

Tuberculosis cases reported in 1995

Table of contents

1. Methods
2. Feasibility
3. Tuberculosis cases notified in 1995
4. Patient's characteristics
5. Characteristics of the disease
6. Conclusion
7. References
8. Map
9. Tables
10. Figures
11. Participants

1. Methods

Contacts were established with health authorities in each of the 50 countries. Participation was proposed on a voluntary basis. Each country was requested to appoint one national correspondent.

A preliminary survey was conducted in September 1996 to collect information on national tuberculosis notification systems. Results of this survey were used to prepare the protocol for data collection.

Case definition

The European consensus definition of a notifiable case of tuberculosis [1] was used:

- **definite case** : in countries where level II laboratories (capable of identification of *M. tuberculosis* complex) are routinely available, a definite case of tuberculosis is a case with culture-confirmed disease due to *M. tuberculosis* complex. In countries where routine culturing of specimens cannot be afforded or expected, a patient with sputum smear examinations positive for acid-fast bacilli (AFB) is also considered to be a definite case.
- **other than definite case** : a case meeting both of the following conditions: 1) a clinician's judgement that the patient's clinical and/or radiological signs and/or symptoms are compatible with tuberculosis, and 2) a clinician's decision to treat the patient with a full course of anti-tuberculosis treatment.

All definite and other than definite incident cases notified in 1995 at national level were reportable.

Data collection

Data collected were based on the minimum set of information recommended to be reported on each case [1]:

- year of national report
- country of national report
- patient's characteristics
 - age at the start of treatment ;
 - gender ;
 - geographic origin according to place of birth.
- characteristics of the disease
 - new versus recurrent case (definitions left to the country) ;
 - site of disease, defined as pulmonary (involving the lung parenchyma and the tracheo-bronchial tree only), extra-pulmonary, or both ;
 - bacteriological confirmation based on positive results of the culture ;
 - results of smear examination for AFB (on spontaneously produced sputum).

Individual anonymous computerised data were requested. The choice of the software was left to the country concerned. When individual data could not be provided, countries were requested to complete six pre-defined tables including the distribution of cases by categories of the relevant variables. It was agreed that national correspondents should be responsible for the quality of the national data provided.

It was anticipated that information collected at national level in 1995 would not always fit the recommended format and definitions. To circumvent this problem, countries were offered several options :

- geographic origin
 - countries providing individual computerised data were requested to provide the country of birth, otherwise to report (by decreasing order of preference): the patient's origin based on birth place (country of report or abroad) as a binary variable, the country of citizenship, or the origin based on citizenship (binary variable).
 - countries providing aggregate data were requested to indicate which definition (birth place or citizenship) they used to classify cases by geographic origin. .
- site of disease
 - countries providing individual computerised data were requested to provide the specific major and minor site of the disease, otherwise to report the case as pulmonary versus extra-pulmonary, or as respiratory versus extra-respiratory. Respiratory tuberculosis is the category used in the International Classification of Disease (ICD9 or ICD10) and includes pulmonary tuberculosis as well as pleural and intra-thoracic lymphatic tuberculosis.
 - countries providing aggregate data were requested to indicate which definition (pulmonary or respiratory) they used to classify cases by site of disease.
- bacteriological confirmation
 - countries providing individual data were requested to provide two variables for each examination (culture and sputum smear), the first variable indicating whether the examination was performed, and the second variable indicating its results.
 - countries providing aggregate data were requested to classify cases as bacteriologically confirmed or not.

All countries were requested to indicate whether they used the recommended case definition of a "definite" case (case with positive culture), or whether cases could be confirmed by either positive culture or positive sputum smear.

Material for data collection and correspondence was prepared in English and Russian. The data collection lasted from December 1996 to July 1997.

Population data

Notification rates of incident tuberculosis cases in 1995, referred to in this report as "incidence rates of notified tuberculosis", were calculated per 100 000 population, based on United Nations demographic data [2]. Rates may not fully reflect true tuberculosis incidence rates due to underreporting and other potential problems.

2. Feasibility

Communication

On average, three contacts per country were necessary to obtain and verify the data. All communication tools were used: telephone, fax, electronic mail and conventional mail. Communication was difficult with some countries, particularly some Asian republics of the former USSR. This may have hindered the validation of information reported from these countries.

A national correspondent was identified in 49 of the 50 countries of the WHO European region (98%). No contact could be established in Ukraine.

Country participation

Forty eight countries sent data on tuberculosis cases notified in 1995. Among these 48 countries, 19 (40%) provided individual computerised data, 22 (46%) provided aggregate data, five (10%) provided a total number of cases without further description and two countries (4%), Georgia and Tajikistan, sent information which either was too incomplete or could not be validated on time. One country, Croatia, could not send data because of administrative constraints.

After validation, a total number of tuberculosis cases notified in 1995 was included for 46 countries, and data from 41 countries were included in the overall description of the cases.

Case definition

Among the 46 countries reporting a total number of cases notified in 1995, 43 (93%) included all incident (new and recurrent) definite and other than definite cases as recommended, two (Greece and Kazakhstan) reported only the total number of new cases, and one (Spain) reported only the total number of new respiratory cases.

Among the 41 countries providing detailed information on the characteristics of the cases, eight (19%) provided this information on incident new cases only. Data for those countries are presented separately. Through contacts with national correspondents and by examining the data provided, it was observed that 15 of these 41 countries (37%) did not report tuberculosis cases in foreign citizens; of these, two also mentioned that prisoners and military personnel were not included.

