

GLOBAL TUBERCULOSIS CONTROL

WHO REPORT 1998

Warning: This report is out-of-date. In particular, entire time-series of TB disease burden estimates are updated every year. For the latest data and analysis, please see the most recent edition of the global TB report.



GLOBAL TUBERCULOSIS PROGRAMME
WORLD HEALTH ORGANIZATION
GENEVA
1998

Suggested Citation:

World Health Organization. Global Tuberculosis Programme.
Global Tuberculosis Control. WHO Report 1998.
Geneva, Switzerland, WHO/TB/98-237

This report was prepared by:

Dr Eduardo M. Netto
Dr Christopher Dye
Ms Sonja Schmidt
Dr Mario Raviglione

With contributions from:

Tuberculosis Research and Surveillance Unit
Dr Paul Nunn, Chief
Dr Paul Dolin

National Programme Support Unit

Dr Sergio Spinaci, Chief
Dr Pierre Chaulet
Dr Małgorzata Grzemski
Ms Christy Hanson
Dr Jacob Kumaresan
Dr Fabio Luelmo
Dr Pierre-Yves Norval
Dr Oumou Bah-Sow

Global Tuberculosis Programme

Dr Arata Kochi, Director

Regional and Country staff:

African Region
Dr E. Nyarko
Dr B. Keita
Dr E. Maganu
Dr J.C. Willame
Dr P. Feenstra
Dr. G. Gargioni

American Region

Dr R. Rodriguez Cruz
Dr D. Weil

Eastern Mediterranean Region

Dr Z. Hallaj
Dr A. Seita

European Region

Dr T.A. Madaras
Dr R. Zaleski

South-East Asia Region

Dr M.V.H. Gunaratne
Dr T. Frieden
Dr P. DeColombani
Dr L. Parkkali
Dr H. Sawert
Dr I. Smith

Western Pacific Region

Dr L. Blanc
Dr D. Ahn

Copies of *Global Tuberculosis Control* are available from:

Global Tuberculosis Programme
World Health Organization, 20 Avenue Appia, CH-1211 Geneva 27, Switzerland

© World Health Organization, 1998

This document is not a formal publication of the World Health Organization (WHO), and all rights are reserved by the Organization. The document may, however, be freely reviewed, abstracted, reproduced and translated, in part or in whole, but not for sale nor for use in conjunction with commercial purposes.

Contents

Acknowledgement	v
List of abbreviations	vi
Summary	1
Introduction	2
Methods	4
Data collection	4
Data verification	4
Data management	5
Data analysis	5
Categorization of countries	5
Case detection	7
TB among non-nationals in industrialised countries and the gulf states	8
Treatment success and cure rate	8
Results	10
Categorization of countries	10
Case notifications for 1996	13
Case detection rate	14
TB among non-nationals in industrialised countries and the gulf states	15
Treatment results for 1995	17
New sputum smear-positive cases	17
Retreatment cases	18
Progress in TB control	19
Case notifications—changes from 1980 to 1996	19
DOTS coverage—changes from 1995 to 1996	20
Changes in treatment success (1994-1995) and case detection (1995-1996)	21
Discussion	24

Annex 1	Data Collection Form A and B	27
Annex 2	Global Profile	37
	Explanatory Notes for reading the global profile	39
	Global Profile	42
Annex 3	Regional Profile	45
	Explanatory notes for reading the regional profile	47
	African Region	49
	American Region	67
	Eastern Mediterranean Region	85
	European Region	99
	South East Asia Region	117
	Western Pacific Region	129
Annex 4	World Maps	147
	1. Implementation status of DOTS , 1996	148
	2. Tuberculosis notification rates, 1996	149
	3. Estimated tuberculosis incidence rates, 1996	150
Annex 5	1995 case notifications as reported to WHO in 1996 and 1995 cases registered for treatment as reported to WHO in 1997	151
Annex 6	Change in DOTS coverage, treatment success and DOTS detection rate, 1996-1997	155
Annex 7	Global Profile 1997 (updated)	159

Acknowledgement

The Global Tuberculosis Programme (GTB) thanks all the National Tuberculosis Programme Managers who provided their country data to the World Health Organization making this global evaluation possible. GTB also gratefully acknowledges the excellent collaboration of all WHO consultants and partner agencies that contributed by reviewing data submitted by the National Programmes.

List of abbreviations

AFR	African Region
AMR	American Region
CDR	Case Detection Rate
DOTS	WHO TB control strategy
EMR	Eastern Mediterranean Region
EUR	European Region
GLRA	German Leprosy Relief Association
GTB	Global Tuberculosis Programme
IUATLD	International Union against Tuberculosis and Lung Disease
JATA	Japan Anti- Tuberculosis Association
KNCV	Royal Netherlands Tuberculosis Association
NTP	National Tuberculosis Control Programme
SEAR	South-East Asia Region
TB	Tuberculosis
WPR	Western Pacific Region

Summary

This is the second annual compilation of data by the World Health Organization's (WHO) tuberculosis surveillance and monitoring project.

In May 1997, two hundred and twelve countries, territories and areas were asked to provide information about TB control policy, case notifications for 1996 and treatment outcomes for 1995. One hundred and eighty-one of 212 countries (85%) submitted data to WHO in 1997, covering 97% of the global population. They reported 3.81 million cases of tuberculosis, of which 1.29 million were smear-positive. Compared with estimated annual global incidence, these figures represent case detection rates of 39% and 51%, respectively.

Between 1995 and 1996, case notifications increased in four out of six WHO regions. The marked rise in Africa is almost certainly linked to HIV. Declines seen in the Eastern Mediterranean and American Regions probably reflect real falls in incidence, but it is unclear how much of the decline is due directly to TB control programmes.

Globally, DOTS programmes reported 67% of new pulmonary cases to be smear-positive (65% expected), as compared with 30% in other control programmes. They evaluated a higher fraction of registered cases (94% vs 55%), achieved higher treatment success rates (78% vs 45%), and a higher fraction of patients was shown to be cured by smear conversion (72% vs 23%). Collecting together data from all programmes (DOTS and non-DOTS), 57% of approximately one million registered cases were reported to have been treated successfully.

Despite the advantages of DOTS, only one third (32%) of the world's population had access to such programmes by the end of 1996, as judged by population coverage. True access was undoubtedly lower because fewer than a quarter (23%) of all cases were reported from DOTS areas. These reported cases represent only 12% of all estimated cases, and only 15% of smear-positive cases. This is true even though 96 (63%) countries used DOTS (30 for the first time in 1996) and, in 63 countries, DOTS programmes were said to reach more than 90% of the population.

A subset of 25 industrialized countries and Gulf States distinguished between cases among nationals and non-nationals. The incidence rates among non-nationals were 14 times higher in industrialized countries, and three times higher in the Gulf States. In 11 of the 25 countries, cases among non-nationals outnumbered indigenous cases.

In 1996, only 26 out of 96 DOTS countries had case detection and cure rates which approach WHO targets. Those 26 countries carry just 6% of the estimated global incidence. Many of the high-burden countries were not among the 26. Of greatest concern are India, Indonesia, Nigeria and Pakistan. Bangladesh and China are continuing to advance towards the targets, but slowly. Progress in these and other high-incidence countries is the key to global tuberculosis control.

In the high-burden countries Viet Nam, Peru and Tanzania, the DOTS control programmes are exemplary; they must be sustained, and held up as models for other national programmes.

Introduction

Tuberculosis (TB) has been neglected as a public health issue for many years by many countries.¹ TB remains the major cause of death from a single infectious agent among adults in developing countries. There has been a resurgence of TB in the industrialised world.² Several factors, most notably a lack of resources and government commitment, have prevented adequate implementation of control measures. In many countries of Africa and South-East Asia, infection with the human immunodeficiency virus (HIV) has further increased TB morbidity and mortality.^{3,4,5} In several of the former socialist countries, TB morbidity and mortality continue to rise because of the deterioration of public health systems.⁶ In many industrialised countries, the recent increase in TB is due largely to cases among immigrants from other countries,^{7,8,9} a further consequence of global neglect.

The key to controlling TB now is the rapid detection and cure of infectious cases by TB programmes. In 1991, the World Health Assembly (WHA)¹⁰ recommended that each National Tuberculosis Control Programme (NTP) should work towards two objectives by the year 2000: (1) to treat successfully 85% of detected smear-positive cases, and (2) to detect 70% of all such cases by the introduction of an effective framework for TB control.¹¹

In 1993, the World Health Organization (WHO) declared TB to be a global emergency.² The exact burden of disease, however, was not known, and the worldwide achievements of NTPs, in terms of diagnostic coverage and treatment results had never been analysed.

To assess the magnitude of the global tuberculosis problem, and to measure the achievements of TB control, WHO set up a worldwide surveillance and monitoring project in 1995. In 1997, the global status of TB control and the progress towards achiev-

¹ In this document we use the term "countries" to mean countries, territories and areas.

² Ravaglione MC, Snider DE Jr, Kochi A. Global epidemiology of tuberculosis: morbidity and mortality of a worldwide epidemic. *JAMA*, 1995; 273:220-6.

³ Narain JP, Ravaglione MC, Kochi A. HIV-associated tuberculosis in developing countries: epidemiology and strategies for prevention. *Tuberc Lung Dis* 1992; 73:311-21.

⁴ De Cock KM, Soro B, Coulibaly IM, Lucas SB. Tuberculosis and HIV infection in sub-Saharan Africa. *JAMA*, 1992; 268:1581-7.

⁵ Yanai H, Uthaivoravut W, Panich V, et al. Rapid increase in HIV-related tuberculosis, Chiang Rai, Thailand, 1990-1994. *AIDS*, 1996; 10:527-31.

⁶ Ravaglione MC, Rieder HL, Styblo K, Khomenko AG, Esteves K, Kochi A. Tuberculosis trends in Eastern Europe and the former USSR. *Tuberc Lung Dis* 1994; 75:400-16.

⁷ Cantwell MF, Snider DE Jr, Cauthen GM, Onorato IM. Epidemiology of tuberculosis in the United States, 1985 through 1992. *JAMA* 1994; 272:535-9.

⁸ McKenna MT, McCray E, Onorato I. The epidemiology of tuberculosis among foreign-born persons in the United States, 1986 to 1993. *N Engl J Med* 1995; 332:1071-6.

⁹ Ravaglione MC, Sudre P, Rieder HL, Spinaci S, Kochi A. Secular trends of tuberculosis in Western Europe. *Bull World Health Organ* 1993; 71:297-306.

¹⁰ Forty-Fourth World Health Assembly, Geneva, 6-16 May 1991. Resolutions and decisions. Geneva, Switzerland: World Health Organization 1991. WHA44/1991/REC/1.

¹¹ World Health Organization. WHO Tuberculosis Programme: *Framework for effective tuberculosis control*. Geneva, Switzerland: World Health Organization 1994. WHO/TB/94.179.

ing the WHO targets were reviewed comprehensively for the first time, showing that 76 countries had implemented DOTS, and that NTPs which adopted DOTS could demonstrate higher rates of cure.^{12,13} This is the second annual report in the series, presenting data available at 31 January 1998 on case notifications (1996), treatment results (1995), status of DOTS implementation (end 1996) and finally a comparison with results published in the first report.¹³

¹² Ravaglione MC, Dye C, Schmidt S, Kochi A. Assessment of Worldwide Tuberculosis Control. *Lancet* 1997; 350: 624-29.

¹³ World Health Organization. Global Tuberculosis Programme. *Global Tuberculosis Control. WHO Report 1997*. WHO/TB/97.225.

Methods

Data collection for the 1997 survey

In May 1997, TB data collection forms (Annex 1) were sent out to 212 countries via the WHO Regional Offices.¹⁴ This form was slightly revised from the 1996 version in order to incorporate lessons learned during the first year of data collection.

The form requested information on TB control policy as of 31 December 1996, cases reported for 1996, and treatment outcomes among patients registered during 1995. The information about treatment outcome always lags notifications by one year because treatment success is evaluated 6-8 months after registration.

The form was divided into two parts (Annex 1). Part A is designed for those countries or areas within countries that have adopted the WHO TB control strategy (DOTS). Among others, it asks questions about:

- the number and types of TB cases notified: pulmonary (sputum smear-positive—new cases and relapses, sputum smear-negative) and extrapulmonary
- age and gender distribution of new smear-positive cases
- treatment results of sputum smear-positive cases (new and re-treatment).

Part B is for countries and areas within countries where DOTS has not been implemented, and is less demanding of data. Countries are asked to record the number of cases for which no smear was done. They are not asked to distinguish new cases from re-treatment cases, or to record smear conversions at 2 months.

The design of the form enables WHO to analyse the TB situation and the performance of the NTP according to the type of control strategy used. In particular, data from countries which have adopted DOTS—and have therefore used standard definitions, and recording and reporting system—can be assessed separately. To assist countries in accurately completing these forms, WHO supplies detailed instructions and definitions.

Data verification

Each data collection form submitted by a country was first reviewed in the WHO Regional Office, and then by the Global Tuberculosis Programme in Geneva. Inconsistencies in the data were followed up with the NTP managers, or with other responsible persons in countries. Some data were also reviewed by partner agencies which provide technical assistance to several countries; KNCV for China, Gambia, Indonesia, Kenya, Malawi and Viet Nam, and GLRA for Ethiopia, Togo, Uganda and Paraguay.

¹⁴ Four territories (Guadeloupe, French Guyana, Martinique and La Reunion) which were listed separately last year, are now included with France as they are autonomous regions of that country.

Additionally, the Regional Offices were asked to approve the final *Regional Profiles* (see below, Annex 3).

Data management

Data were stored and managed with Microsoft Access Version 2.0. A customised computer programme provides:

- *Regional Profiles*, which contain country-specific data on case notifications and treatment results according to the control strategy used
- *Global Profile*, including the same information by region

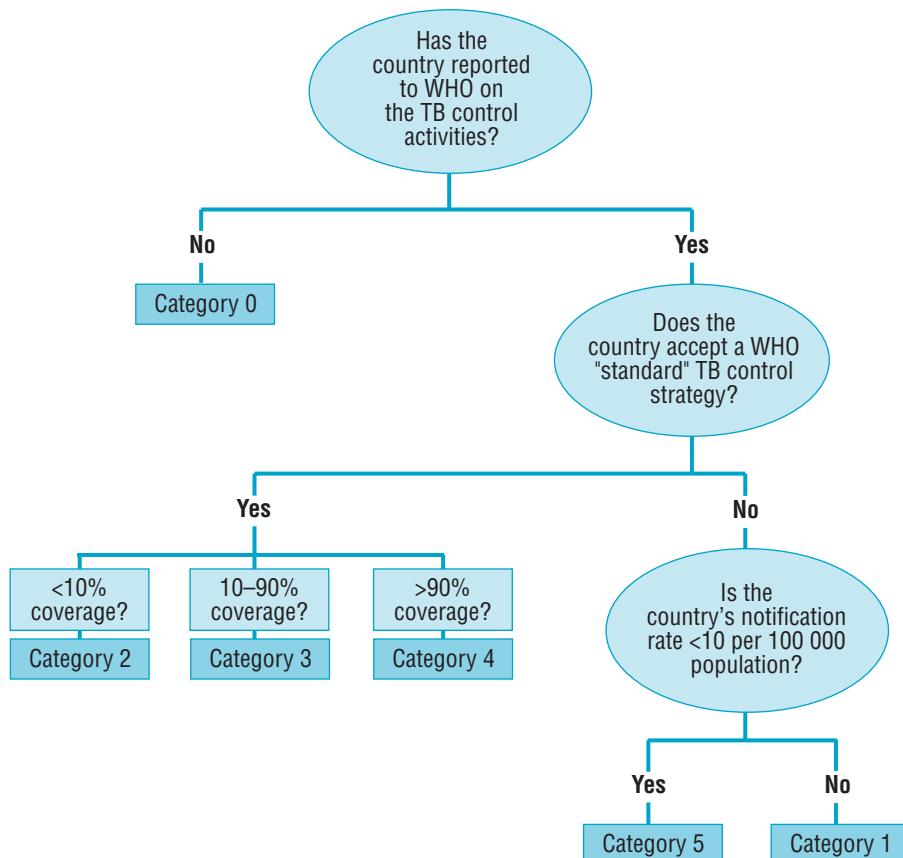
The programme also produces tables of case notifications since 1980. Since 1995, notifications have been stratified by age, gender and type of TB (as for Form A above).

Data analysis

Categorization of countries

Our first assessment of a country's progress in implementing DOTS is based on the qualitative or semi-quantitative categorization shown in Figure 1 and in the box below.

Figure 1. Categorization of countries



Categorization of the countries

Category	Definition
0	Countries not reporting to WHO.
1	Countries <i>not</i> implementing the DOTS strategy and having a case notification rate of <i>over</i> 10 cases per 100 000 population.
2	Countries implementing the DOTS strategy in less than 10% of the total population (pilot phase).
3	Countries implementing the DOTS strategy in 10 to 90% of the total population (expansion phase).
4	Countries implementing the DOTS strategy in over 90% of the total population (routine implementation).
5	Countries <i>not</i> implementing the DOTS strategy but having a case notification rate of <i>less</i> than 10 cases per 100 000 population (low incidence).

A country was considered as implementing the DOTS strategy if, by 31 December 1996, it:

- Had a national TB control policy based on WHO recommendations. This requires (1) a national TB manual, or a document issued by the government or an authorised scientific body, including policy recommendations endorsed by WHO, and (2) that a “WHO standard” training course on management of tuberculosis control programmes has been carried out within the past two years. Alternatively, there should be available training materials endorsed by WHO or IUATLD, and which contain the essential elements of DOTS.
- Complied with all of the DOTS strategy’s technical elements, as follows:

Technical elements of the WHO TB control strategy (DOTS)

1. **Microscopy** Case detection among symptomatic patients self-reporting to health services, utilising sputum smear microscopy;¹⁵
2. **SSC/DOT** Administration of standardised short-course chemotherapy to at least all confirmed sputum smear-positive cases under proper case management conditions (Directly Observed Therapy—DOT—during at least the intensive phase of treatment);¹⁶
3. **Drug Supply** Establishment of a system of regular drug supply of all essential anti-tuberculosis drugs to ensure no interruption in their availability;
4. **Recording and Reporting** Establishment and maintenance of a standardised recording and reporting system, allowing assessment of treatment results (see box ‘Definitions of treatment outcomes’ below).

If DOTS was implemented only in some districts (or equivalent administrative units) on the initiative of local authorities, but the policy was endorsed by the national authorities, the country was classified as a DOTS country.

If a country reported that DOTS was implemented during 1996, and that the results of cohort analysis were therefore not yet available, it was classified as a DOTS country, provided 1996 case notifications from DOTS areas were available. If a coun-

¹⁵ In countries which can afford sputum culture, culture could be utilized for diagnosis, but direct sputum smear microscopy should still be performed for all suspected cases.

¹⁶ In industrialized countries achieving high treatment success rates, Directly Observed Therapy may be reserved for a subset of patients, as long as cohort analysis of treatment results is provided to document the outcome of all cases.

try was known to have implemented DOTS for the first time during 1997, and therefore could not yet provide any information from DOTS areas since implementation, it would be classified as a country not yet implementing DOTS. Such countries have been identified in notes and tables.

This system of categorisation provides a qualitative and semi-quantitative view of each country's TB burden, and its progress towards TB control. However, WHO targets are expressed more stringently in terms of treatment success and the case detection rate, rather than population coverage. TB control should ensure high treatment success before expanding case finding. The reason is that many patients given less than a fully-curative course of treatment remain durably infectious, and continue to spread TB. Thus DOTS programmes must be shown to achieve high cure rates in pilot projects before attempting country-wide coverage. Case detection and cure rates are defined and measured as described in the following section.

Case detection

Based on the data provided in forms A and B, we made separate assessments of TB programmes in DOTS and non-DOTS areas. 1996 case notifications distinguished between all types of TB and sputum smear-positive cases. The box below contains the standard case definitions.

Definitions of TB cases

New smear-positive pulmonary TB in a patient with at least two initial sputum smear examinations (direct smear microscopy) *positive* for acid fast bacilli (AFB+); or TB in a patient with one sputum examination AFB+ and radiographic abnormalities consistent with active pulmonary TB as determined by the treating medical officer; or TB in a patient with one sputum specimen AFB+ and culture positive for AFB.

New smear-negative pulmonary TB in a patient with symptoms suggestive of TB and at least three sputum smear examinations negative for AFB, and with radiographic abnormalities consistent with active pulmonary TB determined by a medical officer followed by a decision to treat the patient with a full course of anti-tuberculosis therapy; or diagnosis based on positive culture but negative AFB sputum examinations.

Extrapulmonary Patient with tuberculosis of organs other than the lungs

Relapse Patient previously declared cured and diagnosed with sputum smear-positive tuberculosis*

* Note: In addition to relapses, treatment failures and patients who interrupted treatment (defaulters) are administered a retreatment regimen.

Two indicators were used to assess each NTP's ability to detect and identify smear-positive cases:

- proportion of new sputum smear-positive cases out of all notified cases (expected value is about 45%)
- proportion of new sputum smear-positive cases out of all new pulmonary cases (expected value is about 65%)

Case notifications represent only a fraction of the true number of cases arising in a country because of incomplete coverage by health services, inaccurate diagnosis, or deficient recording and reporting. The estimated case detection rate is defined as:

$$\text{Case detection rate (\%)} = \frac{\text{annual new smear—positive notifications}}{\text{estimated annual new smear-positive incidence}}$$

A stricter measure of case finding refers to the fraction of all incident cases which are detected (and potentially treated) by DOTS programmes:

$$\text{DOTS detection rate (\%)} = \frac{\text{annual new smear-positive notifications under DOTS}}{\text{estimated annual new smear-positive incidence (country)}}$$

The denominators come from WHO estimates of TB incidence rate based mostly on the annual risk of infection,¹⁷ and published in the World Bank's World Development Report (1993).¹⁸ This source contains estimated rates for 1990, which were adjusted whenever more recent information was available to WHO. The adjusted rates were then applied to 1996 populations. Specifically, rates were revised for Armenia, Brazil, Bulgaria, China, Cuba, Czech Republic, Denmark, France, Georgia, Hungary, Iraq, Italy, Mexico, Netherlands, Norway, Poland, Portugal, Republic of Korea, Republic of Moldova, Romania, Russian Federation, Slovakia, United Kingdom, United Republic of Tanzania, United States, Uruguay and Fed. Rep. of Yugoslavia. These figures refer to all forms of TB; they were divided by 2.2 to estimate the number of new smear-positive cases.¹⁹ Incidence estimates are available for all countries, including those not reporting to WHO.

Notice that "case detection rate" and "DOTS detection rate" are identical when a country has 100% DOTS coverage.

TB among non-nationals in industrialised countries and the Gulf States

In some countries, particularly the industrialized countries of Europe, North America, Western Pacific²⁰ and the Gulf States, a significant proportion of the notified TB cases occurs among non-nationals. A supplementary questionnaire was sent to these countries in order to ascertain the number of cases among non-nationals. Countries reported non-nationals as either (1) those who are not citizens, or (2) those who were born abroad. If a country reported both numbers, we used the smallest numerator to calculate the case notification rate among non-nationals.

Treatment success and cure rate

To assess the quality of treatment programmes for new infectious cases, we first determined what fraction of registered cases was evaluated for outcome. All registered cases should be evaluated. Second, we compiled the six standard, mutually exclusive outcomes of treatment set out in the box below. These figures are reported as percentages of all registered cases, so that the 6 possible outcomes plus the fraction of cases not evaluated sum to 100%. Although these treatment outcomes are expressed as percentages, they are usually referred to as 'rates'.

Regarding the outcome of retreatment, data were collected only from DOTS areas because the definitions of 'failure' and 'relapse' require data on smear conversion (See boxes 'Definitions of TB cases', 'Definitions of treatment outcomes').

To assess the capacity of each NTP to retain patients and to maintain consistent records between years, we compared the number of cases registered for treatment in

¹⁷ Styblo K. The relationship between the risk of tuberculous infection and the risk of developing infectious tuberculosis. *Bull Int Union Tuberc Lung Dis* 1986; 60:117-119.

¹⁸ The World Bank. *World Development Report 1993: Investing in Health*. New York, N.Y.: Oxford University Press; 1993:1-225.

¹⁹ Murray CJL, Styblo K, Rouillon A. Tuberculosis in developing countries: burden, intervention and cost. *Bull Int Union Tuberc Lung Dis* 1990; 65(1):6-24.

²⁰ These countries are defined by the World Bank as EME, Established Market Economies.

1995 (reported to WHO in 1997) with the number of cases notified as smear-positive in 1995 (reported to WHO in 1996). All cases notified in 1995 should have been registered for treatment.

Definitions of treatment outcomes

Cured	Initially smear-positive patient who had negative sputum smear results after treatment completion on at least two occasions during the continuation phase (4-6 months), including one at completion of treatment.
Completed treatment	Sputum smear-positive patient who had negative sputum smear results at the end of the initial phase after completion of treatment, with no or only one negative sputum smear result in the continuation phase and none at the end of treatment.
Died	Patient who died during treatment, irrespective of cause.
Failure	Smear-positive patient who remained or became smear-positive again at least 5 months after the start of treatment.
Interrupted treatment (defaulted)	Patient who did not collect drugs for 2 months or more at any time after registration.
Transferred out	Patient who was transferred to another reporting unit and his/her treatment results are not known.
Treatment success	The sum of the percentage of cases cured and that of cases who completed treatment.

Results

Categorization of countries

As of 31 January 1998, 181 countries (85%) out of 212 surveyed reported to WHO on case notifications for 1996 and treatment outcomes for patients registered in 1995. Ninety-seven percent of the global population lives in these countries (Table 1, Annexes 2 and 3). All countries with population sizes of more than 40 million reported to WHO. These include Bangladesh, Brazil, China, Democratic Republic of the Congo, Egypt, Ethiopia, France, Germany, India, Indonesia, Iran, Italy, Japan, Mexico, Myanmar, Nigeria, Pakistan, Philippines, Republic of Korea, Russian Federation, South Africa, Thailand, Turkey, Ukraine, United Kingdom, USA and Viet Nam.

Table 1. Categorisation of countries in 1996

WHO Regions	No. of countries	Countries reporting	No. of countries in categories by 31/12/1996						
			0	1	2	3	4	5	
AFR	47	37	78.7	10	9	0	9	19	0
AMR	44	34	77.3	10	15	0	0	14	5
EMR	23	21	91.3	2	9	3	2	4	3
EUR	52	50	96.2	2	29	2	4	9	6
SEAR	10	9	90.0	1	0	3	3	3	0
WPR	36	30	83.3	6	7	2	5	14	2
GLOBAL	212	181	85.4	31	69	10	23	63	16

Of the 181 countries reporting, 69 (38%) had not implemented DOTS, 96 (53%) were DOTS countries, 63 had implemented DOTS in over 90% of the country (Table 1, Annexes 2 and 3), and 16 (9%) were low incidence countries.

A clearer picture of the present global status of TB control emerges when examining these categorisations by population coverage:

- 74% of the global population lives in countries which had adopted DOTS. In many of these countries, however, implementation of the strategy was incomplete and DOTS diagnostic and treatment services were available in only a few districts. As a consequence, only 32% of the global population (1.8 out of 5.8 billion) lives in areas where DOTS is available.
- 22% lives in countries where the DOTS was not implemented anywhere.
- 1% lives in countries which have a low prevalence of TB.
- 3% lives in countries which did not report to WHO.

The list of DOTS countries is shown in Table 2a. Countries which have not adopted DOTS are in Table 2b. Map 1 in Annex 4 shows the category of TB control by country.

Table 3 (column 4) shows that a higher proportion of larger countries has implemented DOTS. But larger DOTS countries have achieved lower population coverage (column 6). The net result (final column) is that roughly one third of the populations in both the smallest (36%) and largest (34%) countries, and across the world on average (32%), now have access to DOTS, as judged by population coverage.

Table 2a. List of 96 countries adopting and implementing DOTS

Category 2	Category 3	Category 4	
Egypt	Armenia	American Samoa*	Mozambique
India	Azerbaijan	Belize*	Namibia
Kyrgyzstan*	Bangladesh	Benin	Netherlands
Nepal*	Burkina Faso	Bhutan	New Caledonia
Pakistan	Cambodia	Bolivia	Nicaragua
Papua New Guinea*	Cameroon*	Botswana	Norway*
Philippines	Chad	Burundi	Oman*
Russian Federation*	China	Chile	Palau
Sudan*	Democratic Rep Congo	Comoros	Paraguay
Thailand*	Ethiopia	Cook Islands*	Peru
	Georgia	Cuba	Portugal
	Ghana	Czech Republic	Puerto Rico*
	Indonesia	Djibouti*	Qatar
	Italy*	Fiji	Republic of Korea
	Lao People's Dem. Rep*	French Polynesia*	Rwanda
	Liberia*	Gambia	Samoa
	Mongolia	Guatemala	San Marino*
	Myanmar*	Guinea	Senegal
	Nigeria	Ivory Coast	Seychelles*
	Sierra Leone	Jamaica*	Slovakia
	Singapore	Kenya	Slovenia *
	Somalia*	Latvia*	Solomon Islands*
	Yemen*	Lesotho	Sri Lanka
		Macau	Togo
		Madagascar	Tonga
		Malawi	United Rep. of Tanzania
		Malaysia	Uruguay
		Maldives	USA*
		Mali	Venezuela
		Malta*	Viet Nam
		Micronesia, (Fed. States of)	Virgin Islands (USA)*
		Morocco	

Categories as defined in Figure 1

** Countries which implemented DOTS in 1996*

There are regional differences in coverage (Table 1). In Europe and the Eastern Mediterranean regions, less than 20% of countries have DOTS programmes that reach the majority (at least 90%, category 4) of their populations. Half of all reporting countries in the African (47%) and Western Pacific (51%) regions, and one third (33%) in South-East Asia, have achieved this goal. Some key endemic countries have low coverage: India, Indonesia, Pakistan and the Russian Federation reach less than 15% of their populations.

Table 2b. List of 116 countries not implementing DOTS

Category 0	Category 1	Category 5
Afghanistan	Albania	Kiribati
Algeria	Andorra	Kuwait
Anguilla	Angola	Lebanon
Australia	Argentina	Libyan Arab Jamahiriya
Bermuda	Austria	Lithuania
Brunei Darussalam	Bahamas	Marshall Islands
Canada	Bahrain	Mexico
Cape Verde	Belarus	Niue
Central African Republic	Belgium	Panama
Congo	Bosnia and Herzegovina	Poland
Dem. People's Rep. of Korea	Brazil	Republic of Moldova
Equatorial Guinea	Bulgaria	Romania
Greece	China, Hong Kong SAR	South Africa
Grenada	Colombia	Spain
Guam	Croatia	Suriname
Liechtenstein	Dominica	Swaziland
Mauritania	Dominican Republic	Switzerland
Mauritius	Ecuador	Syrian Arab Republic
Montserrat	El Salvador	Tajikistan
Nauru	Eritrea	TFYR Macedonia
Netherlands Antilles	Estonia	Trinidad and Tobago
Niger	Finland	Tunisia
Northern Mariana Islands	France	Turkey
Saint Lucia	Gabon	Turkmenistan
Saint Vincent and Grenadines	Germany	Uganda
Sao Tome and Principe	Guinea-Bissau	Ukraine
Saudi Arabia	Guyana	United Arab Emirates
St. Helena	Haiti	United Kingdom
Turks and Caicos Islands	Honduras	Uzbekistan
Tuvalu	Hungary	Vanuatu
Virgin Islands (UK)	Iran	Wallis and Futuna Islands
	Iraq	Fed Rep of Yugoslavia
	Ireland	Zambia
	Japan	Zimbabwe
	Kazakhstan	

Categories as defined in Figure 1

Table 3. DOTS coverage in countries of different population sizes, 1996

Country population	Countries	Countries with DOTS [Implementing in 1996]		Countries with >90% DOTS coverage [achieved in 1996]		Population under DOTS	Total population		
		millions	no.	no.	%		millions	millions	%
<10	138	56 [21]	41	44 [16]	79	133	373	36	
10-75	61	31 [7]	51	17 [0]	55	452	1 689	27	
>75	13	9 [2]	69	2 [1]	22	1 259	3 707	34	
Total	212	96	45	63	66	1 844	5 768	32	

Case notifications for 1996

The 181 countries reporting to WHO notified a total of 3 805 063 cases of tuberculosis (68.0 per 100 000 population), of which, 1 286 505 were sputum smear-positive (34%). Among all cases reported, 887 731 (23%) originated in DOTS areas (Table 4; Annexes 2, 3, 4.2). The South-East Asian and Western Pacific Regions together accounted for 64% of notified cases (Figure 2).

