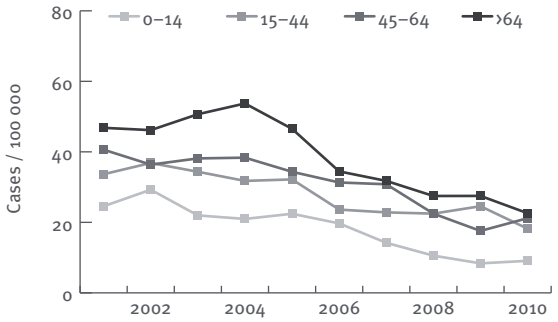
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary smear positive	
Case-linked data reporting	Yes	
Notified in 2009	199	
Success	180	(90.5%)
Died	7	(3.5%)
Failed	3	(1.5%)
Defaulted	9	(4.5%)
Lost to follow up	0	(0.0%)

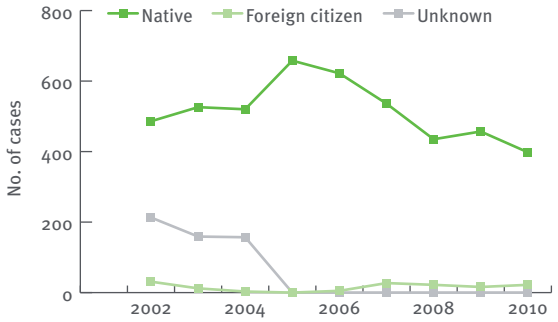
Tuberculosis notification rates by treatment history, 2001–2010



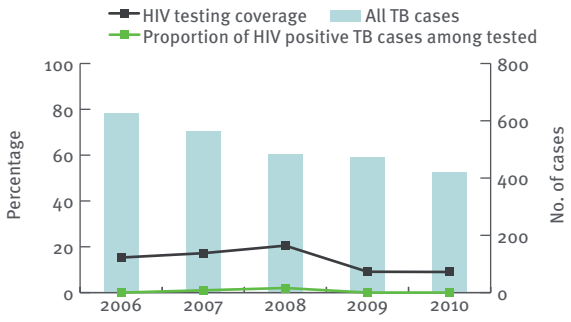
New TB cases - notification rates by age group, 2001–2010



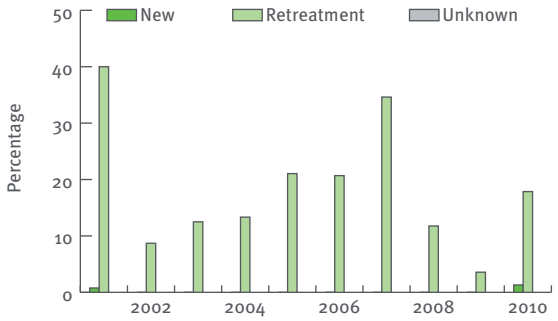
Tuberculosis cases by geographical origin, 2001–2010



TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary smear-positive cases, 2001–2009

Malta

Total population at 1 January 2010 by EUROSTAT: 414 372

Tuberculosis case notifications, 2010

Total number of cases	32	
Notification rate per 100 000	7.7	
New & relapses (lab+) number	20	(62.5%)
New & relapses (lab+) notification rate per 100 000	4.8	
Pulmonary	19	(59.4%)
of which smear-positive	9	(47.4%)
Culture positive of all TB cases	16	(50.0%)
Mean age of new TB cases, nationals	76.3 years	
Mean age of new TB cases, non-nationals	28.8 years	
Foreign citizens of all TB cases	25	(78.1%)
New (not previously treated)	20	(62.5%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	16	(100.0%)
Cases resistant to isoniazid	3	(18.8%)
Cases resistant to rifampicin	1	(6.3%)
MDR cases	1	(6.3%)
of which XDR cases	0	(0.0%)
Cases resistant to ethambutol	0	(0.0%)
Cases resistant to streptomycin	3	(18.8%)
TB cases tested for HIV	26	(81.3%)
HIV-positive TB cases	3	(11.5%)

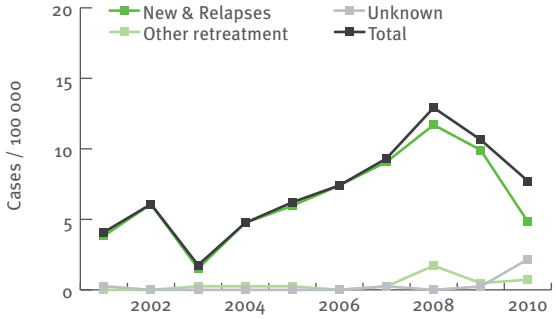
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

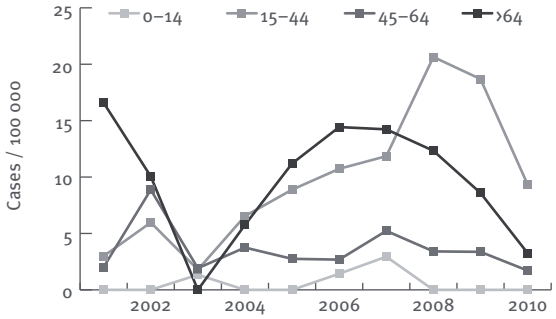
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	10	
Success	8	(80.0%)
Died	0	(0.0%)
Failed	0	(0.0%)
Defaulted	0	(0.0%)
Still on treatment	2	(20.0%)
Lost to follow up	0	(0.0%)

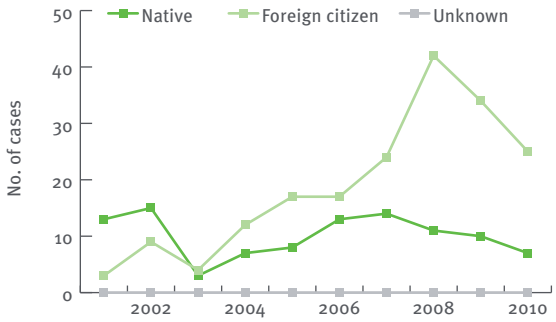
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010

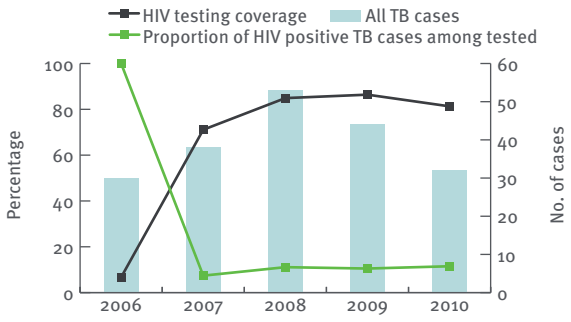


Tuberculosis cases by geographical origin, 2001–2010

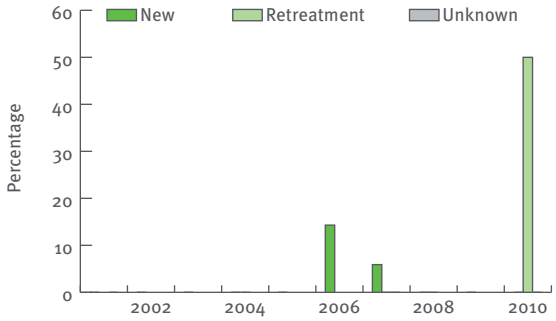


* By nationality for 2000–2006

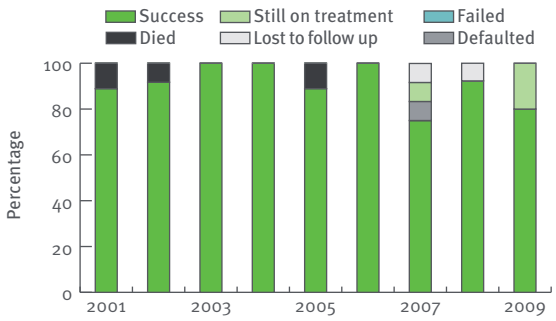
TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Moldova

Population estimate 2010 by UN Statistical Database: 3572885

Tuberculosis case notifications, 2010

Total number of cases	5447	
Notification rate per 100000	152.5	
New & relapses (lab+) number	4122	(75.7%)
New & relapses (lab+) notification rate per 100000	115.4	
New pulmonary	3340	(67.7%)
of which smear-positive	1267	(37.9%)
Culture positive of new TB cases	1331	(39.9%)
Mean age (age group) of new TB cases	25–44 years	
Foreign citizens of all TB cases	31	(0.6%)
New (not previously treated)	3745	(68.8%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	2521	(96.6%)
Cases resistant to isoniazid	229	(9.1%)
Cases resistant to rifampicin	41	(1.6%)
MDR cases	1082	(42.9%)
including DST results on SLD	-	-
of which XDR cases	-	-
TB cases tested for HIV	5192	(95.3%)
HIV-positive TB cases	308	(5.9%)

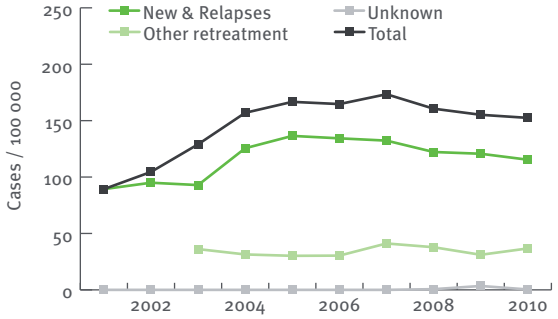
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

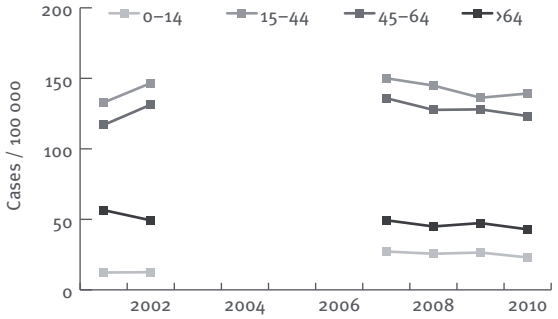
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary smear positive	
Case-linked data reporting	Yes	
Notified in 2009	1318	
Success	715	(54.2%)
Died	135	(10.2%)
Failed	219	(16.6%)
Defaulted	186	(14.1%)
Lost to follow up	63	(4.8%)

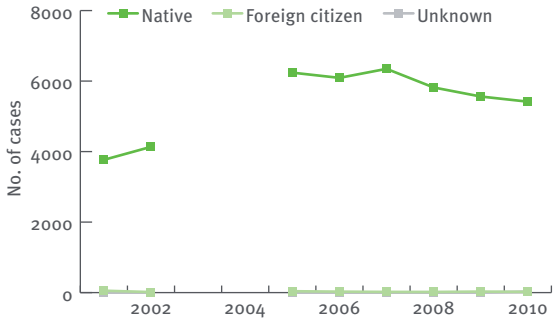
Tuberculosis notification rates by treatment history, 2001–2010



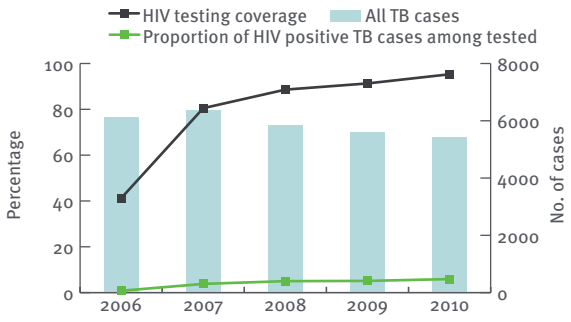
New TB cases - notification rates by age group, 2001–2010



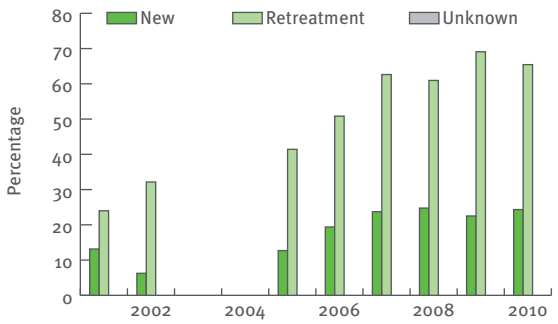
Tuberculosis cases by geographical origin, 2001–2010



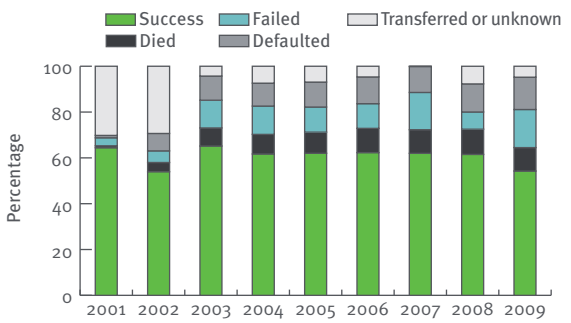
TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary smear-positive cases, 2001–2009