Data availability

Data availability was evaluated among the 41 countries providing detailed information on notified cases:

- information on age was available as exact age (in years) or according to recommended age groups in 33 countries (80%) and according to different age groups in 7 countries (17%). One country, Turkey, could not provide this information for 1995.
- information on gender was available in all but one country (Turkey).

- geographic origin of the patient was reported by 21 countries (51%), of which eight reported the country of birth, two reported the origin as born in the country or abroad, six reported the country of citizenship and five reported the origin as national or foreign citizen. Among the two latter groups, the Netherlands included Dutch patients born abroad to mothers of foreign origin in the category of "foreign citizens", and Israel included foreign patients applying for Israeli nationality in the category of "national citizens".
- new or recurrent status of the case was provided by 34 countries (83%). Only a few countries provided the national definition of a new and a recurrent case. Definitions were not consistent across countries.
- site of disease was reported in 39 countries (95%): 13 provided the specific major site (among which 10 also provided the minor site), 10 reported cases as pulmonary or extra-pulmonary, and 16 reported cases as respiratory or extra-respiratory. Information from the two remaining countries, Azerbaijan and Turkmenistan, could not be included because of validation problems.
- bacteriological confirmation of the cases was available in 34 countries (83%). The type of confirmation varied across countries and was not necessarily dependent on the availability of level II laboratories in the country : nine countries used the positive culture (as recommended) and 25 used either positive culture or positive sputum smear for defining a case as bacteriologically confirmed.
- results of sputum smear examination were reported by 27 countries (66%).

Completeness of individual information

Completeness of information was evaluated for the 19 countries providing individual computerised data.

In countries which provided variables describing patient's characteristics, the proportion of missing values was very low, with a maximum of 10% in France for the variable geographic origin.

For variables describing the characteristics of the disease :

- new or recurrent status of the case
In five countries (Denmark, France, Finland, Italy, Sweden), information was missing for more than 10% (28% to 94%) of the cases. It was decided to include information only for those countries with less than 30% of the cases with unknown status.
- site of the disease
The proportion of missing values was very low for the major site, with a maximum of 3% in Luxembourg. For the minor site, the proportion of missing values was high (70% to 99%) in all 10 countries providing this variable. However, this could reflect the absence of minor site as well as incomplete information.
- bacteriological information
For the variables indicating whether bacteriological examinations were performed, the proportion of missing values varied across countries, ranging from 0% to 36% for the culture, and from 0% to 61% for the sputum smear examination. Cases for whom it was not known whether the examination had been done may have been erroneously coded as "examination not done", as suggested by the absence of missing values for these variables in a few countries. In most countries, whether the examination was done for an individual patient was known only if a result (positive or negative) was reported. Thus, the proportion of missing results was 0% among cases reported as having the examination performed in those countries (12 of the 16 countries reporting sputum smear results, eight of the 17 countries reporting culture results). In some countries, only positive results were reported: this reporting

pattern was observed in Czech Republic and France for the sputum smear examination, and in Denmark, Finland, Luxembourg and Norway for the culture.

3. Tuberculosis cases notified in 1995

In 1995, 276 811 cases of tuberculosis were notified in 46 countries of the WHO European Region (Table1). The incidence rate of notified tuberculosis was 34.6 cases per 100 000 population. The rate varied between countries from 2.7 per 100 000 in Malta to 101.9 cases per 100 000 in Romania, with a median rate of 23 cases per 100 000.

The incidence rate was lower than 20 per 100 000 in 22 countries (Group 1), among which 11 met the definition of "low incidence country" [3], i.e. a country with annually less than 10 notified cases per 100 000 population (see Map). The rate was 20 cases per 100 000 or over in 24 countries (Group 2). Except for Albania, the Czech Republic and Israel, Group 1 countries were mostly located in the western part of Europe. They accounted for 44% of the population but notified 16% of the cases of the 46 participating countries. Group 2 countries were mostly situated in the eastern part of Europe, with the exception of Portugal and Spain. They accounted for 56% of the population and notified 84% of the cases.

In the European Union (EU), 54 133 cases were notified in 1995. The incidence rate was 14.5 cases per 100 000 population, ranging from 6.4 in Sweden to 56.8 in Portugal. Among the 15 EU countries, 13 were in Group 1 (< 20 cases per 100 000).

The figures reported differed slightly from those published by WHO (World Health Organisation - Global Tuberculosis Programme. Global Tuberculosis Control. WHO Report 1997. Geneva, Switzerland. *WHO/TB/97.225*). This is due to the fact that WHO figures were collected several months prior to those presented in this report, and as such, were often preliminary.

4. Patients' characteristics

Age distribution of the total number of cases could be described according to recommended age groups in 32 countries reporting a total of 107 096 cases. Among these cases, 4% were reported in children (1% in children under five, 3% in the 5 to 14 age group), 77% in adolescents and adults less than 65 years old (11% in the 15 to 24 years age group, 18% in the 25 to 34 group, 20% in the 35 to 44 group, 15% in the 45 to 54 group, 13% in the 55 to 64 group) and 19% in patients aged 65 or more.