In those areas where DOTS was implemented, 56% of all cases were sputum smear-positive, compared with 27% in other areas. Sixty-seven percent of new pulmonary cases were sputum smear-positive in DOTS areas, compared with 30% elsewhere.

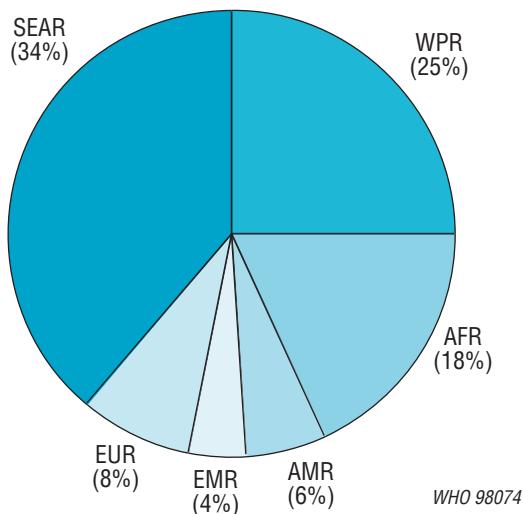


Figure 2. Distribution of notified tuberculosis cases by WHO Region in 1996.

AFR: African Region; **AMR:** American Region;
EMR: East Mediterranean Region; **EUR:** European Region;
SEAR: South-East Asia Region; **WPR:** West Pacific Region.
 Percent of notified cases in parentheses.

Comparing regions, the proportion of pulmonary cases notified under DOTS notifications which was smear-positive varied from 41% (Europe) to 76% (Eastern Mediterranean). In non-DOTS areas this proportion varied more widely, from 25% (South-East Asia) to 64% (Americas).

Table 4. Summary of case notifications, 1996

WHO Region	Control strategy	% of total pop	No. of cases notified	Notified cases/total notified cases (%)	No. of new SS+ cases	New SS+/new pulmonary cases (%)
AFR	DOTS*	46	302 548	45	155 146	65
	non-DOTS	46	373 390	55	93 833	32
	no report	8				
	Total		675 938		248 979	
AMR	DOTS	48	94 212	39	52 220	70
	non-DOTS	48	147 945	61	81 783	64
	no report	4				
	Total		242 157		134 003	
EMR	DOTS	10	44 517	31	21 651	76
	non-DOTS	81	100 035	69	36 499	45
	no report	9				
	Total		144 552		58 150	
EUR	DOTS	8	19 366	6	6 100	41
	non-DOTS	91	301 667	94	112 980	43
	no report	1				
	Total		321 033		119 080	
SEAR	DOTS	12	90 289	6	51 075	64
	non-DOTS	86	1 390 728	94	322 044	25
	no report	2				
	Total		1 481 017		373 119	
WPR	DOTS	55	336 799	36	206 582	68
	non-DOTS	43	603 567	64	146 592	27
	no report	1				
	Total		940 366		353 174	
GLOBAL	DOTS	32	887 731	23	492 774	67
	non-DOTS	65	2 917 332	77	793 731	30
	no Report	3				
	Total		3 805 063		1 286 505	

Note: Percentages may not add up to 100% because of rounding

*DOTS = areas implementing the WHO TB control strategy

non-DOTS = areas not implementing the WHO TB control strategy

SS+ = sputum smear-positive cases

Case detection rate

Based on the World Bank's *World Development Report 1993*, with adjustments for those countries where more recent data were available, we estimate that 7.4 million TB cases occurred in 1996, of which 3.3 million were new smear-positive cases. Table 5 gives the incidences (cases and rates) for the world's 22 top TB countries, which support 80% of estimated cases. Of all estimated cases, 3 805 063 TB cases were detected (notified), and 1 286 505 of these were smear-positive, i.e. global case detection rates of 51% and 39%, respectively. Only 12% of all estimated cases, and 15% of smear-positive cases, were notified by DOTS programmes. Case detection rates were lowest in the Eastern Mediterranean region and highest in Europe and the Americas (Table 6; Annexes 2, 3, 4.3).

Table 5. Estimated incidence of TB: top 22 countries, 1996

Rank	Country	Population x 1000 (1996)	Estimated incidence all cases		Estimated incidence SS+ cases		Cum. burden %
			thousands	rate	thousands	rate	
1	India	944 580	2 078	220	935	99	28
2	China	1 232 083	1 047	85	471	38	43
3	Indonesia	201 282	443	220	199	99	49
4	Bangladesh	120 073	264	220	119	99	52
5	Nigeria	115 020	255	222	115	100	56
6	Pakistan	139 973	210	150	94	68	59
7	Philippines	69 282	194	280	87	126	61
8	Dem. Rep. of the Congo	46 812	156	333	70	150	63
9	Russian Federation.	148 126	147	99	66	45	65
10	Brazil	161 087	129	80	58	36	67
11	Viet Nam	75 181	125	166	56	75	69
12	South Africa	42 393	106	250	47	113	70
13	Thailand	58 703	101	173	46	78	72
14	Ethiopia	58 243	90	155	41	70	73
15	Myanmar	45 922	87	189	39	85	74
16	Uganda	20 256	61	300	27	135	75
17	Peru	23 944	60	250	27	113	76
18	Iran, Isl.Rep.of	69 975	58	83	26	37	77
19	Afghanistan	20 883	58	278	26	125	77
20	Unit. Rep. of Tanzania	30 799	58	187	26	84	78
21	Sudan	27 291	57	211	26	95	79
22	Mexico	92 718	56	60	25	27	80

Table 6. Case detection rates (%) by WHO region for 1996

WHO regions	CDR among SS+ cases	CDR among all cases
AFR	43	53
AMR	65	53
EMR	23	27
EUR	63	76
SEAR	27	48
WPR	51	57
GLOBAL	39	51

TB among non-nationals in industrialised countries and the Gulf States

Of the 33 special questionnaires sent out to industrialised countries and Gulf States, 29 were returned to WHO and 25 provided complete data. In industrialised countries, the average case notification rate among non-nationals was 14 times (range 2–109) greater than among nationals (Table 7), and exceeding 100/100 000 in the Netherlands and New Zealand. Of the 20 countries that provided data, 9 had case notification rates over 10/100 000. If cases among non-nationals are excluded, only 4 countries had rates above 10/100 000. Seventeen percent of TB cases were reported among non-nationals, and the fraction varied from 1% (Japan) to over 50% (Andorra, Denmark, Luxembourg, Netherlands, New Zealand, Sweden, Switzerland).

Table 7. Tuberculosis (all cases) notifications in nationals and non-nationals* in industrialized countries, 1996

Country	Population	TB cases		TB cases in nationals		TB cases in non-nationals		% of all cases
		no.	rate	no.	rate	no.	rate	
Andorra**	71 000	15	21.1	2	8.9	13	26.7	87
Australia	—	N/A		N/A		N/A		
Austria	8 106 000	1446	17.8	1098	14.9	348	47.7	24
Belgium	10 159 000	1352	13.3	909	9.7	443	53.2	33
Canada	—	N/A		N/A		N/A		
Denmark	5 237 000	484	9.2	195	4.0	289	74.6	60
Germany	81 922 000	11814	14.4	8340	11.2	3474	48.7	29
Finland	5 126 000	645	12.6	606	12.1	39	38.0	6
France***	59 301 000	6554	11.1	4745	8.5	1809	51.7	28
Greece	—	N/A		N/A		N/A		
Iceland	271 000	11	4.1	7	2.7	4	34.3	36
Ireland	—	N/A		N/A		N/A		
Israel	—	N/A		N/A		N/A		
Italy	57 226 000	5570	9.7	4902	8.7	668	61.4	12
Japan+	125 351 000	48956	39.1	48371	38.8	585	75.3	1
Liechtenstein	—	N/A		N/A		N/A		
Luxembourg	412 000	36	8.7	13	4.8	23	16.4	64
Malta	369 000	28	7.6	18	5.1	10	57.7	36
Monaco	32 000	0	0.0	0		0		
Netherlands	15 575 000	1678	10.8	808	5.4	870	118.8	52
New Zealand****	3 602 000	298	8.3	103	2.9	195	318.5	65
Norway	4 348 000	217	5.0	116	2.8	101	45.5	47
Portugal	—	N/A		N/A		N/A		
San Marino	25 000	0	0.0	0		0		
Sweden	8 819 000	493	5.6	200	2.5	293	31.3	59
Switzerland#	7 224 000	764	10.6	333	6.0	431	25.8	56
United Kingdom	—	N/A		N/A		N/A		
USA	269 444 000	21037	7.8	13333	5.5	7704	30.7	37
Total	666 174 000	101398	15.2	84099	14.2	17299	22.8	17

* individuals born abroad or non-citizens of the host country

** 2 cases unknown

*** 878 cases unknown

**** 58 cases unknown

+ Data from 1992

non-nationals include officially recognized foreign-born (1.3 million) + asylum seekers (110 000) + illegals (100 000) + short-term workers (200 000)

In the Gulf States, the case notification rate among non-nationals was 3.4 times (range 0.7–6.0) greater than among nationals (Table 8). Seventy-one percent of TB cases were among non-nationals, varying from 27% in Oman to 92% in the United Arab Emirates.

Table 8. Tuberculosis (all cases) notifications in nationals and non-nationals, the Gulf States, 1996

Country	Population	TB cases		TB cases in nationals		TB cases in non-nationals		
		no.	rate	no.	rate	no.	rate	% of all cases
Bahrain	570 000	156	27.4	49	12.9	107	56.3	69
Kuwait	1 687 000	397	23.5	83	8.7	314	42.5	79
Oman	2 302 000	312	13.6	228	13.2	84	14.6	27
Qatar	558 000	257	46.1	67	60.0	190	42.6	74
Saudi Arabia	—	N/A		N/A		N/A		
United Arab Emirates	2 260 000	461	20.4	38	4.8	423	28.8	92
Total	7 377 000	1 583	21.5	465	12.5	1118	30.7	71

Treatment results for 1995

New sputum smear-positive cases

Based on reports to WHO²¹ collected in 1996, supplemented with data from nine countries which reported after publication, 1 163 610 new sputum smear-positive cases were notified by 183 countries in 1995 (Annex 7). According to 1997 reports, 999 547 (85%) were registered for treatment. Thus, 14% of cases initially reported were not registered for treatment (see Annex 5 for country by country comparisons of notifications and registrations).

In DOTS areas, 360 480 new sputum smear-positive cases were registered for treatment, and 337 409 (94%) were evaluated for treatment outcome. Seventy-two percent of the registered cases were cured and a further 6% completed treatment (without demonstrating cure). The treatment success rate was therefore 78% (Table 9, Annex 2).

In non-DOTS areas, 639 067 new sputum smear-positive cases were registered for treatment, and 354 682 (55%) were evaluated. Twenty-three percent of the registered cases were cured and 22% completed treatment, using either short-course chemotherapy or another regimen. This represents a treatment success rate of 45% (Table 9, Annex 2).

Among the WHO regions, the documented treatment success rates in DOTS areas varied from 62% in Africa to 91% in the Western Pacific Region. African programmes suffer from high default rates (10%) and high death rates (7%), the latter almost certainly because many cases are linked with HIV. The cohort death rate is equally high in Europe, but for a different reason: a high proportion of TB cases in industrialized countries arise in elderly people who commonly die of diseases other than TB.

By comparison, the documented success rates outside DOTS areas varied from 29% in South-East Asia—where 68% of cases were not evaluated—to 73% in the Eastern Mediterranean (Table 9, Annexes 2 and 3).

²¹ WHO Global Tuberculosis Programme. *Global Tuberculosis Control. WHO Report 1997*. WHO/TB/97.225.

Table 9. Treatment outcomes by WHO region and control strategy, 1995

WHO region	Control used	No. of smear-positive cases registered	Not evaluated (%)	Outcomes of treatment						Treat. success (%) [*]
				Cured (%)	Completed treatment (%)	Defaulted (%)	Failed (%)	Died (%)	Transfer out (%)	
AFRO	DOTS	105 245	15	52	10	10	1	7	5	62
	non-DOTS	71 312	8	38	19	14	2	6	14	57
AMRO	DOTS	53 517	8	69	8	6	1	5	3	77
	non-DOTS	74 945	57	22	10	6	1	2	2	31
EMRO	DOTS	18 138	1	69	13	9	1	2	5	83
	non-DOTS	28 302	2	51	23	15	5	1	4	73
EURO	DOTS	4 732	13	50	19	7	2	7	2	69
	non-DOTS	28 702	14	60	7	4	7	6	2	67
SEARO	DOTS	26 574	4	66	8	12	2	4	4	74
	non-DOTS	291 836	68	4	25	1	0	0	1	29
WPRO	DOTS	152 274	1	89	2	2	1	2	3	91
	non-DOTS	143 970	22	43	26	5	1	2	2	68
GLOBAL	DOTS	360 480	6	72	6	6	1	4	3	78
	non-DOTS	639 067	45	23	22	5	1	2	3	45

* Treatment success: % cured plus % completed treatment. Note: occasionally, % may not add to 100% due to rounding

Table 10. Retreatment outcomes in DOTS areas by WHO Region, 1995

WHO region	No. of smear-positive cases registered	Not evaluated (%)	Outcomes of treatment						Treat. success (%) [*]
			Cured (%)	Completed treatment (%)	Defaulted (%)	Failed (%)	Died (%)	Transfer out (%)	
AFRO	5 750	1	57	12	12	3	9	5	69
AMRO	1 104	3	61	11	11	4	6	4	72
EMRO	1 846	2	61	14	12	4	3	4	75
EURO	480	5	20	20	32	8	12	3	40
SEARO	3 271	2	62	6	15	5	4	6	68
WPRO	58 958	2	88	2	1	3	3	1	90
GLOBAL	71 409	2	82	4	3	3	3	2	86

* Treatment success: % cured plus % completed treatment

Retreatment cases

In DOTS areas, 71 409 cases were registered for retreatment, and 69 981 (98%) were evaluated. Eight-two percent of the registered cases were cured and 4% completed treatment. The documented retreatment success rate was 86% (Table 10, Annex 2).

The retreatment success rate varied from 40% in EMR to 90% in WPR. Globally, the retreatment success rate was higher than the treatment success rate among new smear-positive cases. This is due to the high retreatment success rates in China (93%), which currently contributes to 73% of all retreatment cases registered globally (Table 10, Annexes 2 and 3).

Progress in TB control

Case notifications—changes from 1980 to 1996

Figures 3 and 4 show the trend in tuberculosis notifications over the past 11 years in the world and in each WHO Region. The global notification rates have remained roughly stable over this period, but with some notable deviations. The first is the fall in case number between 1991 and 1992, an artefact due largely to a re-evaluation of case numbers in India and Indonesia, and missing data from Pakistan. Between 1995 and 1996, case notifications increased in all regions except the Americas and the Eastern Mediterranean.

Figure 3. Global trend of case notification rates, 1985-1996

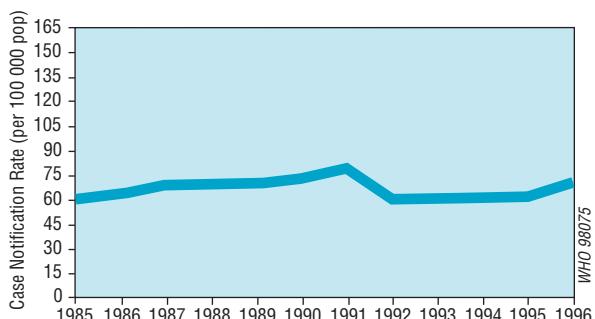
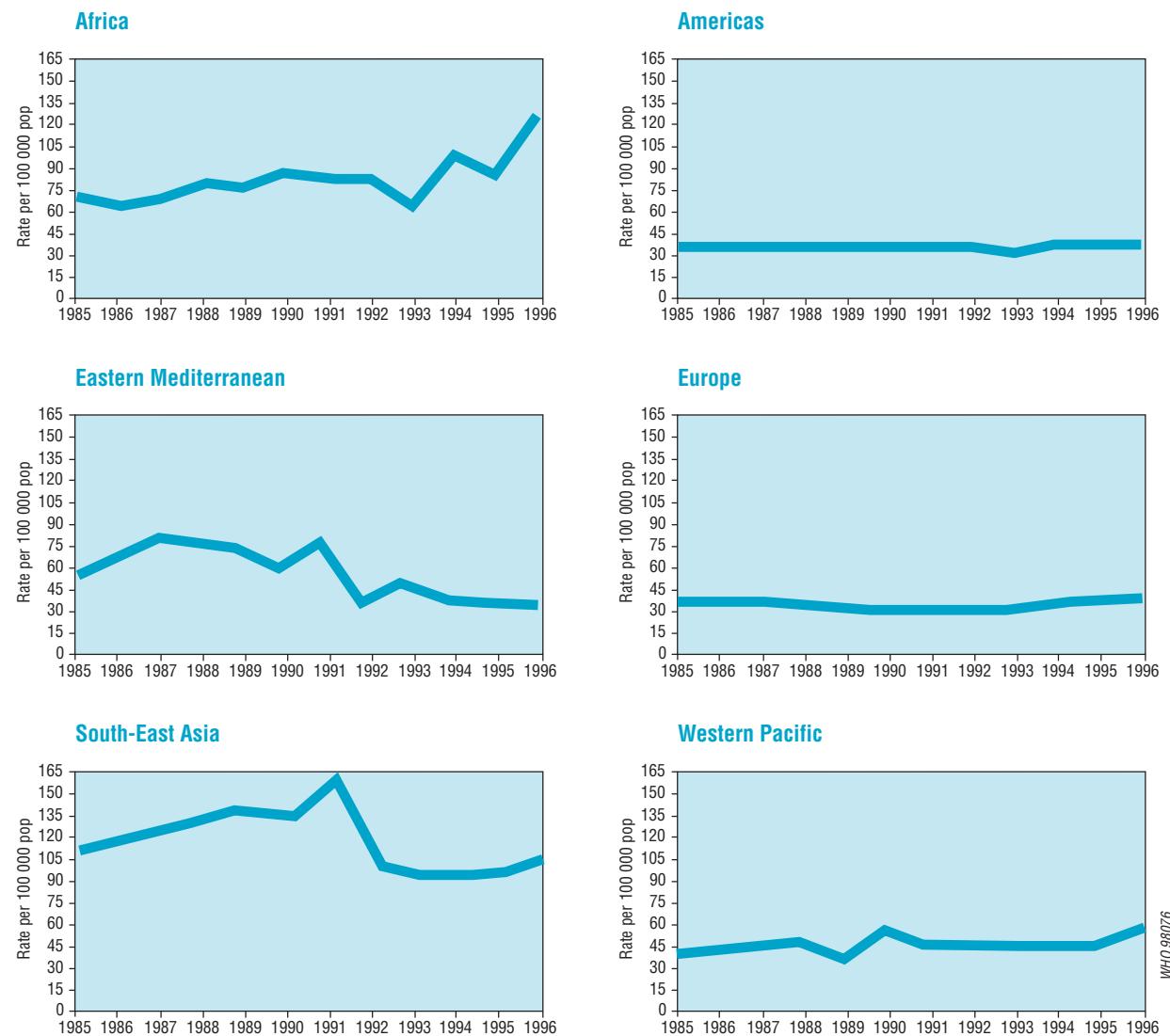


Figure 4. Trend of case notification rates in the WHO regions, 1985-1996



DOTS coverage—trend and changes from 1995 to 1996

The total number of countries reporting to WHO decreased by 3 between the 1996 and the 1997 surveys.²² Ten countries in each of the African and American regions failed to report in 1997 as against 3 and 9, respectively, in 1996. Under-reporting from Africa is partly explained by the constraints experienced by the WHO Regional Office in Brazzaville due to civil conflict. In other WHO regions, the number of countries reporting remained the same (South-East Asia Region) or increased (Eastern Mediterranean, European and Western Pacific Regions) (Table 11).

Table 11. Number of countries reporting to WHO—1996 and 1997 surveys

WHO Regions	1996	1997
AFR	45	37
AMR	38	34
EMR	19	21
EUR	44	50
SEAR	9	9
WPR	28	30
GLOBAL	183	181

The number of countries adopting DOTS has been increasing since 1990 (Figure 5). Still more countries implemented DOTS in 1996, and DOTS coverage increased within many countries (Table 2a). Figure 6 illustrates the balance of change between 1995 and 1996, away from categories 1 (non-DOTS, low incidence), 3 (DOTS, coverage 10-90%) and 5 (non-DOTS, high incidence) and towards category 4 (DOTS, coverage > 90%).

Figure 5. The number of countries implementing DOTS, 1990-1996

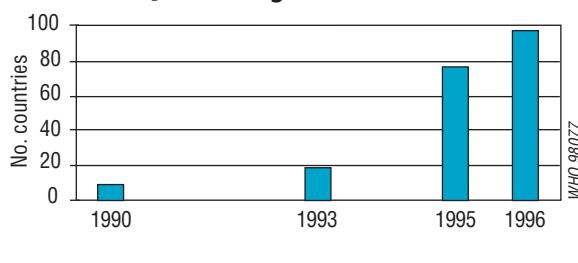
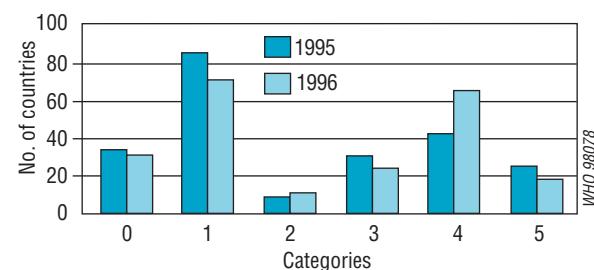


Figure 6. Changes in country categorization, 1995-1996.



In detail, 30 countries implemented DOTS for the first time in 1996 (Table 2a). Six achieved low coverage (< 10%, Category 2): Kyrgyzstan, Nepal, Papua New Guinea, Russian Federation, Sudan and Thailand. Seven achieved moderate coverage (10-90%, Category 3), including Cameroon, Italy and Myanmar. The remaining 17 reached high coverage (> 90%) but, with the exception of USA, these are all small countries with

²² Nine more countries reported after the publication of the Global TB Control, WHO Report 1997; see annex 7 for the updated 1997 profile of case notifications (1995), treatment outcomes (1996) and country classification (by 31/12/1995).

fewer than 5 million inhabitants. Fourteen countries increased DOTS coverage between 1995 and 1996, including Bolivia, Indonesia, Kenya, Republic of Korea, Madagascar and Viet Nam.

Some countries that had apparently implemented DOTS in 1996 have now been de-classified as non-DOTS countries, based on more recent information. They include Iran, Jordan, Lebanon, South Africa, Vanuatu, Uganda and Zimbabwe. Three countries which were known to have implemented DOTS in 1996 had not provided reports by 31 January 1998, and their status was unclear. These are Congo, Equatorial Guinea and Mauritius.

The country categorizations in this Section provide a qualitative or semi-quantitative appraisal of the rate of improvement of TB control around the world. Somewhat more precise estimates of DOTS coverage (% population with access to DOTS) for 1995 and 1996 are given in Annex 6. However, a good TB control programme must satisfy more stringent criteria than high population coverage. These criteria are described in the next section.

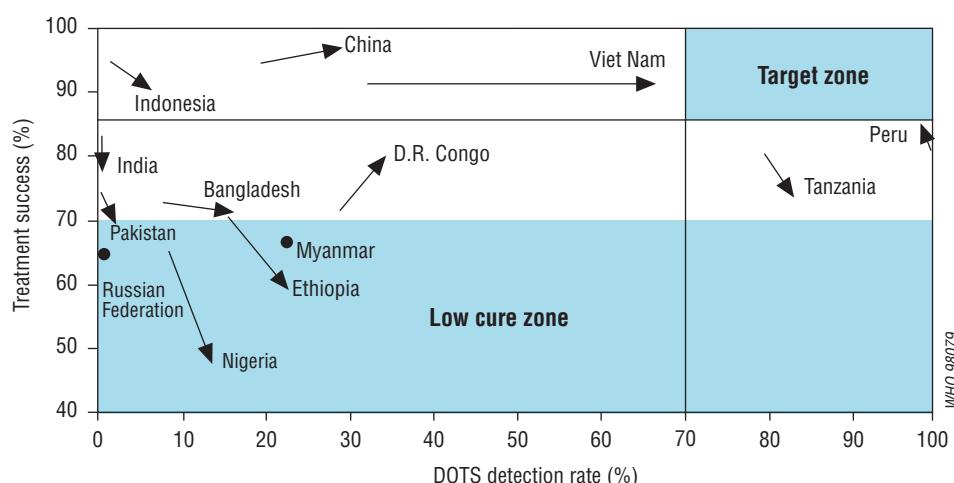


Figure 7. DOTS progress from 1995 to 1996 in high-burden countries. Treatment success refers to cohorts of patients registered in 1994 or 1995 and evaluated, respectively, by the end of 1995 or 1996. DOTS detection rate is the fraction of estimated cases notified under DOTS in 1995 and 1996. Points mark the status of DOTS countries that provided notification data for 1996 and treatment outcome data for patients registered in 1995. Arrows mark one year's progress in DOTS countries that supplied notification and cohort data for two consecutive years.

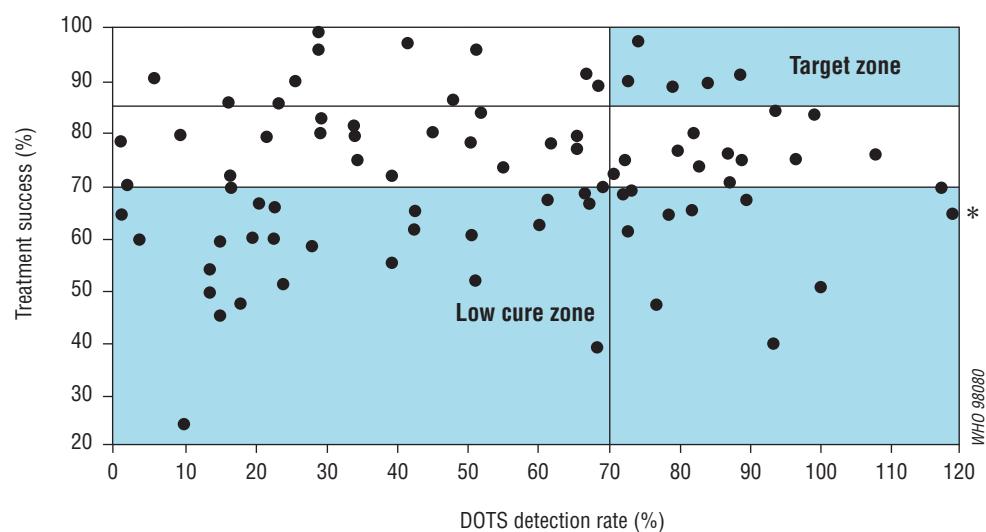
Changes in treatment success (1994-1995) and case detection (1995-1996)

DOTS programmes must be shown to achieve high cure rates in pilot projects before attempting country-wide coverage. Figure 7 expresses this basic principle of TB control by charting the treatment success against the DOTS detection rate. The former is the best estimate of the cure rate in DOTS programmes, whilst the latter is the best available measure of the fraction of infectious TB cases in a country which have access to DOTS treatment. Countries implementing DOTS should enter Figure 7 at the top left-hand corner—aiming for high treatment success even if that means, at first, low case detection. They should then proceed rightwards, increasing the DOTS detection rate without compromising treatment success, i.e. they should stay out of the shaded low-cure zone. The ultimate goal is the target zone at top right. Arrows chart

the progress made by countries between 1995 and 1996, whilst points indicate the status of countries which have recently implemented DOTS for the first time.

Figure 7 focuses on the top 22 high-burden countries (Table 5). Two of these, the Russian Federation and Myanmar, produced their first data on treatment success in 1996 (from cases registered in 1995). Both appear in the low-cure zone. Two other countries with low cure rates in 1995, Nigeria and Ethiopia, have improved case finding, but at the cost of further reduction in measured treatment success.

Indonesia, India and Pakistan, which together account for more than a third of all estimated incident cases, have DOTS programmes with satisfactorily high treatment success rates, but have made almost no progress in expanding these programmes. Bangladesh, China and the Democratic Republic of Congo, bearing a further 20% of incident cases, are steadily recruiting more cases to DOTS programmes whilst maintaining moderate or high rates of cure. However, none of these countries yet has a DOTS programme which finds as many as 50% of new smear-positive cases.



* Uruguay estimated DOTS CDR = 148%

Figure 8. DOTS status in 1996. Estimated DOTS detection rate in 1996 and treatment success in 1995 for 82 countries reporting to WHO during 1997, and for 3 countries reporting in 1996. The remaining DOTS countries have adopted the strategy too recently to provide data on treatment outcomes.

Viet Nam, in the space of a year, appears to have pushed its DOTS programme close to the target zone. Peru has, since 1995, maintained high rates of treatment success and case finding under DOTS. Peru's success, among the high-burden countries, has been matched only by Tanzania, but the recorded treatment success is now falling in Tanzania.

The remaining 9 countries of the top 22 cannot be represented on Figure 7, either because they do not yet have recognised DOTS programmes (Table 2b) or because they have not supplied cohort data on treatment success. Progress in these countries is therefore unknown.