Monaco

Population estimate 2010 by UN Statistical Database: 35407

Tuberculosis case notifications, 2010

Total number of cases	1	
Notification rate per 100 000	2.8	
New & relapses (lab+) number	1	(100.0%)
New & relapses (lab+) notification rate per 100 000	2.8	
New pulmonary	0	(0.0%)
of which smear-positive	0	-
Culture positive of new TB cases	0	-
Mean age (age group) of new TB cases	45–64 years	
Foreign citizens of all TB cases	1	(100.0%)
New (not previously treated)	1	(100.0%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	1	(100.0%)
Cases resistant to isoniazid	0	(0.0%)
Cases resistant to rifampicin	0	(0.0%)
MDR cases	0	(0.0%)
including DST results on SLD	-	-
of which XDR cases	-	-
TB cases tested for HIV	0	(0.0%)
HIV-positive TB cases	-	-

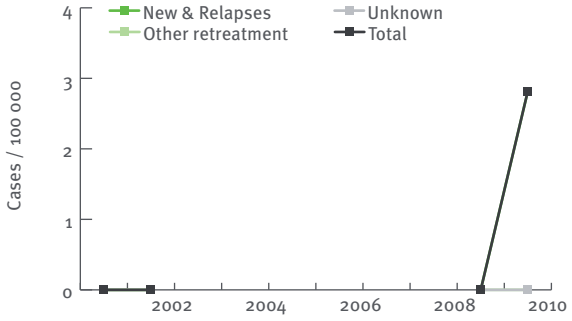
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

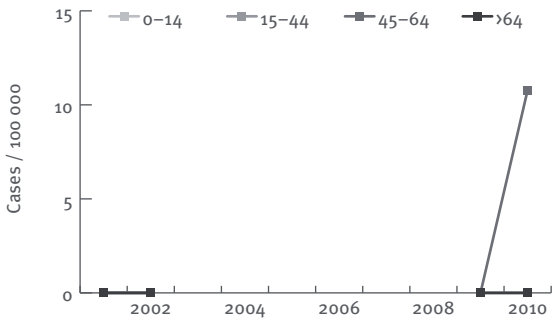
Treatment outcome monitoring, 2009

Geographical coverage	-	
Outcome cohort	-	
Case-linked data reporting	-	
Notified in 2009	-	
Success	-	-
Died	-	-
Failed	-	-
Defaulted	-	-
Lost to follow up	-	-

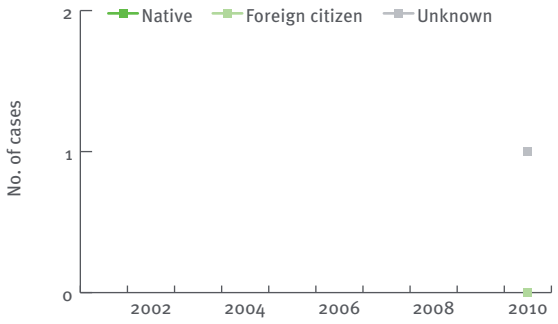
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



Tuberculosis cases by geographical origin, 2001–2010



TB-HIV co-infection, 2006–2010

Not available

MDR TB cases by previous treatment history, 2001–2010

Not available

Treatment outcome, new pulmonary culture-positive cases, 2001–2009

Not available

Montenegro

Population estimate 2010 by UN Statistical Database: 631490

Tuberculosis case notifications, 2010

Total number of cases	114	
Notification rate per 100 000	18.1	
New & relapses (lab+) number	110	(96.5%)
New & relapses (lab+) notification rate per 100 000	17.4	
New pulmonary	88	(88.0%)
of which smear-positive	39	(44.3%)
Culture positive of new TB cases	61	(69.3%)
Mean age (age group) of new TB cases	45–64 years	
Foreign citizens of all TB cases	1	(0.9%)
New (not previously treated)	102	(89.5%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	73	(98.6%)
Cases resistant to isoniazid	3	(4.1%)
Cases resistant to rifampicin	0	(0.0%)
MDR cases	0	(0.0%)
including DST results on SLD	0	-
of which XDR cases	-	-
TB cases tested for HIV	84	(73.7%)
HIV-positive TB cases	1	(1.2%)

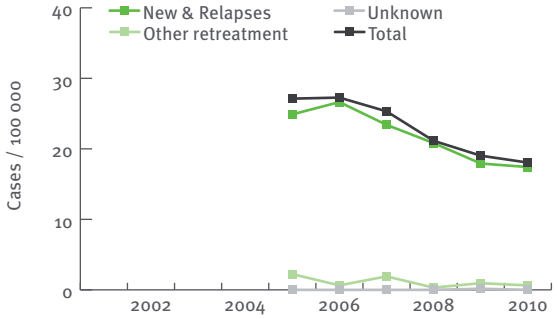
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

Treatment outcome monitoring, 2009

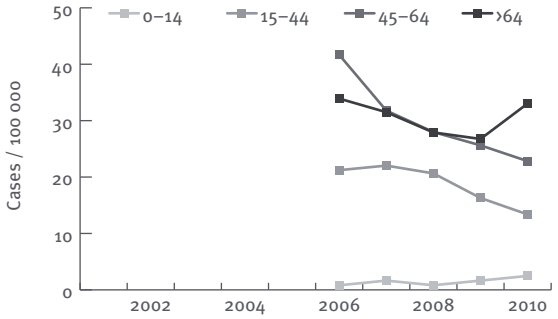
Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	78	
Success	67	(85.9%)
Died	6	(7.7%)
Failed	0	(0.0%)
Defaulted	3	(3.8%)
Lost to follow up	2	(2.6%)

Tuberculosis notification rates by treatment history, 2001–2010*



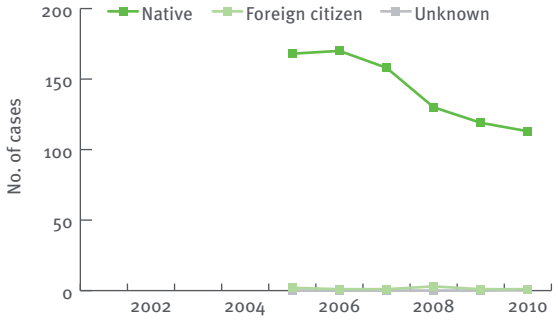
* Established in 2006 following the split of Serbia & Montenegro; data starting from 2005

New TB cases - notification rates by age group, 2001–2010*



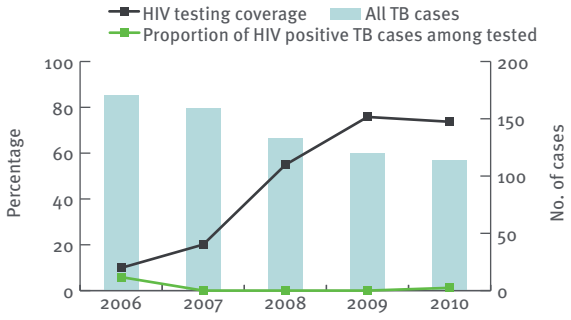
* Established in 2006 following the split of Serbia & Montenegro; data starting from 2005

Tuberculosis cases by geographical origin, 2001–2010*

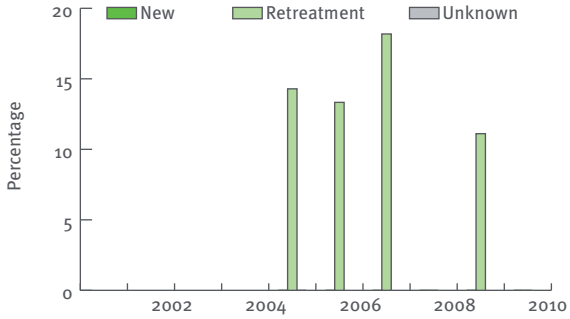


* Established in 2006 following the split of Serbia & Montenegro; data starting from 2005

TB-HIV co-infection, 2006–2010

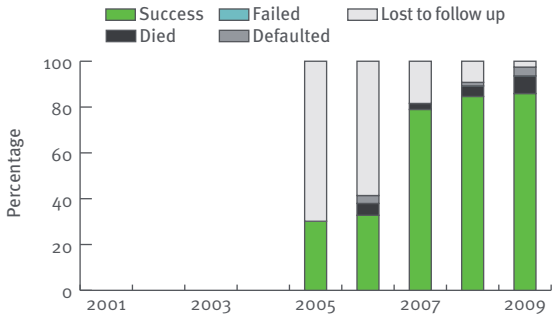


MDR TB cases by previous treatment history, 2001–2010*



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

Treatment outcome, new pulmonary smear and/or culture-positive cases, 2001–2009*



* Pilot project, results incomplete

Netherlands

Total population at 1 January 2010 by EUROSTAT: 16 574 989

Tuberculosis case notifications, 2010

Total number of cases	1073	
Notification rate per 100 000	6.5	
New & relapses (lab+) number	1031	(96.1%)
New & relapses (lab+) notification rate per 100 000	6.2	
Pulmonary	586	(54.6%)
of which smear-positive	192	(32.8%)
Culture positive of all TB cases	783	(73.0%)
Mean age of new TB cases, nationals	49.6 years	
Mean age of new TB cases, non-nationals	36.5 years	
Foreign citizens of all TB cases	789	(73.5%)
New (not previously treated)	1013	(94.4%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	783	(100.0%)
Cases resistant to isoniazid	69	(8.8%)
Cases resistant to rifampicin	12	(1.5%)
MDR cases	11	(1.4%)
of which XDR cases	0	(0.0%)
Cases resistant to ethambutol	3	(0.4%)
Cases resistant to streptomycin	60	(7.7%)
TB cases tested for HIV	370	(34.5%)
HIV-positive TB cases	47	(12.7%)

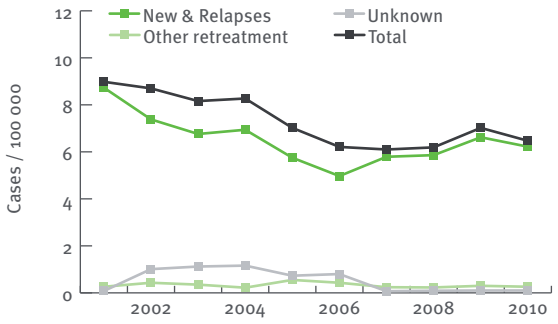
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

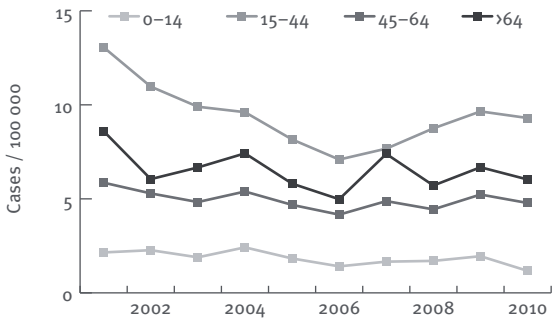
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	454	
Success	362	(79.7%)
Died	40	(8.8%)
Failed	0	(0.0%)
Defaulted	14	(3.1%)
Still on treatment	16	(3.5%)
Lost to follow up	22	(4.8%)

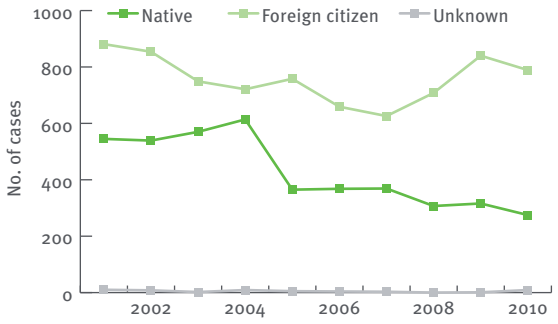
Tuberculosis notification rates by treatment history, 2001–2010



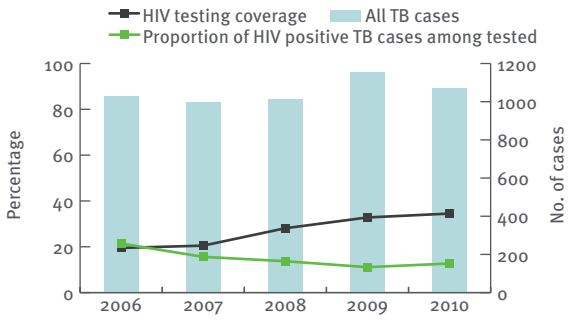
New TB cases - notification rates by age group, 2001–2010