Overall, 1.8 times more male than female tuberculosis patients were reported in the 32 countries mentioned above. By country, the sex ratio ranged from 1.0 to 2.6 (median 1.5). It was 1.0 in three countries : Sweden, Iceland (12 cases) and San Marino (2 cases). Seven countries reported more than twice as many cases in males as in females: Armenia, Azerbaijan, the three Baltic states (Estonia, Latvia, Lithuania), Moldova and Romania. The sex ratio was close to 1 among patients aged less than 25 years as well as in patients aged 64 years and over. However, the number of males exceeded that of females in patients between 25 and 64 years of age, with a maximum male to female ratio of 2.9 in the group aged 45 to 54 (Figure 1).

The age distribution varied across countries. The 18 countries in Group 1 (with incidence rate lower than 20 per 100000) reported a higher proportion of cases in children than the 14 countries in Group 2 : 2% versus 1% in the group 0 to 4, 3% versus 2% in the 5 to 14 years. In adults and adolescents however, the age distribution of cases was shifted towards older age groups in Group 1 compared to Group 2 countries : 27% of the cases in Group 1 were reported in patients aged 65 years or more as compared to 14% in Group 2, while proportionally less cases were reported in the 15-24 age group in Group 1 than in Group 2 (4% versus 13%). This shift towards older age groups in Group 1 countries was even more marked after exclusion of cases reported in patients of foreign origin (data not shown). It is known that countries with low incidence of tuberculosis report proportionally more cases in older age groups mainly due to reactivation of ancient *M. tuberculosis* infection. However, the lower proportion of children in countries notifying more than 20 cases per 100 000 annually is not consistent

and may be due to underreporting. Age and sex distribution of cases in individual countries is illustrated for 29 countries reporting at least 30 cases in 1995 (Country Profiles).

In the same 32 countries, age and sex-specific incidence rates (Figure 2) were lowest in the younger age groups, then increased with age. In males, the incidence rate increased steadily up to the 35-44 age group and remained stable above 44 years of age. In females, incidence rate peaked first in the 25-34 group and again in the older age group (64 years and over). Below 25 years of age, incidence rates were similar in males and in females. Above 24 years, the incidence rate in males was higher than in females (twice as high above 34 years of age). These overall trends resulted from patterns which differed by country, as illustrated by the age and sex-specific incidence rate curves in individual countries (Country Profiles) .

Information on the geographic origin of the patient was available as a binary variable in 21 countries, including 10 defining the origin by the birth place and 11 defining the origin by the citizenship of the patient (Table 2)). In the 10 countries classifying cases according to birth place, the proportion of cases in foreign-born patients varied dramatically from 1% to 56% (median 40%). Excluding San Marino which reported only 2 cases, four countries (Luxembourg, Denmark, Norway and Sweden) reported more than 40% of their cases in foreign-born patients. In the 11 countries classifying cases according to citizenship, the proportion of cases in foreigners ranged from 1% to 62% (median 24%). Five countries (Belgium, France, Germany, Switzerland and the Netherlands) reported 25% or more of the cases in foreign citizens. Differences in proportion of patients of foreign origin should be interpreted with caution, considering between country differences in the definition of foreign origin as well as in policies regarding acquisition of nationality. In addition, separate population figures for foreign and national populations in each country should be obtained in order to compare incidence rates rather than proportions.

The specific country of birth or of citizenship was available for 14 countries, of which 12 reported at least 5% of cases in patients of foreign origin (Table 4) . Among the seven countries reporting the patient's country of birth, African origin accounted for the highest proportion of foreign-born patients in Denmark and Finland, European origin in Luxembourg and Slovenia, Asian origin in Malta and Norway, and Iceland reported only one case in a foreign-born patient. Among the five countries reporting the patient's country of citizenship, Europe was the most frequent origin of foreign patients reported in Austria and Switzerland, whereas African origin was most frequent in foreign patients from Belgium, Italy and the Netherlands.

5. Characteristics of the disease

Among 34 countries with information on the new or recurrent status of the cases (Table 4) , an overall proportion of 10% of recurrent cases was reported among a total number of 226 785 cases. The proportion varied from 0% in Iceland, Malta and San Marino (all reporting less than 30 cases) to 23% in Norway (median 8%). The proportion of recurrent cases differed slightly between Group 1 and Group 2 countries. It varied from 3% to 23% in Group 1 (median 9.5%) and from 2% to 17% in Group 2 (median 8%).

According to age, the proportion of recurrent cases was small below 15 years of age (less than 2%), increased with age up to a maximum proportion of 15% in the group 55-64 and then decreased slightly to 14% in patients over 64 years of age. This trend appeared to result from different patterns: a proportion of recurrent cases increasing steadily with age to a maximum in patients over 64 in Group 1 countries, and a maximum proportion of recurrent cases in patients aged 45 to 64 in Group 2 countries. These differences might result from misclassification of cases in older patients due to difficulties in recalling past episodes of tuberculosis. However, it is difficult to interpret differences in proportions of recurrent cases because of between-country differences in definitions of recurrence.