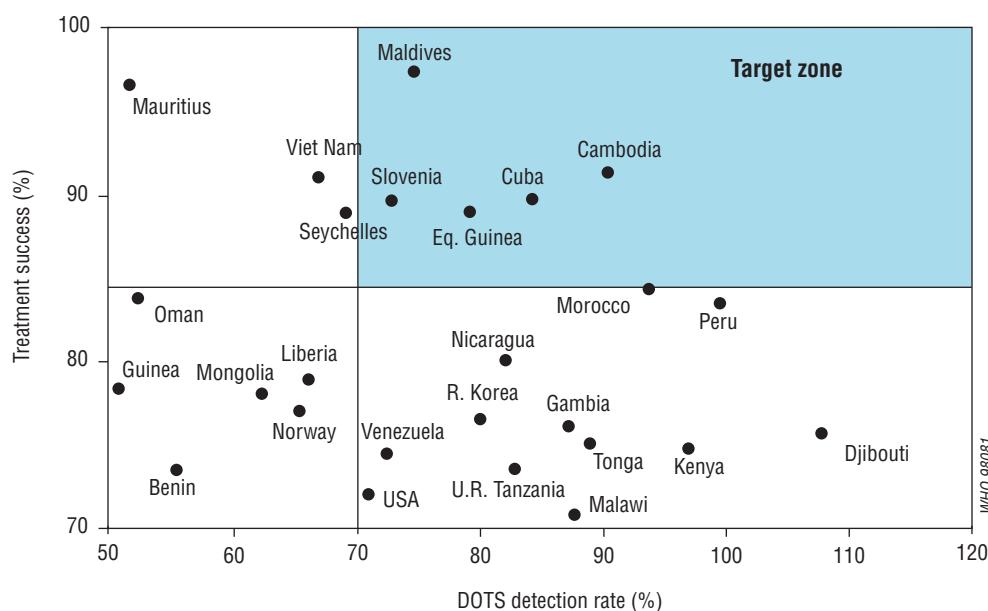


Figure 9. Magnified view of Figure 8, naming 26 countries which have reported treatment success rates over 70% and estimated DOTS detection rates over 50%.

Considering all 85 DOTS countries or territories for which 1996 data are available on case detection and cure, 37 have treatment success rates under 70% (Figure 8). There are, however, 26 countries with treatment success rates above 70% and DOTS detection rates above 50%, including Cambodia, Kenya, Malawi, Republic of Korea and Venezuela (Figure 9). These countries appear to have reached, or are close to reaching, WHO targets. Regarding cure, some are doing almost as well as is possible in the midst of AIDS epidemics: in Kenya, Malawi and Tanzania, treatment success is depressed by relatively high death rates in TB cases infected with HIV. Deaths rates are similarly high in Norway and USA where a high proportion of cases is over 65 years old. However, this group of 26 supports only 6.3% of the estimated global incidence.

Of 52 countries that have provided data from two consecutive cohorts, only one half (26/52) showed higher treatment success rates during 1995-6. And only one quarter managed to improve DOTS detection by more than 1% (13/52, including 6 countries in Figure 7) whilst maintaining treatment success above 70%.

Discussion

The main purposes of this report are to assess the extent of implementation of the WHO TB control strategy (DOTS) worldwide, the achievements of NTPs, and progress towards the targets for case detection and cure set by the World Health Assembly in 1991.

One hundred and eighty-one of 212 member states (85%) submitted data to WHO in 1997, covering 97% of the global population. They reported 3.81 million cases of tuberculosis, of which 1.29 million were smear-positive. Compared with estimated annual global incidence, these figures represent case detection rates of 51% and 39%, respectively.

Between 1995 and 1996, case notifications increased in all regions except the Americas and the Eastern Mediterranean. This growth in cases is attributable both to real rises in incidence, and to better reporting. The relatively large increase in Africa is almost certainly linked to the spread of HIV. Because TB surveillance is improving in many parts of the world, the declines in notifications seen in the American and Eastern Mediterranean regions probably represent real falls in incidence, rather than reporting artefacts. The risk of TB infection has been in slow decline for several decades in countries where socio-economic conditions have steadily improved; it is therefore unclear how much of the decline in notifications is due directly to TB control programmes.

The summary figures for case detection are likely to be under-estimates, because many cases receiving some kind of treatment escape notification. But concealed within these averages are overestimates for particular countries. Some non-DOTS countries appear to have high case detection rates, well above 50%. High rates in many non-DOTS countries invite suspicion because case definitions and methods of data collection are known to be less reliable. Even in DOTS programmes, detection rates such as 89% for Cambodia do not concur with the practical experience of some TB control workers. And any rates above 100% (e.g. Malaysia 117%, Uruguay 148%) are patently wrong. These figures imply either that too many cases are notified, or that incidence estimates are too low. High case detection rates are most credible in countries having sound methods of reporting and treating TB patients, such as Botswana (90%), Gambia (87%), Kenya (97%), Malawi (87%), Morocco (94%) and Peru (99%).

Of the reporting countries, 96 (63%) used DOTS and, in 63 countries, DOTS programmes covered more than 90% of the population (category 4). But only one third of the world's population had access to DOTS (32%) by the end of 1996 as judged by population coverage. True access was undoubtedly lower because fewer than a quarter (23%) of all cases were reported from DOTS areas. These reported cases represent only 12% of all estimated cases, and only 15% of smear-positive cases. A bigger fraction of large countries (population > 75 million) adopted DOTS than smaller countries, but the smaller countries achieved greater DOTS coverage.

Although DOTS is not yet the most widely-used approach to TB control, the data in this report show that programmes using the WHO strategy perform relatively well. DOTS programmes reported 67% of new pulmonary cases to be smear-positive (about 65% expected), compared with 30% elsewhere. This signals the lack of emphasis on

detection and treatment of infectious TB cases outside DOTS areas. Furthermore, DOTS programmes evaluated 94% of registered cases (55% elsewhere) and successfully treated 78% (45% elsewhere), with 72% showing smear-conversion (23% elsewhere). DOTS programmes have two further advantages: they use short-course chemotherapy rather than other regimens, and the data are generally more reliable because definitions of cases and treatment outcomes conform to WHO standards. Whilst treatment success rates are low on average in non-DOTS programmes, some countries departing from standard procedures, such as Thailand,²³ have in the past presented optimistic assessments of cure.

However, the conclusion that DOTS is better requires two caveats. First, it is likely that the differences in performance between DOTS and other programmes are not everywhere so great as suggested by these figures. For example, many industrialized countries probably have high, albeit undocumented, cure rates. As a matter of policy, Argentina and Brazil evaluate treatment outcomes for only one quarter of registered cases; treatment success rates among that quarter are 64% and 68% respectively. These rates are still too low, but markedly higher than the 12% and 17% shown in Annex 3. Second, whilst many of the DOTS programmes implemented to date have achieved high cure rates, future programmes might not be so successful. It is possible that the countries which have now adopted the WHO strategy are those which were pre-disposed to do so because they already offer high-quality health care. DOTS may be harder to implement or less effective elsewhere.

Notwithstanding these reservations, the average fate of the unreported case, and the typical outcome of unevaluated treatment, are bound to be worse in the developing world outside DOTS areas. Such cases are especially numerous in India and the Philippines. Untreated or inadequately treated cases are often persistently infectious, chronically ill, have higher death rates, and carry drug-resistant strains.²⁴ DOTS programmes appear to have been successful in countries as different as China, Malawi, Morocco, Peru and Tanzania, all of which have demonstrated persistently high cure rates over several years (unpublished data provided by NTPs). We shall only know about the future performance of DOTS—and particularly the impact on transmission and incidence—when more countries try to implement this strategy; the minimum value of such programmes is that they provide, through a standard recording and reporting system, reliable data to document the successes or failures of control.

Although a majority of reporting states has now adopted DOTS, recent progress in most of the 22 highest-burden countries has been slow (Figure 7, Table 12). Nine of the 22 have either not yet adopted DOTS (Brazil), or have not yet provided data on case detection and/or treatment success. Four show treatment success rates that are much too low (Ethiopia, Myanmar, Nigeria, Russia). Three achieve high treatment success in DOTS programmes, but have been slow to expand their programmes nationwide (Indonesia, India, Pakistan). Three more appear to be making steady progress whilst maintaining high cure rates (Bangladesh, China, DR Congo).

Recently, Viet Nam has been the most progressive of all the high-burden countries. Recorded treatment success rates have been high outside DOTS programmes in Viet Nam (85% in 1995 under treatment regimens other than short-course chemotherapy); presumably the cure rate will be as high, or higher, when these same Districts report under DOTS. Tanzania and Peru have succeeded in sustaining high case detection and cure rates, though there are signs now that fewer treated cases are being properly evaluated in Tanzania. This is largely because a smaller fraction of cases registered under DOTS was evaluated in Tanzania in 1996. Although the death rate in DOTS cohorts (8.8%) is relatively high, probably because a high fraction of cases is HIV-

²³ WHO 1995. *Tuberculosis Programme Review: Thailand*. WHO/TB/95.192.

²⁴ Jain NK. Drug resistance in India: a tragedy in the making. *Ind J Tub* 1992; 39:145-8.

Table 12. Progress in DOTS implementation and expansion 1995-6, for the top 22 high-burden countries

Non-DOTS or incomplete data	DOTS				
	Low treatment success	High treatment success Slow expansion	High treatment success Steady expansion	High treatment success Rapid expansion	High treatment success High case detection
Afghanistan*	Ethiopia	Indonesia	Bangladesh	Viet Nam	Peru
Brazil	Myanmar	India	China		Tanzania
Iran*	Nigeria	Pakistan	DR Congo		
Mexico*	Russian Fed.				
Philippines**					
South Africa*					
Sudan**					
Thailand**					
Uganda*					

* Implementing DOTS in 1997 and data not yet available

** Implemented DOTS in 1996 and treatment outcome data not yet available

infected, the death rate recorded in 1996 was no higher than in 1995.

Examining all the DOTS countries for which 1996 data are available, it is clear that many need to increase cure rates before expanding case detection: 37 out of 85 have treatment success rates under 70%. There are 26 DOTS countries with treatment success rates above 70% and case detection rates above 50%, including Benin, Cambodia, Cuba, Guinea, Kenya, Malawi, Morocco, Nicaragua, Republic of Korea, Slovenia and Venezuela. These countries appear to have met, or are close to meeting, the WHO targets, but support only 6% of estimated global incidence.

Whilst a number of countries now have high case detection and cure rates, the general picture of progress resembles that for the high-burden countries. Of 52 countries that have provided data from two consecutive cohorts, only a half showed higher treatment success rates in 1996, and only a quarter managed to improve DOTS detection by more than 1% whilst maintaining treatment success above 70%.

In countries where TB has been declining for many years, the nature of the tuberculosis problem is changing. Where incidence is now low, the relevant question about case detection is not geographical reach, but rather the identification of cases arising in groups at high risk. This report highlights the growing significance of TB in one such risk group, non-nationals, by presenting data from 25 industrialized countries and Gulf States. The per capita incidence rates are commonly high—14 times higher than among nationals in industrialized countries, and exceeding 100/100,000 in the Netherlands and New Zealand. In 11 of the 25 countries, cases among non-nationals outnumbered indigenous cases.

In summary, DOTS programmes reported more accurately the balance between infectious and non-infectious cases, as compared with other control programmes. They evaluated a higher fraction of registered cases, achieved higher treatment success rates, and documented a higher fraction of cures by smear conversion. However, only 12% of the world's TB cases were reported by DOTS programmes in 1996, even though 96 countries have now adopted the WHO strategy. Only 26 DOTS countries had case detection and cure rates which approach WHO targets. Many of the high-burden countries—above all India, Indonesia, Nigeria and Pakistan—were not among the 26, and were advancing in the direction of the targets slowly. Progress in these and other high-incidence countries is the key to global tuberculosis control. The DOTS control programmes in Viet Nam, Peru and Tanzania are exemplary; they must be sustained, and held up as models for other national programmes.

ANNEX 1

Data Collection Form A and B

(used for data collection in the 1997
survey only)

TUBERCULOSIS DATA COLLECTION FORM

1	Country:
2	
Name of National TB Control Programme Manager (or equivalent):.....	
Title:.....	
Address:.....	
Telephone:..... Fax:..... E-mail:.....	

3 WHO TB Control Strategy (see *Guidelines* for further explanations)

3.1	Do you routinely use sputum microscopy to diagnose suspected pulmonary TB cases?	Yes <input type="checkbox"/> No <input type="checkbox"/> parts of country only <input type="checkbox"/>
3.2	Do you use standardized, short-course chemotherapy (less than 9 months) all sputum smear positive cases?	Yes <input type="checkbox"/> No <input type="checkbox"/> parts of country only <input type="checkbox"/>
3.3	Do you provide directly observed treatment during, at least, the initial phase (2 or 3 months) of treatment?	Yes <input type="checkbox"/> No <input type="checkbox"/> parts of country only <input type="checkbox"/>
3.4	Have you had any stock outs of anti-tuberculosis drugs during the last year?	Yes <input type="checkbox"/> No <input type="checkbox"/> parts of country only <input type="checkbox"/>
3.5	Do you use a recording and reporting system consistent with the one recommended by WHO?	Yes <input type="checkbox"/> No <input type="checkbox"/> parts of country only <input type="checkbox"/>
3.6	Do you evaluate the treatment outcome of all new sputum smear positive cases using cohort analysis and WHO definitions?	Yes <input type="checkbox"/> No <input type="checkbox"/> parts of country only <input type="checkbox"/>

4 National TB Control Policy and Training

4.1	Do you have a national TB control manual which includes recommendations on questions 3.1 to 3.6?	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.2	Has the manual been reviewed (and endorsed) by WHO - Regional Office or Headquarters?	Yes <input type="checkbox"/> No <input type="checkbox"/>
4.3	Has a training course which utilized the WHO training modules, or compatible tools, been organized within the past 2 years?	Yes <input type="checkbox"/> No <input type="checkbox"/>

If you answered questions 3.1 to 3.6 in the following manner:

«Yes» to all questions



please complete Part A only.

«Yes» and «Parts of country» to some of the questions



please complete Part A and B.

«No» to one or more of the questions



please complete Part B only.

PART A - For areas of the country where the WHO TB control strategy was implemented

5 History

5.1	When did you start using the WHO recommended recording and reporting system?	Month:	Year:
-----	--	--------	-------

6 Coverage in 1996

6.1	How many basic administrative/operational units (where the TB register is being kept) in your country were implementing the WHO TB control strategy by December 31, 1996?	Total no. of administrative/operational units in country: No. of administrative/operational units implementing WHO strategy:
6.2	What proportion of the country's population live in these administrative/operational units (implementing the WHO TB control strategy)?	%
6.3	Did all of these administrative/operational units (implementing the WHO TB control strategy) notify their TB cases to the central level? If not, how many did not report?	Yes <input type="checkbox"/> No <input type="checkbox"/> No. not reporting:

FOR SECTIONS 7, 8, 9 and 10 - PLEASE REPORT FOR 1996

(If the data presented in these sections is only available for part of 1996, please indicate the period to which the data applies somewhere in the margins of the form.)

7 Case notifications (absolute numbers)

Pulmonary				Extra-pulmonary (d)	TOTAL (e)		
Smear Positive		Smear Negative (c)					
New Cases (a)	Relapses (b)						

Section 8 is optional. If you do not have this information available, please move on to Section 9.

8 Retreatment cases (absolute numbers)

Smear-Positive				
Relapses (a)		Failures (b)	Retreatment after interruption (c)	Total (d)

9 New pulmonary smear positive cases by age and gender (absolute numbers)

0-14		15-24		25-34		35-44		45-54		55-64		65+		TOTAL	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F

10 Smear conversion

10.1	What was the number of new sputum smear positive cases that converted to smear negative by the end of the 3rd month of treatment?	
10.2	What was the number of new sputum smear positive cases that were evaluated for smear conversion by the end of the 3rd month of treatment?	

FOR SECTIONS 11 and 12 - PLEASE REPORT FOR 1995

(If the data presented in these sections is only available for part of 1995, please indicate the period to which the data applies somewhere in the margins of the form.)

IMPORTANT:

1. If the WHO TB control strategy was not implemented by the beginning of 1995, do not complete Sections 11 and 12. Please write the information in Part B, Section 15 (for new sputum smear positive cases only).
2. If any new sputum smear positive cases were treated with another regimen (not short-course), please record their treatment outcomes in Part B, section 16.

11 Treatment results for new pulmonary smear positive cases (absolute numbers)

	Total cases registered (a)	Total cases evaluated (b)	Smear negative at end of treatment (cured) (c)	Completed treatment, but smear not done at end of treatment (d)	Died (e)	Failure (f)	Interrupted Treatment (g)	Transferred out (h)
Short Course								

12 Treatment results for retreatment smear positive cases (absolute numbers)

	Total cases registered (a)	Total cases evaluated (b)	Smear negative at end of treatment (cured) (c)	Completed treatment, but smear not done at end of treatment (d)	Died (e)	Failure (f)	Interrupted Treatment (g)	Transferred out (h)
Short Course								

PART B - For areas of the country where the WHO TB control strategy was not implemented

13 Coverage in 1996

13.1	How many basic administrative/operational units (where the TB register is being kept) in your country were NOT implementing the WHO TB control strategy by December 31, 1996?	Total no. of administrative/operational units in the country: No. of administrative/operational units NOT implementing the WHO strategy:
13.2	What proportion of the country's population live in these administrative/operational units (not implementing the WHO TB control strategy)?	%
13.3	Did all of these administrative/operational units (not implementing the WHO TB control strategy) notify their TB cases to the central level? If not, how many did not report?	Yes <input type="checkbox"/> No <input type="checkbox"/> No. not reporting:.....

FOR SECTIONS 14 and 15 - PLEASE REPORT FOR 1996

(If the data presented in these sections is only available for part of 1996, please indicate the period to which the data applies somewhere in the margins of the form.)

14 Case notifications (absolute numbers)

Pulmonary		Extra-pulmonary (e)	TOTAL (f)		
Smear Positive					
New Cases (a)	Relapses (b)				

15 New pulmonary smear positive cases by age and gender (absolute numbers)

0-14		15-24		25-34		35-44		45-54		55-64		65		TOTAL	
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F

FOR SECTIONS 16 - PLEASE REPORT FOR 1995

(If the data presented in these sections is only available for part of 1995, please indicate the period to which the data applies somewhere in the margins of the form.)

16 Treatment results for new smear positive cases (absolute numbers)

	Total cases registered (a)	Total cases evaluated (b)	Smear negative at end of treatment (cured) (c)	Completed treatment, but smear not done at end of treatment (d)	Died (e)	Failure (f)	Interrupted Treatment (g)	Transferred out (h)
Short Course								
Other Regimens								

ANNEX 2

Global Profile

Explanatory notes

GLOBAL PROFILE

Case Finding

Rows

- DOTS** The information listed in this row refers to those areas of the Region in which DOTS is implemented.
- non-DOTS** The information listed in this row refers to those areas of the Region in which DOTS is *not* implemented.
- No report** The information listed in this row refers to those areas of the Region on which GTB has no direct information as no reports were received.
- Total** The sum of the three cells listed above (DOTS, non-DOTS, and no report).

Columns

- a The total number of people which live in those areas of the Region where DOTS is implemented/not implemented and for which no report is available.
- b The proportion of the total population of the region which lives in those areas where DOTS is implemented/not implemented, and for which no report is available.
- c The total number of tuberculosis cases (all types) notified to WHO.
- d The case notification rate (per 100 000 population) for those areas where DOTS is implemented/not implemented.
- e The proportion of all notified cases coming from those areas where DOTS is implemented/not implemented.
- f The total number of new sputum smear-positive cases notified to WHO.
- g The case notification rate (per 100 000 population) of new sputum smear-positive cases in areas where DOTS is implemented/not implemented.
- h The total number of new sputum smear-positive cases estimated for the entire Region, based on the estimates provided in the World Bank's *World Development Report 1993*.
- f/h The proportion of new sputum smear-positive cases notified by the Region out of the total number of new sputum smear-positive cases estimated for the Region.
- i The proportion of new sputum smear-positive cases out of the number of new pulmonary cases (new sputum smear-positive + sputum smear-negative) in those areas where DOTS is implemented/not implemented.

Explanatory notes

GLOBAL PROFILE

Treatment outcomes

New sputum smear-positive cases

- j The number of new smear-positive cases *registered* in 1995.
- k The proportion of new smear-positive cases not evaluated ($[j] - [l+m+n+o+p+q]$) out of the number of new smear-positive cases registered (j). This indicator should be close to zero, showing that all registered cases have been evaluated for treatment outcome.
- l The proportion of new sputum smear-positive cases which were cured (defined as a patient who completed treatment and had a negative sputum smear result, on at least two occasions, one of which was at completion of treatment) out of the number of cases registered (j). This indicator should be at least 85%.
- m The proportion of new sputum smear-positive cases which completed treatment (no or only one negative sputum exam at the end of treatment) out of the number of cases registered (j). This indicator should be as small as possible as all cases should have a sputum examination at the end of treatment.
- n The proportion of new sputum smear-positive cases who did not collect anti-tuberculosis drugs for 2 months or more out of the number of cases registered (j). This indicator should be as close to zero as possible.
- o The proportion of new sputum smear-positive cases who remained or became again smear-positive 5 months or later after starting treatment out of the number of cases registered (j). This indicator should be as close to zero as possible.
- p The proportion of new sputum smear-positive cases who died during treatment, regardless of cause, out of the number of cases registered (j). This indicator should be as close to zero as possible.
- q The proportion of new sputum smear-positive cases who were transferred out to another treatment unit and whose treatment results are unknown out of the number of cases registered (j). This indicator should be close to zero since the treatment outcomes of all cases – except those leaving the country –should be known at national level, regardless of patients moving from one district to another.
- r The sum of cases which were cured (l) and which completed treatment (m) as a proportion of the number of cases *registered* (j). This indicator measures the treatment success of the programme.

Retreatment cases

The same explanations apply as above.

(Retreatment cases are defined as those cases which previously received treatment but returned to the health centre with a positive sputum smear examination. These cases include defaulters (n), failures (o), and relapses, i.e., previously cured cases.)

Explanatory notes

GLOBAL PROFILE

WHO TB Control Categories

No. of countries The number of countries, territories and areas.

No. of countries reporting The number of countries which have reported to WHO, using the appropriate TB data collection form, as of the date of the Global Profile.

No. of countries in category

- 0 The number of countries which have not reported to WHO.
- 1 Countries not implementing the DOTS strategy and having a case notification rate of over 10 cases per 100 000 population
- 2 The number of countries implementing the DOTS strategy in less than 10% of the total population (pilot phase).
- 3 The number of countries implementing the DOTS strategy in 10 to 90% of the total population (expansion phase).
- 4 The number of countries implementing the DOTS strategy in over 90% of the total population (routine implementation).
- 5 The number of countries not implementing the DOTS strategy but having a case notification rate of less than 10 cases per 100 000 population (low incidence). These countries are considered as being of low priority because their TB burden is small.

Proportion of countries in category

- 0 The proportion of the total population of the Region living in countries or areas which have not reported to WHO.
- 1 The proportion of the total population of the Region living in countries or areas which do not accept DOTS and have case notification rates of over 10 per 100 000 population.
- 2 The proportion of the total population of the Region living in countries or areas which have <10% DOTS coverage.
- 3 The proportion of the total population of the Region living in countries or areas which have <10-90% DOTS coverage.
- 4 The proportion of the total population of the Region living in countries or areas which have >90% DOTS coverage.
- 5 The proportion of the total population of the Region living in countries or areas which do not accept DOTS but have case notification rates of <10 per 100 000 population.

Note: For categories 2 and 3 under "Proportion of countries or areas in category", the proportion reported does not correspond to the true percentage of the global population having access to DOTS because not all countries have 100% coverage. A more realistic indicator for illustrating the population coverage with DOTS is shown on the first page of the Global Profile under column b/row "DOTS".

Global Profile

As of 03-nov-98

Case Finding (1996)

	Population Covered		Notified Cases				Estimated Cases	Case detection of new ss+ cases	New ss+ cases/ new pulm. cases	
			All types		New ss+					
	No.	% of total	No.	Rate	% of total	No.	Rate	No.	%	%
	a	b	c	d	e	f	g	h	f/h	i
AFRO	DOTS	273.871.536	46,0	302.548	110,5	44,8	155.146	56,6	574.375	64,9
	non-DOTS	272.270.964	45,8	373.390	137,1	55,2	93.833	34,5		32,1
	no report	48.894.500	8,2							
	Total	595.037.000	100,0	675.938	123,8	99,0	248.979	45,6		43,3
AMRO	DOTS	378.610.000	48,4	94.212	24,9	38,9	52.220	13,8	205.233	69,6
	non-DOTS	373.498.000	47,7	147.945	39,6	61,1	81.783	21,9		64,3
	no report	30.341.000	3,9							
	Total	782.449.000	100,0	242.157	32,2	99,0	134.003	17,8		65,3
EMRO	DOTS	47.648.435	10,3	44.517	93,4	30,8	21.651	45,4	252.539	76,4
	non-DOTS	375.627.565	81,1	100.035	26,6	69,2	36.499	9,7		44,9
	no report	39.719.000	8,6							
	Total	462.995.000	100,0	144.552	34,2	99,0	58.150	13,7		23,0
EURO	DOTS	71.083.095	8,2	19.366	27,2	6,0	6.100	8,6	190.346	41,4
	non-DOTS	786.564.905	90,6	301.667	38,4	94,0	112.980	14,4		43,0
	no report	10.521.000	1,2							
	Total	868.169.000	100,0	321.033	37,4	100,0	119.080	13,9		62,6
SEARO	DOTS	174.098.583	12,1	90.289	51,9	6,1	51.075	29,3	1.385.437	63,9
	non-DOTS	1.238.657.417	86,3	1.390.728	112,3	93,9	322.044	26,0		24,6
	no report	22.466.000	1,6							
	Total	1.435.222.000	100,0	1.481.017	104,8	99,0	373.119	26,4		26,9
WPRO	DOTS	898.656.222	55,3	336.799	37,5	35,8	206.582	23,0	688.723	68,3
	non-DOTS	705.352.378	43,4	603.567	85,6	64,2	146.592	20,8		27,2
	no report	20.610.400	1,3							
	Total	1.624.619.000	100,0	940.366	58,6	99,0	353.174	22,0		51,3
GLOBAL	DOTS	1.843.967.871	32,0	887.731	48,1	23,3	492.774	26,7	3.296.653	66,6
	non-DOTS	3.751.971.229	65,0	2.917.332	77,8	76,7	793.731	21,2		30,4
	no report	172.551.900	3,0							
	Total	5.768.491.000	100,0	3.805.063	68,0	99,0	1.286.505	23,0		39,0

Treatment Outcomes (1995)

WHO TB Control Categories (1996)

Regions	No. of countries	No. of countries reporting	No. of countries in category					Proportion of population in category (%)						
			0	1	2	3	4	5	0	1	2	3	4	5
AFRO	47	37	10	9		9	19		8,2	16,8		46,3	28,8	
AMRO	44	34	10	15			14	5	3,9	47,2			48,4	0,5
EMRO	23	21	2	9	3	2	4	3	8,6	27,5	49,8	5,5	6,6	2,0
EURO	52	50	2	29	2	4	9	6	1,2	64,6	17,6	8,5	5,8	2,4
SEARO	10	9	1		3	3	3		1,6		71,4	25,6	1,4	
WPRO	36	30	6	7	2	5	14	2	1,1	8,1	4,5	77,1	8,8	0,2
GLOBAL	212	181	31	69	10	23	63	16	3,0	22,4	25,7	34,6	13,8	0,6

ANNEX 3

Regional Profiles

Africa

The Americas

The Eastern Mediterranean

Europe

South East Asia

Western Pacific

For each Region:

1. TB control policy
2. Regional Profile
3. Age and Sex case distribution
4. Case notification trends

Explanatory notes

REGIONAL PROFILE

Each Regional Profile is separated into two parts, each consisting of three sections:

Part 1 is on those areas of the country where DOTS is implemented.

Part 2 is on those areas of the country where DOTS is not implemented.

Each part has three sections:

1: country information.

2: coverage of TB control strategy.

3: treatment outcomes of new sputum smear-positive cases and retreatment cases.

Country Information (1996)

- a The total number of people who live in the country.
- b The total number of tuberculosis cases (all types) notified to WHO.
- c The case notification rate (per 100 000 population).
- d The total number of new sputum smear-positive cases notified to WHO.
- e The new sputum smear-positive case notification rate (per 100 000 population).
- f The total number of new sputum smear-positive cases estimated for the country.
- d/f The proportion of new sputum smear-positive cases notified by the country (d) out of the total number of new sputum smear-positive cases estimated for the country (f).
- g The TB control category by which the country is classified.

WHO TB Control Strategy (DOTS)

Coverage

- h The total number of people which are covered by DOTS.
- h/a The proportion of the population covered by DOTS (h) out of the total population of the country (a).
- i The number of cases (all types) notified in those areas of the country where DOTS is implemented.
- j The case notification rate (per 100 000 population) in those areas of the country where DOTS is implemented.
- k The proportion of cases notified in those areas where DOTS is implemented (i) out of the total number of cases notified for the entire country (b).
- l The number of new sputum smear-positive cases notified in those areas of the country where DOTS is implemented.
- m The new sputum smear-positive case notification rate (per 100 000 population) in those areas of the country where DOTS is implemented.
- n The proportion of new sputum smear-positive cases out of all new pulmonary cases. This indicator reflects prioritisation of, and capability to, perform smear microscopy examinations.

Explanatory notes

REGIONAL PROFILE

Treatment Outcomes in 1995

New sputum smear-positive cases

- o The number of new smear-positive cases registered in 1995 in those areas of the country where DOTS is implemented.
- p The proportion of new smear-positive cases not evaluated ($([o]-[q+r+s+t+u+v])$ out of the number of new smear-positive cases registered (o). This indicator should be close to zero, showing that all registered cases have been evaluated for treatment outcome.
- q The proportion of new sputum smear-positive cases which were cured (defined as a patient who completed treatment and had a negative sputum smear result, on at least two occasions, one of which was at completion of treatment) out of the number of cases registered (o). This indicator should be at least 85%.
- r The proportion of new sputum smear-positive cases which completed treatment (no or only one negative sputum examination at the end of treatment) out of the number of cases registered (o). This indicator should be as small as possible as all cases should have a sputum examination at the end of treatment.
- s The proportion of new sputum smear-positive cases who did not collect anti-tuberculosis drugs for 2 months or more out of the number of cases evaluated (p). This indicator should be as close to zero as possible.
- t The proportion of new sputum smear-positive cases who remained or became again smear-positive 5 months or later after starting treatment out of the number of cases evaluated (p). This indicator should be as close to zero as possible.
- u The proportion of new sputum smear-positive cases who died during treatment, regardless of cause, out of the number of cases registered (o). This indicator should be as close to zero as possible.
- v The proportion of new sputum smear-positive cases who were transferred out to another treatment unit and whose treatment results are unknown out of the number of cases registered (o). This indicator should be close to zero since the treatment outcomes of all cases - except those leaving the country - should be known at national level, regardless of patients moving from one district to another.
- w The sum of cases which were cured (q) and which completed treatment (r) as a proportion of the number of cases registered (o). This indicator measures the treatment success of the programme.

Retreatment cases:

The same explanations apply as above.

(Retreatment cases are defined as those cases which previously received treatment but returned to the health centre with a positive sputum smear examination. These cases include defaulters (n), failures (o), and relapses, i.e., previously cured cases.)

Other Strategy (non-DOTS)

The same explanations apply as those listed under WHO TB Control Strategy (DOTS) except that all information shown here refers to those areas of the country where the strategy is not implemented.