Tuberculosis cases by geographical origin, 2001–2010

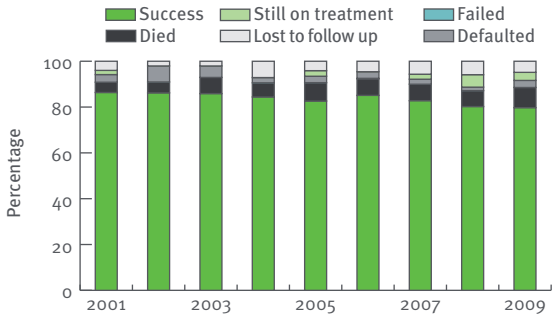


TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010

Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Norway

Total population at 1 January 2010 by EUROSTAT: 4 858 199

Tuberculosis case notifications, 2010

Total number of cases	339	
Notification rate per 100 000	7.0	
New & relapses (lab+) number	274	(80.8%)
New & relapses (lab+) notification rate per 100 000	5.6	
Pulmonary	201	(59.3%)
of which smear-positive	60	(29.9%)
Culture positive of all TB cases	275	(81.1%)
Mean age of new TB cases, nationals	49.1 years	
Mean age of new TB cases, non-nationals	32.3 years	
Foreign citizens of all TB cases	289	(85.3%)
New (not previously treated)	274	(80.8%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	-	
Case-linked data reporting	Yes	
Cases with DST results	274	(99.6%)
Cases resistant to isoniazid	29	(10.6%)
Cases resistant to rifampicin	9	(3.3%)
MDR cases	8	(2.9%)
of which XDR cases	0	(0.0%)
Cases resistant to ethambutol	2	(0.7%)
Cases resistant to streptomycin	23	(8.4%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-

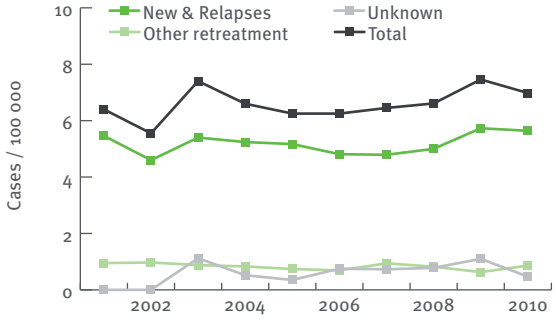
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

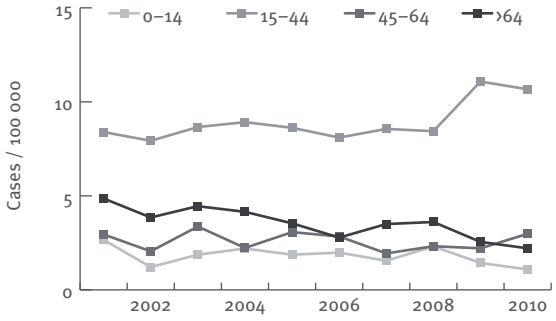
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	146	
Success	119	(81.5%)
Died	6	(4.1%)
Failed	2	(1.4%)
Defaulted	0	(0.0%)
Still on treatment	6	(4.1%)
Lost to follow up	13	(8.9%)

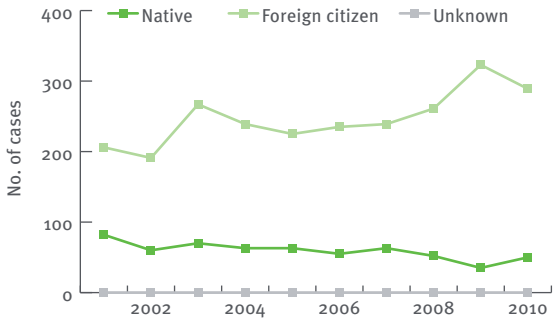
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



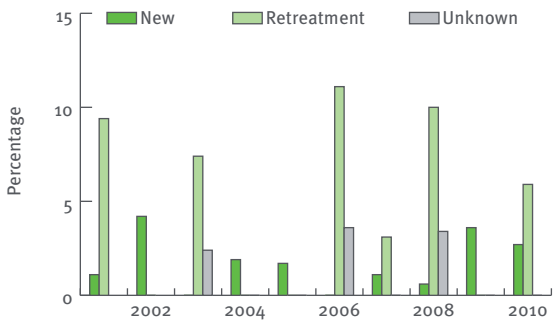
Tuberculosis cases by geographical origin, 2001–2010



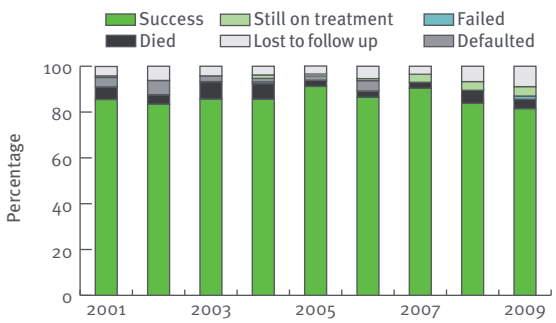
TB-HIV co-infection, 2006–2010

Data not available

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Poland

Total population at 1 January 2010 by EUROSTAT: 38 167 329

Tuberculosis case notifications, 2010

Total number of cases	7509	
Notification rate per 100 000	19.7	
New & relapses (lab+) number	7 009	(93.3%)
New & relapses (lab+) notification rate per 100 000	18.4	
Pulmonary	6 992	(93.1%)
of which smear-positive	2 872	(41.1%)
Culture positive of all TB cases	4 756	(63.3%)
Mean age of new TB cases, nationals	52.7 years	
Mean age of new TB cases, non-nationals	32.8 years	
Foreign citizens of all TB cases	46	(0.6%)
New (not previously treated)	6 610	(88.0%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	-	
Case-linked data reporting	Yes	
Cases with DST results	3706	(77.9%)
Cases resistant to isoniazid	169	(4.6%)
Cases resistant to rifampicin	37	(1.0%)
MDR cases	30	(0.8%)
of which XDR cases	1	(3.3%)
Cases resistant to ethambutol	27	(0.7%)
Cases resistant to streptomycin	153	(4.1%)
TB cases tested for HIV	-	-
HIV-positive TB cases	22	-

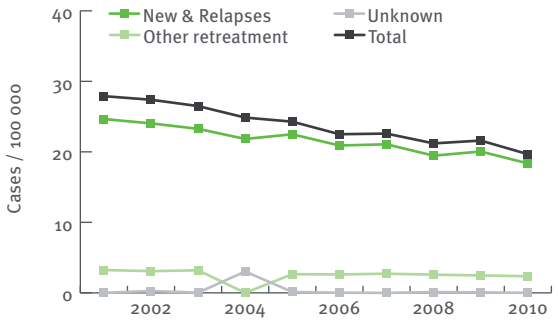
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

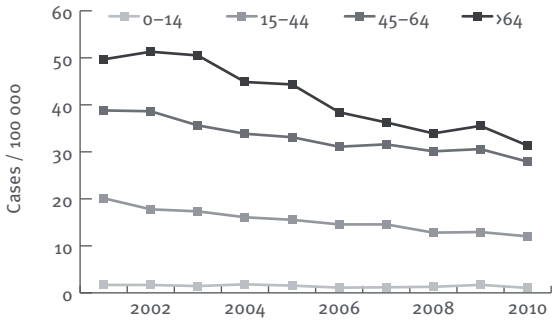
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	4 391	
Success	2957	(67.3%)
Died	234	(5.3%)
Failed	7	(0.2%)
Defaulted	451	(10.3%)
Still on treatment	10	(0.2%)
Lost to follow up	732	(16.7%)

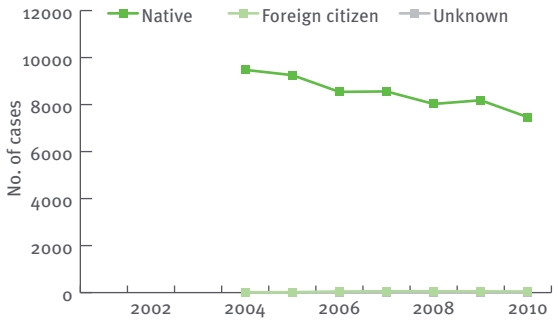
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



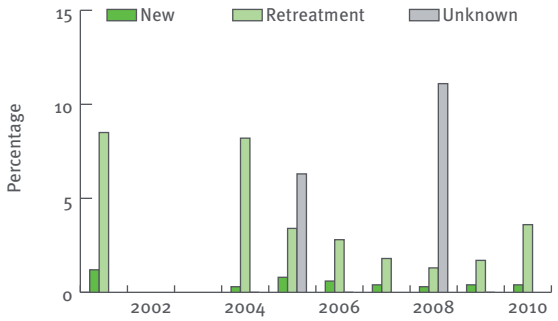
Tuberculosis cases by geographical origin, 2001–2010



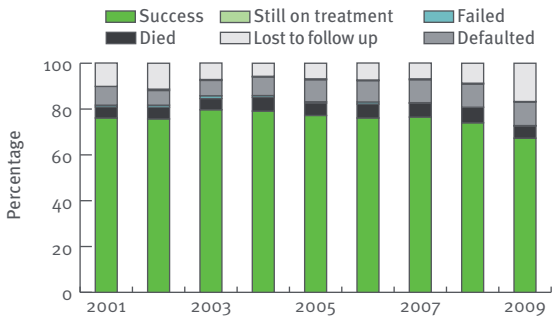
TB-HIV co-infection, 2006–2010

Data not available

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Portugal

Total population at 1 January 2010 by EUROSTAT: 10 637 713

Tuberculosis case notifications, 2010

Total number of cases	2626	
Notification rate per 100 000	24.7	
New & relapses (lab+) number	2497	(95.1%)
New & relapses (lab+) notification rate per 100 000	23.5	
Pulmonary	1881	(71.6%)
of which smear-positive	995	(52.9%)
Culture positive of all TB cases	1605	(61.1%)
Mean age of new TB cases, nationals	48.2 years	
Mean age of new TB cases, non-nationals	38.4 years	
Foreign citizens of all TB cases	425	(16.2%)
New (not previously treated)	2398	(91.3%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	1225	(76.3%)
Cases resistant to isoniazid	68	(5.6%)
Cases resistant to rifampicin	19	(1.6%)
MDR cases	19	(1.6%)
of which XDR cases	0	(0.0%)
Cases resistant to ethambutol	15	(1.2%)
Cases resistant to streptomycin	127	(10.4%)
TB cases tested for HIV	1720	(65.5%)
HIV-positive TB cases	303	(17.6%)

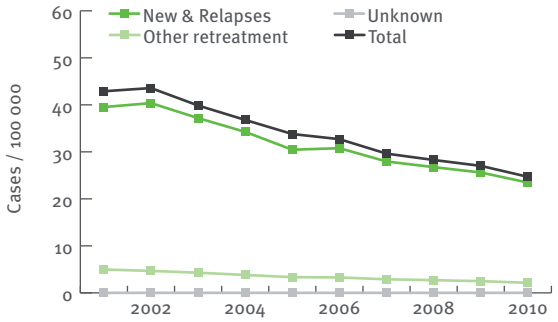
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

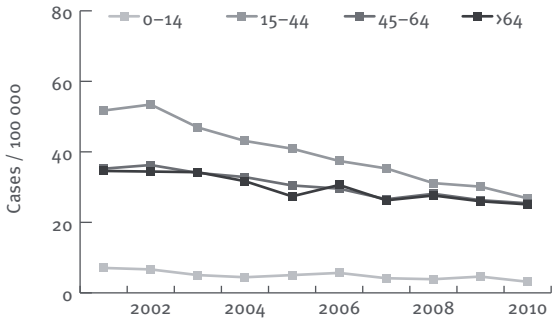
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	1565	
Success	1318	(84.2%)
Died	88	(5.6%)
Failed	0	(0.0%)
Defaulted	48	(3.1%)
Still on treatment	79	(5.0%)
Lost to follow up	32	(2.0%)

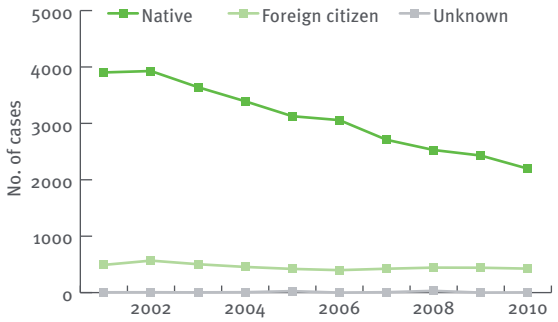
Tuberculosis notification rates by treatment history, 2001–2010



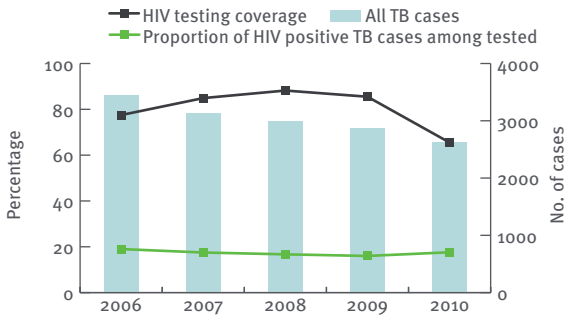
New TB cases - notification rates by age group, 2001–2010