Thirty-two countries documented the site of the disease for all incident (new and recurrent) cases (N=135 743), 22 using the pulmonary and 10 the respiratory classification (Table 5). Among the 22 countries using the pulmonary classification, 80% of the cases were reported as having pulmonary tuberculosis, alone or associated with extra-pulmonary site. The proportion varied by country from 42% to 100%. Eighteen of the 22 countries reported results of the sputum smear examination. Among the 67 709 cases notified in these 18 countries, the proportion reported as sputum smear positive was

40%, ranging by country from 17% to 50% (excluding San Marino). Sputum smear positive cases represented 49% of the cases reported with pulmonary tuberculosis. The 10 countries using the respiratory classification reported 90% of their cases as having respiratory tuberculosis, alone or associated with extra-respiratory site. The proportion varied from 65% in Albania to 95% in Turkey. Six of these countries reported results of sputum smear examination, among which 31% of the patients were reported as smear positive, i.e. 35% of the respiratory cases.

Six countries reported the site of the disease for new cases only (N=98 056), all using the respiratory classification (Table 6). The proportion of cases with respiratory tuberculosis was 93% in those countries. Three countries reported sputum smear results in their patients, among which 35% of the cases were smear positive.

The site of the disease differed by age group. The proportion of cases having extra-pulmonary tuberculosis was highest in children (36% in children under five, 41% in the group aged 5 to 14), decreased with age (25% in the 15-24 group, 20% in the 25-34 group, 17% between 35 and 64 years of age) then increased again to 20% in patients over 64. Among countries using the respiratory classification of the disease, the proportion of cases with extra-respiratory tuberculosis was also highest in children, was lowest (8%) in the 15 to 24 year-old patients then increased again to 15% in patients over 64 years of age.

Detailed description of the sites of the disease was possible for 10 countries reporting on both the major and the minor site for their 49 379 cases. These countries were both from Group 1 and Group 2. Among a total number of 51 101 sites reported in these patients (1.03 site per patient), the pulmonary localisation accounted for 82%. Other sites involved were, by decreasing order of frequency : pleural localisation (9%), intra-thoracic lymphatic, extra-thoracic lymphatic and genito-urinary localisation (2% respectively), other sites representing 1% or less of the sites involved. Disseminated tuberculosis accounted for 431 sites (1%), including 238 associated with pulmonary tuberculosis (this association includes miliary tuberculosis), and 193 not involving the lung parenchyma. Tuberculosis of the spine, tuberculous meningitis, other sites of the central nervous system, peritoneal and digestive sites were reported rarely and mainly as a single site of disease.

The association of sites in the same patient is described for children under five and for other patients. Overall, only 4% of the patients had more than one site involved: 3% had pulmonary tuberculosis associated with an extra-pulmonary localisation. Among these patients, the sites most frequently involved were the pleural (49%), the intra-thoracic lymphatic (24%) and the disseminated (13%) sites. Two or more extra-pulmonary sites were involved in 1% of the patients. The association of sites was more frequent in children under five (39%) than in other patients (4%) : most of these associations concerned a pulmonary together with an extra-pulmonary site, which are the sites usually involved in primary tuberculosis. A unique extra-pulmonary site was more frequent in children under five (34%) than in other patients (14%).

Information on bacteriological confirmation of the cases was available on all new and recurrent cases (N=81 764) in 27 countries, 9 using the recommended standard for confirmation, i.e. the positivity of the culture, and 18 requiring either one of the culture or the sputum smear positivity for confirmation (Table 7). In the first group, the proportion of cases confirmed by culture was 55%, varying from 44% in Hungary to 82% in Sweden. In the second group, the overall proportion of cases confirmed by culture or by sputum smear examination was 52%, varying from 28% in Uzbekistan to 91% in Denmark (excluding San Marino).

In the seven countries providing information on bacteriological confirmation for new cases only (Table 8), 43% of the 98 995 cases were bacteriologically confirmed.

In the 17 countries providing individual data, culture was reported to have been performed on 86% of the 54 896 cases. This proportion varied from 52% in the Netherlands and Italy to 100% in Poland. The proportion of total cases with positive culture was 44%, ranging from 30% in Estonia to 90% in Denmark. The proportion of cases confirmed by culture was more than two fold higher for pulmonary cases than for extra-pulmonary cases (48% versus 22%). In the 14 countries reporting on both culture and smear results, the proportion of cases with pulmonary localisation and positivity on both culture and sputum smear was low: 24% of the total cases (29% of the pulmonary cases). It was lower than

the 39% of cases reported as sputum smear positive irrespective of culture results. Given the number of bacilli that must be present in the sputum in order for the smear examination to be positive, one would expect the culture to be positive in smear positive cases. Sputum smear positive cases without culture confirmation either had a culture performed but results were unknown (59%), or were reported as culture negative (16%) , as not having had a culture performed (15%) or with no information (10%).

6. Conclusion

The co-operation of countries of the WHO European Region in the feasibility study was excellent. Contacts were established in English or Russian with all but one of the 50 countries. Despite differences in reporting systems, data could be collected on tuberculosis cases notified in 1995 among 46 countries of the Region, based on the European consensus case definition. A total of 41 countries provided detailed information on the cases based on a minimum set of variables, and half of these countries provided individual computerised data.

The availability of information varied by country. It was excellent for age, sex and site of the disease, while the least documented epidemiological information was the geographic origin of the patient. The availability and completeness of bacteriological information (culture and sputum smear examination) varied across countries, probably reflecting both differences in the definition of a bacteriologically-confirmed case and differences in reporting systems, particularly with regard to the involvement of laboratories in the reporting.