AFRICA

African Region

Country	Category of the Country as of 31/12/96	National Manual	Training	DOTS Technical Elements					DOTS Implemented in 1997
				Use of Microscopy for Diagnosis	SCC	DOT	Drug Availability	Recording and Reporting System	
Algeria	0								
Angola	1								
Benin	4								
Botswana	4								
Burkina Faso	3								
Burundi	4								
Cameroon	3								
Cape Verde	0								
Central African Republic	0								
Chad	3								
Comoros	4								
Congo	0								
Congo (Democratic Rep.)	3								
Equatorial Guinea	0								
Eritrea	1								X
Ethiopia	3								
Gabon	1								
Gambia	4								
Ghana	3								
Guinea	4								
Guinea-Bissau	1								
Ivory Coast	4								
Kenya	4								
Lesotho	4								
Liberia	3								
Madagascar	4								
Malawi	4								
Mali	4								
Mauritania	0								
Mauritius	0								
Mozambique	4								
Namibia	4								
Niger	0								
Nigeria	3								
Rwanda	4								
Sao Tome and Principe	0								
Senegal	4								
Seychelles	4								
Sierra Leone	3								
South Africa	1								X
St. Helena	0								
Swaziland	1								
Tanzania (United Rep. of)	4								
Togo	4								
Uganda	1								X
Zambia	1								
Zimbabwe	1								X

1 Presence of national manual, or a document issued by the government or an authorised scientific body, including policy recommendations endorsed by WHO

2 "WHO standard" training course on management of TB control programmes has been carried out within the past two years; or training materials endorsed by WHO or IUATLD

3 Short course chemotherapy

4 Directly observed treatment

5 A regular supply system of all essential anti-tuberculosis drugs and diagnostic materials

6 Presence of WHO/IUATLD recommended recording and reporting system showing assessment of treatment results

Legend: Element of DOTS strategy missing

White - Missing

Grey - Present in part of the Country

Blue - Fully implemented (more than 90%) in the country

Regional Profile - AFRO

As of 24-Nov-98

Regional Profile - AFRO

As of 24-Nov-98

Countries	Country Information (1996)								WHO TB Control Strategy (DOTS)										
	Population	Notified Cases				New ss+ cases estimated	% case detection of new ss+ cases	Category	Population		Notified cases		% cases out of all cases	New ss+ cases notified		% new ss+ out of all new pulm. cases			
		All types		New ss+					No.	(%)	No.	Rate		No.	Rate				
		No.	Rate	No.	Rate														
	a	b	c	d	e	f	d/f	g	h	h/a	i	j	k	l	m	n			
Nigeria	115,020,000	24,063	20.9	15,704	13.7	114,905	13.7	3	34,506,000	30.0	24,063	69.7	100.0	15,704	45.5	68.0			
Rwanda	5,397,000	3,535	65.5	2,034	37.7	6,314	32.2	4	5,397,000	100.0	3,535	65.5	100.0	2,034	37.7	67.6			
Sao Tome and Principe	135,000					61		0											
Senegal	8,532,000	8,516	99.8	5,940	69.6	6,373	93.2	4	8,532,000	100.0	8,516	99.8	100.0	5,940	69.6	82.6			
Seychelles	74,000	15	20.3	9	12.2	13	69.2	4	74,000	100.0	15	20.3	100.0	9	12.2	81.8			
Sierra Leone	4,297,000	3,241	75.4	2,234	52.0	3,229	69.2	3	3,738,390	87.0	3,241	86.7	100.0	2,234	59.8	75.1			
South Africa	42,393,000	91,578	216.0	37,178	87.7	47,692	78.0	1											
Swaziland	881,000	3,893	441.9	2,226	252.7	793	280.7	1											
Togo	4,201,000	1,654	39.4	913	21.7	4,613	19.8	4	4,201,000	100.0	1,654	39.4	100.0	913	21.7	71.3			
Uganda	20,256,000	27,356	135.1	15,175	74.9	27,346	55.5	1											
United Republic of Tanzania	30,799,000	44,416	144.2	21,472	69.7	25,917	82.8	4	30,799,000	100.0	44,416	144.2	100.0	21,472	69.7	60.5			
Zambia	8,275,000	40,417	488.4	12,072	145.9	12,847	94.0	1											
Zimbabwe	11,439,000	35,735	312.4	11,965	104.6	10,655	112.3	1											
Other Territories																			
St. Helena	6,000					3		0											
Regional Total	595,037,000	675,938	123.7	248,979	45.6	574,375	43.3		273,871,536	46.0	302,548	110.5	44.8	155,146	56.6	64.9			

Countries	WHO TB Control Strategy (DOTS)																	
	Treatment Outcomes in 1995																	
	New ss+ cases									Retreatment cases								
	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)
	<i>o</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>s</i>	<i>t</i>	<i>u</i>	<i>v</i>	<i>w</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>aa</i>	<i>ab</i>	<i>ac</i>	<i>ad</i>	<i>ae</i>	<i>af</i>
Nigeria	9,476	34.2	34.0	15.1	9.0	2.0	4.7	1.0	49.1									
Rwanda																		
Sao Tome and Principe																		
Senegal	5,421	35.0	31.5	7.8	12.2	3.9	3.1	6.5	39.3	634		45.0	11.0	25.1	9.8	4.7	4.4	56.0
Seychelles	9		88.9				11.1		88.9									
Sierra Leone	1,315		54.6	14.7	16.1	7.4	5.4	1.8	69.3	69		72.5	14.5	4.3	4.3	2.9	1.4	87.0
South Africa																		
Swaziland																		
Togo	856	8.2	42.4	17.9	17.4	2.6	9.2	2.3	60.3	93	34.4	16.1	17.2	19.4	4.3	5.4	3.2	33.3
Uganda																		
United Republic of Tanzania	19,955	7.5	68.7	4.8	5.7	0.6	8.8	3.9	73.5	1,455		66.5	9.9	7.6	1.2	11.1	3.6	76.4
Zambia																		
Zimbabwe																		
Other Territories																		
St. Helena																		
Regional Total	105,245	15.2	51.9	10.0	10.2	1.4	6.7	4.5	61.9	5,750	1.3	56.9	12.1	12.3	3.0	9.4	4.9	69.0

Regional Profile - AFRO

As of 24-Nov-98

Regional Profile - AFRO

As of 24-Nov-98

Countries	Country Information (1996)								Other Strategy (non-DOTS)								% new ss+ out of all new pulm. cases		
	Population	Notified Cases				New ss+ cases estimated	% case detection of new ss+ cases	Category	Population		Notified cases		% cases out of all cases	New ss+ cases notified					
		All types		New ss+					No.	Rate	No.	Rate		No.	Rate				
		No.	Rate	No.	Rate														
	a	b	c	d	e	f	d/f	g	h	h/a	i	j	k	l	m	n			
Nigeria	115,020,000	24,063	20.9	15,704	13.7	114,905	13.7	3	80,514,000	70.0									
Rwanda	5,397,000	3,535	65.5	2,034	37.7	6,314	32.2	4											
Sao Tome and Principe	135,000					61		0											
Senegal	8,532,000	8,516	99.8	5,940	69.6	6,373	93.2	4											
Seychelles	74,000	15	20.3	9	12.2	13	69.2	4											
Sierra Leone	4,297,000	3,241	75.4	2,234	52.0	3,229	69.2	3	558,610	13.0									
South Africa	42,393,000	91,578	216.0	37,178	87.7	47,692	78.0	1	42,393,000	100.0	91,578	216.0	100.0	37,178	87.7	54.4			
Swaziland	881,000	3,893	441.9	2,226	252.7	793	280.7	1	881,000	100.0	3,893	441.9	100.0	2,226	252.7	61.0			
Togo	4,201,000	1,654	39.4	913	21.7	4,613	19.8	4											
Uganda	20,256,000	27,356	135.1	15,175	74.9	27,346	55.5	1	20,256,000	100.0	27,356	135.1	100.0	15,175	74.9	62.2			
United Republic of Tanzania	30,799,000	44,416	144.2	21,472	69.7	25,917	82.8	4											
Zambia	8,275,000	40,417	488.4	12,072	145.9	12,847	94.0	1	8,275,000	100.0	40,417	488.4	100.0	12,072	145.9	37.5			
Zimbabwe	11,439,000	35,735	312.4	11,965	104.6	10,655	112.3	1	11,439,000	100.0	35,735	312.4	100.0	11,965	104.6	39.6			
Other Territories																			
St. Helena		6,000				3		0											
Regional Total		595,037,000	675,938	123.7	248,979	45.6	574,375	43.3		272,270,964	45.8	373,390	137.1	55.2	93,833	34.5	32.1		

Regional Profile - AFRO cont'd.

Countries	Other Strategy (non-DOTS) Treatment Outcomes in 1995																	
	New ss+ cases (Short Course)									New ss+ cases (Other Regimen)								
	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)
	<i>o</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>s</i>	<i>t</i>	<i>u</i>	<i>v</i>	<i>w</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>aa</i>	<i>ab</i>	<i>ac</i>	<i>ad</i>	<i>ae</i>	<i>af</i>
Nigeria																		
Rwanda																		
Sao Tome and Principe																		
Senegal																		
Seychelles																		
Sierra Leone																		
South Africa	28,209		40.4	17.5	14.5	4.1	4.1	19.3	57.9									
Swaziland																		
Togo																		
Uganda	15,301	31.4	25.6	18.1	13.2	0.5	6.8	4.3	43.7									
United Republic of Tanzania																		
Zambia	5,957		47.3	22.7	14.1	1.7	6.6	7.7	69.9									
Zimbabwe	9,702	7.2	32.3	20.9	10.1	0.3	10.1	18.9	53.3									
Other Territories																		
St. Helena																		
Regional Total	71,312	7.7	37.6	18.9	14.1	2.1	6.0	13.6	56.5	2,569	3.5	42.8	28.3	9.2	1.9	11.2	3.1	71.0

NOTE

Botswana Case notifications in DOTS areas: smear-negatives include smear-not-done (2694). New pulmonary smear-positive cases by age and sex include relapses.

Burkina Faso Data on 30 out of 38 DOTS areas. Data for non-DOTS areas not available.

Cameroon No cohort analysis because programme was recently implemented. Unclear how many regions reported from non-DOTS areas.

Chad DOTS coverage in 1995 was overestimated. Only 6 out of 14 DOTS units reported on case notifications. Of these, 3 provided only two quarters. Data for non-DOTS areas not available.

Democratic Rep Congo Case notifications in DOTS areas include non-DOTS case notifications. Data for non-DOTS areas not available.

Eritrea Started DOTS late in 1996.

Ethiopia DOTS areas: not reported for entire year. Non-DOTS areas: (1) only 237 out of 376 non-DOTS districts reported, (2) breakdown by smear results not provided.

Gabon Data not provided on the WHO TB Data Collection Form.

Ghana Treatment results for DOTS areas are from 13 administrative regions.

Ivory Coast Case notifications in DOTS areas: smear-negative cases include 323 cases smear-not-done.

Liberia Data for non-DOTS areas not available.

Madagascar 11 out of 169 districts (10% of pop) did not report.

Namibia No cohort analysis because programme was recently implemented. Data for non-DOTS areas not available.

Rwanda Two out of 34 districts did not report. No cohort analysis because programme was recently implemented.

Senegal DOT in parts of the country only.

Sierra Leone All units in the country covered by DOTS, however 13% of the population does not have access because of war. Data for non-DOTS areas not available.

South Africa DOTS implemented in the entire country during 1996-97; classified as non-DOTS because no data were available from DOTS areas.

Swaziland Case notifications in non-DOTS areas: smear-negative cases include smear-not-done.

Swaziland Case notifications in DOTS areas: smear-negatives include smear-not-done.

United Rep of Tanzania Re-treatment cases in DOTS areas: fewer cases were registered than evaluated because of change in databases. NTP implemented new data management system in 1995. For calculation procedures registered were made equal to evaluated.

Uganda DOTS Programme implemented in 1997.

Zambia Re-treatment cases in non-DOTS areas: results for half of 1995 only. Classified as non-DOTS because country did not provide data on DOTS areas.

Zimbabwe DOTS already implemented in more than 10% of patients in 1996; however no data for DOTS areas were available. Smear-negative cases include 6902 cases for which the smear was not done.

AFRO NOTIFICATION RATES BY AGE & SEX

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)									
		Age groups							Age groups							Age groups									
		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total
Angola	1996	13.49	100.78	136.38	218.51	145.20	130.77	119.01	77.11	14.55	102.40	137.38	124.49	107.56	103.86	63.84	66.37	14.02	101.59	136.88	170.33	125.79	116.55	88.40	71.67
Benin	1996	1.27	42.49	101.46	121.49	112.16	117.24	95.06	43.96	2.54	32.94	57.67	50.94	30.46	44.21	25.93	23.55	1.90	37.68	78.50	83.43	70.90	79.12	60.49	33.58
Botswana	1996	0.93	1.92	44.14	455.07	1297.06	1550.00	3100.00	205.23	0.63	2.58	90.99	516.90	595.74	463.33	554.55	134.26	0.78	2.25	67.57	486.43	890.12	898.00	1452.94	168.94
Burkina Faso	1996	0.12	4.49	22.80	35.07	38.59	34.39	27.69	10.70	0.39	4.91	13.68	15.47	18.30	14.62	6.29	5.99	0.25	4.70	18.23	25.15	28.13	23.94	15.92	8.34
Burundi	1996	1.11	37.54	68.19	93.20	80.56	49.40	24.29	31.78	1.25	22.53	46.99	35.33	29.44	13.56	6.36	16.97	1.18	29.98	57.38	63.18	52.16	28.36	13.33	24.19
Cameroon	1996	1.13	11.42	82.49	49.24	43.10	13.52	7.66	21.45	0.71	9.29	42.92	33.06	23.52	7.77	2.97	12.73	0.92	10.36	62.56	41.01	33.02	10.51	5.09	17.06
Comoros	1996	0.67	29.23	37.21	46.15	23.53	80.00	114.29	21.25	0.70	11.48	29.27	23.08	22.22	90.91	37.50	13.83	0.69	20.63	33.33	34.62	22.86	85.71	73.33	17.56
Democratic Republic of the Congo	1996	2.05	23.84	54.05	75.66	76.65	67.32	50.71	26.87	2.64	26.20	49.84	56.20	51.52	39.52	19.66	22.68	2.35	25.03	51.93	65.78	63.57	52.32	32.88	24.75
Ethiopia	1996	2.22	31.62	41.31	31.49	23.74	18.17	10.00	17.75	2.75	29.76	30.43	22.06	13.87	7.50	3.46	13.90	2.48	30.71	35.96	26.86	18.84	12.68	6.30	15.84
Gabon	1996	0.00	29.79	62.86	70.18	47.83	32.35	6.90	26.92	2.37	34.74	36.62	32.76	22.45	10.81	11.43	18.25	1.18	32.28	49.65	51.30	34.74	21.13	9.38	22.51
Gambia	1996	12.39	42.00	178.31	163.93	157.14	184.00	320.00	85.08	8.55	49.02	73.56	71.88	106.98	111.11	129.41	48.18	10.47	45.54	124.71	116.80	131.76	146.15	218.75	66.35
Ghana	1996	0.75	12.65	28.70	44.39	47.05	49.11	65.69	17.35	0.81	10.34	21.29	23.39	19.30	17.39	15.03	9.87	0.78	11.49	24.97	33.73	32.82	32.53	38.10	13.58
Guinea	1996	1.62	44.37	128.78	121.64	100.94	101.53	116.85	48.86	1.72	31.86	70.12	63.20	50.68	36.11	29.52	26.69	1.67	38.20	99.69	92.64	75.41	67.27	69.59	37.83
Guinea-Bissau	1996	3.95	114.58	223.94	213.21	253.85	222.22	180.00	109.33	3.07	50.00	109.59	170.91	147.62	103.33	52.00	60.76	3.51	81.96	165.97	191.67	198.77	159.65	108.89	84.51
Ivory Coast	1996	3.78	63.50	173.60	164.49	116.56	85.90	88.12	66.75	4.49	57.52	91.87	67.38	49.74	59.62	38.27	38.09	4.13	60.54	133.87	118.44	85.87	73.68	63.57	52.71
Kenya	1996	2.36	81.68	202.44	179.08	156.38	120.58	83.83	74.43	4.03	76.13	124.64	78.74	68.85	53.49	25.56	47.68	3.19	78.92	163.75	128.80	111.41	85.30	52.02	61.07
Lesotho	1996	2.73	61.19	198.54	390.43	332.84	323.91	241.67	120.41	1.62	82.41	134.04	90.38	57.14	54.72	60.87	52.71	2.18	71.75	165.83	232.83	185.42	179.80	140.24	86.04
Liberia	1996	7.88	30.26	66.46	80.77	58.33	75.00	23.08	33.60	9.38	32.14	50.00	50.00	33.80	26.67	15.56	25.85	8.62	31.19	58.28	65.53	46.15	50.56	19.05	29.76
Madagascar	1996	1.89	59.96	130.67	181.57	162.95	190.55	163.79	65.33	2.98	54.78	101.38	105.38	90.34	69.12	35.11	43.57	2.43	57.37	116.00	143.31	125.71	126.35	91.23	54.40
Malawi	1996	1.16	59.03	217.90	236.02	197.39	136.59	95.65	77.64	4.04	93.37	178.50	164.37	114.14	68.56	25.17	68.23	2.58	76.18	197.77	198.56	153.15	99.72	56.11	72.88
Mali	1996	0.72	17.40	55.89	77.45	79.02	87.22	110.57	27.22	0.80	14.45	26.16	25.55	29.50	23.83	22.50	12.05	0.76	15.91	40.80	50.67	52.80	52.79	60.78	19.52
Mozambique	1996	3.53	70.87	127.07	171.30	178.83	180.51	107.00	69.11	5.14	63.86	111.96	112.74	90.49	59.75	23.13	48.91	4.33	67.34	119.43	141.41	133.07	116.45	60.49	58.88
Namibia	1996	4.78	133.99	567.59	629.33	460.00	415.15	388.46	226.56	5.18	163.82	305.56	322.37	161.11	194.59	159.38	132.87	4.98	148.85	436.57	474.83	304.81	298.57	262.07	179.37
Nigeria	1996	0.89	19.45	33.99	33.74	24.45	22.32	21.55	14.60	1.58	18.06	28.21	22.65	23.50	18.96	12.20	12.65	1.23	18.76	31.06	28.08	23.96	20.55	16.40	13.62
Rwanda	1996	3.86	39.86	109.34	151.16	86.71	97.70	48.00	46.06	3.60	40.46	74.93	71.88	30.92	23.71	6.94	28.81	3.73	40.16	91.97	110.71	57.97	58.70	23.77	37.32
Senegal	1996	3.88	91.26	224.34	243.86	183.01	166.87	225.64	96.39	4.74	53.76	95.81	84.62	80.08	69.14	55.22	43.02	4.31	72.62	159.97	163.84	131.35	116.72	134.66	69.73
Sierra Leone	1996	2.45	62.56	156.25	154.23	133.33	91.86	92.73	63.72	3.67	49.26	92.98	102.83	60.96	49.49	30.56	40.73	3.06	55.83	124.02	127.85	95.73	69.19	57.48	51.99
Swaziland	1996	42.25	41.94	431.03	1046.88	1195.45	1250.00	1200.00	304.74	34.04	81.25	510.14	453.33	422.22	341.18	316.67	198.25	38.13	61.90	474.02	700.00	769.39	781.82	718.18	249.04
Togo	1996	1.14	23.99	56.04	73.63	72.36	46.84	84.75	27.34	1.25	22.36	42.09	23.81	34.62	17.05	26.03	16.14	1.19	23.17	49.00	48.25	52.96	31.14	52.27	21.69
Uganda	1996	7.52	63.65	206.09	248.28	255.51	230.71	162.67	85.75	9.25	74.03	157.94	148.86	138.14	119.94	61.07	64.24	8.39	68.84	181.87	197.94	194.69	171.98	107.10	74.92
United Republic of Tanzania	1996	2.41	71.23	206.12	243.11	210.63	211.64	186.36	87.48	3.15	67.17	134.62	109.93	86.85	81.24	46.35	52.31	2.78	69.18	169.79	175.22	146.92	143.08	108.73	69.72
AFRO		2.43	41.01	96.70	108.33	95.52	87.65	79.09	42.34	3.17	39.30	68.54	60.23	50.82	87.65	24.46	28.92	2.80	40.16	82.54	84.00	72.61	62.98	48.81	35.59

AFRO - AGE & SEX DISTRIBUTION OF TB CASES IN DOTS AREAS (absolute numbers)

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)										
		Age groups							Age groups							Age groups										
		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	
Benin	1996	17	215	348	277	166	102	77	1202	34	169	218	136	46	42	21	666	51	384	566	413	212	144	98	1868	
Burkina Faso	1996	3	47	161	148	115	65	36	575	10	51	97	67	58	31	10	324	13	98	258	215	173	96	46	899	
Botswana	1996	3	3	49	314	441	310	372	1492	2	4	101	367	280	139	122	1015	5	7	150	681	721	449	494	2507	
Burundi	1996	16	217	283	274	116	41	17	964	18	132	203	112	53	16	7	541	34	349	486	386	169	57	24	1505	
Cameroon	1996	3	9	55	86	41	15	11	220	1	10	30	46	19	5	4	115	4	19	85	132	60	20	15	335	
Chad	1996																									
Comoros	1996	1	19	16	12	4	8	8	68	1	7	12	6	4	10	3	43	2	26	28	18	8	18	11	111	
Ethiopia	1996	302	1739	1609	854	427	201	71	5203	369	1564	1147	576	246	88	32	4022	671	3303	2756	1430	673	289	103	9225	
Gambia	1996	29	42	148	100	66	46	48	479	20	50	64	46	46	30	22	278	49	92	212	146	112	76	70	757	
Ghana	1996	30	216	345	368	255	165	157	1536	32	177	260	200	110	64	43	886	62	393	605	568	365	229	200	2422	
Guinea	1996	29	319	631	416	214	133	104	1846	30	223	338	213	111	52	31	998	59	542	969	629	325	185	135	2844	
Ivory Coast	1996	118	903	1670	1107	535	262	178	4773	139	803	836	409	194	158	75	2614	257	1706	2506	1516	729	420	253	7387	
Kenya	1996	151	2492	3820	2097	993	498	311	10362	252	2290	2327	926	462	245	114	6616	403	4782	6147	3023	1455	743	425	16978	
Lesotho	1996	12	123	272	367	223	149	87	1233	7	164	189	94	44	29	28	555	19	287	461	461	267	178	115	1788	
Liberia	1996	38	69	105	84	42	33	9	380	44	72	78	51	24	12	7	288	82	141	183	135	66	45	16	668	
Madagascar	1996	68	888	1325	1271	673	484	285	4994	106	808	1031	744	393	197	79	3358	174	1696	2356	2015	1066	681	364	8352	
Mali	1996	19	182	408	364	226	157	136	1492	21	153	197	128	95	51	36	681	40	335	605	492	321	208	172	2173	
Malawi	1996	27	562	1388	937	529	224	110	3777	92	887	1187	715	347	133	37	3398	119	1449	2575	1652	876	357	147	7175	
Mozambique	1996	141	1163	1507	1367	980	639	275	6072	205	1060	1357	938	533	239	74	4406	346	2223	2864	2305	1513	878	349	10478	
Namibia	1996	16	205	613	472	230	137	101	1774	17	249	330	245	87	72	51	1051	33	454	943	717	317	209	152	2825	
Nigeria	1996	234	2097	2557	1791	853	486	309	8327	411	1954	2175	1253	871	458	215	7337	645	4051	4732	3044	1724	944	524	15664	
Rwanda	1996	48	222	398	325	124	85	24	1226	45	229	278	161	47	23	5	788	93	451	676	486	171	108	29	2014	
Senegal	1996	74	773	1281	973	474	277	264	4116	89	450	549	341	209	121	74	1833	163	1223	1830	1314	683	398	338	5949	
Seychelles	1996	0	0	1	3	1	1	0	6	0	1	0	0	1	1	3		1	1	3	1	2	1	9		
Sierra Leone	1996	23	249	450	310	180	79	51	1342	35	201	278	218	89	49	22	892	58	450	728	528	269	128	73	2234	
United Republic of Tanzania	1996	171	2176	4275	3107	1843	1109	656	13337	221	2087	2885	1461	806	472	203	8135	392	4263	7160	4568	2649	1581	859	21472	
Togo	1996	11	95	153	134	89	37	50	569	12	89	117	45	45	15	19	342	23	184	270	179	134	52	69	911	
Democratic Republic of the Co	1996	228	1040	1627	1492	998	548	285	6218	292	1153	1528	1142	728	377	149	5369	520	2193	3155	2634	1726	925	434	11587	
AFRO	No.	1812	16065	25495	19050	10838	6291	4032	83583	2505	15037	17812	10640	5947	3129	1484	56554	4317	31102	43307	29690	16785	9420	5516	140137	
	%	2.17	19.22	30.50	22.79	12.97	7.53	4.82	100.0	4.43	26.59	31.50	18.81	10.52	5.53	2.62	100.0	3.08	22.19	30.90	21.19	11.98	6.72	3.94	100.0	

AFRO - AGE & SEX DISTRIBUTION OF TB CASES IN NON-DOTS AREAS (absolute numbers)

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)									
		Age groups						Total	Age groups						Total	Age groups						Total			
		0-14	15-24	25-34	35-44	45-54	55-64		0-14	15-24	25-34	35-44	45-54	55-64		0-14	15-24	25-34	35-44	45-54	55-64	>=65			
Angola	1996	360	1036	926	1027	469	272	169	4259	388	1066	963	615	370	242	113	3757	748	2102	1889	1642	839	514	282	8016
Burkina Faso	1996																								
Cameroon	1996	31	142	680	205	137	23	6	1224	20	113	358	156	84	19	4	754	51	255	1038	361	221	42	10	1978
Chad	1996																								
Eritrea	1996																								
Ethiopia	1996																								
Gabon	1996	0	28	44	40	22	11	2	147	5	33	26	19	11	4	4	102	5	61	70	59	33	15	6	249
Ghana	1996																								
Guinea-Bissau	1996	9	110	159	113	99	60	36	586	7	49	80	94	62	31	13	336	16	159	239	207	161	91	49	922
Liberia	1996																								
Nigeria	1996																								
Sierra Leone	1996																								
South Africa	1996																								
Swaziland	1996	79	39	250	335	263	200	120	1286	64	78	352	204	114	58	38	908	143	117	602	539	377	258	158	2194
Uganda	1996	372	1271	2706	2026	1252	646	353	8626	455	1482	2099	1246	728	379	160	6549	827	2753	4805	3272	1980	1025	513	15175
Democratic Republic of the Co	1996																								
Zambia	1996																								
Zimbabwe	1996																								
AFRO	No.	851	2626	4765	3746	2242	1212	686	16128	939	2821	3878	2334	1369	733	332	12406	1790	5447	8643	6080	3611	1945	1018	28534
	%	5.28	16.28	29.54	23.23	13.90	7.51	4.25	100.00	7.57	22.74	31.26	18.81	11.03	5.91	2.68	100.00	6.27	19.09	30.29	21.31	12.66	6.82	3.57	100.00

African Region - Number of tuberculosis cases notified, 1980-1997

COUNTRY / PAYS	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Algeria/Algérie	2.702		13.916	13.681	13.133	13.832	12.917	11.212	11.325	11.039	11.607	11.332	11.428	13.382	13.265	13.487	15.358
Angola	10.117	7.501	7.911	6.625	10.153	8.653	9.363	8.510	8.184	9.587	10.271	11.134	11.272	8.269	7.157	7.982	15.424
Benin/Bénin	1.835	1.862	1.793	1.804	1.913	2.041	2.162	1.901	2.027	1.941	2.084	2.162	2.420	2.340	2.119	2.400	2.372
Botswana	2.662	2.605	2.705	2.883	3.101	2.706	2.627	3.173	2.740	2.532	2.938	3.274	4.179	4.654	4.756	5.655	6.636
Burkina Faso	2.577	2.391	2.265	3.061	877	4.547	1.018	1.407	949	1.616	1.497	1.488	1.443	861	1.463	1.814	
Burundi	789	643	951	1.053	1.904	2.317	2.569	2.739	3.745	4.608	4.575	4.883	4.464	4.677	3.840		3.796
Cameroon/Cameroun	2.434	2.236	3.765	3.445	3.338	3.393	2.138	3.878	4.982	5.521	5.892	6.814	6.803	7.064	7.312		3.049
Cape Verde/Cap Vert	516	344	393	230	285	259	285	276	210	221						303	
Cent. Afr. Rep./Rép. Centrafricaine	651	758	1.475	1.686	468	520	779	499	814	64	2.124	2.045					3.339
Chad/Tchad	220	286	127	1.977	1.430	1.486	1.285	1.086	2.977	2.572	2.591	2.912	2.684	2.871	3.303	3.186	1.936
Comoros/Comores									212	139	140	119	108	129	115	129	140
Congo	742	1.214	3.716	4.156	2.776	2.648	3.120	3.473	3.878	4.363	591	618	1.179	1.976	2.992	3.615	
Congo, RD	5.122	8.929					5.043	6.343				21.135	31.400	34.319	40.040	45.999	
Equat. Guinea/Guinée Equat.				181	17	1	11	20	157	260	331	262	309	356	306		
Eritrea/Eritree										3.699		4.386	11.664	15.505	21.453	5.220	
Ethiopia/Ethiopie	40.096	42.423	52.403	56.824	65.045	71.731	80.846	85.867	95.521	80.795	88.634	60.006		99.329	14.406	171.033	
Gabon	865	796	761	752	654	855	769	864	721	912	917	906	926	972	1.034	1.115	891
Gambia/Gambie	239	58													1.023	1.242	
Ghana	5.207	4.041	4.345	2.651	1.935	3.235	3.925	5.877	5.297	6.017	6.407	7.136	7.044	8.569	8.813	4.131	10.449
Guinea/Guinée	1.884	1.469	832	1.203	1.317	1.128	1.214	1.740	1.869	1.988	2.267	2.941	3.167	3.300	3.465	4.286	
Guinea/Guinée-Bissau	645	465	205	376	368	530	1.310	752	778	1.362	1.163	1.246	1.059	1.558	1.647	1.748	1.728
Ivory Coast/Côte d'Ivoire	4.197	4.418	5.000	6.000	6.062	5.729	6.072	6.422	6.556	6.982	7.841	8.021	9.093	9.563	14.000	11.988	13.104
Kenya	11.049	10.027		11.966		10.460	10.022	10.515	10.957	12.592	11.788	12.320	14.599	20.451	22.930	28.142	34.980
Lesotho	4.082	3.830	4.932	3.443	2.923	2.927	21	225	2.346	2.463	2.525	2.994	3.327	3.384	4.334	4.846	4.361
Liberia/Libéria	774	1.002	835	885		425	232	384	894			1.948	1.766	1.764	1.393	840	
Madagascar	9.082	7.464	3.573	3.588	8.673	3.220	3.717	4.007	4.393	5.417	6.261	6.015	8.126	9.855	10.671	11.828	12.718
Malawi	4.758	5.033	4.411	4.707	4.404	5.334	6.301	7.581	8.247	9.431	12.364	14.322	15.183	17.105	19.496	19.155	20.630
Mali	839	933	187	532	1.872	1.621	1.851	2.534	2.578	1.626	2.933	2.631	3.113	3.204	3.075	3.087	3.655
Mauritania/Mauritanie	7.576	9.427	2.327	2.333	3.977	4.406	2.257	3.722	3.928	4.040	5.284	3.064	4.316	3.996	3.849		
Mauritius/Maurice	132	157	121	152	118	111	119	117	114	129	119	134	130	159	149	153	
Mozambique	7.457	6.984	5.787	5.937	5.204	5.645	8.263	10.996	13.863	15.958	15.899	16.609	15.085	16.588	17.158	17.882	18.443
Namibia/Namibie						4.840	4.427	3.640	2.815	3.703	2.671	2.500	1.756	5.500		1.540	6.773
Niger	717	2.871	754	673	665	698	570	556	631	608	5.200		626	3.784	1.980		
Nigeria/Nigéria	9.877	10.838	10.949	10.212	11.439	14.937	14.071	19.723	25.700	13.342	20.122	19.626	14.802	11.601	8.449	13.423	24.063
Rwanda	1.495	1.386		1.364	1.419	1.327	2.460	3.287	4.145	4.741	6.387	3.200			3.054	3.535	
Sao Tome & Principe	131	37	40	59	49	40	8	55	13		17	120		97	41		
Senegal/Sénégal	2.014	2.573	1.612	2.417		1.065	927	6.145	5.611	5.965	4.977	6.781	7.408	6.841	6.913	7.561	8.516
Seychelles	16	0	16	16	10	10	24	14	10	6	41			5	9	15	
Sierra Leone	750	847	889	293	816	865	358	130	120	632	1.466	1.665	2.691	2.564	1.955	3.241	
South Africa/Afrique du Sud	55.310	59.943	64.115	62.556	62.717	59.349	55.013	57.406	61.486	68.075	80.400	77.652	82.539	89.786	90.292	86.924	91.578
Swaziland		143	3.059	1.955			1.098	1.352	1.394		1.531		1.458		2.055	3.893	
Togo	208	126	204	174	343	745	596	1.184	1.071	940	1.324	1.223	1.005	1.137	1.520	1.654	
Uganda/Ouganda	1.058	1.170	497	2.029			1.392	1.464	3.066	1.045	14.740	19.016	20.662	21.579	26.994	25.476	27.356
U.R. Tanzania/R.U. Tanzanie	5.103	6.964	11.748	11.783	12.092	13.698	15.452	16.920	18.206	19.262	22.249	25.210	28.462	31.460	34.799	39.847	44.416
Zambia/Zambie	5.342	6.070	6.519	6.948	6.500	6.747	7.909	11.525	12.876	14.239	22.902	23.373	25.732	30.496	35.222	35.958	40.417
Zimbabwe	4.057	4.051	4.577	3.881	5.694	4.759	5.233	5.848	6.002	6.822	9.132	11.710	16.237	20.125	23.959	30.831	35.735
Other territories:																	
Reunion/Réunion	153	174	175	167	118	146	173	130	159	131	114	122	136	102	*		
St Helena/St Hélène																	
* - Data incorporated in France																	
Total	213.596	224.904	230.527	246.106	243.859	269.191	278.468	314.719	343.325	334.215	403.521	399.468	368.097	416.704	503.537	483.702	691.296
No. of countries/No. de pays	41	42	39	41	38	41	42	44	44	41	43	41	37	41	38	43	39
% of countries reporting	85	88	81	85	79	85	88	92	92	85	90	85	77	85	79	90	81