Tuberculosis cases by geographical origin, 2001–2010

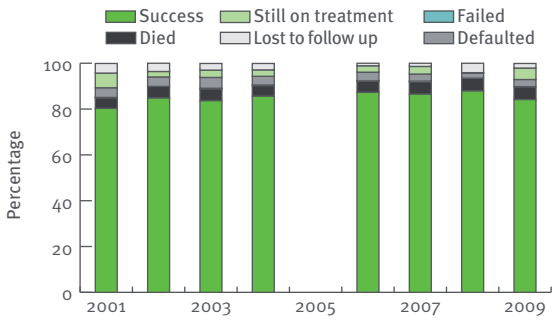


TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010

Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Romania

Total population at 1 January 2010 by EUROSTAT: 21462186

Tuberculosis case notifications, 2010

Total number of cases	21078	
Notification rate per 100000	98.2	
New & relapses (lab+) number	18379	(87.2%)
New & relapses (lab+) notification rate per 100000	85.6	
Pulmonary	18008	(85.4%)
of which smear-positive	11850	(65.8%)
Culture positive of all TB cases	12492	(59.3%)
Mean age of new TB cases, nationals	41.8 years	
Mean age of new TB cases, non-nationals	28.8 years	
Foreign citizens of all TB cases	38	(0.2%)
New (not previously treated)	15963	(75.7%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	5349	(42.8%)
Cases resistant to isoniazid	786	(14.7%)
Cases resistant to rifampicin	555	(10.4%)
MDR cases	502	(9.4%)
of which XDR cases	20	(4.0%)
Cases resistant to ethambutol	149	(2.8%)
Cases resistant to streptomycin	196	(3.7%)
TB cases tested for HIV	7120	(33.8%)
HIV-positive TB cases	229	(3.2%)

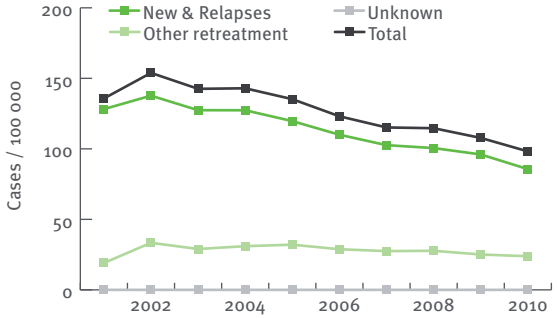
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

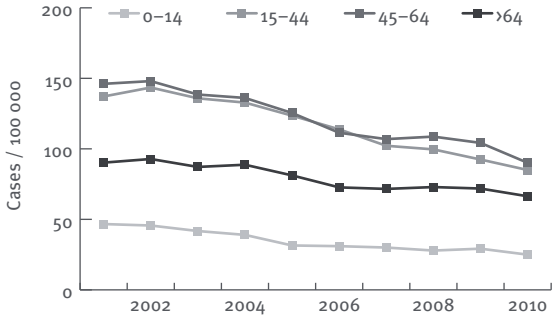
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	10737	
Success	9165	(85.4%)
Died	475	(4.4%)
Failed	415	(3.9%)
Defaulted	610	(5.7%)
Still on treatment	72	(0.7%)
Lost to follow up	0	(0.0%)

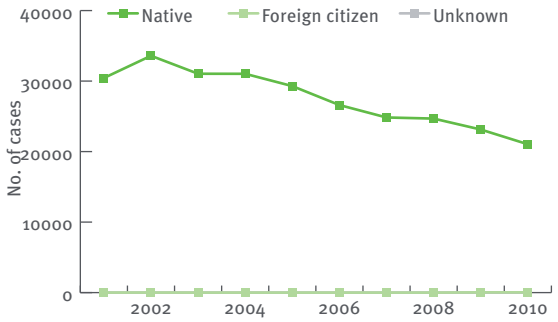
Tuberculosis notification rates by treatment history, 2001–2010



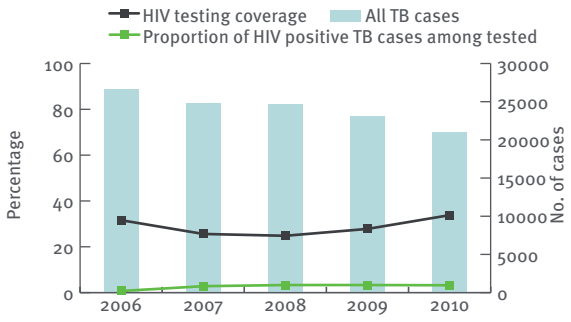
New TB cases - notification rates by age group, 2001–2010



Tuberculosis cases by geographical origin, 2001–2010

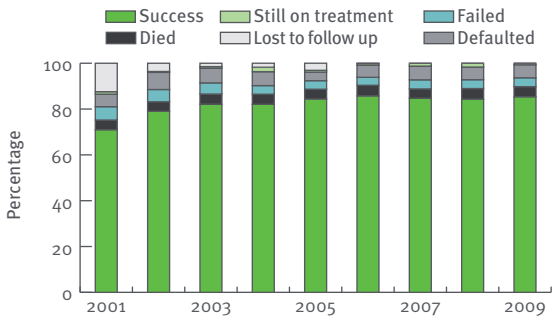


TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010

Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Russia

Population estimate 2010 by UN Statistical Database: 142958164

Tuberculosis case notifications, 2010

Total number of cases	162553	
Notification rate per 100000	113.7	
New & relapses (lab+) number	118641	(73.0%)
New & relapses (lab+) notification rate per 100000	83.0	
New pulmonary	99310	(68.1%)
of which smear-positive	31416	(31.6%)
Culture positive of new TB cases	38668	(38.9%)
Mean age (age group) of new TB cases	25–44 years	
Foreign citizens of all TB cases	2110	(1.3%)
New (not previously treated)	109904	(67.6%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	49267	(90.9%)
Cases resistant to isoniazid	-	-
Cases resistant to rifampicin	-	-
MDR cases	12387	(25.1%)
including DST results on SLD	-	-
of which XDR cases	-	-
TB cases tested for HIV	162553	(100.0%)
HIV-positive TB cases	8653	(5.3%)

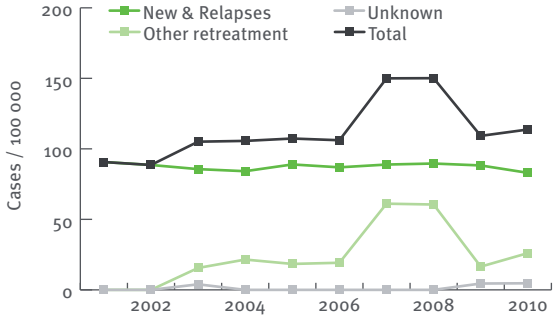
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

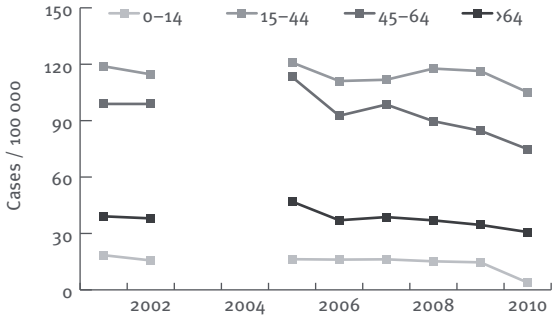
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary smear positive	
Case-linked data reporting	Yes	
Notified in 2009	-	
Success	-	-
Died	-	-
Failed	-	-
Defaulted	-	-
Lost to follow up	-	-

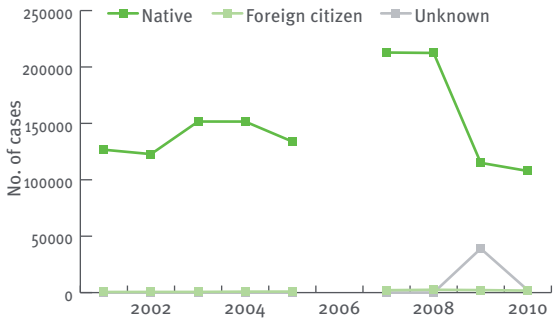
Tuberculosis notification rates, 2001–2010



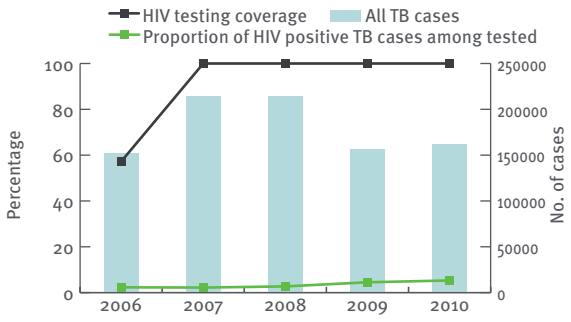
New TB cases - notification rates by age group, 2001–2010



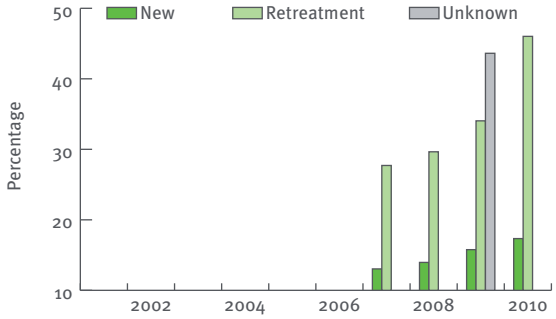
Tuberculosis cases by geographical origin, 2001–2010



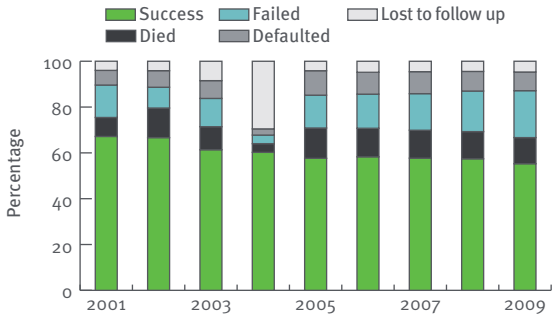
TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary smear-positive cases, 2001–2009



San Marino

Population estimate 2010 by UN Statistical Database: 31534

Tuberculosis case notifications, 2010

Not available

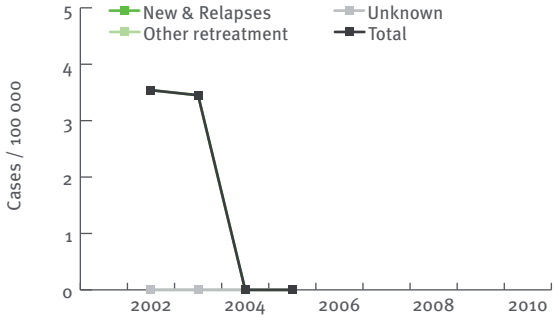
Drug resistance surveillance & TB-HIV co-infection, 2010

Not available

Treatment outcome monitoring, 2009

Not available

Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010

Not available

Tuberculosis cases by geographical origin, 2001–2010

Not available

TB-HIV co-infection, 2006–2010

Not available

MDR TB cases by previous treatment history, 2001–2010

No MDR cases reported

Treatment outcome, new pulmonary culture-positive cases, 2001–2009

Not available

Serbia

Population estimate 2010 by UN Statistical Database: 9 856 222

Tuberculosis case notifications, 2010

Total number of cases*	1501	
Notification rate per 100 000	15.2	
New & relapses (lab+) number	1442	(96.1%)
New & relapses (lab+) notification rate per 100 000	14.6	
New pulmonary	1121	(87.2%)
of which smear-positive	690	(61.6%)
Culture positive of new TB cases	922	(82.2%)
Mean age (age group) of new TB cases, nationals	› 65 years	
Foreign citizens of all TB cases	0.3	(0.3%)
New (not previously treated)	1323	(88.1%)

* Excluding 884 cases from Kosovo (in accordance with Security Council Resolution 1244 (1999))

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	928	(82.7%)
Cases resistant to isoniazid	11	(1.2%)
Cases resistant to rifampicin	4	(0.4%)
MDR cases	12	(1.3%)
including DST results on SLD	-	-
of which XDR cases	-	-
TB cases tested for HIV	-	-
HIV-positive TB cases	12	-

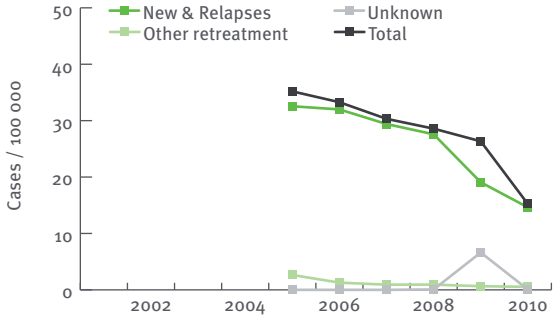
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

Treatment outcome monitoring, 2009

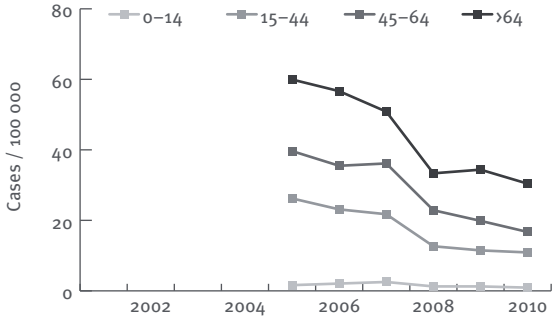
Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	1137	
Success	967	(85.0%)
Died	77	(6.8%)
Failed	15	(1.3%)
Defaulted	53	(4.7%)
Lost to follow up	25	(2.2%)