Results showed large variations in notified incident tuberculosis in Europe. In 1995, incidence rates reported in eastern Europe were generally higher than those reported in western Europe. Tuberculosis was rarely reported in children and affected mainly adults. Countries with incidence rate of less than 20 cases per 100 000 reported a high proportion of patients in older ages, while tuberculosis affected proportionately more adolescents and young adults in the other countries. Tuberculosis affected almost twice as many males as females in the adult population, with however large between-country variations. The contribution of foreign patients originating from high incidence areas of the world was substantial in several countries of western Europe and modified the age and gender distribution of the cases. The vast majority of the cases were new episodes of tuberculosis in persons never diagnosed previously. Pulmonary tuberculosis represented around 80% of the reported cases, alone or in association with other sites. Bacteriological confirmation was reported in less than half of the cases, and 40% of the cases were reported as sputum smear positive, i.e. with a contagious form of the disease. These low proportions may reflect the unavailability of laboratory facilities in some areas, inappropriate diagnostic practices or underreporting of bacteriological information.

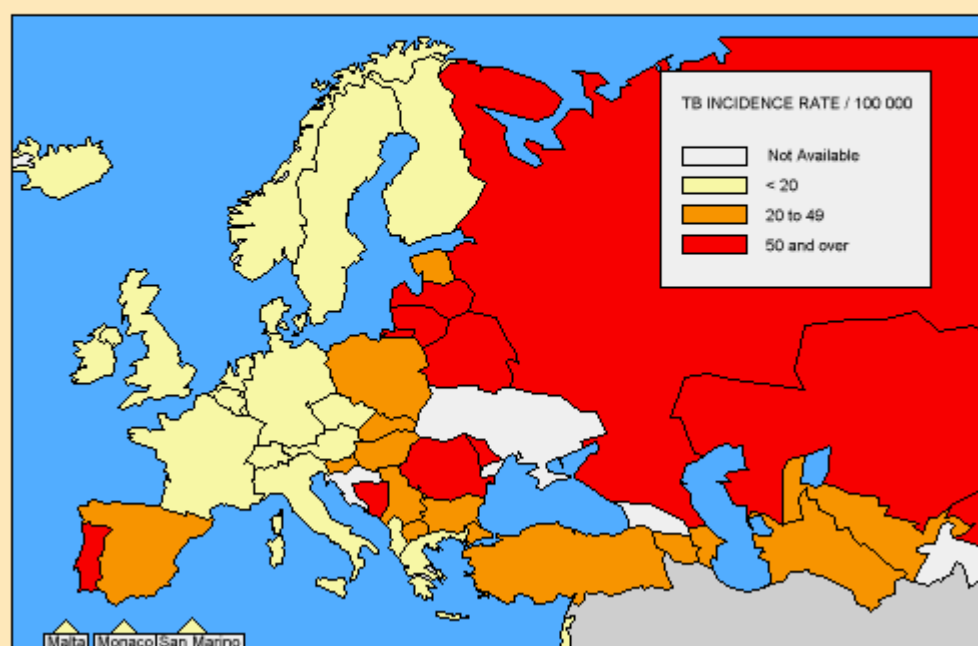
The surveillance of tuberculosis appears feasible in Europe. Improving the standardisation of definitions and the completeness of information will allow to improve the comparability of data and the analyses of time trends in the future.

7. References

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8. Map

Incidence rate of notified tuberculosis 1995, WHO European Region



9. List of tables

Table 1: Tuberculosis cases and tuberculosis incidence rate, 1995, 46 countries

Country	TB cases		Rate (per 100 000)	
European Union				
Austria	1383		17.4	
Belgium	1380		13.6	
Denmark	448		8.6	
Finland	662		13.0	
France	8723		14.7	
Germany	12198		15.0	
Greece	939	*	9.0	*
Ireland	458		12.9	
Italy	5225		9.1	
Luxembourg	32		7.9	
Netherlands	1619		10.4	
Portugal	5577		56.8	
Spain	8764	†	22.1	†
Sweden	564		6.4	
United Kingdom	6161		10.6	
S/total (15 countries)	54133		14.5	
Outside the European Union				
Albania	664		19.3	
Armenia	836		23.2	
Azerbaijan	3306		43.7	
Belarus	5092		50.2	
Bosnia-Herzegovina	2132		61.6	
Bulgaria	3245		37.0	
Czech Republic	1851		18.0	
Estonia	608		39.7	

Hungary	4339		42.9	
Iceland	12		4.5	
Israel	398		7.1	
Kazakhstan	11095	*	64.8	*
Kyrgyzstan	3380		71.2	
Latvia	1541		60.3	
Lithuania	2362		63.8	
Macedonia	786		36.3	
Malta	10		2.7	
Moldova	2753		62.1	
Monaco	1		3.1	
Norway	236		5.4	
Poland	15959		41.6	
Romania	23271		101.9	
Russian Federation	96828		65.9	
San Marino	2		8.0	
Slovakia	1537		28.7	
Slovenia	525		27.0	
Switzerland	830		11.5	
Turkey	23035		37.2	
Turkmenistan	2009		49.0	
Uzbekistan	9866		43.2	
Yugoslavia	4169		38.4	
S/total (31 countries)	222678		52.2	
Total (46 countries)	276811		34.6	
* New cases only				
† New respiratory cases only				