African Region - Case notification rates (per 100 000 population), 1980-1996

COUNTRY / PAYS	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	
Algeria/Algérie	14,4		69,7	66,4	61,8	63,2	57,4	48,5	47,7	45,4	46,5	44,3	43,7	49,9	48,3	48,0	53,4	
Angola	144,1	104,1	106,9	87,3	130,3	108,1	113,8	100,6	94,1	107,0	111,3	117,0	114,8	81,6	68,4	73,8	137,9	
Benin/Bénin	53,1	52,3	48,9	47,7	49,0	50,7	52,1	44,4	45,9	42,7	44,5	44,8	48,7	45,8	40,3	44,4	42,6	
Botswana	293,8	277,7	278,6	286,9	297,9	251,3	235,6	275,0	229,5	205,2	231,0	249,9	310,5	337,0	335,9	390,0	447,2	
Burkina Faso	37,3	33,7	31,1	41,0	11,4	57,7	12,6	16,9	11,1	18,3	16,5	15,9		14,6	8,5	14,0	16,8	
Burundi	19,1	15,2	21,8	23,5	41,3	48,8	52,5	54,3	72,0	86,1	83,4	87,1	78,1	80,4	64,8		61,0	
Cameroon/Cameroun	28,1	25,1	41,1	36,5	34,4	34,0	20,8	36,7	45,9	49,4	51,3	57,7	56,0	56,6	57,0		22,5	
Cape Verde/Cap Vert	178,5	117,8	132,8	76,7	93,4	83,5		88,8	84,4	63,1	64,8				78,5			
Central African Rep./Rép. Centr	28,1	32,0	60,9	68,0	18,5	20,0	29,3	18,3	29,2	2,2	72,5	68,2			102,0			
Chad/Tchad	4,9	6,2	2,7	41,2	29,1	29,6	25,1	20,8	55,9	47,4	46,7	51,2	46,0	47,9	53,6	50,3	29,7	
Comoros/Comores								43,2	27,4	26,8	22,1	19,4	22,4	19,4	21,1	22,2		
Congo	44,5	70,7	210,4	228,7	148,5	137,6	157,5	170,2	184,5	201,4	26,5	26,9	49,7	80,9	118,8	139,4		
Congo, DR	19,0	32,0				61,6	5,4	0,3	3,3	5,9	45,5	73,9	91,9	71,0	81,5	91,5	76,5	
Equat. Guine/Guinée Equat.											128,4		148,0	386,6	502,8	676,5	159,1	
Eritrea/Eritree															181,8	25,5	293,7	
Ethiopia/Ethiopie	110,3	113,9	137,5	145,6	162,5	174,4	190,8	196,5	211,7	173,3	184,1	120,7						
Gabon	125,2	111,8	103,7	99,5	84,0	106,5	92,9	101,2	81,8	100,4	98,1	94,2	93,5	95,5	98,9	103,6	80,6	
Gambia/Gambie	37,3	8,8														92,1	108,9	
Ghana	48,2	36,3	37,7	22,2	15,6	25,2	29,6	42,9	37,5	41,3	42,7	46,1	44,2	52,3	52,3	23,8	58,6	
Guinea/Guinée																		
Guinea/Guinée-Bissau	41,4	31,6	17,5	24,7	26,4	22,1	23,3	32,5	33,8	34,5	37,5	46,0	46,8	46,5	47,1	57,0		
Ivory Coast/Côte d'Ivoire	81,1	56,9	24,6	44,4	42,8	60,7	147,4	83,0	84,1	144,3	120,6	126,6	105,4	151,9	157,3	163,5	158,4	
Kenya	51,2	51,9	56,5	65,3	63,6	58,0	59,3	60,7	60,0	61,8	67,1	66,4	72,7	74,0	105,0	87,5	93,5	
Lesotho	66,4	58,1															125,8	
Liberia/Libéria	298,6	272,6	341,6	232,2	191,9	187,8	1,3	13,7	138,7	141,8	141,6	163,6	177,2	175,6	219,2	239,1	209,9	
Madagascar	41,3	51,8	41,9	43,1		19,3	10,1	15,9	35,6									
Malawi	100,1	79,7	36,9	35,9	84,0	30,2	33,7	35,1	37,2	44,3	49,5	46,0	60,2	70,6	74,1	79,5	82,8	
Mali	77,0	79,2	67,6	70,2	63,5	73,6	82,5	93,5	96,0	104,6	132,5	150,7	158,7	178,7	203,4	198,0	209,5	
Mauritania/Mauritanie	12,2	13,2	2,6	7,1	24,4	20,5	22,7	30,2	29,8	18,2	31,8	27,7	31,7	31,6	29,4	28,6	32,8	
Mauritius/Maurice	488,5	592,5	142,5	139,1	231,1	249,5	124,6	200,3	206,2	206,9	263,8	149,2	204,8	184,9		169,3		
Mozambique	13,7	16,1	12,2	15,2	11,7	10,9	11,6	11,3	11,0	12,3	11,3	12,6	12,0	14,6	13,5	13,7		
Namibia/Namibie	61,7	56,2	45,3	45,4	39,0	41,7	60,5	80,2	100,7	114,8	112,1	113,4	98,9	104,0	103,1	103,6		
Niger	12,8	49,7	12,6	10,9	10,4	10,6	8,4	7,9	8,7	8,1	67,3					100,3	430,0	
Nigeria/Nigéria	13,7	14,6	14,4	13,0	14,2	18,0	16,5	22,4	28,4	14,3	20,9	19,8	14,5	11,0	7,8	12,0	20,9	
Rwanda	29,0	26,0														58,9	65,5	
Sao Tome & Principe	139,4	38,5	40,4	58,4	47,6	37,7	7,4	49,5	11,5	14,3	99,2							
Senegal/Sénégal	36,4	45,2	27,5	40,1												91,0	99,8	
Seychelles	25,4		25,0	25,0	15,4	15,4	36,4	20,9	14,7	8,7	58,6					12,3	20,3	
Sierra Leone	23,2	25,7	26,4	8,5	23,3	24,1	9,8	3,5	3,1	15,8	36,3	40,9	65,8	62,1	46,6	75,4		
South Africa/Afrique du Sud	189,6	200,4	208,9	198,8	194,4	179,6	162,6	165,8	173,6	187,9	216,9	204,8	212,9	226,4	222,7	209,6	216,0	
Swaziland		24,8	514,1	318,9												239,8	441,9	
Togo	8,0	4,7	7,4	6,1	11,7	24,6	19,1	36,8	32,3	27,5	37,6	34,2	32,7	26,1	28,6	37,2	39,4	
Uganda/Ouganda	8,1	8,7	3,6	14,4												129,4	135,1	
U.R. Tanzania/R.U. Tanzanie	27,5	36,3	59,3	57,6	57,3	62,9	68,8	73,0	76,2	78,1	87,3	95,6	104,3	111,4	119,3	132,7	144,2	
Zambia/Zambie	93,1	103,1	108,3	113,0	103,6	105,2	120,6	171,5	187,0	201,8	317,0	316,3	340,6	394,9	446,0	445,0	488,4	
Zimbabwe	56,9	55,1	60,2	49,4	70,1	56,7	60,3	65,2	64,7	71,3	92,7	115,5	156,0	188,5	219,1	275,5	312,4	
Total	58,1	61,8	67,4	65,5	70,8	70,1	62,9	68,9	78,8	75,7	87,6	79,6	81,6	86,1	99,8	86,5	120,2	

African Region - New Smear Positive Cases

COUNTRY / PAYS	No. of cases/No. de cas				Rate/Taux*			
	1993	1994	1995	1996	1993	1994	1995	1996
Algeria/Algérie		6.793				24,7		
Angola	4.874	4.337	5.951	8.016	48,1	41,4	55,0	71,7
Benin/Bénin	1.653	1.618	1.839	1.868	32,3	30,8	34,0	33,6
Botswana	1.508	1.668	1.903	2.393	109,2	117,8	131,2	161,3
Burkina Faso		561	1.028	1.381		5,5	9,8	12,8
Burundi	1.861	1.527		1.533	32,0	25,8		24,6
Cameroon/Cameroun	2.316	1.883		2.312	18,6	14,7		17,1
Cape Verde/Cap Vert		111				28,8		
Cent. Afr. Rep./Rép. Centrafricain		1.794				54,8		
Chad/Tchad		2.002		870		31,6		13,4
Comoros/Comores		82	105	111		13,8	17,2	17,6
Congo		1.691	2.013			67,2	77,6	
Congo, DR	14.924		20.084	24.125	35,3		44,2	51,5
Equat. Guinea/Guinée Equat.		274	219			70,4	54,8	
Eritrea/Eritree								
Ethiopia/Ethiopie	5.752	6.080	9.225		10,5	10,8	15,8	
Gabon	395	486	249		37,8	45,2	22,5	
Gambia/Gambie		778	743			70,0	65,1	
Ghana		2.638	6.474			15,2	36,3	
Guinea/Guinée	2.082	2.158	2.263	2.844	30,8	30,4	30,8	37,8
Guinea/Guinée-Bissau	1.059	800	956	922	103,2	76,4	89,4	84,5
Ivory Coast/Côte d'Ivoire	7.012		8.254	8.927	54,2		60,3	63,7
Kenya	10.149	11.324	13.934	16.978	39,4	42,8	51,3	61,1
Lesotho	1.405	1.330	1.361	1.788	72,9	67,3	67,1	86,0
Liberia/Libéria	1.547		1.154	668	69,8		54,4	29,8
Madagascar	6.881	7.366	8.026	8.456	49,3	51,1	54,0	55,1
Malawi	5.988	6.293	6.703			62,5	65,1	68,1
Mali	1.740	1.866	2.173			16,6	17,3	19,5
Mauritania/Mauritanie		2.074					91,2	
Mauritius/Maurice		131					11,7	
Mozambique	9.526	9.677	10.566	10.478	59,7	58,2	61,2	58,9
Namibia/Namibie		697	2.820			45,4		179,0
Niger	463	1.865	1.492		5,4	21,1	16,3	
Nigeria/Nigéria	1.723		9.476	15.704	1,6		8,5	13,7
Rwanda		1.840	2.034				35,5	37,7
Sao Tome & Prin.	28	21			22,0	16,2		
Senegal/Sénégal		4.599	5.421	5.940		56,8	65,2	69,6
Seychelles	2		6	9	2,8		8,2	12,2
Sierra Leone		1.408	1.454	2.234		34,1	34,7	52,0
South Africa/Afrique du Sud		1.408	37.178				3,4	87,7
Swaziland		660	2.226			77,0		252,7
Togo	545		887	913	14,1		21,7	21,7
Uganda/Ouganda	11.949	14.763	13.678	15.175	64,8	77,4	69,5	74,9
U.R. Tanzania/R.U. Tanzanie	15.569	17.164	19.955	21.472	55,1	58,8	66,5	69,7
Zambia/Zambie	8.785	9.620	8.577	12.072	113,8	121,8	106,1	145,9
Zimbabwe	5.331		8.965	11.965	49,9		80,1	104,6
Total	111.192	116.404	178.425	248.979	23,0	23,1	31,9	43,3

* per 100 000 population/pour 100 000 habitants

THE AMERICAS

American Region

Country	Category of the Country as of 31/12/96	National Manual	Training	DOTS Technical Elements				DOTS Implemented in 1997
				Use of Microscopy for Diagnosis	SCC	DOT	Drug Availability	
Anguilla	0							
Antigua and Barbuda	5							
Argentina	1							X
Bahamas	1							
Barbados	5							
Belize	4							
Bermuda	0							
Bolivia	4							
Brazil	1							
Canada	0							
Cayman Islands	5							
Chile	4							
Colombia	1							
Costa Rica	5							
Cuba	4							
Dominica	1							
Dominican Republic	1							
Ecuador	1							X
El Salvador	1							X
Grenada	0							
Guatemala	4							
Guyana	1							
Haiti	1							X
Honduras	1							
Jamaica	4							
Mexico	1							X
Montserrat	0							
Netherlands Antilles	0							
Nicaragua	4							
Panama	1							
Paraguay	4							
Peru	4							
Puerto Rico	4							
Saint Kitts and Nevis	5							
Saint Lucia	0							
Saint Vincent and Grenadines	0							
Suriname	1							
Trinidad and Tobago	1							
Turks and Caicos Islands	0							
Uruguay	4							
USA	4							
Venezuela	4							
Virgin Islands (UK)	0							
Virgin Islands (USA)	4							

1 Presence of national manual, or a document issued by the government or an authorised scientific body, including policy recommendations endorsed by WHO

2 "WHO standard" training course on management of TB control programmes has been carried out within the past two years; or training materials endorsed by WHO or IUATLD

3 Short course chemotherapy

4 Directly observed treatment

5 A regular supply system of all essential anti-tuberculosis drugs and diagnostic materials

6 Presence of WHO/IUATLD recommended recording and reporting system showing assessment of treatment results

Legend: Element of DOTS strategy missing

White - Missing

Grey - Present in part of the Country

Blue - Fully implemented (more than 90%) in the country

Regional Profile - AMRO

As of 25-Nov-98

Regional Profile - AMRO

As of 25-Nov-98

Countries	Country Information (1996)								WHO TB Control Strategy (DOTS)										
	Population	Notified Cases				New ss+ cases estimated	% case detection of new ss+ cases	Category	Population		Notified cases		% cases out of all cases	New ss+ cases notified		% new ss+ out of all new pulm. cases			
		All types		New ss+					No.	(%)	No.	Rate		No.	Rate				
		No.	Rate	No.	Rate														
	a	b	c	d	e	f	g	h	h/a	i	j	k	l	m	n				
United States of America	269,444,000	21,337	7.9	7,401	2.7	10,427	71.0	4	269,444,000	100.0	21,337	7.9	100.0	7,401	2.7	43.0			
Uruguay	3,204,000	701	21.9	426	13.3	288	147.9	4	3,204,000	100.0	701	21.9	100.0	426	13.3	75.8			
Venezuela	22,311,000	5,576	25.0	3,195	14.3	4,418	72.3	4	22,311,000	100.0	5,576	25.0	100.0	3,195	14.3	68.9			
Other Territories																			
Anguilla	8,000					1		0											
Bermuda	64,000					6		0											
British Virgin Islands	19,000					2		0											
Cayman Islands	32,000					3		5											
Montserrat	11,000					1		0											
Netherlands Antilles	195,000					18		0											
Turks and Caicos Islands	15,000					1		0											
United States Virgin Islands	106,000	8	7.5	5	4.7	5	100.0	4	106,000	100.0	8	7.5	100.0	5	4.7	100.0			
Regional Total	782,449,000	242,157	32.2	134,003	17.8	205,233	65.3		378,610,000	48.4	94,212	24.9	38.9	52,220	13.8	69.6			

Regional Profile - AMRO cont'd.

Countries	WHO TB Control Strategy (DOTS)																	
	Treatment Outcomes in 1995																	
	New ss+ cases									Retreatment cases								
	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)
United States of America	8,047	7.6	71.9		2.7		12.8	4.9	71.9									
Uruguay	370	17.0	41.1	27.3	3.8	1.1	9.7		68.4	25		56.0	20.0	8.0		16.0		76.0
Venezuela	3,056	9.5	68.2	6.2	7.8	0.8	3.7	3.8	74.3									
Other Territories																		
Anguilla																		
Bermuda																		
British Virgin Islands																		
Cayman Islands																		
Montserrat																		
Netherlands Antilles																		
Turks and Caicos Islands																		
United States Virgin Islands	2		50.0					50.0	50.0									
Regional Total	53,517	8.4	69.0	7.7	6.0	1.3	4.8	2.7	76.7	1,104	3.4	61.1	10.5	11.1	3.6	5.9	4.4	71.6

Regional Profile - AMRO

As of 25-Nov-98

Countries	Country Information (1996)								Other Strategy (non-DOTS)										
	Population	Notified Cases				New ss+ cases estimated	% case detection of new ss+ cases	Category	Population		Notified cases		% cases out of all cases	New ss+ cases notified		% new ss+ out of all new pulm. cases			
		All types		New ss+					No.	(%)	No.	Rate		No.	Rate				
		No.	Rate	No.	Rate									No.	Rate				
	a	b	c	d	e	f	d/f	g	h	h/a	i	j	k	l	m	n			
Antigua and Barbuda	66,000	5	7.6	2	3.0	6	33.3	5	66,000	100.0	5	7.6	100.0	2	3.0	40.0			
Argentina	35,219,000	13,397	38.0	5,787	16.4	7,924	73.0	1	35,219,000	100.0	13,397	38.0	100.0	5,787	16.4	51.7			
Bahamas	284,000	59	20.8	26	9.2	38	68.4	1	284,000	100.0	59	20.8	100.0	26	9.2	45.6			
Barbados	261,000	3	1.1	3	1.1	23	13.0	5	261,000	100.0	3	1.1	100.0	3	1.1	100.0			
Belize	219,000	53	24.2	20	9.1	39	51.3	4											
Bolivia	7,593,000	10,194	134.3	6,949	91.5	11,446	60.7	4											
Brazil	161,087,000	87,254	54.2	44,501	27.6	57,991	76.7	1	161,087,000	100.0	87,254	54.2	100.0	44,501	27.6	60.5			
Canada	29,680,000					1,068		0											
Chile	14,421,000	4,038	28.0	1,480	10.3	4,348	34.0	4											
Colombia	36,444,000	9,702	26.6	7,572	20.8	10,988	68.9	1	36,444,000	100.0	9,702	26.6	100.0	7,572	20.8	86.8			
Costa Rica	3,500,000	162	4.6	122	3.5	236	51.7	5	3,500,000	100.0	162	4.6	100.0	122	3.5	81.3			
Cuba	11,018,000	1,579	14.3	835	7.6	992	84.2	4											
Dominica	71,000	10	14.1	7	9.9	6	116.7	1	71,000	100.0	10	14.1	100.0	7	9.9	77.8			
Dominican Republic	7,961,000	6,006	75.4	3,609	45.3	3,941	91.6	1	7,961,000	100.0	6,006	75.4	100.0	3,609	45.3	68.4			
Ecuador	11,699,000	6,327	54.1	4,356	37.2	8,739	49.8	1	11,699,000	100.0	6,327	54.1	100.0	4,356	37.2	74.2			
El Salvador	5,796,000	1,686	29.1	965	16.6	2,869	33.6	1	5,796,000	100.0	1,686	29.1	100.0	965	16.6	63.8			
Grenada	92,000					8		0											
Guatemala	10,928,000	3,496	32.0	2,308	21.1	5,409	42.7	4											
Guyana	838,000	314	37.5	71	8.5	189	37.6	1	838,000	100.0	314	37.5	100.0	71	8.5	24.7			
Haiti	7,259,000	6,632	91.4	3,524	48.5	10,878	32.4	1	7,259,000	100.0	6,632	91.4	100.0	3,524	48.5	62.3			
Honduras	5,816,000	4,176	71.8	1,739	29.9	3,481	50.0	1	5,816,000	100.0	4,176	71.8	100.0	1,739	29.9	45.0			
Jamaica	2,491,000	121	4.9	75	3.0	112	67.0	4											
Mexico	92,718,000	10,852	11.7	8,495	9.2	25,034	33.9	1	92,718,000	100.0	10,852	11.7	100.0	8,495	9.2	86.5			
Nicaragua	4,238,000	3,003	70.9	1,722	40.6	2,098	82.1	4											
Panama	2,677,000	1,099	41.1	904	33.8	1,084	83.4	1	2,677,000	100.0	1,099	41.1	100.0	904	33.8	100.0			
Paraguay	4,957,000	2,148	43.3	894	18.0	3,703	24.1	4											
Peru	23,944,000	41,739	174.3	26,800	111.9	26,937	99.5	4											
Puerto Rico	3,736,000	219	5.9	110	2.9	134	82.1	4											
Saint Kitts and Nevis	41,000	3	7.3	2	4.9	5	40.0	5	41,000	100.0	3	7.3	100.0	2	4.9	66.7			
Saint Lucia	144,000					13		0											
Saint Vincent and the Grenadines	113,000					13		0											
Suriname	432,000	53	12.3	39	9.0	194	20.1	1	432,000	100.0	53	12.3	100.0	39	9.0	86.7			
Trinidad and Tobago	1,297,000	205	15.8	59	4.5	117	50.4	1	1,297,000	100.0	205	15.8	100.0	59	4.5	30.6			

Regional Profile - AMRO

As of 25-Nov-98

Countries	Country Information (1996)								Other Strategy (non-DOTS)									
	Population	Notified Cases				New ss+ cases estimated	% case detection of new ss+ cases	Category	Population		Notified cases		% cases out of all cases	New ss+ cases notified		% new ss+ out of all new pulm. cases		
		All types		New ss+					No.	(%)	No.	Rate		No.	Rate			
		No.	Rate	No.	Rate													
	a	b	c	d	e	f	d/f	g	h	h/a	i	j	k	l	m	n		
United States of America	269,444,000	21,337	7.9	7,401	2.7	10,427	71.0	4										
Uruguay	3,204,000	701	21.9	426	13.3	288	147.9	4										
Venezuela	22,311,000	5,576	25.0	3,195	14.3	4,418	72.3	4										
Other Territories																		
Anguilla	8,000					1		0										
Bermuda	64,000					6		0										
British Virgin Islands	19,000					2		0										
Cayman Islands	32,000					3		5	32,000	100.0								
Montserrat	11,000					1		0										
Netherlands Antilles	195,000					18		0										
Turks and Caicos Islands	15,000					1		0										
United States Virgin Islands	106,000	8	7.5	5	4.7	5	100.0	4										
Regional Total	782,449,000	242,157	32.2	134,003	17.8	205,233	65.3		373,498,000	47.7	147,945	39.6	61.1	81,783	21.9	64.3		

Countries	Other Strategy (non-DOTS)																	
	Treatment Outcomes in 1995																	
	New ss+ cases (Short Course)									New ss+ cases (Other Regimen)								
	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)
	<i>o</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>s</i>	<i>t</i>	<i>u</i>	<i>v</i>	<i>w</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>aa</i>	<i>ab</i>	<i>ac</i>	<i>ad</i>	<i>ae</i>	<i>af</i>
United States of America																		
Uruguay																		
Venezuela																		
Other Territories																		
Anguilla																		
Bermuda																		
British Virgin Islands																		
Cayman Islands																		
Montserrat																		
Netherlands Antilles																		
Turks and Caicos Islands																		
United States Virgin Islands																		
Regional Total	74,945	57.3	21.7	9.5	6.3	1.4	2.1	1.7	31.2	1,331	0.5	71.8	20.7	1.4	5.7			

NOTE

Argentina Case notifications in DOTS areas: new cases include relapses. Treatment results were evaluated in 1/4 of the patients. Only 3 cohort results were reported. Adjusted treatment success is $681/1070 = 64\%$.

Barbados No cases of smear-positive pulmonary TB were diagnosed during 1995.

Brazil Case notifications from only part of the country. Treatment results were evaluated in 1/4 of the patients. Adjusted treatment success is $7785/11413 = 68\%$. Pilot studies have been implemented in Central-West region in late 1997 early 1998.

Canada Data not yet available. National data may be obtained by contacting the country directly.

Cayman Islands Zero cases reported.

Colombia Case notifications in DOTS areas: new smear-positive cases include relapses.

Costa Rica Case notifications in non-DOTS areas: new smear-positive cases include relapses. New pulmonary smear-positive cases by age and sex include relapses.

Ecuador Case notifications in DOTS areas: new smear-positive cases include relapses.

Haiti Cured and completed combined.

Mexico Country implemented DOTS in 1997. Data published are incomplete. Recent reports received from the MOH through PAHO correct preliminary data. All types: 20722 cases from all forms, pulmonary TB: 16995. We were unable to correct data in the database because they did not follow WHO standard format. Case notifications in non-DOTS areas: new smear-positive cases include relapses.

USA DOT in a proportion of patients only.

AMRO NOTIFICATION RATES BY AGE & SEX

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)									
		Age groups							Age groups							Age groups									
		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total
Argentina	1996	2.21	19.18	21.91	15.96	15.97	17.65	20.75	13.83	2.16	20.59	24.34	23.97	30.17	35.64	23.62	18.94	2.18	19.88	23.12	20.04	23.23	27.15	22.44	16.43
Bahamas	1996	3.70	15.38	21.05	45.45	0.00	0.00	10.07		7.69	14.81	19.05	0.00	12.50	12.50	8.33		5.66	15.09	20.00	21.74	6.67	7.69	9.15	
Barbados	1996		4.35		9.09	16.67			2.38		0.00		0.00	0.00	0.00	0.00			2.22		4.35	6.67		1.15	
Belize	1996	2.22	12.50	11.76	22.22	40.00	75.00	50.00	13.64	0.00	4.35	25.00	0.00	0.00	0.00	0.00	4.63	1.12	8.51	18.18	11.11	22.22	37.50	25.00	9.13
Bolivia	1996	11.41	180.00	169.27	171.43	205.88	188.82	247.33	112.20	11.41	111.69	125.42	107.65	88.73	98.95	108.70	71.16	11.41	145.89	147.04	138.66	145.09	141.27	170.89	91.52
Chile	1996	0.37	9.98	16.28	20.74	30.53	28.60	34.66	14.16	0.53	7.32	9.55	7.14	8.86	9.53	12.68	6.45	0.45	8.66	12.93	13.91	19.44	18.49	21.78	10.26
Costa Rica	1996		3.37	3.73	8.33	10.95	22.09	19.74	5.09		1.28	3.16	3.13	2.21	4.55	5.62	1.85		2.35	3.45	5.75	6.59	13.22	12.12	3.49
Cuba	1996	0.00	6.01	12.00	12.08	15.20	19.31	28.69	10.69	0.08	3.36	3.98	2.74	7.10	9.40	12.14	4.44	0.04	4.72	8.04	7.36	11.08	14.29	20.10	7.58
Dominican Republic	1996	1.21	29.02	37.54	26.23	25.99	23.44	25.93	19.87	1.55	23.21	21.84	13.03	15.17	12.17	13.25	12.67	1.38	26.17	29.83	19.77	20.71	17.85	19.51	16.33
El Salvador	1996	9.39	10.98	18.45	33.77	31.84	42.86	80.00	18.80	9.77	11.19	13.60	15.47	23.56	26.21	43.57	14.59	9.58	11.09	15.90	23.72	27.39	33.95	60.00	16.65
Guatemala	1996	3.06	20.68	31.29	44.13	48.10	60.55	77.17	21.37	2.03	19.85	34.39	42.57	53.58	60.09	49.25	20.86	2.56	20.27	32.83	43.35	50.86	60.32	62.60	21.12
Guyana	1996	2.96	10.00	17.28	7.55	17.24	23.53	46.67	11.11	3.03	9.88	4.88	7.02	16.13	0.00	0.00	5.90	3.00	9.94	11.04	7.27	16.67	11.11	21.21	8.47
Haiti	1996	10.03	50.92	84.39	83.05	69.57	56.13	75.78	44.27	15.43	59.23	90.28	77.10	65.92	34.44	65.36	48.00	12.70	55.08	87.41	79.89	67.61	44.48	70.11	46.16
Honduras	1996	3.97	41.24	92.62	52.59	67.50	175.93	24.42	39.18	3.47	28.64	59.18	39.11	42.33	131.86	17.17	27.59	3.73	35.03	76.02	45.84	54.80	153.39	20.54	33.43
Jamaica	1996	0.25	3.56	4.22	8.33	14.63	13.33	4.17	4.40	0.26	2.13	1.27	3.36	2.38	4.69	1.12	1.61	0.26	2.87	2.75	5.80	8.43	8.87	2.48	3.01
Mexico	1996	1.20	9.33	14.08	18.88	22.16	34.14	25.80	10.87	1.53	6.84	8.93	11.83	13.96	20.95	14.03	7.49	1.36	8.09	11.44	15.24	17.94	27.27	19.32	9.16
Nicaragua	1996	2.92	51.11	67.57	98.45	105.26	130.56	164.91	45.27	3.67	44.35	64.61	67.49	66.38	84.00	80.00	36.03	3.29	47.73	66.06	82.62	85.65	106.80	118.11	40.63
Panama	1996	11.56	26.05	58.93	53.70	58.04	61.11	65.22	36.46	13.46	24.41	34.08	36.42	33.03	50.72	36.11	26.59	12.49	25.24	46.53	45.06	45.70	56.03	50.35	31.57
Paraguay	1996	1.63	17.72	26.81	27.53	59.09	67.74	68.06	19.34	1.59	17.39	25.14	18.12	33.56	47.52	58.42	16.02	1.61	17.56	25.99	22.91	46.53	57.22	62.43	17.69
Peru	1996	3.51	54.41	43.04	32.46	29.63	31.56	34.29	28.01	4.05	36.41	29.17	21.15	18.73	20.75	24.96	19.60	3.77	45.45	35.94	26.64	24.08	26.01	29.23	23.77
Puerto Rico	1996	0.63	0.30	7.01	7.52	8.25	7.35	10.18	4.60	0.00	1.22	1.74	1.92	2.22	1.25	1.43	1.24	0.32	0.75	4.29	4.52	5.01	4.05	5.31	2.86
Suriname	1996	1.32	11.90	26.83	50.00		40.00	66.67	17.76	2.74	7.32	14.63	21.74		25.00	27.27	10.14	2.01	9.64	20.73	35.56		31.82	45.00	13.89
Trinidad and Tobago	1996		3.01	6.36	9.57	14.06	15.38	15.00	5.99		4.42	5.15	5.95	1.79	2.78	2.38	2.94		3.66	5.80	7.87	8.33	9.33	8.54	4.55
United States of America	1996	0.07	1.82	3.82	5.43	6.54	6.40	7.19	3.85	0.08	1.63	2.37	2.16	1.65	1.84	2.70	1.67	0.07	1.73	3.10	3.81	4.08	4.05	4.55	2.74
Uruguay	1996	1.01	12.50	19.28	29.29	36.20	37.86	25.61	18.78	1.06	9.13	15.56	8.17	12.00	6.33	9.52	8.10	1.03	10.84	17.41	18.47	23.67	21.14	16.20	13.30
AMRO		1.63	14.66	15.64	14.34	15.76	18.41	16.00	11.57	1.84	11.61	11.89	9.49	9.46	18.41	8.13	8.19	1.74	13.15	13.77	11.91	12.57	15.04	11.44	9.86