Tuberculosis notification rates by treatment history, 2001–2010*

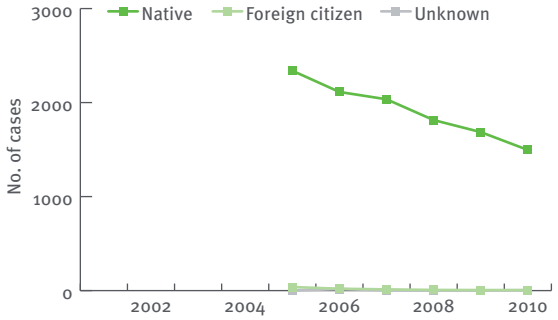


* Excluding 884 cases from UN Administrated Province of Kosovo (in accordance with Security Council Resolution 1244 (1999)) in 2010 only

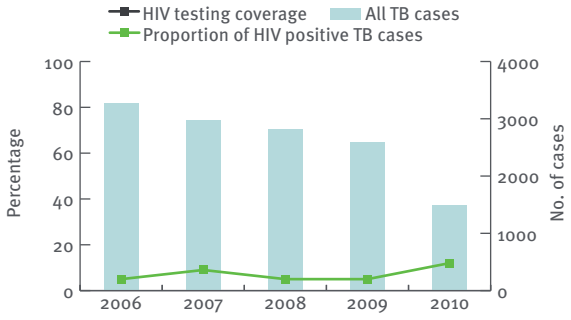
New TB cases - notification rates by age group, 2001–2010



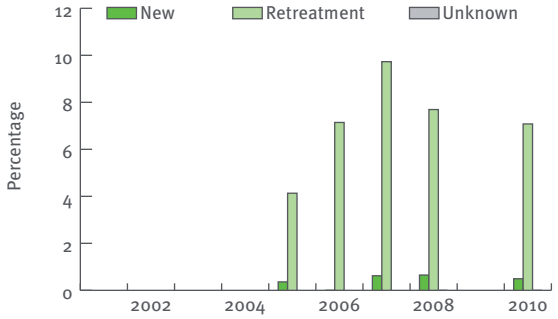
Tuberculosis cases by geographical origin, 2001–2010



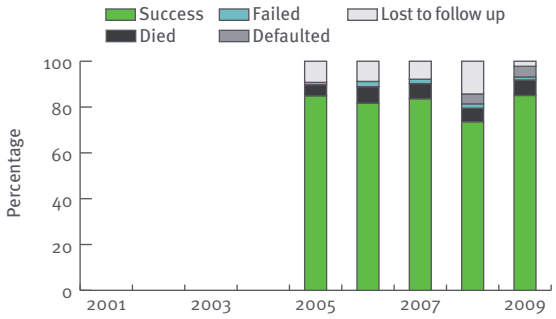
TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary definite cases, 2001–2009



Slovakia

Total population at 1 January 2010 by EUROSTAT: 5 424 925

Tuberculosis case notifications, 2010

Total number of cases	439	
Notification rate per 100 000	8.1	
New & relapses (lab+) number	389	(88.6%)
New & relapses (lab+) notification rate per 100 000	7.2	
Pulmonary	372	(84.7%)
of which smear-positive	145	(39.0%)
Culture positive of all TB cases	234	(53.3%)
Mean age of new TB cases, nationals	52.6 years	
Mean age of new TB cases, non-nationals	47.0 years	
Foreign citizens of all TB cases	8	(1.8%)
New (not previously treated)	361	(82.2%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	234	(100.0%)
Cases resistant to isoniazid	9	(3.8%)
Cases resistant to rifampicin	1	(0.4%)
MDR cases	1	(0.4%)
of which XDR cases	0	(0.0%)
Cases resistant to ethambutol	1	(0.4%)
Cases resistant to streptomycin	6	(2.6%)
TB cases tested for HIV	430	(97.9%)
HIV-positive TB cases	1	(0.2%)

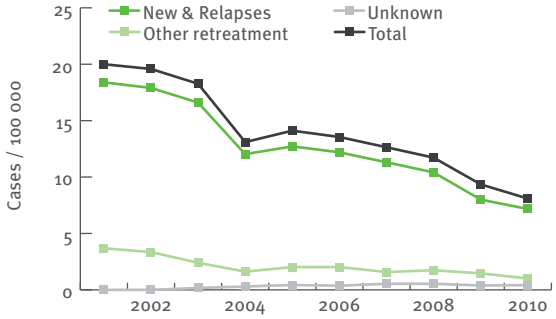
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

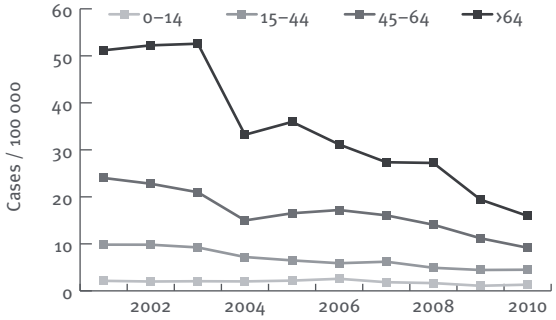
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	174	
Success	143	(82.2%)
Died	25	(14.4%)
Failed	0	(0.0%)
Defaulted	3	(1.7%)
Still on treatment	0	(0.0%)
Lost to follow up	3	(1.7%)

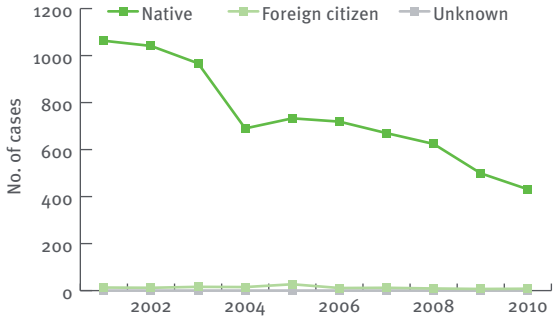
Tuberculosis notification rates by treatment history, 2001–2010



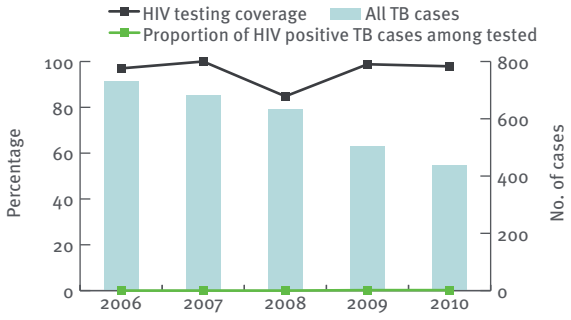
New TB cases - notification rates by age group, 2001–2010



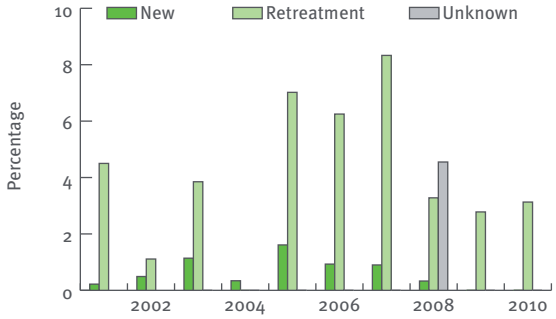
Tuberculosis cases by geographical origin, 2001–2010



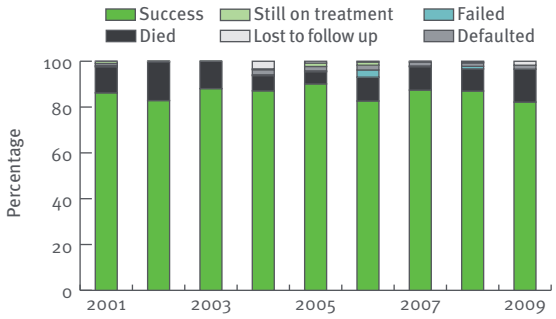
TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Slovenia

Total population at 1 January 2010 by EUROSTAT: 2 046 976

Tuberculosis case notifications, 2010

Total number of cases	172	
Notification rate per 100 000	8.4	
New & relapses (lab+) number	169	(98.3%)
New & relapses (lab+) notification rate per 100 000	8.3	
Pulmonary	142	(82.6%)
of which smear-positive	70	(49.3%)
Culture positive of all TB cases	155	(90.1%)
Mean age of new TB cases, nationals	56.2 years	
Mean age of new TB cases, non-nationals	44.0 years	
Foreign citizens of all TB cases	41	(23.8%)
New (not previously treated)	161	(93.6%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	Yes	
Cases with DST results	155	(100.0%)
Cases resistant to isoniazid	0	(0.0%)
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	2	(1.3%)
TB cases tested for HIV	131	(76.2%)
HIV-positive TB cases	1	(0.8%)

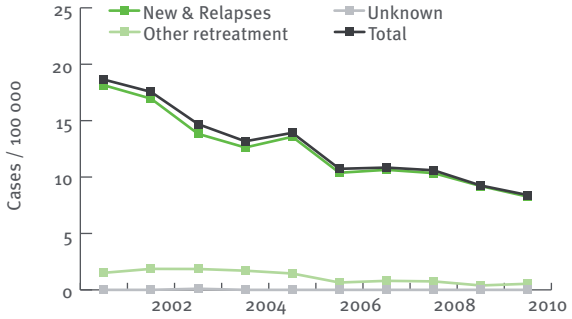
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

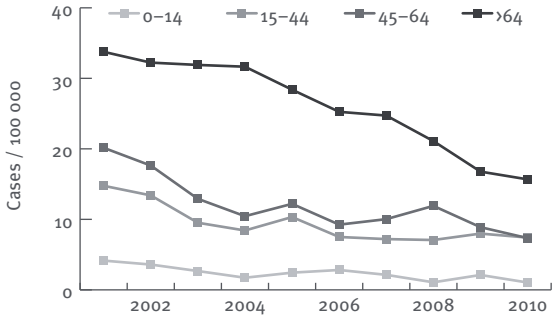
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	149	
Success	130	(87.2%)
Died	13	(8.7%)
Failed	1	(0.7%)
Defaulted	1	(0.7%)
Still on treatment	1	(0.7%)
Lost to follow up	3	(2.0%)

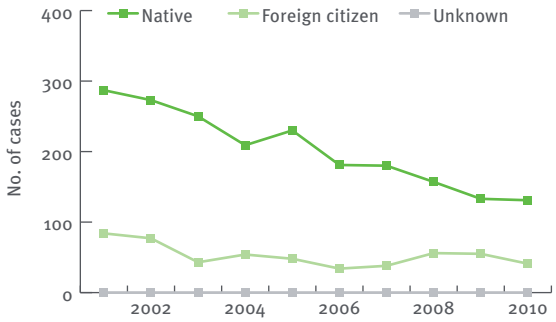
Tuberculosis notification rates by treatment history, 2001–2010



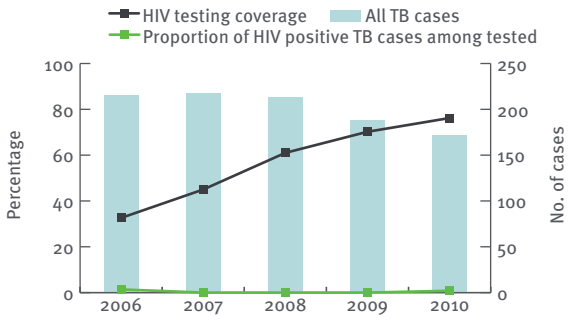
New TB cases - notification rates by age group, 2001–2010



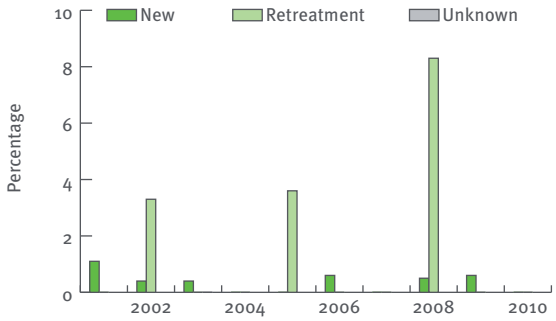
Tuberculosis cases by geographical origin, 2001–2010



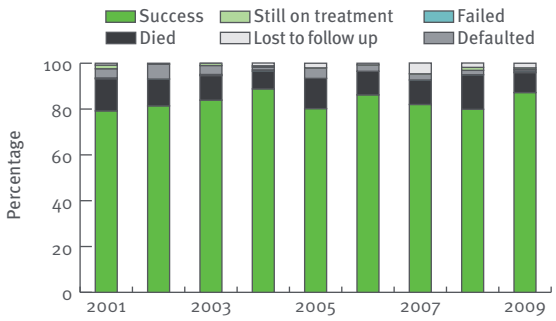
TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Spain