Table 2: Tuberculosis cases by geographic origin, 1995, 21 countries

Geographic origin = place of birth (10 countries)				
Country	Foreign-born		(%)	Total *
Czech Republic	17		(1)	1851
Denmark	246		(55)	448
Finland	30		(5)	662
Iceland	1		(8)	12
Luxembourg	16		(50)	32
Malta	4		(40)	10
Norway	97		(41)	236
San Marino	1		(50)	2
Slovenia	111		(21)	525
Sweden	315		(56)	564
* Including 47 cases with unknown geographic origin				
Geographic origin = citizenship (11 countries)				
Country	Foreigner		(%)	Total *
Austria	332		(24)	1383
Belgium	454		(33)	1380
France	2417		(28)	8723
Germany	3532		(29)	12198
Hungary	30		(1)	4339
Israel	27	†	(7)	398

Italy	525		(10)	5225
Netherlands	997	‡	(62)	1619
Romania	6		(0)	23271
Slovakia	4		(0)	1537
Switzerland	441		(53)	830
* Including 1054 cases with unknown geographic origin, of which 904 were reported in France				
† patients applying for Israeli nationality are included in the category of "national citizens"				
‡ Dutch patients born abroad to foreign mothers are included in the category of "foreign citizens"				

Geographic origin = country of birth (7 countries)											
	Born in	(%)	Foreign-born							Total †	
Country	the country		Europe	Asia	Africa	Other	Total *	(%)			
Denmark	190	(42)	25	86	133	2	246	(55)	448		
Finland	611	(92)	4	6	19	1	30	(5)	662		
Iceland	11	(92)	0	1	0	0	1	(8)	12		
Luxembourg	15	(47)	14	1	1	0	16	(50)	32		
Malta	6	(60)	0	3	1	0	4	(40)	10		
Norway	139	(59)	13	50	31	1	97	(41)	236		
Slovenia	401	(76)	110	0	1	0	111	(21)	525		
* including 2 foreign-born cases with unknown continent of birth											
† including 47 cases with unknown origin											
Geographic origin = country of citizenship (5 countries)											
	National	(%)	Foreigner							Total †	
Country			Europe	Asia	Africa	Other	Total *	(%)			
Austria	1037	(75)	240	76	10	6	332	(24)	1383		
Belgium	919	(67)	110	105	233	6	454	(33)	1380		
Italy	4580	(88)	88	97	270	70	525	(10)	5225		
Netherlands	613 ‡	(38)	76	332	504	85	1006	(62)	1619		
Switzerland	389	(47)	262	91	72	15	441	(53)	830		
* including 1 foreign case with unknown country of citizenship											
† including 150 cases with unknown origin											
‡ Dutch patients born abroad to foreign mothers are included in the category of "foreign citizens"											

Table 4: Recurrent tuberculosis cases, 1995, 34 countries

Country	Recurrent	(%)	Total *
Albania	53	(8)	664
Armenia	25	(3)	836
Austria	203	(15)	1383
Azerbaijan	320	(10)	3306
Belarus	581	(11)	5092
Belgium	150	(11)	1380
Bosnia-Herzegovina	167	(8)	2132
Czech Republic	58	(3)	1851
Estonia	92	(15)	608
France	998	(11)	8723
Hungary	475	(11)	4339
Iceland	0	(0)	12
Israel	22	(6)	398
Kyrgyzstan	114	(3)	3380
Latvia	267	(17)	1541
Lithuania	174	(7)	2362
Luxembourg	2	(6)	32
Macedonia	57	(7)	786
Malta	0	(0)	10
Moldova	388	(14)	2753
Netherlands	153	(9)	1619
Norway	54	(23)	236
Poland	1723	(11)	15959
Portugal	658	(12)	5577
Romania	1733	(7)	23271
Russian Federation	11848	(12)	96828
San Marino	0	(0)	2
Slovakia	31	(2)	1537
Slovenia	39	(7)	525
Sweden	59	(10)	564
Turkey	2205	(10)	23035
Turkmenistan	69	(3)	2009
Uzbekistan	302	(3)	9866

* Including 2651 cases with unknown status of which 2413 were reported in France

Table 5: Site of disease and sputum smear results, 1995, 32 countries

Pulmonary site : tuberculosis of the lung parenchyma and/or tracheobronchial tree (22 countries)												
	Pulmonary											
Country	Sputu m smear	(%)		Sputum smear		(%)	Total			Extra-	(%)	Total *
	positiv e			negativ e or unknow n						pulmonar y		
Austria	430	(31)		729		(53)	1159			224	(16)	1383
Belgium	488	(35)		592		(43)	1080			294	(21)	1380
Bosnia- Herzegovin a	928	(44)		939		(44)	1867			265	(12)	2132