AMRO - AGE & SEX DISTRIBUTION OF TB CASES IN DOTS AREAS (absolute numbers)

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)											
		Age groups						Age groups						Age groups						Age groups							
0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total				
Belize	1996	1	3	2	2	3	15	0	1	4	0	0	0	0	5	1	4	6	2	2	3	2	20				
Bolivia	1996	178	1359	887	636	525	321	324	4230	172	841	676	422	244	189	175	2719	350	2200	1563	1058	769	510	499	6949		
Chile	1996	8	123	201	207	125	139	1010	11	88	117	72	63	47	72	470	19	211	318	279	270	172	211	1480			
Cuba	1996	0	54	136	86	93	84	138	591	1	29	44	20	45	42	63	244	1	83	180	106	138	126	201	835		
Guatemala	1996	75	230	230	218	152	132	142	1179	48	214	250	212	172	134	99	1129	123	444	480	430	324	266	241	2308		
Jamaica	1996	1	9	10	12	12	8	3	55	1	5	3	2	3	1	20	2	14	13	17	14	11	4	75			
Nicaragua	1996	27	231	200	191	120	94	94	957	33	200	199	137	77	63	56	765	60	431	399	328	197	157	150	1722		
Paraguay	1996	17	84	100	79	91	63	49	483	16	80	91	50	50	48	59	394	33	164	191	129	141	111	108	877		
Peru	1996	151	1351	789	420	261	190	167	3329	169	896	561	290	171	132	144	2363	320	2247	1350	710	432	322	311	5692		
Puerto Rico	1996	3	1	19	17	16	10	17	83	0	4	5	5	2	3	24	3	5	24	22	21	12	20	107			
Uruguay	1996	4	34	43	58	59	53	42	293	4	24	35	17	21	10	22	133	8	58	78	75	80	63	64	426		
United States of America	1996	21	332	802	1205	1075	676	1000	5111	22	286	484	472	276	207	537	2284	43	618	1286	1677	1351	883	1537	7395		
Venezuela	1996																						2	1	1	1	5
United States Virgin Isl	1996	0	0	1	1	0	1	0	3	0	0	1	0	0	0	1	2										
AMRO	No.	486	3811	3420	3132	2613	1760	2117	17339	477	2668	2470	1702	1126	877	1232	10552	963	6479	5890	4834	3739	2637	3349	27891		
	%	2.80	21.98	19.72	18.06	15.07	10.15	12.21	100.0	4.52	25.28	23.41	16.13	10.67	8.31	11.68	100.0	3.45	23.23	21.12	17.33	13.41	9.45	12.01	100.0		

AMRO - AGE & SEX DISTRIBUTION OF TB CASES IN NON-DOTS AREAS (absolute numbers)

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)							Age groups				
		Age groups						Age groups						Age groups						Age groups						Age groups	
		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total		
Antigua and Barbuda	1996	0	0	0	0	1	0	0	1	0	0	0	1	0	0	0	1	220	1254	1126	866	822	750	749	5787		
Argentina	1996	113	611	535	338	276	230	286	2389	107	643	591	528	546	520	463	3398	3	8	8	5	1	1	1	26		
Bahamas	1996	0	1	4	4	5	0	0	14	0	2	4	4	0	1	1	12	1	1	1	1	1	1	1	3		
Barbados	1996	0	0	1	0	1	1	0	3	0	0	0	0	0	0	0	0										
Brazil	1996																										
Cayman Islands	1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0										
Colombia	1996																										
Costa Rica	1996	0	11	11	19	15	19	15	90	0	4	9	7	3	4	5	32	15	20	26	18	23	20	122			
Dominica	1996	0	0	1	2	1	1	0	5	0	0	1	0	1	0	0	2	2	2	2	1	1	1	7			
Dominican Republic	1996	17	231	262	128	79	45	42	804	21	178	147	61	44	23	22	496	38	409	409	189	123	68	64	1300		
Ecuador	1996																										
El Salvador	1996	102	76	76	77	57	54	92	534	102	76	62	43	49	38	61	431	204	152	138	120	106	92	153	965		
Guyana	1996	4	8	14	4	5	4	7	46	4	8	4	4	5	0	0	25	8	16	18	8	10	4	7	71		
Haiti	1996	148	358	438	289	160	87	97	1577	224	417	492	303	176	62	100	1774	372	775	930	592	336	149	197	3351		
Honduras	1996	51	247	389	142	108	190	21	1148	43	167	245	106	69	149	17	796	94	414	634	248	177	339	38	1944		
Mexico	1996	198	936	1021	940	721	708	469	4993	243	685	681	627	482	472	312	3502	441	1621	1702	1567	1203	1180	781	8495		
Panama	1996	52	68	132	87	65	44	45	493	58	62	76	59	36	35	26	352	110	130	208	146	101	79	71	845		
Saint Kitts and Nevis	1996	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0		1	1						2		
Suriname	1996	1	5	11	11	0	4	6	38	2	3	6	5	0	3	3	22	3	8	17	16	7	9	60			
Trinidad and Tobago	1996	0	4	7	9	9	6	6	41	0	5	5	1	1	1	18	9	12	14	10	7	7	7	59			
	No.	686	2556	2903	2051	1503	1393	1086	12178	804	2250	2323	1753	1412	1308	1011	10861	1490	4806	5226	3804	2915	2701	2097	23039		
	%	5.63	20.99	23.84	16.84	12.34	11.44	8.92	100.0	7.40	20.72	21.39	16.14	13.00	12.04	9.31	100.0	6.47	20.86	22.68	16.51	12.65	11.72	9.10	100.0		

American Region - Number of tuberculosis cases notified, 1980-1996

COUNTRY / PAYS	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	
Antigua & Barbuda	8	3	0	1	3	2	7	0	3	3	1	0	6			5		
Argentina/Argentine	16.406	16.693	17.292	17.305	16.359	15.987	14.681	13.368	13.267	12.636	12.309	12.185	12.606	13.887	13.683	13.433	13397	
Bahamas	70	67	54	58	53	63	52	43	51	52	46	53	63	60	78	57	59	
Barbados/Barbade	64	3	30	17	14	12	7	3	4	5	5	5	6		20	3		
Belize	21	33	44	140	35	25	23	41	28	30	57	89	65	80	59	61	53	
Bolivia/Bolivie	4.412	5.072	4.777	5.178	4.131	7.679	6.837	8.960	10.664	12.563	11.166	11.223	9.520	8.614	9.431	9.614	10194	
Brazil/Brésil	72.608	86.411	87.822	86.617	88.365	84.310	83.731	81.826	82.395	80.048	74.570	84.990	85.955	75.759	88.109	87254		
Canada	2.885	2.554	2.515	2.186	2.345	1.980	2.046	1.952	2.032	1.982	1.964	2.043	2.091	2.012	2.074			
Chile/Chili	8.523	7.337	6.941	6.989	6.561	6.644	6.854	6.280	6.324	6.728	6.151	5.498	5.304	4.598	4.138	4038		
Colombia/Colombie	11.589	11.483	12.126	13.716	12.792	12.024	11.639	11.437	11.469	11.329	12.447	12.263	11.199	11.043	8.901	9.912	9702	
Costa Rica	396	521	459	479	393	376	418	434	442	311	230	201	118	313	325	321	162	
Cuba	1.133	833	815	762	705	680	656	630	628	581	546	514	410	790	1.681	1.607	1579	
Dominica/Dominique	20	26	18	16	5	8	35	27	7	13	6	14	13	7	12	8	10	
Dominican Rep./Rép. Domin.	2.174	1.778	2.457	2.959	3.100	2.335	2.634	2.459	3.081	3.145	2.597	1.837	3.490	4.033	4.337	4.053	6006	
Ecuador/Equateur	3.950	3.966	3.880	3.985	4.301	4.798	5.687	5.867	5.497	5.480	8.243	6.879	7.313	7.050	9.685	7.893	6327	
El Salvador	2.255	2.091	2.171	2.053	1.564	1.461	1.659	1.647	2.378	617	2.367	2.304	2.495	3.347	3.901	2.422	1686	
Grenada/Grenade	17	1	1	6	4	2	1	2	0	4	0	1	3	0	3	2		
Guatemala	5.624	6.641	7.277	6.013	6.586	6.570	4.806	5.700	5.739	4.900	3.813	2.631	2.517	2.474	2.508	3.368	3496	
Guyana	124	117	135	149	165	215	190	117	150	120	168	134	182	91	266	296	314	
Haiti/Haiti	8.306	6.550	3.337	6.839	5.803	4.959	8.583	8.514	8.054	8.100		10.237					6632	
Honduras	1.674	1.696	1.714	1.935	2.120	3.377	4.213	4.227	3.962	4.026	3.647	4.560	4.155	3.745	4.291	4.984	4176	
Jamaica/Jamaïque	176	178	153	157	160	130	88	133	65	86	123	121	111	115	109	109	121	
Mexico/Mexique	31.247	32.572	24.853	22.795	14.531	15.017	13.180	14.631	15.371	15.489	14.437	15.216	14.446	15.145	16.353	11.329	10852	
Nicaragua	1.300	3.723	3.082	2.773	2.705	2.604	2.617	2.983	2.737	3.106	2.944	2.797	2.885	2.798	2.750	2.842	3003	
Panama	643	580	580	429	413	614	709	765	770	672	846	863	750	1.146	827	1.316	1099	
Paraguay	1.354	1.388	1.415	1.800	1.718	1.931	1.628	1.502	1.438	2.270	2.167	2.283	1.927	2.037	1.850	1.773	2148	
Peru/Pérou	16.011	21.925	21.579	22.753	22.792	24.438	24.702	30.571	36.908	35.687	37.905	40.580	52.552	51.675	48.601	45.310	41739	
Puerto Rico/Porto Rico	686	521	473	452	418	338	363	303	275	314	159	241		257	274	263	219	
Saint Kitts and Nevis	7	4	6	2	3	0	0	0	0	0	0	1	4	6	2	4	3	
Saint Lucia	41	39	37	48	55	21	34	25	32	28	13	25	26		24	12		
Saint Vincent	78	11	14	4	23	14	9	3	6	3	2	1	4	13	0	24		
Suriname	78	81	56	78	76	50	60	77	77	70	82	47	58	45	53		53	
Trinidad and Tobago	80	82	62	112	108	112	119	122	108	124	120	141	142	112	129	178	205	
United States of America	27.749	27.373	25.520	23.846	22.255	22.201	22.768	22.517	22.436	23.495	25.701	26.283	26.673	25.287	24.361	22.860	21337	
Uruguay	1.874	1.699	1.450	1.359	1.389	1.201	1.082	1.023	951	987	886	759	699	689	666	625	701	
Venezuela/Vénézuela	4.233	4.093	4.159	4.266	4.737	4.822	4.974	4.954	4.557	4.524	5.457	5.216	5.444	5.169	4.877	5.554	5576	
Other territories:																		
Anguilla	0	0	4	0	0	1	0	0	0	0	0	0	0			2		
Bermuda/Bermudes	1	2	5	10	3	3	6	2	1	2	0	3	4			4		
British Virgin Islands	0	0	0	1	0	0	0	1	0	1	0	1	0		0			
Cayman Islands/Iles Caiman	0	2	0	1	1	4	1	0	0	2	2	3	3	2	3	0		
Montserrat	1	0	0	1	7	9	5	13	6	5	1	1	0		0			
Netherlands Antilles																		
Turks and Caicos Islands	2	0	2	5	0	4	2	12	0	0	0	0	0		10	4	8	
United States Virgin Islands	0	1	1	2	3	1	1	2	6	4	4	4						
Total	227.820	248.150	237.316	238.297	226.801	227.022	227.107	233.173	241.919	239.542	231.182	252.247	253.239	166.640	242.018	238.372	242.157	

American Region - Case notification rates (per 100 000 population), 1980-1996

COUNTRY / PAYS	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Antigua & Barbuda	13,1	4,9		1,6	4,8	3,2	11,3		4,8	4,8	1,6		9,2				7,6
Argentina/Argentine	58,4	58,5	59,7	58,8	54,8	52,7	47,7	42,8	41,9	39,3	37,8	37,0	37,8	41,1	40,0	38,6	38,0
Bahamas	33,3	31,2	24,5	25,8	23,1	26,9	21,8	17,7	20,6	20,6	18,0	20,4	23,9	22,4	28,7	20,4	20,8
Barbados/Barbade	25,7	1,2	12,0	6,8	5,6	4,7	2,8	1,2	1,6	2,0	1,9	1,9	2,3			7,7	1,1
Belize	14,4	22,1	28,8	89,2	21,6	15,1	13,5	23,4	15,6	16,3	30,2	45,9	32,7	39,2	28,1	28,6	24,2
Bolivia/Bolivie	82,4	92,8	85,8	91,3	71,5	130,3	113,6	145,8	169,8	195,6	169,9	166,8	138,1	122,0	130,3	129,7	134,3
Brazil/Brésil	59,9	69,7	69,3	66,9	66,8	62,4	60,8	58,3	57,6	54,9	50,2	56,2	55,9		47,6	55,4	54,2
Canada	11,7	10,3	10,0	8,6	9,1	7,6	7,8	7,3	7,5	7,2	7,1	7,3	7,3	7,0	7,1		
Chile/Chili	76,5	64,8	60,4	59,8	55,2	55,0	55,8	50,3	49,7	52,0	46,8	41,1	39,0	33,3	29,5		28,0
Colombia/Colombie	43,7	42,4	43,8	48,5	44,3	40,8	38,7	37,3	36,8	35,7	38,5	37,3	33,5	32,5	25,8	27,7	26,6
Costa Rica	17,3	22,1	18,9	19,2	15,3	14,2	15,4	15,5	15,4	10,5	7,6	6,5	3,7	9,6	9,7	9,4	4,6
Cuba	11,7	8,5	8,3	7,7	7,0	6,7	6,4	6,1	6,0	5,5	5,2	4,8	3,8	7,3	15,3	14,7	14,3
Dominica/Dominique	27,0	35,1	24,7	21,9	6,8	11,1	48,6	37,5	9,7	18,1	8,5	19,7	18,3	9,9	16,9	11,3	14,1
Dominican Rep./Rép. Domín.	38,2	30,5	41,2	48,5	49,7	36,6	40,4	36,9	45,2	45,2	36,5	25,3	47,2	53,5	56,4	51,8	75,4
Ecuador/Equateur	49,6	48,5	46,1	46,1	48,5	52,7	61,0	61,4	56,1	54,6	80,3	65,5	68,1	64,2	86,3	68,9	54,1
El Salvador	49,8	45,7	47,0	44,2	33,4	30,8	34,5	33,7	47,8	12,2	45,8	43,6	46,2	60,7	69,2	42,8	29,1
Grenada/Grenade	19,1	1,1	1,1	6,7	4,4	2,2	1,1	2,2		4,4		1,1	3,3		3,3	2,2	
Guatemala	81,3	93,4	99,5	79,9	85,1	82,5	58,6	67,6	66,1	54,8	41,5	27,8	25,8	24,7	24,3	31,7	32,0
Guyana	16,3	15,3	17,5	19,1	21,0	27,2	24,0	14,8	18,9	15,1	21,1	16,7	22,5	11,2	32,2	35,7	37,5
Haiti/Haiti	155,2	120,2	60,2	121,1	100,9	84,6	143,5	139,5	129,3	127,5		154,7					91,4
Honduras	46,9	46,0	45,0	49,2	52,3	80,7	97,5	94,9	86,3	85,0	74,7	90,7	80,2	70,2	78,1	88,1	71,8
Jamaica/Jamaïque	8,3	8,2	6,9	7,0	7,0	5,6	3,8	5,7	2,8	3,7	5,2	5,1	4,6	4,8	4,5	4,4	4,9
Mexico/Mexique	46,6	47,4	35,3	31,6	19,7	19,9	17,1	18,5	19,0	18,7	17,1	17,6	16,4	16,8	17,8	12,4	11,7
Nicaragua	46,4	129,0	103,8	90,7	86,0	80,6	79,1	88,0	78,9	87,1	80,1	73,5	72,9	68,0	64,3	68,9	70,9
Panama	33,0	29,1	28,5	20,6	19,5	28,3	32,1	33,9	33,4	28,6	35,3	35,3	30,1	45,2	32,0	50,0	41,1
Paraguay	43,2	42,8	42,3	52,0	48,1	52,3	42,7	38,2	35,4	54,2	50,2	51,4	42,1	43,3	38,3	36,7	43,3
Peru/Pérou	92,4	123,4	118,5	122,0	119,4	125,2	123,9	150,2	177,8	168,6	175,6	184,3	234,1	225,8	208,3	192,5	174,3
Puerto Rico/Porto Rico	21,4	16,1	14,5	13,7	12,5	10,0	10,7	8,8	7,9	9,0	4,5	6,8		7,1	7,5	7,1	5,9
St Kitts & Nevis	15,9	9,1	13,6	4,5	7,0							2,4	9,5	14,3	4,9	9,8	7,3
St Lucia/Ste Lucie	35,7	33,3	31,1	40,0	45,1	16,9	27,0	19,5	24,8	21,4	9,8	18,5	19,0		17,0	8,5	
St Vincent	79,6	11,1	14,0	4,0	22,8	13,7	8,7	2,9	5,7	2,8	1,9	0,9	3,7	11,8		21,4	
Suriname	22,0	22,7	15,5	21,3	20,5	13,3	15,7	19,9	19,7	17,7	20,5	11,6	14,2	10,9	12,7		12,3
Trinidad & Tobago/Trinité & Tot	7,4	7,5	5,6	9,9	9,4	9,7	10,1	10,2	8,9	10,1	9,7	11,3	11,2	8,8	10,0	13,8	15,8
USA/Etats Unis	12,2	11,9	11,0	10,2	9,4	9,3	9,5	9,3	9,2	9,5	10,3	10,4	10,5	9,8	9,3	8,6	7,9
Uruguay	64,3	57,9	49,1	45,7	46,5	39,9	35,8	33,6	31,1	32,1	28,6	24,4	22,3	21,9	21,0	19,6	21,9
Venezuela/Vénézuela	28,0	26,4	26,1	26,1	28,3	28,1	28,3	27,4	24,6	23,8	28,0	26,1	26,6	24,7	22,8	25,4	25,0
Other Territories:																	
Anguilla			57,1			14,3									25,0		
Bermuda/Bermudes	1,9	3,7	9,1	18,2	5,5	5,4	10,5	3,4	1,7	3,3		4,8	6,5		6,3		
Cayman Islands/Iles Caïman		11,1		5,0	5,0	19,0	4,5			8,0	7,7	11,1	10,7	6,9	9,7	0,0	
Montserrat	8,3			9,1	63,6	81,8	45,5	118,2	54,5	45,5	9,1	9,1					
Neth. Antilles/Antilles Néer.																	
Turks & Caicos Is./Iles T. & C.	28,6		25,0	55,6		44,4	20,0	120,0		6,7	6,3		5,9				
Virgin Is./Iles Vierges (UK)				7,7													
Virgin Is./Iles Vierges (USA)	1,0	1,0	2,0	3,0	1,0	1,0	2,0	5,9	4,0	3,9	3,9			9,6	3,8		
Total	37,4	40,0	37,6	37,2	34,8	34,3	33,8	34,1	34,9	34,0	32,6	34,7	34,8	28,4	32,1	33,1	32,2

American Region - New Smear Positive Cases

COUNTRY / PAYS	No. of cases/No. de cas				Rate/Taux*			
	1993	1994	1995	1996	1993	1994	1995	1996
Antigua & Barbuda				2				3,0
Argentina/Argentine	5.937	5.696	5.698	5.787	17,6	16,7	16,4	16,4
Bahamas	41	41	37	26	15,3	15,1	13,3	9,2
Barbados/Barbade				3				1,1
Belize	50	36	22	20	24,5	17,1	10,3	9,1
Bolivia/Bolivie	6.833	6.905	7.010	6.949	96,7	95,4	94,6	91,5
Brazil/Brésil		39.167	45.004	44.501		24,6	28,3	27,6
Canada	542				1,9			
Chile/Chili	2.629	1.951		1.480	19,0	13,9		10,3
Colombia/Colombie	6.987	6.532	7.530	7.572	20,6	18,9	21,0	20,8
Costa Rica		230	219	122				3,5
Cuba	565	914	834	835	5,2	8,3	7,6	7,6
Dominica/Dominique	6	8	5	7	8,5	11,3	7,0	9,9
Dominican Rep./Rép. Domin.	2.297	3.177	2.187	3.609	30,5	41,3	28,0	45,3
Ecuador/Equateur	5.325	6.674	5.236	4.356	48,5	59,5	45,7	37,2
El Salvador	2.471	2.144		965	44,8	38,0		16,6
Grenada/Grenade	0	3	2			3,3	2,2	
Guatemala	2.128	1.994	2.368	2.308	21,2	19,3	22,3	21,1
Guyana	51	61	85	71	6,3	7,4	10,2	8,5
Haiti/Haïti				3.524				48,5
Honduras	2.016	2.385	2.438	1.739	37,8	43,4	43,1	29,9
Jamaica/Jamaïque	83	61	91	75	3,4	2,5	3,7	3,0
Mexico/Mexique	8.164	9.726	9.220	8.495	9,1	10,6	10,1	9,2
Nicaragua	1.714	1.615	1.568	1.722	41,7	37,8	38,0	40,6
Panama	1.046	748	1.066	904	41,2	28,9	40,5	33,8
Paraguay	985	873	748	894	21,0	18,1	15,5	18,0
Peru/Pérou	35.646	33.925	32.096	26.800	155,8	145,4	136,4	111,9
Puerto Rico/Porto Rico	117		126	110	3,2		3,4	2,9
St Kitts & Nevis	2	2	4	2	4,8	4,9	9,8	4,9
St Lucia/Ste Lucie			17			12,1		
St Vincent	11	0	13		10,0		11,6	
Suriname				39				9,0
Trinidad & Tobago/Trinité & Tob.		55	76	59		4,3	5,9	4,5
USA/Etats Unis	16.046	14.346	8.013	7.401	6,2	5,5	3,0	2,7
Uruguay	388	381	349	426	12,3	12,0	11,0	13,3
Venezuela/Vénézuela	2.849	2.738	3.056	3.195	13,6	12,8	14,0	14,3
Other territories:								
Anguilla								
Bermuda/Bermudes		2				3,2		
Cayman Islands/Iles Caïman	2		0		0,5		0,0	
French Guiana/Guyane Fran.								
Neth. Antilles/Antilles Néer.								
Turks & Caicos Is./Iles T. & C.	0							
Virgin Is./Iles Vierges (UK)			2	5				
Virgin Is./Iles Vierges (USA)						1,9	4,7	
Total	104.931	142.405	135.105	134.003	17,9	18,9	18,7	17,8

* per 100 000 population/pour 100 000 habitants

THE EASTERN MEDITERRANEAN

Eastern Mediterranean Region - Summary of TB control policies

Country	Category of the National Manual ¹ as of 31/12/96	Training ²	DOTS Technical Elements					DOTS Implemented in 1997
			Use of Microscopy for Diagnosis	SCC ³	DOT ⁴	Drug Availability ⁵	Recording and Reporting System ⁶	
Afghanistan	0							
Bahrain	1							
Cyprus	5							
Djibouti	4							
Egypt	2							
Iran	1							
Iraq	1							
Jordan	5							
Kuwait	1							
Lebanon	1							
Libyan Arab Jamahiriya	1							
Morocco	4							
Occupied Palestinian Territ.	5							
Oman	4							
Pakistan	2							
Qatar	4							
Saudi Arabia	0							
Somalia	3							
Sudan	2							
Syrian Arab Republic	1							
Tunisia	1							
United Arab Emirates	1							
Yemen	3							

1 Presence of national manual, or a document issued by the government or an authorised scientific body, including policy recommendations endorsed by WHO

2 "WHO standard" training course on management of TB control programmes has been carried out within the past two years; or training materials endorsed by WHO or IUATLD

3 Short course chemotherapy

4 Directly observed treatment

5 A regular supply system of all essential anti-tuberculosis drugs and diagnostic materials

6 Presence of WHO/IUATLD recommended recording and reporting system showing assessment of treatment results

Legend: Element of DOTS strategy missing

White - Missing

Grey - Present in part of the Country

Blue - Fully implemented (more than 90%) in the country

X

X

Regional Profile - EMRO

As of 25-Nov-98

Countries	Country Information (1996)								WHO TB Control Strategy (DOTS)										
	Population	Notified Cases				New ss+ cases estimated	% case detection of new ss+ cases	Category	Population		Notified cases		% cases out of all cases	New ss+ cases notified		% new ss+ out of all new pulm. cases			
		All types		New ss+					No.	(%)	No.	Rate		No.	Rate				
		No.	Rate	No.	Rate														
	a	b	c	d	e	f	g	h	h/a	i	j	k	l	m	n				
Afghanistan	20,883,000					26,125		0											
Bahrain	570,000	156	27.4	121	21.2	64	189.1	1											
Cyprus	756,000	24	3.2	3	0.4	51	5.9	5											
Djibouti	617,000	3,071	497.7	1,796	291.1	1,666	107.8	4	617,000	100.0	3,071	497.7	100.0	1,796	291.1	95.2			
Egypt	63,271,000	12,338	19.5	5,084	8.0	22,208	22.9	2	1,581,775	2.5	191	12.1	1.5	50	3.2	34.0			
Iran (Islamic Republic of)	69,975,000	14,189	20.3	5,373	7.7	26,136	20.6	1											
Iraq	20,607,000	29,196	141.7	10,240	49.7	13,910	73.6	1											
Jordan	5,581,000	474	8.5	170	3.0	352	48.3	5											
Kuwait	1,687,000	400	23.7	153	9.1	304	50.3	1											
Lebanon	3,084,000	836	27.1	198	6.4	486	40.7	1											
Libyan Arab Jamahiriya	5,593,000	1,282	22.9	515	9.2	302	170.5	1											
Morocco	27,021,000	31,771	117.6	14,278	52.8	15,199	93.9	4	27,021,000	100.0	31,771	117.6	100.0	14,278	52.8	76.6			
Oman	2,302,000	222	9.6	108	4.7	207	52.2	4	2,302,000	100.0	222	9.6	100.0	108	4.7	75.5			
Pakistan	139,973,000	4,307	3.1	1,849	1.3	94,482	2.0	2	11,197,840	8.0	4,307	38.5	100.0	1,849	16.5	53.3			
Qatar	558,000	257	46.1	43	7.7	126	34.1	4	558,000	100.0	257	46.1	100.0	43	7.7	29.5			
Saudi Arabia	18,836,000					1,865		0											
Somalia	9,822,000	3,251	33.1	2,318	23.6	9,812	23.6	3	1,473,300	15.0	3,251	220.7	100.0	2,318	157.3	86.8			
Sudan	27,291,000	20,280	74.3	8,978	32.9	25,913	34.6	2	545,820	2.0	716	131.2	3.5	526	96.4	93.4			
Syrian Arab Republic	14,574,000	5,200	35.7	1,523	10.5	3,804	40.0	1											
Tunisia	9,156,000	2,387	26.1	1,005	11.0	2,266	44.4	1											
United Arab Emirates	2,260,000	507	22.4			305		1											
Yemen	15,678,000	14,364	91.6	4,371	27.9	6,773	64.5	3	2,351,700	15.0	731	31.1	5.1	683	29.0	100.0			
Other Territories																			
West Bank and Gaza Strip	2,900,000	40	1.4	24	0.8	183	13.1	5											
Regional Total	462,995,000	144,552	34.2	58,150	13.7	252,539	23.0		47,648,435	10.3	44,517	93.4	30.8	21,651	45.4	76.4			

Countries	WHO TB Control Strategy (DOTS)																	
	Treatment Outcomes in 1995																	
	New ss+ cases									Retreatment cases								
	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)
	<i>o</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>s</i>	<i>t</i>	<i>u</i>	<i>v</i>	<i>w</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>aa</i>	<i>ab</i>	<i>ac</i>	<i>ad</i>	<i>ae</i>	<i>af</i>
Afghanistan																		
Bahrain																		
Cyprus																		
Djibouti	1,751	0.6	60.0	15.5	19.9	0.7	3.3		75.5									
Egypt																		
Iran (Islamic Republic of)																		
Iraq																		
Jordan																		
Kuwait																		
Lebanon																		
Libyan Arab Jamahiriya																		
Morocco	14,171	0.6	70.4	13.8	6.8	0.9	1.9	5.6	84.2	1,469	2.0	64.7	11.5	9.5	3.8	3.7	4.7	76.2
Oman	93		83.9		1.1	1.1	8.6	5.4	83.9									
Pakistan	802	1.9	50.7	19.7	20.4	0.9	3.9	2.5	70.4	374		47.6	22.5	23.5	4.5	1.6	0.3	70.1
Qatar	43		81.4				4.7	14.0	81.4	3		66.7					33.3	66.7
Saudi Arabia																		
Somalia	1,278	0.4	81.9	4.1	5.0	4.8	3.8		86.0									
Sudan																		
Syrian Arab Republic																		
Tunisia																		
United Arab Emirates																		
Yemen																		
Other Territories																		
West Bank and Gaza Strip																		
Regional Total	18,138	0.6	69.4	13.4	8.5	1.1	2.3	4.6	82.9	1,846	1.6	61.3	13.7	12.4	4.0	3.3	3.8	75.0