Total population at 1 January 2010 by EUROSTAT: 45 989 016

Tuberculosis case notifications, 2010

Total number of cases	7 089	
Notification rate per 100 000	15.4	
New & relapses (lab+) number	6 377	(90.0%)
New & relapses (lab+) notification rate per 100 000	13.9	
Pulmonary	5 238	(73.9%)
of which smear-positive	2 265	(43.2%)
Culture positive of all TB cases	3 991	(56.3%)
Mean age of new TB cases, nationals	47.2 years	
Mean age of new TB cases, non-nationals	32.9 years	
Foreign citizens of all TB cases	2 268	(32.0%)
New (not previously treated)	6 377	(90.0%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	No	
Cases with DST results	1416	(35.5%)
Cases resistant to isoniazid	109	(7.7%)
Cases resistant to rifampicin	53	(3.7%)
MDR cases	49	(3.5%)
of which XDR cases	3	(6.1%)
Cases resistant to ethambutol	-	-
Cases resistant to streptomycin	-	-
TB cases tested for HIV	3773	(53.2%)
HIV-positive TB cases	354	(9.4%)

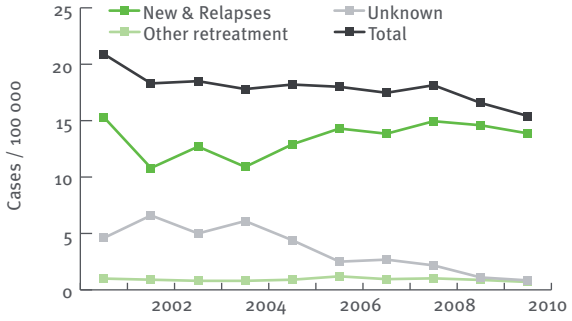
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

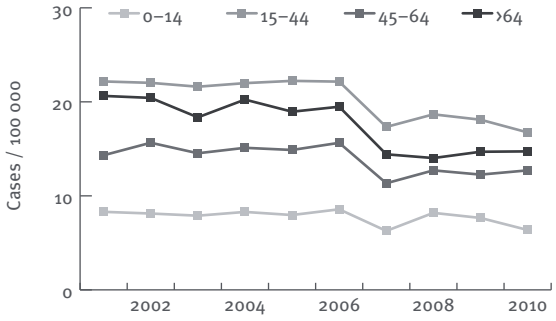
Treatment outcome monitoring, 2009

Not available

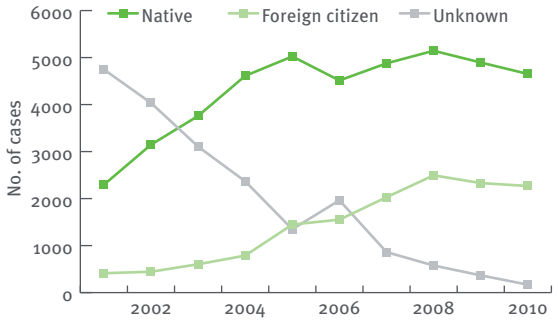
Tuberculosis notification rates by treatment history, 2001–2010



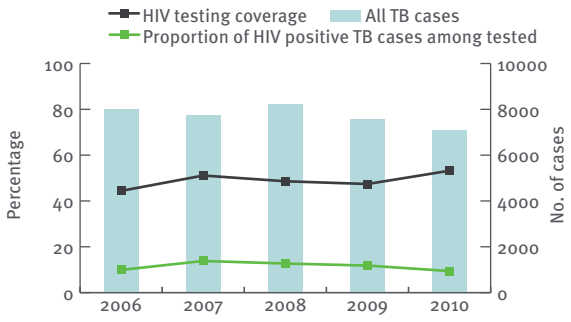
New TB cases - notification rates by age group, 2001–2010



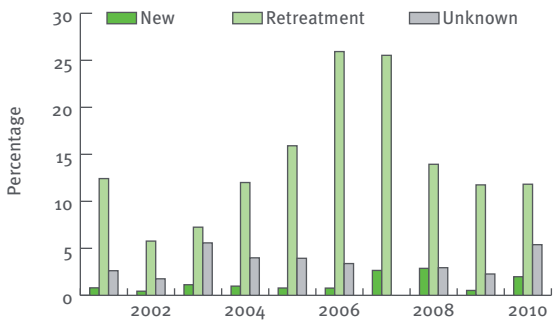
Tuberculosis cases by geographical origin, 2001–2010



TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009

Not available

Sweden

Total population at 1 January 2010 by EUROSTAT: 9 340 682

Tuberculosis case notifications, 2010

Total number of cases	675	
Notification rate per 100 000	7.2	
New & relapses (lab+) number	552	(81.8%)
New & relapses (lab+) notification rate per 100 000	5.9	
Pulmonary	419	(62.1%)
of which smear-positive	137	(32.7%)
Culture positive of all TB cases	526	(77.9%)
Mean age of new TB cases, nationals	57.6 years	
Mean age of new TB cases, non-nationals	32.0 years	
Foreign citizens of all TB cases	579	(85.8%)
New (not previously treated)	552	(81.8%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	-	
Case-linked data reporting	Yes	
Cases with DST results	524	(99.6%)
Cases resistant to isoniazid	56	(10.7%)
Cases resistant to rifampicin	20	(3.8%)
MDR cases	18	(3.4%)
of which XDR cases	0	(0.0%)
Cases resistant to ethambutol	12	(2.3%)
Cases resistant to streptomycin	19	(3.6%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-

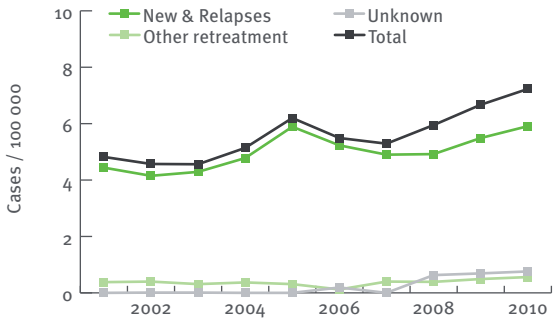
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

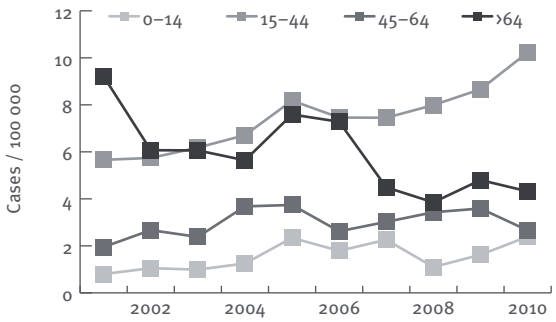
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	255	
Success	217	(85.1%)
Died	15	(5.9%)
Failed	0	(0.0%)
Defaulted	3	(1.2%)
Still on treatment	5	(2.0%)
Lost to follow up	15	(5.9%)

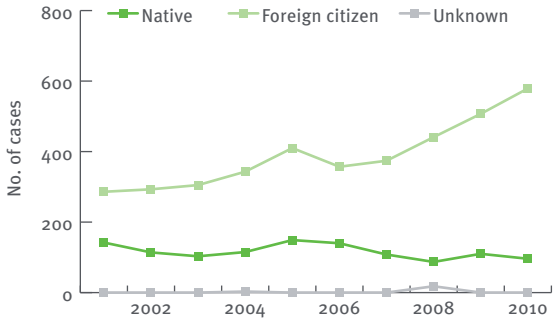
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



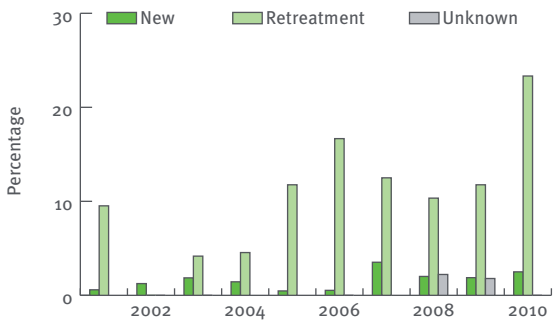
Tuberculosis cases by geographical origin, 2001–2010



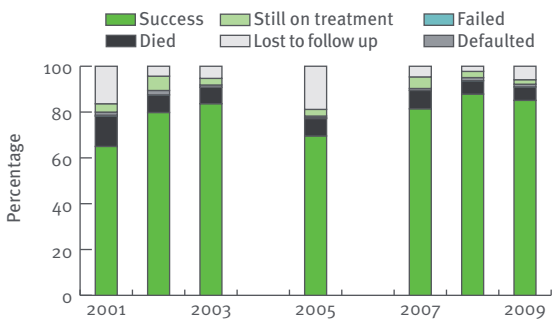
TB-HIV co-infection, 2006–2010

Not available

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Switzerland

Population estimate 2010 by UN Statistical Database: 7664318

Tuberculosis case notifications, 2010

Total number of cases	549	
Notification rate per 100000	7.2	
New & relapses (lab+) number	323	(58.8%)
New & relapses (lab+) notification rate per 100000	4.2	
New pulmonary	232	(63.4%)
of which smear-positive	82	(35.3%)
Culture positive of new TB cases	200	(86.2%)
Mean age (age group) of new TB cases	25–44 years	
Foreign citizens of all TB cases	377	(66.7%)
New (not previously treated)	323	(58.8%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	454	(96.8%)
Cases resistant to isoniazid	16	(3.5%)
Cases resistant to rifampicin	1	(0.2%)
MDR cases	9	(2.0%)
including DST results on SLD	9	(100.0%)
of which XDR cases	0	(0.0%)
TB cases tested for HIV	0	(0.0%)
HIV-positive TB cases	-	-

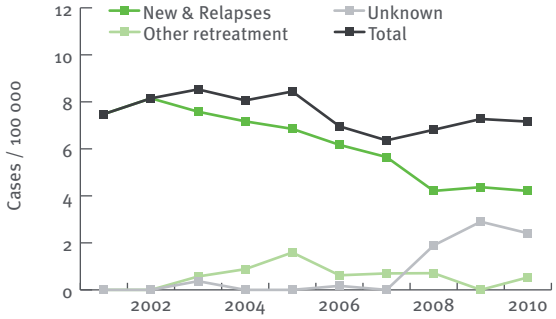
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

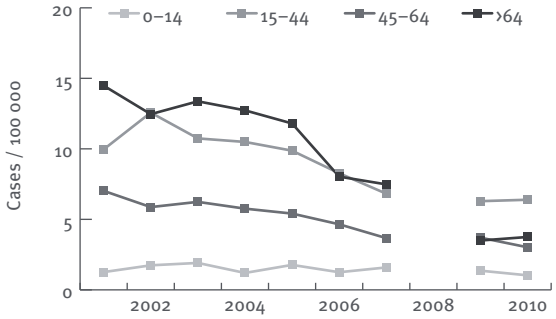
Treatment outcome monitoring, 2009

Not available

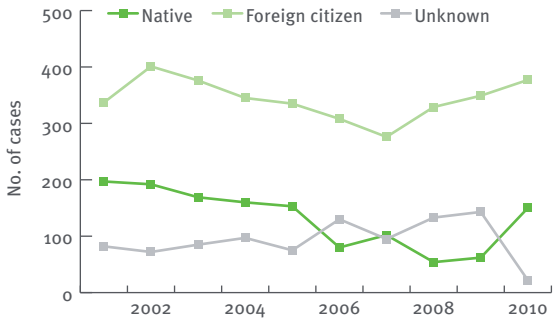
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



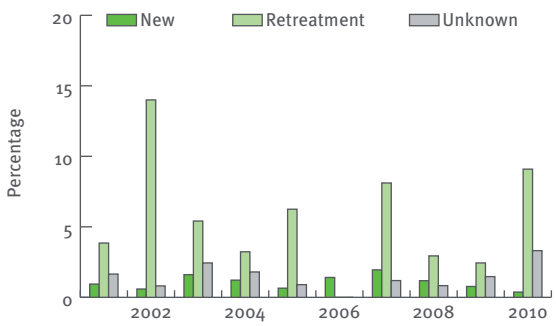
Tuberculosis cases by geographical origin, 2001–2010



TB-HIV co-infection, 2006–2010

Data not available

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary smear-positive cases, 2001–2009

Not available

Tajikistan

Population estimate 2010 by UN Statistical Database: 6 878 637

Tuberculosis case notifications, 2010

Total number of cases	7 641	
Notification rate per 100 000	111.1	
New & relapses (lab+) number	6 297	(82.4%)
New & relapses (lab+) notification rate per 100 000	91.5	
New pulmonary	4 328	(86.8%)
of which smear-positive	2 290	(52.9%)
Culture positive of new TB cases	356	(8.2%)
Mean age (age group) of new TB cases	25–44 years	
Foreign citizens of all TB cases	-	-
New (not previously treated)	5 959	(78.0%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	No	
Cases with DST results	383	(59.1%)
Cases resistant to isoniazid	316	(82.5%)
Cases resistant to rifampicin	287	(74.9%)
MDR cases	266	(69.5%)
including DST results on SLD	0	-
of which XDR cases	-	-
TB cases tested for HIV	4 049	(53.0%)
HIV-positive TB cases	100	(2.5%)