Denmark	153	(34)		180	(40)	333		115	(26)	448
Estonia	278	(46)		259	(43)	537		71	(12)	608
Finland	244	(37)		194	(29)	438		224	(34)	662
France	3449	(40)		2966	(34)	6415		2305	(26)	8723
Iceland	2	(17)		3	(25)	5		7	(58)	12
Israel	172	(43)		159	(40)	331		67	(17)	398
Italy	1933	(37)		1824	(35)	3757		1404	(27)	5225
Luxembourg	-	-		25	† (78)	25		6	(19)	32
Malta	5	(50)		3	(30)	8		2	(20)	10
Netherlands	-	-		1106	† (68)	1106		513	(32)	1619
Norway	-	-		146	† (62)	146		90	(38)	236
Poland	4335	(27)		10087	(63)	14422		1537	(10)	15959
Portugal	2287	(41)		1531	(27)	3818		1759	(32)	5577
Romania	11520	(50)		8017	(34)	19537		3730	(16)	23271
San Marino	2	(100)		0	(0)	2		0	(0)	2
Slovenia	233	(44)		183	(35)	416		109	(21)	525
Sweden	113	(20)		235	(42)	348		216	(38)	564
Switzerland	229	(28)		403	(49)	632		198	(24)	830
United-Kingdom	-	-		4144	† (67)	4144		2017	(33)	6161
Total (18 countries)‡	26801	(40)		28304	(42)			12527	(19)	67709
Total (22 countries) §						60526	(80)	15153	(20)	75757
- : not provided										
* including 78 cases with unknown site of disease										
† sputum smear results not reported										
‡ including countries providing sputum smear results										
§ including all countries										
Respiratory site : pulmonary, pleural and/or intra-thoracic lymphatic tuberculosis (10 countries)										
	Respiratory									
Country	Sputum smear	(%)		Sputum smear	(%)	Total		Extra-	(%)	Total
	positiv			negativ				respirator		

	e		e or unknown					y		
Albania	192	(29)	239	(36)	431			233	(35)	664
Czech Republic	515	(28)	970	(52)	1485			366	(20)	1851
Germany	3852	(32)	6473	(53)	10325			1873	(15)	12198
Hungary	796	(18)	3292	(76)	4088			251	(6)	4339
Latvia	861	(56)	587	(38)	1448			93	(6)	1541
Macedonia	344	(44)	376	(48)	720			66	(8)	786
Slovakia	-	-	1360	*	(88)	1360		177	(12)	1537
Turkey	-	-	21971	*	(95)	21971		1064	(5)	23035
Uzbekistan	-	-	8438	*	(86)	8438		1428	(14)	9866
Yugoslavia	-	-	3933	*	(94)	3933		236	(6)	4169
Total (6 countries)†	6560	(31)	11937	(56)				2882	(13)	21379
Total (10 countries)‡					54199	(90)		5787	(10)	59986
- : not provided										
* sputum smear results not reported										
† including countries providing sputum smear results										
‡ including all countries										

Table 6: Site of disease and sputum smear results, 1995
6 countries reporting the information on new cases only

Respiratory									
Country	Sputum smear		Sputum smear		Total			Total	
	positive	(%)	negative	(%)			Extra-	(%)	new
			or unknown				respiratory		cases
Armenia	358	(44)	393	(48)	751		60	(7)	811
Belarus	-	-	3999	*	(89)	3999	512	(11)	4511

Kyrgyzstan	832	(25)	2043	(63)	2875		391	(12)	3266
Lithuania	979	(46)	937	(44)	1916		207	(10)	2123
Moldova	-	-	1970	* (83)	1970		395	(17)	2365
Russian Federation	-	-	79753	* (94)	79753		5227	(6)	84980
Total (3 countries)†	2169	(35)	3373	(54)			658	(11)	6200
Total (6 countries)‡					91264	(93)	6792	(7)	98056
* sputum smear results not reported									
† including countries providing sputum smear results									
‡ including all countries									

Table 7 : Confirmed tuberculosis cases, 1995, 27 countries

Bacteriological confirmation = positive culture (9 countries)						
Country		Confirmed		(%)	Total	*
Germany		6871	†	(56)	12198	
Finland		471		(71)	662	
Hungary		1909		(44)	4339	
Iceland		9		(75)	12	
Israel		197		(49)	398	
Norway		150		(64)	236	
Slovakia		808	†	(53)	1537	
Sweden		460		(82)	564	
Switzerland		652		(79)	830	
Total		11527		(55)	20776	
* including 2686 cases with unknown culture results						
† excluding extra-pulmonary (or extra-respiratory) cases						
Bacteriological confirmation = positive culture and/or positive sputum smear (18 countries)						
Country		Confirmed		(%)	Total	*
Albania		194		(29)	664	
Austria		812		(59)	1383	
Belgium		926		(67)	1380	
Bosnia-Herzegovina		1210		(57)	2132	