Regional Profile - EMRO

As of 25-Nov-98

Countries	Country Information (1996)								Other Strategy (non-DOTS)									
	Population	Notified Cases				New ss+ cases estimated	% case detection of new ss+ cases	Category	Population		Notified cases		% cases out of all cases	New ss+ cases notified		% new ss+ out of all new pulm. cases		
		All types		New ss+					No.	(%)	No.	Rate		No.	Rate			
		No.	Rate	No.	Rate													
	a	b	c	d	e	f	d/f	g	h	h/a	i	j	k	l	m	n		
Afghanistan	20,883,000					26,125		0										
Bahrain	570,000	156	27.4	121	21.2	64	189.1	1	570,000	100.0	156	27.4	100.0	121	21.2	100.0		
Cyprus	756,000	24	3.2	3	0.4	51	5.9	5	756,000	100.0	24	3.2	100.0	3	0.4	25.0		
Djibouti	617,000	3,071	497.7	1,796	291.1	1,666	107.8	4										
Egypt	63,271,000	12,338	19.5	5,084	8.0	22,208	22.9	2	61,689,225	97.5	12,147	19.7	98.5	5,034	8.2	54.0		
Iran (Islamic Republic of)	69,975,000	14,189	20.3	5,373	7.7	26,136	20.6	1	69,975,000	100.0	14,189	20.3	100.0	5,373	7.7	52.9		
Iraq	20,607,000	29,196	141.7	10,240	49.7	13,910	73.6	1	20,607,000	100.0	29,196	141.7	100.0	10,240	49.7	37.1		
Jordan	5,581,000	474	8.5	170	3.0	352	48.3	5	5,581,000	100.0	474	8.5	100.0	170	3.0	49.0		
Kuwait	1,687,000	400	23.7	153	9.1	304	50.3	1	1,687,000	100.0	400	23.7	100.0	153	9.1	67.1		
Lebanon	3,084,000	836	27.1	198	6.4	486	40.7	1	3,084,000	100.0	836	27.1	100.0	198	6.4	34.0		
Libyan Arab Jamahiriya	5,593,000	1,282	22.9	515	9.2	302	170.5	1	5,593,000	100.0	1,282	22.9	100.0	515	9.2	100.0		
Morocco	27,021,000	31,771	117.6	14,278	52.8	15,199	93.9	4										
Oman	2,302,000	222	9.6	108	4.7	207	52.2	4										
Pakistan	139,973,000	4,307	3.1	1,849	1.3	94,482	2.0	2	128,775,160	92.0								
Qatar	558,000	257	46.1	43	7.7	126	34.1	4										
Saudi Arabia	18,836,000					1,865		0										
Somalia	9,822,000	3,251	33.1	2,318	23.6	9,812	23.6	3	8,348,700	85.0								
Sudan	27,291,000	20,280	74.3	8,978	32.9	25,913	34.6	2	26,745,180	98.0	19,564	73.1	96.5	8,452	31.6	52.6		
Syrian Arab Republic	14,574,000	5,200	35.7	1,523	10.5	3,804	40.0	1	14,574,000	100.0	5,200	35.7	100.0	1,523	10.5	46.3		
Tunisia	9,156,000	2,387	26.1	1,005	11.0	2,266	44.4	1	9,156,000	100.0	2,387	26.1	100.0	1,005	11.0	63.9		
United Arab Emirates	2,260,000	507	22.4			305		1	2,260,000	100.0	507	22.4	100.0					
Yemen	15,678,000	14,364	91.6	4,371	27.9	6,773	64.5	3	13,326,300	85.0	13,633	102.3	94.9	3,688	27.7	33.6		
Other Territories																		
West Bank and Gaza Strip	2,900,000	40	1.4	24	0.8	183	13.1	5	2,900,000	100.0	40	1.4	100.0	24	0.8	85.7		
Regional Total	462,995,000	144,552	34.2	58,150	13.7	252,539	23.0		375,627,565	81.1	100,035	26.6	69.2	36,499	9.7	44.9		

Countries	Other Strategy (non-DOTS) Treatment Outcomes in 1995																	
	New ss+ cases (Short Course)									New ss+ cases (Other Regimen)								
	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)
	<i>o</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>s</i>	<i>t</i>	<i>u</i>	<i>v</i>	<i>w</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>aa</i>	<i>ab</i>	<i>ac</i>	<i>ad</i>	<i>ae</i>	<i>af</i>
Afghanistan																		
Bahrain																		
Cyprus	6		100.0						100.0									
Djibouti																		
Egypt	2,118		38.3	23.7	19.2	3.0	2.0	13.8	62.0	1,334		30.7	23.5	28.0	4.5	2.7	10.5	54.3
Iran (Islamic Republic of)																		
Iraq	11,553	4.5	60.0	20.0	10.1	5.0		0.3	80.0									
Jordan	193	2.1	91.2	1.0	1.6	1.0	2.6	0.5	92.2									
Kuwait	175		40.0	30.9	1.1		2.9	25.1	70.9									
Lebanon	200		35.0	55.5	9.5				90.5									
Libyan Arab Jamahiriya	626		65.0		33.1	1.3	0.6		65.0									
Morocco																		
Oman																		
Pakistan																		
Qatar																		
Saudi Arabia																		
Somalia																		
Sudan	8,326		44.0	34.6	10.7	7.1	2.1	1.5	78.6									
Syrian Arab Republic	1,295	0.1	45.0	15.8	23.8	8.8	1.6	4.9	60.8									
Tunisia																		
United Arab Emirates																		
Yemen	3,797	0.1	42.6	8.6	34.7	1.4	1.4	11.2	51.2									
Other Territories																		
West Bank and Gaza Strip	13		100.0						100.0									
Regional Total	28,302	1.9	50.7	22.6	15.3	5.0	1.1	3.5	73.3	1,334		30.7	23.5	28.0	4.5	2.7	10.5	54.3

NOTE

Bahrain Breakdown by smear status and treatment results not provided.

Egypt No cohort analysis because programme was recently implemented.

Iran Adopted DOTS in some areas but data could not be separated.

Libya High defaulting rate: mostly foreigners who left the country and could not be traced.

Morocco Relapses not indicated.

Pakistan Data from non-DOTS not provided.

West Bank and Gaza Strip Data on Gaza strip only (29%). New smear-positive cases include relapses.

Sudan No cohort analysis because programme was recently implemented.

Yemen Data not provided on the WHO TB Data Collection Form. No cohort analysis because programme was recently implemented.

EMRO NOTIFICATION RATES BY AGE & SEX

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)									
		Age groups							Age groups							Age groups									
		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total
Bahrain	1996	0.00	19.05	41.67	31.17	47.06	58.33	85.71	26.38	1.16	24.39	25.58	17.95	0.00	33.33	42.86	14.40	0.56	21.69	34.95	26.72	32.00	47.62	64.29	21.23
Cyprus	1996	0.00			3.33		0.27			3.70			0.00		0.53			1.82			1.59			0.40	
Djibouti	1996	23.81	713.56	975.00	479.31	366.67	400.00	337.50	387.79	24.80	404.92	460.87	216.13	165.22	150.00	50.00	198.40	24.30	556.67	712.22	343.33	261.36	270.37	177.78	291.09
Egypt	1996	0.48	11.56	21.84	17.82	20.89	20.62	12.46	10.83	0.55	0.90	9.31	6.82	9.68	5.50	2.96	3.71	0.51	6.40	15.80	12.43	15.23	12.76	7.27	7.33
Iran (Islamic Republic of)	1996	0.40	5.66	9.39	12.94	14.58	30.76	41.90	7.40	0.75	9.04	8.89	10.32	16.70	32.78	39.73	8.08	0.57	7.32	9.14	11.62	15.66	31.74	40.83	7.74
Iraq	1996	10.33	41.65	51.29	180.55	259.04	59.45	1602.09	100.20	11.49	44.83	70.69	124.36	282.51	64.20	1728.70	113.08	10.90	43.20	60.80	153.02	270.61	61.85	1669.90	106.52
Jordan	1996	0.16	3.64	6.62	7.08	8.72	19.81	12.33	3.99	0.08	1.42	2.68	3.54	11.11	7.14	5.06	2.06	0.12	2.57	4.75	5.36	9.90	13.30	8.55	3.05
Kuwait	1996	0.00	6.92	32.37	12.80	44.78	12.90	6.67	12.40	0.32	7.64	13.71	6.61	4.69	13.04	14.29	5.60	0.16	7.28	23.57	9.76	25.19	12.96	10.34	9.07
Lebanon	1996	0.75	9.24	15.02	12.59	12.77	11.39	24.36	8.71	0.78	8.05	4.68	5.67	4.55	6.82	4.30	4.24	0.76	8.65	9.80	8.61	8.33	8.98	13.45	6.42
Libyan Arab Jamahiriya	1996	0.31	16.94	38.80	30.15	14.29	20.74	24.05	13.71	0.32	5.64	10.12	7.20	6.29	9.47	15.94	4.33	0.32	11.38	24.86	19.49	10.90	16.09	20.27	9.21
Morocco	1996	2.39	89.17	131.91	110.68	91.90	104.70	109.59	68.45	4.57	60.05	60.95	43.01	48.56	56.66	48.34	37.20	3.46	74.89	96.62	76.64	69.48	78.22	77.02	52.84
Oman	1996	0.00	7.46	9.09	5.48	11.00	18.60	40.74	5.47	0.56	9.09	3.10	3.41	8.62	2.78	25.93	3.81	0.28	8.27	6.36	4.70	10.13	11.39	33.33	4.69
Qatar	1996	5.88	13.46	14.16	15.87	13.64	20.00	10.57		0.00	4.35	0.00	11.11	16.67	0.00	2.12		3.08	10.67	11.03	14.81	14.29	14.29	7.71	
Somalia	1996	1.92	47.56	89.98	62.17	57.52	48.52	52.50	32.94	2.10	23.71	35.22	24.43	17.79	20.32	18.31	14.44	2.01	35.58	62.23	42.89	37.11	33.71	33.97	23.60
Syrian Arab Republic	1996	0.34	25.16	26.29	17.30	25.28	28.05	28.99	13.85	0.38	13.28	10.24	9.05	13.78	16.85	13.84	6.98	0.36	19.31	18.48	13.19	19.42	22.22	21.11	10.45
EMRO		1.73	26.77	40.51	44.63	52.23	39.04	151.27	27.04	2.19	18.65	23.99	23.73	42.34	39.04	150.83	20.40	1.96	22.80	32.43	34.32	47.29	32.95	151.04	23.76

EMRO - AGE & SEX DISTRIBUTION OF TB CASES IN DOTS AREAS (absolute numbers)

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)											
		Age groups							Age groups							Age groups											
		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total
Djibouti	1996	30	421	429	139	77	52	27	1175	31	247	212	67	38	21	5	621	61	668	641	206	115	73	32	1796		
Egypt	1996	0	1	14	8	7	6	4	40	0	2	0	3	4	0	1	10		3	14	11	11	6	5	50		
Morocco	1996	118	2618	2844	1721	772	602	583	9258	217	1697	1300	677	437	400	292	5020	335	4315	4144	2398	1209	1002	875	14278		
Oman	1996	0	15	14	8	11	8	11	67	3	18	4	3	5	1	7	41	3	33	18	11	16	9	18	108		
Pakistan	1996																										
Qatar	1996	0	2	7	16	10	3	1	39	0	0	1	0	2	1	0	4		2	8	16	12	4	1	43		
Somalia	1996	45	439	557	263	153	82	63	1602	49	221	224	108	50	38	26	716	94	660	781	371	203	120	89	2318		
Sudan	1996																										
Yemen	1996																										
EMRO	No.	193	3496	3865	2155	1030	753	689	12181	300	2185	1741	858	536	461	331	6412	493	5681	5606	3013	1566	1214	1020	18593		
	%	1.58	28.70	31.73	17.69	8.46	6.18	5.66	100.0	4.68	34.08	27.15	13.38	8.36	7.19	5.16	100.0	2.65	30.55	30.15	16.21	8.42	6.53	5.49	100.0		

EMRO - AGE & SEX DISTRIBUTION OF TB CASES IN NON-DOTS AREAS (absolute numbers)

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)									
		Age groups							Age groups							Age groups									
		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total
Bahrain	1996	0	8	25	24	16	7	6	86	1	10	11	7	0	3	3	35	1	18	36	31	16	10	9	121
Cyprus	1996	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	2	2	1	1	391	193	391	193	3
Egypt	1996	58	713	1042	695	478	302	150	3438	64	50	420	256	225	89	43	1147	122	763	1462	951	703	391	193	4585
Iran (Islamic Republic of)	1996	63	390	449	431	274	450	577	2634	113	599	412	347	323	452	534	2780	176	989	861	778	597	902	1111	5414
Iraq	1996	463	888	773	1829	1720	236	4598	10507	492	910	1025	1210	1825	260	5722	11444	955	1798	1798	3039	3545	496	10320	21951
Jordan	1996	2	22	30	17	13	21	9	114	1	8	11	8	16	8	4	56	3	30	41	25	29	29	13	170
Kuwait	1996	0	11	45	16	30	4	1	107	1	12	17	8	3	3	2	46	1	23	62	24	33	7	3	153
Lebanon	1996	4	28	41	18	12	9	19	131	4	24	13	11	5	6	4	67	8	52	54	29	17	15	23	198
Libyan Arab Jamahiriya	1996	4	93	142	82	31	28	19	399	4	30	35	17	10	9	11	116	8	123	177	99	41	37	30	515
West Bank and Gaza Strip	1996	0	2	2	2	2	2	4	14	1	2	1	2	0	3	1	10	1	4	3	4	2	5	5	24
Pakistan	1996																								
Somalia	1996																								
Sudan	1996																								
Syrian Arab Republic	1996	11	390	290	110	90	69	60	1020	12	200	107	57	51	45	31	503	23	590	397	167	141	114	91	1523
Tunisia	1996																								
United Arab Emirates	1996																								
Yemen	1996																								
EMRO	No.	605	2545	2839	3224	2666	1129	5443	18451	693	1847	2052	1923	2458	878	6355	16206	1298	4392	4891	5147	5124	2007	11798	34657
	%	3.28	13.79	15.39	17.47	14.45	6.12	29.50	100.0	4.28	11.40	12.66	11.87	15.17	5.42	39.21	100.0	3.75	12.67	14.11	14.85	14.78	5.79	34.04	100.0

Eastern Mediterranean Region -Number of tuberculosis cases notified, 1980-1996

COUNTRY	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Afghanistan	71.685	71.554	41.752	52.502	18.784	10.742	14.351	18.091	16.051	14.386	4.332	23.067					
Bahrain/Bahreïn	219	262	156	232	208	194	156	120	142	122	117	142	140	114	115	156	
Cyprus/Chypre	69	69	86	73	39	61	48	35	39	23	29	43	39	37	37	36	24
Djibouti	2.265	671		1.489	2.262	1.864	1.978	2.030	2.040	2.100	2.900	2.884	3.489	3.311		3.071	
Egypt/Egypte	1.637	1.306	1.805	1.932	1.572	1.308	1.209	22.063	1.378	1.492	2.142	3.634	8.876	3.426	3.911	23.444	12.338
Iran	42.717	11.728	9.509	8.589	10.493	8.728	8.032	10.034	9.967	12.005	9.255	14.246	14.121	20.569	13.021	20.012	14.189
Iraq	11.809	10.614	7.741	6.970	6.807	6.485	6.846	6.517	6.504	8.032	14.684		18.553	19.733	26.950	29.196	
Jordan/Jordanie	298	646	860	856	672	769	592	537	553	484	439	390	504	427	443	504	474
Kuwait/Koweit	847	819	880	855	812	717	611	540	480	468	277	330	282	217	237	336	400
Lebanon/Liban		67	75	284	410	1.943	2.257	2.478			884	884		940	983	836	
Libyan Arab Jamahiriya	718	481	512	610	357	325	276	331	416	265	442	239	1.164		1.440	1.282	
Morocco/Maroc	24.878	28.637	28.095	26.944	22.279	26.790	27.553	27.159	25.717	26.756	27.658	27.638	25.403	27.626	30.316	29.829	31.771
Oman	1.872	928	897	802	843	861	1.265	616	477	478	482	442	328	275	300	276	310
Pakistan	316.340	324.576	326.492	117.739	91.572	111.419	149.004	179.480	194.323	170.562	156.759	194.323		73.175		9.605	4.307
Qatar	257	213	172	206	203	250	220	248	223	191	184	195		200		304	257
Saudi Arabia/Arabie Saoudite	10.956	8.263	8.529	7.551	7.163	3.966	3.696	3.029	2.433	2.583	2.415	2.221	2.016	2.386	2.518		
Somalia/Somalie				2.838	2.719	2.722	3.079	7.322	2.728	1.323				2.023	2.883	3.251	
Sudan/Soudan	32.971	47.431				1.509	2.460	800	693	701	212	16.423	19.503	37.516	23.178	11.084	20.280
Syrian Arab Republic	1.689	1.908	1.838	1.867	2.111	2.163	3.942	4.290	4.952	5.504	6.018	5.651	5.437		5.127	4.404	5.200
Tunisia/Tunisie	2.504	2.316	2.554	3.062	2.501	2.510	2.487	2.272	2.309	2.403	2.054	2.064	2.164	2.565	2.376	2.383	2.387
United Arab Emerites	522	638	597	507	534	568	464	818	339	308	285	234	227	426		507	
Yemen/Yémen	27.627	17.088	20.167	34.634	34.438	7.241	8.366	9.822	3.301	4.727	4.457	6.643	9.899	10.857	11.464	14.428	14.364
Other territories:																	
Wets Bank and Gaza Strip	191	139	136	136	123	113	63	82	85	145	64	89	97	72	146	77	40
Total	549.615	531.809	453.388	269.053	206.006	193.533	238.778	298.580	275.055	254.853	234.341	301.709	93.871	201.432	119.361	149.093	144.640
No. of countries/No. de pays	19	21	20	20	21	22	22	22	21	21	20	20	17	16	20	18	20
% of countries reporting	83	91	87	87	91	96	96	96	91	91	87	87	74	70	87	78	87

Eastern Mediterranean Region - Case notification rates (per 100 000 population), 1980-1996

COUNTRY / PAYS	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Afghanistan	446,3	451,3	268,8	346,5	127,0	74,0	100,1	126,8	112,0	98,6	28,8	146,6					
Bahrain/Bahreïn	63,1	72,6	41,7	59,9	52,0	46,9	36,4	27,1	30,9	25,7	23,9	28,1	26,9	21,3	20,4	27,0	
Cyprus/Chypre	11,0	10,8	13,4	11,2	5,9	9,2	7,1	5,1	5,7	3,3	4,1	6,1	5,4	5,1	5,0	4,9	3,2
Djibouti		752,5	209,0		406,8	578,5	447,0	444,5	430,1	411,3	406,2	543,1	528,2	626,4	585,0	521,4	
Egypt/Egypte	3,7	2,9	3,9	4,1	3,2	2,6	2,4	42,2	2,6	2,7	3,8	6,3	15,0	5,7	6,3	37,3	19,2
Iran	108,8	28,7	22,2	19,2	22,4	17,8	15,8	18,9	18,1	21,0	15,7	23,4	22,6	32,1	19,8	29,7	20,6
Iraq	90,8	79,0	55,8	48,6	46,0	42,3	43,2	39,7	38,3	45,8	81,2		95,4	99,0	131,8	138,8	
Jordan/Jordanie	10,2	21,0	26,3	24,6	18,3	20,1	15,0	13,4	13,6	11,7	10,3	8,8	10,8	8,7	8,5	9,3	8,4
Kuwait/Koweit	61,6	56,8	58,5	54,7	49,7	41,7	33,4	27,7	23,2	21,9	12,9	15,9	14,6	12,2	14,5	21,7	26,1
Lebanon/Liban		2,5	2,8	10,6	15,3	72,8	85,5	95,4			33,9	32,8		32,2	32,7	27,1	
Libya/Libye	23,6	15,1	15,4	17,5	9,8	8,6	7,0	8,1	9,8	6,0	9,7	5,1	23,9		26,6	22,9	
Morocco/Maroc	128,4	144,3	138,2	129,4	104,5	122,8	123,5	119,1	110,3	112,3	113,7	111,2	100,0	106,5	114,5	110,4	115,3
Oman	170,0	80,1	73,8	63,0	63,2	61,6	86,5	40,2	29,8	28,5	27,5	24,2	17,2	13,8	14,4	12,8	13,8
Pakistan	370,9	367,8	356,8	123,9	92,8	108,7	140,1	162,8	170,2	144,4	128,6	154,6		55,0	6,8	3,0	
Qatar	112,2	85,2	62,8	68,4	61,5	69,8	57,0	60,0	50,7	41,2	37,9	38,8		37,8	55,2	45,7	
Saudi Arabia/Arabie Saoudite	114,1	81,3	79,4	66,5	59,8	31,4	27,7	21,5	16,4	16,7	15,0	13,5	12,0	13,9	14,4		
Somalia/Somalie				38,1	35,5	34,6	38,2	88,8	32,4	15,5				22,3	31,2	34,3	
Sudan/Soudan	176,5	246,7				7,0	11,2	3,5	3,0	2,9	0,9	65,0	75,2	140,8	84,7	39,4	70,3
Syria/Syrie	19,4	21,2	19,7	19,4	21,1	20,9	36,8	38,6	43,0	46,2	48,7	44,2	41,1		36,2	30,0	34,3
Tunisia/Tunisie	39,2	35,3	37,9	44,3	35,3	34,6	33,5	29,9	29,8	30,3	25,4	25,0	25,7	29,9	27,2	26,8	26,4
Un. Arab Emirates/E. Arab Unis	51,4	57,9	50,6	40,6	40,6	41,2	32,2	54,4	21,7	19,0	17,1	13,6	12,8		22,9	26,1	
Yemen/Yémen	336,1	201,4	230,2	383,3	369,7	75,4	84,7	96,6	31,5	43,6	39,4	56,0	79,1	82,3	82,6	99,5	95,3
<i>Other territories:</i>																	
Wets Bank and Gaza Strip	12,6	8,7	8,3	7,8	6,8	6,1	3,3	4,1	4,3	7,0	2,6	3,9	3,7		2,7	1,4	
Total	197,0	182,9	161,7	90,6	67,1	57,2	68,3	82,8	74,5	66,9	61,1	79,6	38,6	53,1	42,7	35,8	33,7

Eastern Mediterranean Region - New Smear Positive Cases

COUNTRY / PAYS	No. of cases/No. de cas				Rate/Taux*			
	1993	1994	1995	1996	1993	1994	1995	1996
Afghanistan								
Bahrain/Bahreïn	82		16	121	15,3		2,8	20,9
Cyprus/Chypre	10	10	12	3	1,4	1,4	1,6	0,4
Djibouti	1.668	1.743		1.796	299,5	308,0		304,9
Egypt/Egypte	1.811	8.803	5.084		2,9	14,0		7,9
Iran	4.615	9.324	5.373		7,0	13,9		7,8
Iraq	5.240	5.781	11.553	10.240	26,9	29,0	56,5	48,7
Jordan/Jordanie	173	161	187	170	3,5	3,1	3,4	3,0
Kuwait/Koweit	148	155	175	153	8,3	9,5	11,3	10,0
Lebanon/Liban		148	197	198		5,1	6,5	6,4
Libya/Libye				515				9,2
Morocco/Maroc	13.168	14.650	14.171	14.278	50,8	55,3	52,4	51,8
Oman	123	135	135	164	6,2	6,5	6,2	7,3
Pakistan	11.020		2.578	1.849	8,3		1,8	1,3
Qatar			59	43			10,7	7,7
Saudi Arabia/Arabie Saoudite	800				4,7			
Somalia/Somalie	1.168	1.739	2.318		12,9	18,8	24,4	
Sudan/Soudan	3.728	6.280	8.979		13,6	22,4	31,1	
Syria/Syrie	1.175	1.295	1.523		8,3	8,8	10,0	
Tunisia/Tunisie	1.006	983	1.243	1.005	11,7	11,3	14,0	11,1
Un. Arab Emirates/E. Arab Unis								
Yemen/Yémen	2.896	3.351	3.681	4.371	21,9	24,2	25,4	29,0
Total	36.334	39.614	61.457	58.207	9,6	14,2	14,8	13,6

* per 100 000 population/pour 100 000 habitants

EUROPE

Updated information will be available
later in 1998 from the WHO
Collaborating Centre for Tuberculosis
Surveillance in Europe, CESES

European Region - Summary of TB control policies

Country	Category of the Country as of 31/12/96	National Manual ¹	Training ²	DOTS Technical Elements					DOTS Implemented in 1997
				Use of Microscopy for Diagnosis	SCC ³	DOT ⁴	Drug Availability ⁵	Recording and Reporting System ⁶	
Albania	1								
Andorra	1								
Armenia	3								
Austria	1								
Azerbaijan	3								
Belarus	1								
Belgium	1								
Bosnia and Herzegovina	1								
Bulgaria	1								
Croatia	1								
Czech Republic	4								
Denmark	5								
Estonia	1								
Finland	1								
France	1								
Georgia	3								
Germany	1								
Greece	0								
Hungary	1								
Iceland	5								
Ireland	1								
Israel	5								
Italy	3								
Kazakhstan	1								
Kyrgyzstan	2								
Latvia	4								
Liechtenstein	0								
Lithuania	1								
Luxembourg	5								
Malta	4								
Monaco	5								
Netherlands	4								
Norway	4								
Poland	1								
Portugal	4								
Republic of Moldova	1								
Romania	1								
Russian Federation	2								
San Marino	4								
Slovakia	4								
Slovenia	4								
Spain	1								
Sweden	5								
Switzerland	1								
Tajikistan	1								
TFYR Macedonia	1								
Turkey	1								
Turkmenistan	1								
Ukraine	1								
United Kingdom	1								
Uzbekistan	1								
Yugoslavia	1								

¹ Presence of national manual, or a document issued by the government or an authorised scientific body, including policy recommendations endorsed by WHO

² "WHO standard" training course on management of TB control programmes has been carried out within the past two years; or training materials endorsed by WHO or IUATLD

³ Short course chemotherapy

⁴ Directly observed treatment

⁵ A regular supply system of all essential anti-tuberculosis drugs and diagnostic materials

⁶ Presence of WHO/IUATLD recommended recording and reporting system showing assessment of treatment results

Legend: Element of DOTS strategy missing

White - Missing

Grey - Present in part of the Country

Blue - Fully implemented (more than 90%) in the country

Regional Profile - EURO

As of 25-Nov-98

Countries	Country Information (1996)							WHO TB Control Strategy (DOTS)											
	Population	Notified Cases				New ss+ cases estimated	% case detection of new ss+ cases	Category	Population		Notified cases		% cases out of all cases	New ss+ cases notified		% new ss+ out of all new pulm. cases			
		All types		New ss+					No.	(%)	No.	Rate		No.	Rate				
		No.	Rate	No.	Rate														
	a	b	c	d	e	f	g	h	h/a	i	j	k	l	m	n				
Albania	3,401,000	738	21.7	173	5.1	612	28.3	1											
Andorra	71,000	17	23.9	8	11.3	13	61.5	1											
Armenia	3,638,000	928	25.5	327	9.0	655	49.9	3	2,182,800	60.0	509	23.3	54.8	192	8.8	45.4			
Austria	8,106,000	1,375	17.0	580	7.2	730	79.5	1											
Azerbaijan	7,594,000	2,480	32.7	990	13.0	1,606	61.6	3	911,280	12.0	394	43.2	15.9	175	19.2	49.2			
Belarus	10,348,000	5,598	54.1	2,117	20.5	2,328	90.9	1											
Belgium	10,159,000	1,348	13.3	364	3.6	731	49.8	1											
Bosnia and Herzegovina	3,628,000	2,220	61.2	927	25.6	1,306	71.0	1											
Bulgaria	8,468,000	3,109	36.7	903	10.7	1,524	59.3	1											
Croatia	4,501,000	2,174	48.3	1,228	27.3	1,317	93.2	1											
Czech Republic	10,251,000	1,969	19.2	586	5.7	1,153	50.8	4	10,251,000	100.0	1,969	19.2	100.0	586	5.7	35.5			
Denmark	5,237,000	484	9.2	97	1.9	283	34.3	5											
Estonia	1,471,000	521	35.4	240	16.3	397	60.5	1											
Federal Republic of Yugoslavia	10,294,000	4,017	39.0	1,783	17.3	2,316	77.0	1											
Finland	5,126,000	645	12.6	240	4.7	346	69.4	1											
France	59,301,000	7,656	12.9	3,002	5.1	5,250	57.2	1											
Georgia	5,442,000	3,522	64.7	482	8.9	1,714	28.1	3	2,176,800	40.0	3,522	161.8	100.0	482	22.1	15.8			
Germany	81,922,000	11,814	14.4	3,689	4.5	6,636	55.6	1											
Greece	10,490,000					566		0											
Hungary	10,049,000	4,403	43.8	1,066	10.6	2,261	47.1	1											
Iceland	271,000	11	4.1	1	0.4	12	8.3	5											
Ireland	3,554,000	434	12.2	339	9.5	288	117.7	1											
Israel	5,664,000	369	6.5	147	2.6	306	48.0	5											
Italy	57,226,000	4,155	7.3	1,738	3.0	3,863	45.0	3	12,017,460	21.0	802	6.7	19.3	365	3.0	66.2			
Kazakhstan	16,820,000	13,944	82.9	4,290	25.5	5,828	73.6	1											
Kyrgyzstan	4,469,000	4,093	91.6	991	22.2	1,368	72.4	2	236,857	5.3	233	98.4	5.7	57	24.1	31.1			
Latvia	2,504,000	1,761	70.3	575	23.0	789	72.9	4	2,504,000	100.0	1,761	70.3	100.0	575	23.0	42.2			
Liechtenstein	31,000					1	0												
Lithuania	3,728,000	2,608	70.0	1,121	30.1	1,376	81.5	1											
Luxembourg	412,000	41	10.0	29	7.0	19	152.6	5											
Malta	369,000	28	7.6	5	1.4	17	29.4	4	369,000	100.0	28	7.6	100.0	5	1.4	29.4			
Monaco	32,000					1	5												
Netherlands	15,575,000	1,678	10.8	358	2.3	911	39.3	4	15,575,000	100.0	1,678	10.8	100.0	358	2.3	33.5			

Regional Profile - EURO

As of 25-Nov-98

Countries	Country Information (1996)								WHO TB Control Strategy (DOTS)										
	Population	Notified Cases				New ss+ cases estimated	% case detection of new ss+ cases	Category	Population		Notified cases		% cases out of all cases	New ss+ cases notified		% new ss+ out of all new pulm. cases			
		All types		New ss+					No.	(%)	No.	Rate		No.	Rate				
		No.	Rate	No.	Rate														
	a	b	c	d	e	f	g	h	h/a	i	j	k	l	m	n				
Norway	4,348,000	217	5.0	103	2.4	157	65.6	4	4,348,000	100.0	217	5.0	100.0	103	2.4	73.0			
Poland	38,601,000	15,358	39.8	6,819	17.7	8,685	78.5	1											
Portugal	9,808,000	5,248	53.5	1,938	19.8	2,648	73.2	4	9,808,000	100.0	5,248	53.5	100.0	1,938	19.8	57.4			
Republic of Moldova	4,444,000	2,922	65.8	219	4.9	1,400	15.6	1											
Romania	22,655,000	24,189	106.8	10,359	45.7	12,234	84.7	1											
Russian Federation	148,126,000	111,075	75.0	42,534	28.7	65,990	64.5	2	3,406,898	2.3	939	27.6	0.8	283	8.3	34.4			
San Marino	25,000					1		4	25,000	100.0									
Slovakia	5,347,000	1,503	28.1	760	14.2	962	79.0	4	5,347,000	100.0	1,503	28.1	100.0	760	14.2	58.1			
Slovenia	1,924,000	563	29.3	221	11.5	303	72.9	4	1,924,000	100.0	563	29.3	100.0	221	11.5	53.4			
Spain	39,674,000	8,331	21.0	8,331	21.0	8,748	95.2	1											
Sweden	8,819,000	497	5.6	90	1.0	278	32.4	5											
Switzerland	7,224,000	764	10.6	172	2.4	585	29.4	1											
Tajikistan	5,935,000	1,647	27.8	232	3.9	3,552	6.5	1											
The Former Yugoslav Republic of Macedonia	2,174,000	724	33.3	209	9.6	587	35.6	1											
Turkey	61,797,000	20,212	32.7	2,816	4.6	15,851	17.8	1											
Turkmenistan	4,155,000	2,072	49.9	557	13.4	1,346	41.4	1											
Ukraine	51,608,000	23,414	45.4	7,827	15.2	11,612	67.4	1											
United Kingdom of Great Britain and Northern Ireland	58,144,000	6,238	10.7	4,147	7.1	3,140	132.1	1											
Uzbekistan	23,209,000	11,919	51.4	3,350	14.4	5,744	58.3	1											
Regional Total	868,169,000	321,033	37.4	119,080	13.9	190,346	62.6		71,083,095	8.2	19,366	27.2	6.0	6,100	8.6	41.4			