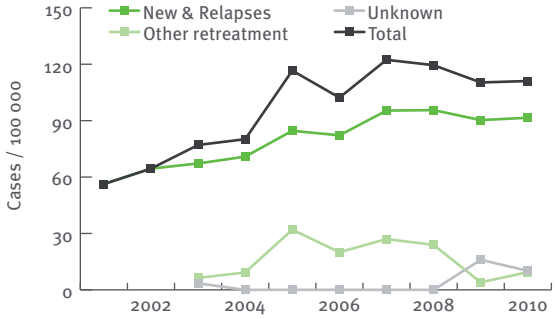
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

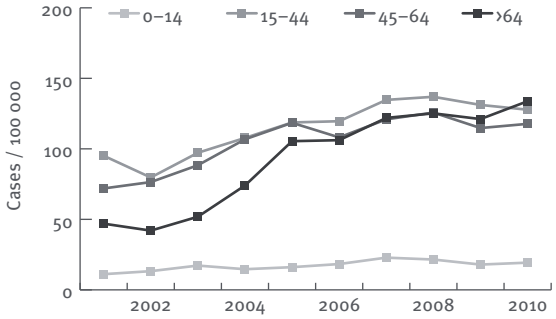
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary smear positive	
Case-linked data reporting	Yes	
Notified in 2009	1972	
Success	1604	(81.3%)
Died	87	(4.4%)
Failed	160	(8.1%)
Defaulted	94	(4.8%)
Lost to follow up	27	(1.4%)

Tuberculosis notification rates by treatment history, 2001–2010



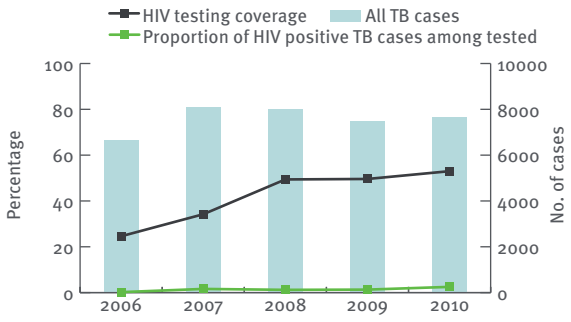
New TB cases - notification rates by age group, 2001–2010



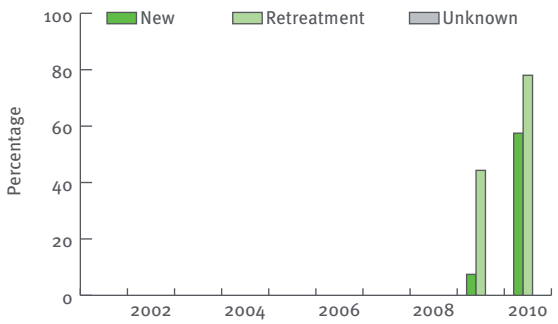
Tuberculosis cases by geographical origin, 2001–2010

Foreign citizens not reported

TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009

Turkey

Population estimate 2010 by UN Statistical Database: 72752325

Tuberculosis case notifications, 2010

Total number of cases	16551	
Notification rate per 100000	22.7	
New & relapses (lab+) number	15879	(95.9%)
New & relapses (lab+) notification rate per 100000	21.8	
New pulmonary	9566	(89.1%)
of which smear-positive	5375	(56.2%)
Culture positive of new TB cases	5245	(54.8%)
Mean age (age group) of new TB cases	25–44 years	
Foreign citizens of all TB cases	179	(1.1%)
New (not previously treated)	15183	(91.7%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	No	
Case-linked data reporting	Yes	
Cases with DST results	4957	(99.8%)
Cases resistant to isoniazid	408	(8.2%)
Cases resistant to rifampicin	85	(1.7%)
MDR cases	250	(5.0%)
including DST results on SLD	5	(2.0%)
of which XDR cases	3	(60.0%)
TB cases tested for HIV	581	(3.5%)
HIV-positive TB cases	14	(2.4%)

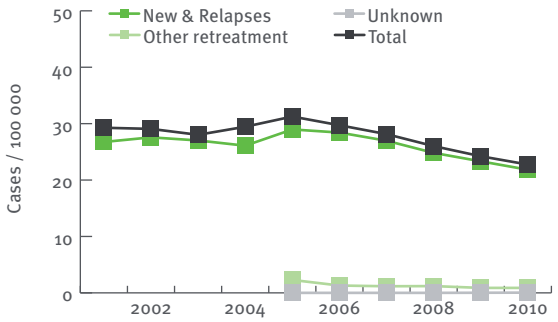
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

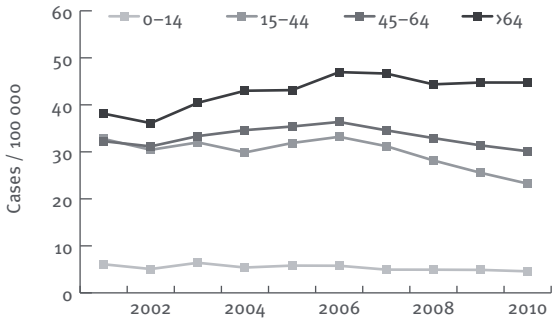
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary smear positive	
Case-linked data reporting	Yes	
Notified in 2009	6007	
Success	5456	(90.8%)
Died	187	(3.1%)
Failed	44	(0.7%)
Defaulted	141	(2.3%)
Lost to follow up	179	(3.0%)

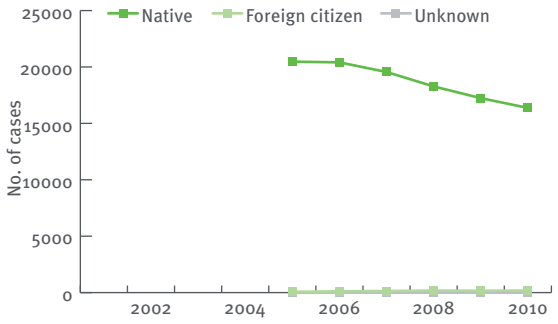
Tuberculosis notification rates by treatment history, 2001–2010



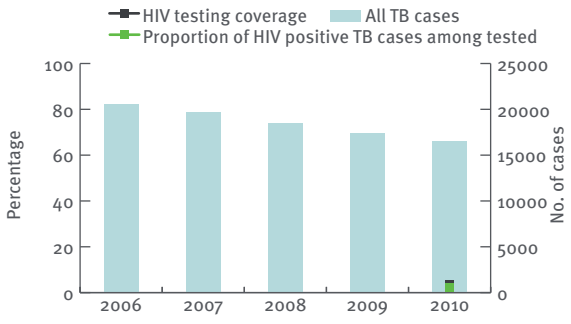
New TB cases - notification rates by age group, 2001–2010



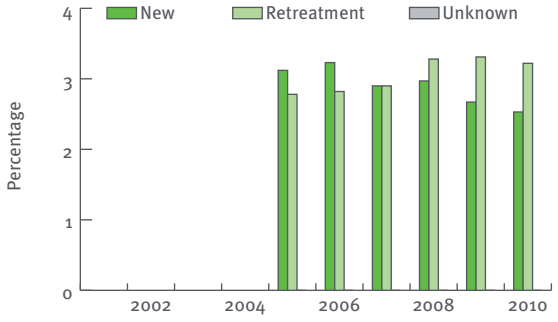
Tuberculosis cases by geographical origin, 2001–2010



TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary smear-positive cases, 2001–2009

Turkmenistan

Population estimate 2010 by UN Statistical Database: 5041995

Tuberculosis case notifications, 2010

Total number of cases	3230	
Notification rate per 100000	64.1	
New & relapses (lab+) number	3230	(100.0%)
New & relapses (lab+) notification rate per 100000	64.1	
New pulmonary	2401	(96.7%)
of which smear-positive	1153	(48.0%)
Culture positive of new TB cases	0	(0.0%)
Mean age (age group) of new TB cases	25–44 years	
Foreign citizens of all TB cases	-	-
New (not previously treated)	3148	(97.5%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	No	
Cases with DST results	144	(85.2%)
Cases resistant to isoniazid	27	(18.8%)
Cases resistant to rifampicin	5	(3.5%)
MDR cases	38	(26.4%)
including DST results on SLD	-	-
of which XDR cases	-	-
TB cases tested for HIV	3230	(100.0%)
HIV-positive TB cases	0	(0.0%)

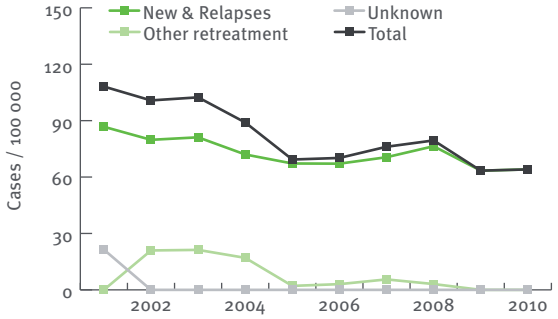
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

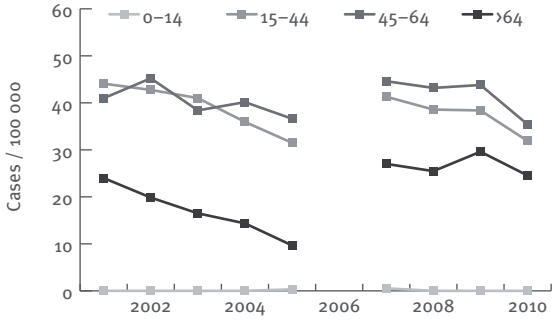
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary smear positive	
Case-linked data reporting	Yes	
Notified in 2009	1375	
Success	1152	(83.8%)
Died	65	(4.7%)
Failed	85	(6.2%)
Defaulted	63	(4.6%)
Lost to follow up	10	(0.7%)

Tuberculosis notification rates by treatment history, 2001–2010



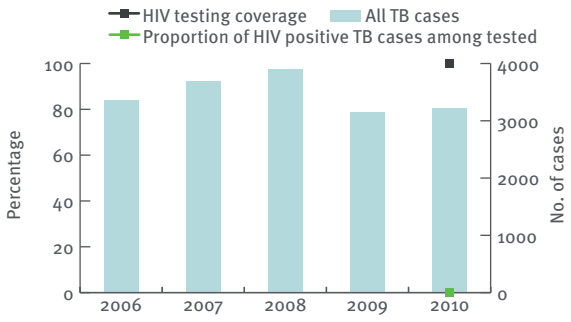
New TB cases - notification rates by age group, 2001–2010



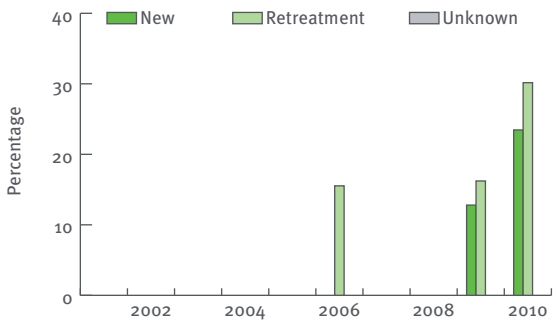
Tuberculosis cases by geographical origin, 2001–2010

Foreign citizens not reported

TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary smear-positive cases, 2001–2009

Ukraine

Population estimate 2010 by UN Statistical Database: 45448329

Tuberculosis case notifications, 2010

Total number of cases	36409	
Notification rate per 100000	80.1	
New & relapses (lab+) number	33857	(93.0%)
New & relapses (lab+) notification rate per 100000	74.5	
New pulmonary	27575	(85.1%)
of which smear-positive	9976	(36.2%)
Culture positive of new TB cases	0	(0.0%)
Mean age (age group) of new TB cases	25–44 years	
Foreign citizens of all TB cases	-	-
New (not previously treated)	31295	(86.0%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	No	
Cases with DST results	14034	(94.3%)
Cases resistant to isoniazid	972	(6.9%)
Cases resistant to rifampicin	719	(5.1%)
MDR cases	5336	(38.0%)
including DST results on SLD	-	-
of which XDR cases	-	-
TB cases tested for HIV	34621	(95.1%)
HIV-positive TB cases	4501	(13.0%)

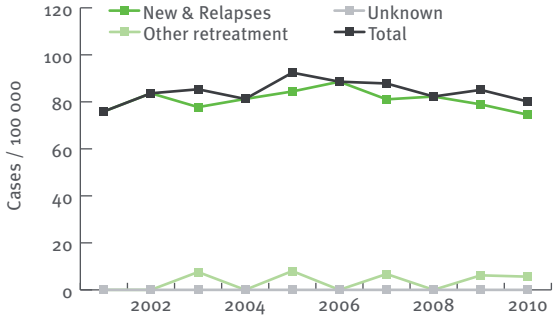
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