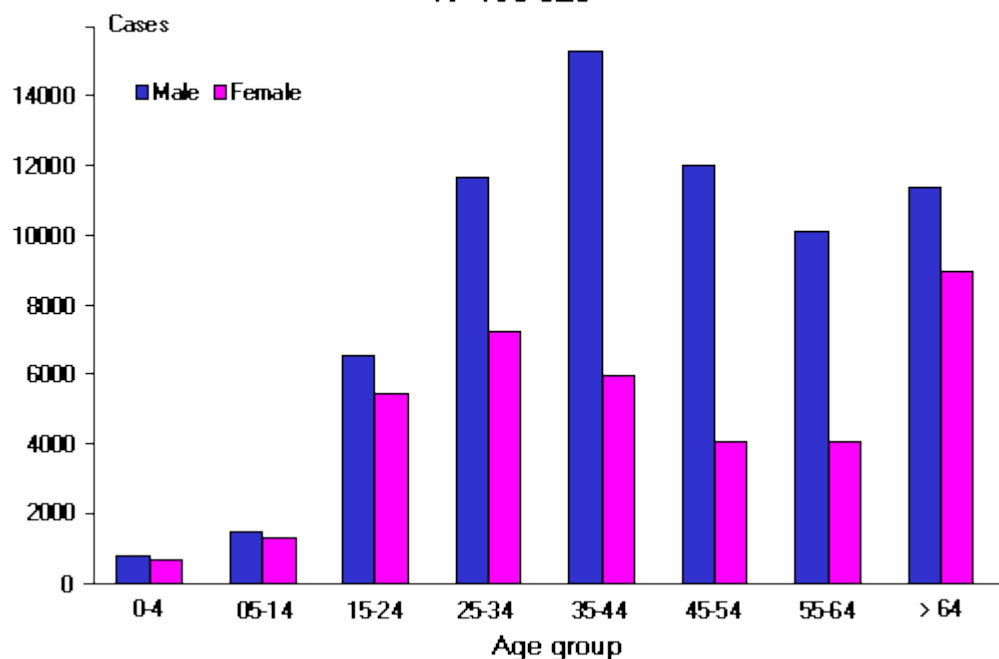
Denmark		408		(91)	448	
Estonia		428		(70)	608	
Italy		3145		(60)	5225	
Luxembourg		24		(75)	32	
Latvia		875		(57)	1541	
Malta		5		(50)	10	
Netherlands		808		(50)	1619	
Poland		8323		(52)	15959	
Portugal		2730	†	(49)	5577	
Romania		14594		(63)	23271	
San-Marino		2		(100)	2	
Slovenia		339		(65)	525	
Uzbekistan		2736		(28)	9866	
Yugoslavia		1955		(47)	4169	
Total		31487		(52)	60988	
* including 11037 cases with unknown culture or sputum smear results						
† excluding extra-pulmonary cases						

Table 8 : Confirmed tuberculosis cases, 1995 (7 countries reporting the information on new cases only)

Bacteriological confirmation = positive culture and/or positive sputum smear					
Country	Confirmed		(%)	Total new cases	*
Armenia	364		(45)	811	
Belarus	1845	†	(41)	4511	
Greece	369		(39)	939	
Kyrgyzstan	832		(25)	3266	
Lithuania	979		(46)	2123	
Moldova	674		(28)	2365	
Russian Federation	37512		(44)	84980	
Total	42575		(43)	98995	
* including 874 cases with unknown culture or sputum smear results					
† excluding extra-respiratory cases					

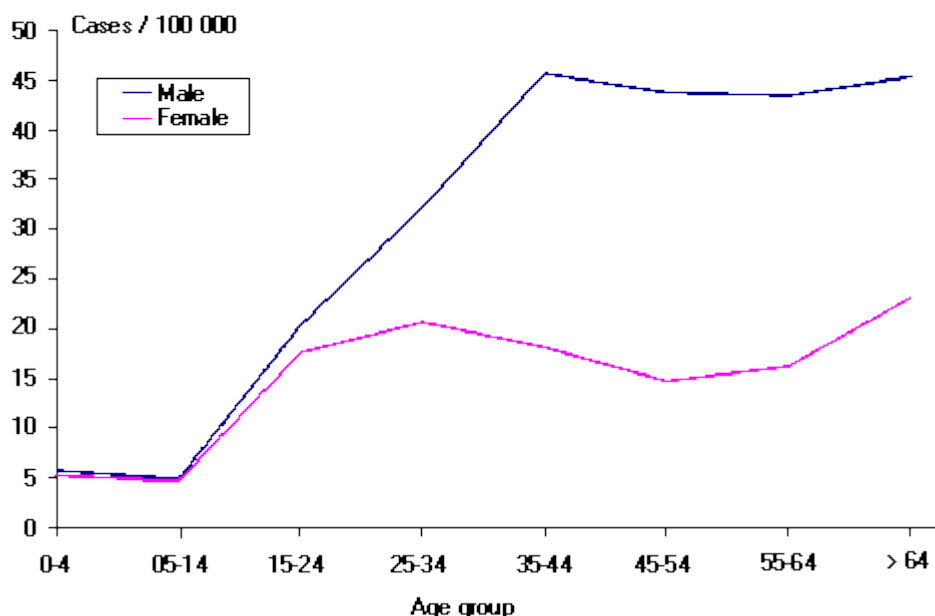
10. List of figures

Figure 1 : Notified TB cases by age and sex, 1995, 32 countries*
N=106 823



* Armenia, Austria, Azerbaijan, Belgium, Bosnia-Herzegovina, Czech Republic, Denmark, Estonia, Finland, France, Germany, Iceland, Israel, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Netherlands, Norway, Poland, Portugal, Romania, San Marino, Slovakia, Slovenia, Sweden, Switzerland, United Kingdom, Yugoslavia

Figure 2 : Incidence rate of notified TB by age and sex, 1995, 32 countries*
N=106 823



* Armenia, Austria, Azerbaijan, Belgium, Bosnia-Herzegovina, Czech Republic, Denmark, Estonia, Finland, France, Germany, Iceland, Israel, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Moldova, Netherlands, Norway, Poland, Portugal, Romania, San Marino, Slovakia, Slovenia, Sweden, Switzerland, United Kingdom, Yugoslavia

EuroTB national correspondents in 1997

One institution per country recognized by the respective national health authorities is responsible for providing data on tuberculosis case notifications to EuroTB

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