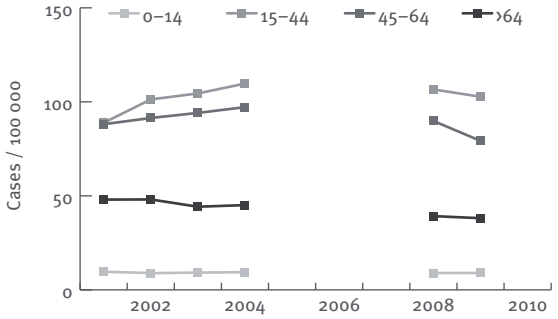
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary smear positive	
Case-linked data reporting	Yes	
Notified in 2009	13111	
Success	7822	(59.7%)
Died	1712	(13.1%)
Failed	2084	(15.9%)
Defaulted	1037	(7.9%)
Lost to follow up	456	(3.5%)

Tuberculosis notification rates by treatment history, 2001–2010



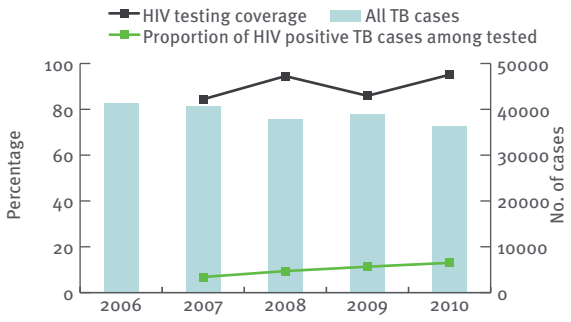
New TB cases - notification rates by age group, 2001–2010



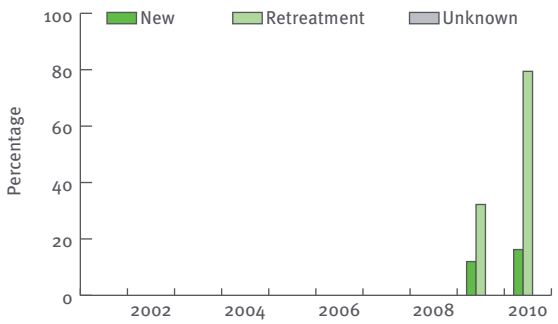
Tuberculosis cases by geographical origin, 2001–2010

Foreign citizens not reported

TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary smear or culture-positive cases, 2001–2009

United Kingdom

Total population at 1 January 2010 by EUROSTAT: 62 026 962

Tuberculosis case notifications, 2010

Total number of cases	8 483	
Notification rate per 100 000	13.7	
New & relapses (lab+) number	7 219	(85.1%)
New & relapses (lab+) notification rate per 100 000	11.6	
Pulmonary	4 488	(52.9%)
of which smear-positive	1 410	(31.4%)
Culture positive of all TB cases	4 908	(57.9%)
Mean age of new TB cases, nationals	42.3 years	
Mean age of new TB cases, non-nationals	38.3 years	
Foreign citizens of all TB cases	5 816	(68.6%)
New (not previously treated)	7 219	(85.1%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	Yes	
Completeness of TB-HIV data**	-	
Case-linked data reporting	Yes	
Cases with DST results	4603	(93.8%)
Cases resistant to isoniazid	293	(6.4%)
Cases resistant to rifampicin	70	(1.5%)
MDR cases	60	(1.3%)
of which XDR cases	3	(5.0%)
Cases resistant to ethambutol	35	(0.8%)
Cases resistant to streptomycin	194	(4.2%)
TB cases tested for HIV	-	-
HIV-positive TB cases	-	-

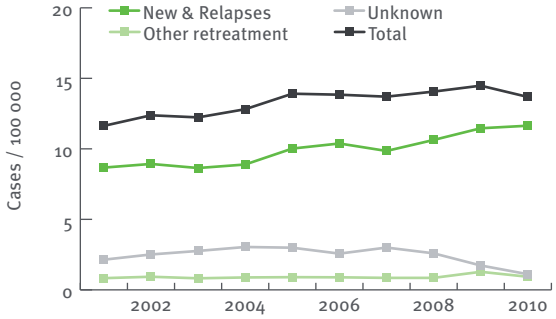
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV

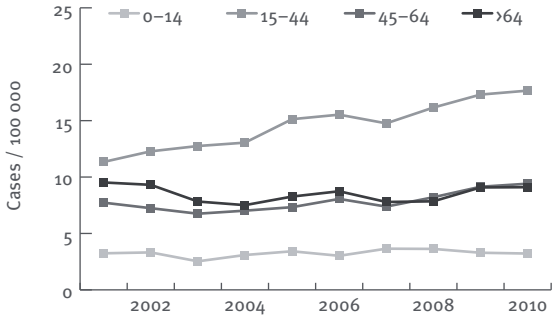
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary culture positive	
Case-linked data reporting	Yes	
Notified in 2009	2569	
Success	2119	(82.5%)
Died	145	(5.6%)
Failed	0	(0.0%)
Defaulted	125	(4.9%)
Still on treatment	96	(3.7%)
Lost to follow up	84	(3.3%)

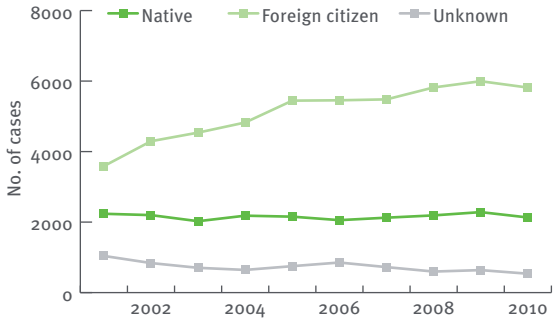
Tuberculosis notification rates by treatment history, 2001–2010



New TB cases - notification rates by age group, 2001–2010



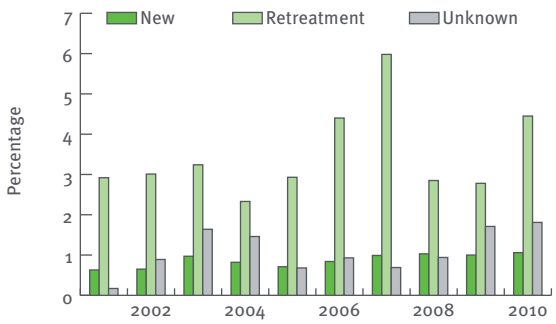
Tuberculosis cases by geographical origin, 2001–2010



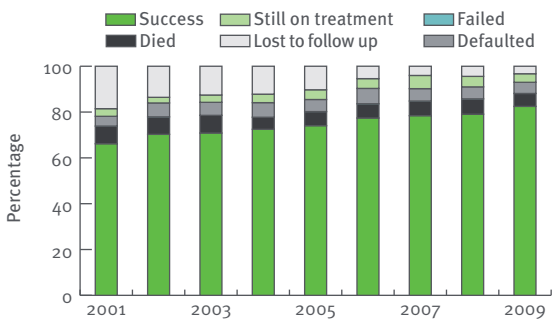
TB-HIV co-infection, 2006–2010

Not available

MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary culture-positive cases, 2001–2009



Uzbekistan

Population estimate 2010 by UN Statistical Database: 27444702

Tuberculosis case notifications, 2010

Total number of cases	20330	
Notification rate per 100000	74.1	
New & relapses (lab+) number	16883	(83.0%)
New & relapses (lab+) notification rate per 100000	61.5	
New pulmonary	11446	(83.8%)
of which smear-positive	4711	(41.2%)
Culture positive of new TB cases	2972	(26.0%)
Mean age (age group) of new TB cases	25–44 years	
Foreign citizens of all TB cases	-	-
New (not previously treated)	15734	(77.4%)

Drug resistance surveillance & TB-HIV co-infection, 2010

Completeness of DRS data*	No	
Completeness of TB-HIV data**	Yes	
Case-linked data reporting	No	
Cases with DST results	4025	(96.6%)
Cases resistant to isoniazid	403	(10.0%)
Cases resistant to rifampicin	19	(0.5%)
MDR cases	1023	(25.4%)
including DST results on SLD	364	(35.6%)
of which XDR cases	16	(4.4%)
TB cases tested for HIV	20330	(100.0%)
HIV-positive TB cases	427	(2.1%)

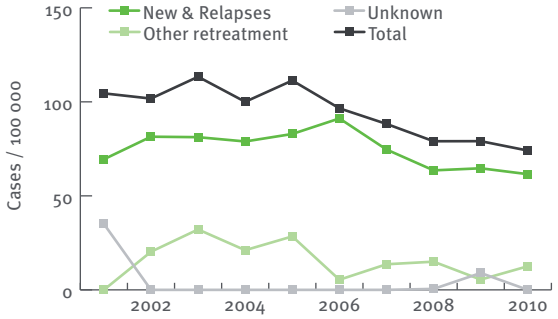
* National coverage 100% or culturing 90%, C+/All TB cases 50%, DST done for C+ 75%, EQA 95%

** More than 50% of TB cases tested for HIV.

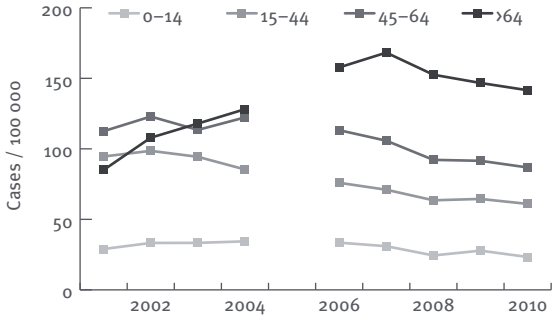
Treatment outcome monitoring, 2009

Geographical coverage	National	
Outcome cohort	New pulmonary smear positive	
Case-linked data reporting	Yes	
Notified in 2009	4959	
Success	4037	(81.4%)
Died	296	(6.0%)
Failed	270	(5.4%)
Defaulted	232	(4.7%)
Lost to follow up	124	(2.5%)

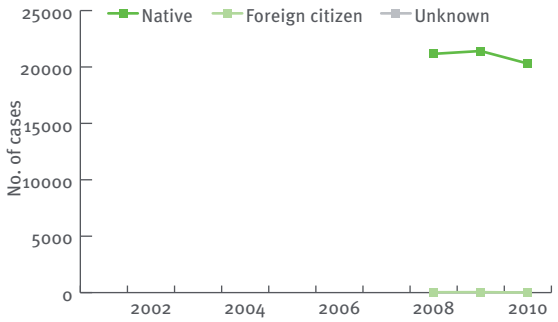
Tuberculosis notification rates by treatment history, 2001–2010



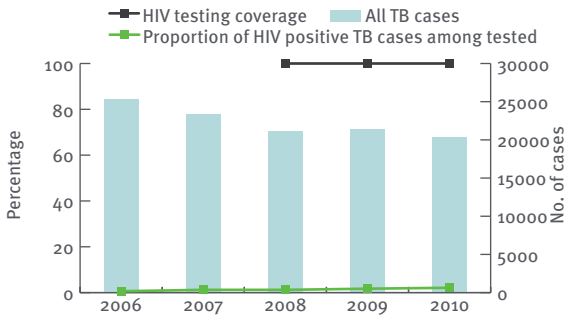
New TB cases - notification rates by age group, 2001–2010



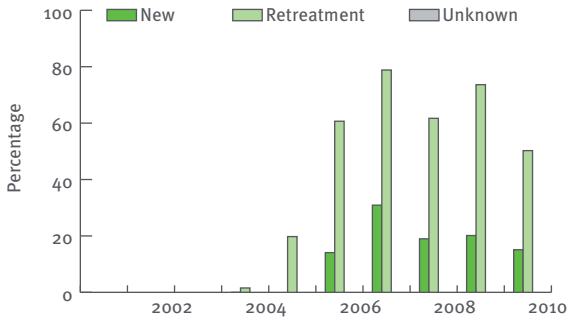
Tuberculosis cases by geographical origin, 2001–2010



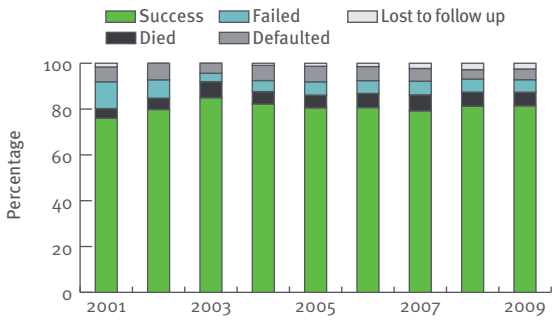
TB-HIV co-infection, 2006–2010



MDR TB cases by previous treatment history, 2001–2010



Treatment outcome, new pulmonary smear-positive cases, 2001–2009



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European Centre for Disease Prevention and Control (ECDC)

Postal address:
ECDC, 171 83 Stockholm, Sweden

Visiting address:
Tomtebodavägen 11A, Solna, Sweden

Phone +46 (0)8 58 60 1000
Fax +46 (0)8 58 60 1001
www.ecdc.europa.eu

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