Countries	WHO TB Control Strategy (DOTS)																	
	Treatment Outcomes in 1995																	
	New ss+ cases									Retreatment cases								
	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)
	<i>o</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>s</i>	<i>t</i>	<i>u</i>	<i>v</i>	<i>w</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>aa</i>	<i>ab</i>	<i>ac</i>	<i>ad</i>	<i>ae</i>	<i>af</i>
Norway	87		42.5	34.5	8.0	1.1	13.8		77.0									
Poland																		
Portugal	1,240	17.8	45.2	23.5	4.0	4.4	3.9	1.2	68.7	133	18.0	38.3	16.5	9.0	6.0	6.0	54.9	
Republic of Moldova																		
Romania																		
Russian Federation	54		53.7	11.1	11.1	5.6	14.8	3.7	64.8	12		41.7	16.7	8.3	8.3	25.0		58.3
San Marino	0																	
Slovakia	807	15.2	64.2		3.7		16.5	0.4	64.2									
Slovenia	270		64.1	25.6	1.5	2.2	3.7	3.0	89.6									
Spain																		
Sweden																		
Switzerland																		
Tajikistan																		
The Former Yugoslav Republic of Macedonia																		
Turkey																		
Turkmenistan																		
Ukraine																		
United Kingdom of Great Britain and Northern Ireland																		
Uzbekistan																		
Regional Total	4,732	12.6	50.0	18.5	7.2	2.3	7.2	2.2	68.5	480	5.0	20.0	20.4	31.7	8.1	11.5	3.3	40.4

Regional Profile - EURO

As of 25-Nov-98

Regional Profile - EURO

As of 25-Nov-98

Countries	Country Information (1996)								Other Strategy (non-DOTS)									
	Population	Notified Cases				New ss+ cases estimated	% case detection of new ss+ cases	Category	Population		Notified cases		% cases out of all cases	New ss+ cases notified		% new ss+ out of all new pulm. cases		
		All types		New ss+					No.	(%)	No.	Rate		No.	Rate			
		No.	Rate	No.	Rate													
	a	b	c	d	e	f	d/f	g	h	h/a	i	j	k	l	m	n		
Norway	4,348,000	217	5.0	103	2.4	157	65.6	4										
Poland	38,601,000	15,358	39.8	6,819	17.7	8,685	78.5	1	38,601,000	100.0	15,358	39.8	100.0	6,819	17.7	49.8		
Portugal	9,808,000	5,248	53.5	1,938	19.8	2,648	73.2	4										
Republic of Moldova	4,444,000	2,922	65.8	219	4.9	1,400	15.6	1	4,444,000	100.0	2,922	65.8	100.0	219	4.9	8.1		
Romania	22,655,000	24,189	106.8	10,359	45.7	12,234	84.7	1	22,655,000	100.0	24,189	106.8	100.0	10,359	45.7	53.6		
Russian Federation	148,126,000	111,075	75.0	42,534	28.7	65,990	64.5	2	144,719,102	97.7	110,136	76.1	99.2	42,251	29.2	42.7		
San Marino	25,000					1		4										
Slovakia	5,347,000	1,503	28.1	760	14.2	962	79.0	4										
Slovenia	1,924,000	563	29.3	221	11.5	303	72.9	4										
Spain	39,674,000	8,331	21.0	8,331	21.0	8,748	95.2	1	39,674,000	100.0	8,331	21.0	100.0	8,331	21.0	100.0		
Sweden	8,819,000	497	5.6	90	1.0	278	32.4	5	8,819,000	100.0	497	5.6	100.0	90	1.0	30.2		
Switzerland	7,224,000	764	10.6	172	2.4	585	29.4	1	7,224,000	100.0	764	10.6	100.0	172	2.4	29.4		
Tajikistan	5,935,000	1,647	27.8	232	3.9	3,552	6.5	1	5,935,000	100.0	1,647	27.8	100.0	232	3.9	17.4		
The Former Yugoslav Republic of Macedonia	2,174,000	724	33.3	209	9.6	587	35.6	1	2,174,000	100.0	724	33.3	100.0	209	9.6	33.7		
Turkey	61,797,000	20,212	32.7	2,816	4.6	15,851	17.8	1	61,797,000	100.0	20,212	32.7	100.0	2,816	4.6	14.2		
Turkmenistan	4,155,000	2,072	49.9	557	13.4	1,346	41.4	1	4,155,000	100.0	2,072	49.9	100.0	557	13.4	29.3		
Ukraine	51,608,000	23,414	45.4	7,827	15.2	11,612	67.4	1	51,608,000	100.0	23,414	45.4	100.0	7,827	15.2	39.0		
United Kingdom of Great Britain and Northern Ireland	58,144,000	6,238	10.7	4,147	7.1	3,140	132.1	1	58,144,000	100.0	6,238	10.7	100.0	4,147	7.1	100.0		
Uzbekistan	23,209,000	11,919	51.4	3,350	14.4	5,744	58.3	1	23,209,000	100.0	11,919	51.4	100.0	3,350	14.4	36.3		
Regional Total	868,169,000	321,033	37.4	119,080	13.9	190,346	62.6		786,564,905	90.6	301,667	38.4	94.0	112,980	14.4	43.0		

Regional Profile - EURO cont'd.

NOTE

Armenia DOTS areas: treatment results for third and fourth quarters only.

Austria New smear-positive cases include relapses.

Azerbaijan New pulmonary smear-positive cases by age and sex include relapses. No cohort analysis because programme was recently implemented.

Bosnia and Herzegovina Case notifications in non-DOTS areas: smear-negative cases include 49 smear-not-done. Include data from Republic of Srpska (case notifications only).

Bulgaria Case notifications in non-DOTS areas: new smear-positive cases include relapses.

France New smear-positive cases include relapses. Extrapulmonary cases include 255 cases "unknown".

Georgia Retreatment cases include chronic cases.

Germany Case notifications in DOTS areas: smear-negative cases include smear-not-done. Case notifications in non-DOTS areas: new smear-positive cases include relapses.

Ireland Preliminary data.

Israel Preliminary data.

Italy Population coverage with DOTS was estimated based on the number of cases reported from DOTS areas.

Kyrgyzstan No cohort analysis because programme was recently implemented.

Malta Case notifications in DOTS areas: 31 culture positive cases included with smear-negative cases.

Monaco No cases.

Poland Smear-positive cases include culture-positive cases. Treatment results not yet available.

Portugal Case notifications in DOTS areas: smear-negative cases include smear-not-done.

Russian Federation Data on 1 out of 3 DOTS areas. Treatment results in DOTS areas for fourth quarter of 1995 only.

San Marino No cases.

Spain Breakdown by smear status not provided.

Turkey New smear-positive cases include relapses.

United Kingdom Breakdown by smear status not provided.

Federal Rep. of Yugoslavia New pulmonary smear-positive cases by age and sex include smear-negative and relapse.

EURO NOTIFICATION RATES BY AGE & SEX

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)									
		Age groups							Age groups							Age groups									
		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total
Armenia	1996	0.39	17.61	35.21	18.41	33.08	20.69	6.31	16.18	0.00	3.13	3.73	3.00	5.41	2.38	0.00	0.70	0.20	10.53	19.17	10.40	18.35	10.86	2.51	8.22
Azerbaijan	1996	0.00	8.37	46.46	46.48	21.46	38.85	9.20	20.26	0.43	3.12	22.58	15.84	6.61	4.28	3.50	7.85	0.21	5.82	34.23	30.48	13.67	20.21	5.65	13.93
Belgium	1996	0.11	3.09	5.44	6.20	6.83	6.19	9.06	5.00	0.46	1.44	3.96	3.29	1.71	1.82	2.69	2.22	0.28	2.28	4.72	4.77	4.30	3.94	5.26	3.58
Bosnia and Herzegovina	1996	1.26	10.79	15.09	19.50	26.98	34.88	32.50	16.43	0.00	8.75	9.12	12.46	8.08	13.78	21.79	9.39	0.65	9.80	12.16	16.01	17.31	23.64	26.09	12.87
Czech Republic	1996	0.10	1.15	5.68	10.29	16.15	14.44	17.93	8.09	0.11	1.20	2.51	1.50	2.75	3.88	11.28	3.22	0.10	1.18	4.13	5.94	9.39	8.85	13.87	5.60
Denmark	1996		1.13	3.85	3.46	3.37	3.10	1.85	2.32		1.51	2.30	2.20	1.06	1.12	1.75	1.40		1.32	3.10	2.84	2.23	2.09	1.79	1.85
Estonia	1996	0.67	6.60	32.38	48.62	46.43	38.36	31.15	26.19	0.00	9.80	14.14	14.16	5.32	2.13	9.23	7.57	0.34	8.17	23.53	31.08	24.72	17.96	16.23	16.32
Federal Republic of Yugoslavia	1996	3.95	25.88	42.58	59.64	65.13	70.47	92.58	44.62	5.37	25.70	22.81	24.43	24.76	35.69	54.78	25.95	4.64	25.79	32.91	42.31	44.84	52.24	70.73	35.22
Finland	1996	0.62	1.37	6.02	6.65	9.24	28.31	6.29		1.29	1.42	0.78	1.84	2.24	12.72	3.16		0.94	1.40	3.44	4.27	5.61	18.54	4.68	
France	1996	0.63	3.03	7.76	9.72	9.58	9.08	13.15	6.98	0.40	3.16	4.56	3.05	2.17	2.81	6.98	3.37	0.52	3.09	6.16	6.36	5.89	5.84	9.46	5.04
Georgia	1996	0.61	6.49	20.45	24.67	31.28	14.13	6.75	12.94	0.16	3.27	6.83	8.78	8.27	8.39	2.74	4.89	0.39	4.92	13.56	16.39	19.00	11.00	4.23	8.73
Germany	1996	0.30	3.67	5.15	8.16	8.23	7.95	13.32	6.30	0.30	3.30	3.19	2.99	1.95	2.04	4.88	2.76	0.30	3.49	4.21	5.65	5.11	4.94	7.95	4.49
Hungary	1996	0.33	3.44	21.12	20.05	31.91	29.29	19.63	16.12	0.23	3.86	6.58	6.68	8.97	4.48	8.62	5.55	0.28	3.65	13.97	13.32	20.04	15.45	12.77	10.61
Iceland	1996		0.00						0.00		5.00						0.75		2.44						0.37
Israel	1996	0.12	0.99	4.40	5.71	5.49	6.08	14.29	3.70	0.25	1.66	1.00	0.53	1.41	2.48	5.88	1.51	0.18	1.32	2.72	3.09	3.41	4.18	9.50	2.60
Italy	1996	0.28	1.79	4.11	4.23	3.43	4.76	8.36	3.76	0.05	1.38	2.50	1.51	0.88	1.57	3.10	1.67	0.17	1.59	3.31	2.87	2.14	3.10	5.24	2.69
Kyrgyzstan	1996	0.48	35.75	63.25	57.78	67.72	31.40	42.11	31.14	0.99	21.90	28.18	19.57	13.33	18.31	18.56	14.09	0.73	28.85	45.77	38.29	39.69	24.33	27.10	22.44
Latvia	1996		16.77	38.76	73.45	64.96	53.17	40.38	37.02		19.05	21.91	16.23	13.58	5.92	6.87	11.06		17.91	30.34	43.75	37.12	26.10	17.21	22.96
Lithuania	1996	0.49	22.30	46.18	83.58	103.52	77.33	51.90	47.65	1.54	14.18	22.46	26.35	17.62	12.89	14.43	14.82	1.01	18.30	34.57	54.50	57.75	40.81	27.21	30.34
Luxembourg	1996	0.00	18.52	8.82	12.50	7.41	14.29	9.09	9.31	2.86	12.00	6.45	0.00	4.00	0.00	8.57	4.81	1.39	15.38	7.69	6.35	5.77	6.98	8.77	7.04
Malta	1996			0.00	4.00	12.50	5.88	2.20				3.70	0.00	0.00	0.00	0.54			1.82	1.96	5.88	2.50	1.36		
Netherlands	1996	0.55	4.80	4.84	3.70	2.37	2.87	4.08	3.22	0.07	2.50	3.13	1.17	0.47	0.81	1.63	1.40	0.31	3.67	4.00	2.46	1.44	1.83	2.62	2.30
Norway	1996	0.69	2.75	2.03	4.38	2.04	1.09	8.45	2.97	0.24	1.43	3.07	1.64	0.71	0.00	4.27	1.78	0.47	2.11	2.53	3.04	1.39	0.54	6.01	2.37
Poland	1996	0.23	7.84	21.31	42.88	50.93	41.71	44.58	25.05	0.21	5.93	13.13	13.08	8.68	8.22	30.66	10.66	0.22	6.91	17.29	28.01	29.29	23.62	35.91	17.67
Portugal	1996	1.37	22.28	49.31	50.30	33.57	32.11	33.67	30.30	0.72	14.88	24.31	10.98	4.97	6.46	7.63	9.97	1.05	18.64	36.81	30.15	18.65	18.31	18.32	19.76
Republic of Moldova	1996	0.00	7.18	11.07	16.22	16.35	5.23	3.23	7.63	0.35	2.80	4.53	4.92	1.67	1.36	2.29	2.46	0.17	5.01	7.74	10.35	8.50	3.05	2.64	4.93
Romania	1996	1.51	44.93	95.79	159.10	151.72	104.75	43.10	78.64	2.17	41.22	38.34	33.93	23.25	17.78	15.75	24.01	1.83	43.12	67.66	97.02	86.32	58.62	27.33	50.90
Russian Federation	1996	0.11	0.44	0.56	0.72	0.50	0.31	0.34		0.08	0.06	0.07	0.11	0.04	0.10	0.06		0.09	0.25	0.31	0.40	0.24	0.16	0.19	
Slovakia	1996	0.33	3.45	10.91	15.24	34.88	30.05	59.82	16.28	0.69	5.15	7.51	5.81	5.28	6.80	57.34	11.53	0.51	4.28	9.23	10.56	19.58	17.22	58.30	13.84
Slovenia	1996	3.31	19.01	31.72	28.91	27.18	14.94	16.76		5.59	10.79	6.29	5.56	6.09	12.03	6.56		4.42	14.95	19.10	17.32	16.06	13.06	11.49	
Sweden	1996	0.12	2.01	1.24	0.50	0.78	1.15	2.66	1.15	0.12	0.76	1.64	0.70	0.16	1.36	1.61	0.90	0.12	1.40	1.43	0.60	0.48	1.26	2.05	1.02
Switzerland	1996	0.15	2.83	4.44	4.52	3.37	4.76	5.30	3.46	0.00	1.46	3.06	0.73	0.82	1.07	1.93	1.32	0.08	2.16	3.77	2.71	2.11	2.88	3.28	2.38
Tajikistan	1996	0.32	3.85	5.73	7.54	8.28	8.89	3.74	3.45	0.41	3.22	5.75	14.70	14.29	7.69	2.61	4.36	0.36	3.54	5.74	11.17	11.23	8.27	3.08	3.91
The Former Yugoslav Republic of	1996	1.85	9.50	11.49	20.83	12.90	26.32	27.16	12.79	1.17	8.93	15.06	10.49	7.32	18.81	12.12	9.28	1.52	9.22	13.24	15.76	10.12	22.45	18.89	11.04
Turkmenistan	1996	0.00	3.75	35.08	42.80	40.37	40.22	34.85	16.26	0.25	3.04	22.94	28.92	21.74	18.81	16.82	10.62	0.12	3.40	28.99	35.67	30.80	29.02	23.70	13.41
Ukraine	1996	0.17	15.18	34.27	61.91	63.68	45.76	23.11	31.73	0.26	10.41	11.62	10.03	6.38	5.44	7.52	7.08	0.22	12.83	22.89	35.25	33.04	23.15	12.57	18.53
Uzbekistan	1996	0.04	4.29	59.17	49.24		36.50		17.25	0.11	3.95	44.39	24.02		25.47		11.66	0.08	4.12	51.70	36.49		30.75		14.43
EURO		0.48	6.80	15.79	22.04	21.63	18.34	15.84	13.85	0.50	5.44	8.12	6.14	3.95	18.34	6.93	5.16	0.49	6.13	12.01	14.07	12.60	10.81	10.20	9.33

EURO - AGE & SEX DISTRIBUTION OF TB CASES IN DOTS AREAS (absolute numbers)

Country	Year	New ss+ TB (males) Age groups								New ss+ TB (females) Age groups								New ss+ TB (males + females) Age groups									
		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total		
Armenia	1996	2	29	40	45	18	23	7	164	0	9	8	4	6	1	28	2	38	48	49	24	24	7	192			
Azerbaijan	1996	0	25	49	30	18	13	5	140	5	8	22	7	7	1	3	53	5	33	71	37	25	14	8	193		
Czech Republic	1996	1	10	40	77	121	66	90	405	1	10	17	11	21	20	89	169	2	20	57	88	142	86	179	574		
Georgia	1996	4	27	82	93	76	38	16	336	1	13	28	36	23	27	11	139	5	40	110	129	99	65	27	475		
Italy	1996																										
Kyrgyzstan	1996	0	3	8	12	10	2	0	35	0	4	10	4	1	1	2	22										
Latvia	1996	0	28	69	130	89	67	42	425	0	32	39	31	22	10	16	150	60	108	161	111	77	58	575			
Malta	1996	0	0	0	0	1	2	1	4	0	0	0	1	0	0	0	1					1	1	2	1		
Netherlands	1996	8	48	65	46	26	21	34	248	1	24	40	14	5	6	20	110	9	72	105	60	31	27	54	358		
Norway	1996	3	8	7	14	6	2	24	64	1	4	10	5	2	0	17	39	4	12	17	19	8	2	41	103		
Portugal	1996	12	176	359	331	192	158	203	1431	6	114	177	76	31	37	66	507	18	290	536	407	223	195	269	1938		
Russian Federation	1996	0	12	46	69	55	36	17	235	0	8	6	9	9	4	12	48					20	52	78	40	283	
San Marino	1996																										
Slovakia	1996	2	16	42	64	105	61	134	424	4	23	28	24	17	17	203	316	6	39	70	88	122	78	337	740		
Slovenia	1996	0	5	27	46	37	28	13	156	0	8	15	9	7	7	19	65					13	42	55	35	32	221
	No.	32	387	834	957	754	517	586	4067	19	257	400	231	151	131	458	1619	51	644	1234	1188	905	648	1037	5522		
EURO	%	0.79	9.52	20.51	23.53	18.54	12.71	14.41	100.00	1.17	15.87	24.71	14.27	9.33	8.09	28.29	101.73	0.92	11.66	22.35	21.51	16.39	11.73	18.78	103.35		

EURO - AGE & SEX DISTRIBUTION OF TB CASES IN NON-DOTS AREAS (absolute numbers)

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)							Age groups				
		Age groups							Age groups							Age groups							Age groups				
		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total		
Albania	1996	0	0	0	4	1	0	0	5	0	1	1	0	0	1	0	3										
Andorra	1996	0	24	60	6	25	7	0	122	0	0	3	5	2	3	0	13										
Armenia	1996																										
Austria	1996																										
Azerbaijan	1996	0	32	253	201	29	88	11	614	0	12	132	79	9	12	7	251										
Belgium	1996	1	20	43	49	45	32	59	249	4	9	30	25	11	10	26	115	5	29	73	74	56	42	85	364		
Bosnia and Herzegovina	1996	5	30	48	62	51	60	39	295	0	23	28	39	16	27	39	172	5	53	76	101	67	87	78	467		
Belarus	1996																										
Bulgaria	1996																										
Croatia	1996																										
Denmark	1996	0	4	16	13	13	8	6	60	0	5	9	8	4	3	8	37										
Germany	1996	20	181	377	520	413	405	607	2523	19	150	214	180	97	108	389	1157	39	331	591	700	510	513	996	3680		
Estonia	1996	1	7	34	53	39	28	19	181	0	10	14	16	5	2	12	59	1	17	48	69	44	30	31	240		
Finland	1996	0	2	5	24	26	23	77	157	0	4	5	3	7	6	58	83										
France	1996	36	124	335	413	351	248	475	1982	22	124	195	131	79	82	376	1009	58	248	530	544	430	330	851	2991		
Georgia	1996																										
Hungary	1996	3	28	139	151	209	140	105	775	2	30	42	51	63	27	76	291	5	58	181	202	272	167	181	1066		
Iceland	1996	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1								1		
Ireland	1996																										
Israel	1996	1	5	18	21	15	11	33	104	2	8	4	2	4	5	18	43	3	13	22	23	19	16	51	147		
Italy	1996	12	72	196	168	125	155	319	1047	2	53	116	60	33	56	172	492	14	125	312	228	158	211	491	1539		
Kazakhstan	1996																										
Kyrgyzstan	1996	4	145	202	144	76	36	40	647	8	86	83	51	17	25	29	299	12	231	285	195	93	61	69	946		
Lithuania	1996	2	60	133	224	206	133	82	840	6	37	62	73	40	29	44	291	8	97	195	297	246	162	126	1131		
Luxembourg	1996	0	5	3	4	2	3	2	19	1	3	2	0	1	0	3	10	1	8	5	4	3	3	5	29		
Republic of Moldova	1996	0	26	33	55	34	9	5	162	2	10	14	18	4	3	6	57	2	36	47	73	38	12	11	219		
The Former Yugoslav Republic	1996	5	17	20	35	16	25	22	140	3	15	25	17	9	19	12	100	8	32	45	52	25	44	34	240		
Monaco	1996																										
Poland	1996	10	248	545	1365	1128	687	724	4707	9	180	324	415	202	159	823	2112	19	428	869	1780	1330	846	1547	6819		
Romania	1996	35	851	1640	2606	1901	1236	500	8769	48	749	630	547	302	237	249	2762	83	1600	2270	3153	2203	1473	749	11531		
Russian Federation	1996																										
Spain	1996																										
Sweden	1996	1	11	8	3	5	5	17	50	1	4	10	4	1	6	14	40	2	15	18	7	6	11	31	90		
Switzerland	1996	1	12	28	27	17	17	22	124	0	6	18	4	4	4	12	48	1	18	46	31	21	21	34	172		
Tajikistan	1996	4	22	25	23	12	12	4	102	5	18	26	46	20	11	4	130	9	40	51	69	32	23	8	232		
Turkmenistan	1996	0	15	114	101	44	37	23	334	2	12	75	72	25	19	18	223	2	27	189	173	69	56	41	557		
Turkey	1996																										
Ukraine	1996	9	569	1199	2318	1704	1264	544	7607	13	379	410	397	196	192	370	1957	22	948	1609	2715	1900	1456	914	9564		
United Kingdom of Great Brita	1996																										
Uzbekistan	1996	2	96	1042	650	0	196	0	1986	5	87	799	324	0	149	0	1364	7	183	1841	974	345	3350				
Federal Republic of Yugoslavi	1996	45	207	310	461	396	389	474	2282	57	192	159	183	152	217	384	1344	102	399	469	644	548	606	858	3626		
	No.	197	2813	6826	9701	6883	5254	4209	35883	211	2208	3430	2750	1303	1412	3149	14463	408	5021	10256	12451	8186	6666	7358	50346		
	%	0.55	7.84	19.02	27.04	19.18	14.64	11.73	100.0	1.46	15.27	23.72	19.01	9.01	9.76	21.77	100.0	0.81	9.97	20.37	24.73	16.26	13.24	14.61	100.0		

European Region - Number of tuberculosis cases notified, 1980-1996

COUNTRY / PAYS	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995*	1996**	
Albania/Albanie	1.050	954	978	891	975	916	989	915	759	695	653	628			707	664	738	
Armenia/Arménie	756	924	759	702	774	768	832	766	651	649	590	741	235	590	753	836	928	
Austria/Autriche	2.191	2.061	1.942	1.825	1.765	1.442	1.377	1.390	1.402	1.334	1.521	1.426	1.354	1.267	1.264	1.383	1.375	
Azerbaijan/Azerbaïdjan	3.080	3.180	3.217	3.176	3.506	3.772	3.804	3.677	3.340	2.989	2.620	2.771	2.821	3.036	2.839	3.306	2.480	
Belarus	5.954	6.198	5.468	5.509	5.065	4.873	4.128	3.911	3.769	3.708	3.039	3.745	2.414	4.134	4.348	5.092	5598	
Belgium/Belgique	2.687	2.837	2.652	2.190	2.149	1.956	1.893	1.772	1.588	1.648	1.577	1.462	1.335	1.503	1.521	1.380	1348	
Bosnia-Herz./Bosnie-Herz.	4.421	4.376	4.678	4.468	4.691	4.666	4.605	4.522	4.093	4.176	4.073	3.546	600	680	1.595	2.132	2220	
Bulgaria/Bulgarie	3.280	3.007	2.999	2.892	2.856	2.555	2.530	2.352	2.387	2.301	2.256	2.606	3.096	3.213	5.296	3.245	3109	
Croatia/Croatie	3.999	4.021	3.718	3.632	3.612	3.605	3.355	3.326	2.973	2.861	2.576	2.158	2.189	2.279	2.217	2.114	2174	
Czech Republic/Rép. tchèque	4.962	4.312	4.146	4.016	3.653	3.117	2.553	2.196	2.047	1.905	1.937	2.079	1.986	1.864	1.960	1.851	1969	
Denmark/Danemark	430	394	378	348	302	312	299	322	304	328	350	334	359	411	495	448	484	
Estonia/Estonie	614	560	563	587	546	541	522	446	471	422	332	406	403	532	645	608	521	
Finland/Finlande	2.247	2.204	2.170	1.882	1.791	1.819	1.546	1.419	1.078	970	772	771	700	542	553	662	645	
France	17.199	16.459	15.425	13.831	12.302	11.290	10.535	10.241	9.191	9.027	9.030	8.510	8.605	9.551	9.093	8.723	7656	
Georgia/Géorgie	2.098	2.124	2.168	1.881	1.855	1.822	1.833	1.810	1.598	1.609	1.537		2.130	3.741	1.625	3522		
Germany/Allemagne	29.991	27.083	25.397	22.977	20.243	20.074	17.906	17.102	16.282	15.385	14.653	13.474	14.113	14.161	12.982	12.198	11814	
Greece/Grecce	5.412	7.334	5.193	3.880	1.956	1.556	1.566	1.193	907	1.068	877	762	920		939			
Hungary/Hongrie	5.412	5.322	5.181	5.028	4.472	4.852	4.522	4.125	4.016	3.769	3.588	3.658	3.960	4.209	4.163	4.339	4403	
Iceland/Islande	25	23	25	24	26	13	13	12	16	18	18	15	16		18	12	11	
Ireland/Irlande	1.152	1.018	975	924	837	804	602	581	534	672	624	640	604		438	434		
Israel/Israël	249	227	232	222	257	368	239	184	226	160	234	505	345	419	395	398	369	
Italy/Italie	3.311	3.182	3.850	4.253	3.472	4.113	4.077	3.278	3.610	3.996	4.246	3.719	4.685	4.734	5.816	5.225	4155	
Kazakhstan/Kasakhstan	14.442	13.876	13.808	13.357	12.563	12.423	13.090	13.286	13.501	13.307	10.969	10.821	10.920	10.425	10.519	11.095	13944	
Kyrgyzstan/Kyrgyzstan	1.973	2.085	2.051	1.981	2.022	2.094	2.122	2.088	2.159	2.132	2.306	2.515	2.582	2.427	2.726	3.380	4093	
Latvia/Lettonie	1.194	1.140	1.077	1.072	1.054	1.223	982	948	938	857	906	943	955	994	1.131	1.541	1761	
Lithuania/Lituanie	1.636	1.599	1.495	1.477	1.420	1.453	1.412	1.372	1.339	1.381	1.471	1.556	1.598	1.895	2.135	2.362	2608	
Luxembourg	71	45	41	41	46	42	45	48	16	45	48	48	25	35	33	32	41	
Malta/Malte	24	26	13	24	15	11	14	14	12	16	13	26	30	26	25	10	28	
Monaco	1	0	0	0	1	2	2	1	1	1	0	1	1	1	1	0		
Netherlands/Pays Bas	1.701	1.734	1.514	1.423	1.400	1.362	1.238	1.227	1.341	1.317	1.369	1.345	1.465	1.587	1.811	1.619	1678	
Norway/Norvège	499	461	448	396	373	374	343	307	294	255	285	290	288	256	242	236	217	
Poland/Pologne	25.807	24.087	23.685	23.411	22.527	21.650	20.603	19.757	18.537	16.185	16.136	16.496	16.551	16.828	16.653	15.959	15358	
Portugal	6.873	7.249	7.309	7.052	6.908	6.889	6.624	7.099	6.363	6.664	6.214	5.980	5.927	5.447	5.619	5.577	5248	
Republic of Moldova	2.781	2.852	3.197	2.858	2.554	2.732	3.022	2.810	2.510	2.281	1.728	1.910	1.835	2.426	2.626	2.753	2922	
Romania/Roumanie	13.553	13.602	13.588	13.570	12.952	12.677	12.860	13.361	14.137	14.676	16.256	15.482	18.097	20.349	21.422	23.271	24189	
Russian Federation/Russie	74.270	73.369	72.236	73.280	74.597	64.644	71.764	70.132	67.553	62.987	50.641	50.407	53.148	63.591	70.822	96.828	111075	
San Marino/Saint Marin											1	1	3	2	2	0		
Slovakia/Slovaquie	2.465	2.304	2.263	2.252	2.152	1.989	2.022	1.830	1.651	1.501	1.448	1.620	1.733	1.799	1.760	1.537	1503	
Slovenia/Slovénie	1.085	939	982	925	896	923	816	792	768	722	583	640	646	526	525	563		
Spain/Espagne	4.853	5.552	7.961	8.987	10.078	10.749	13.755	9.468	8.497	8.058	7.600	9.007	9.703	9.441	8.764	8331		
Sweden/Suède	926	875	784	832	754	702	640	545	536	595	557	521	610	616	537	564	497	
Switzerland/Suisse	1.160	1.193	1.167	1.097	946	961	881	1.018	1.201	1.104	1.278	1.134	987	930	924	830	764	
Tajikistan/Tadjikistan	2.647	2.631	2.628	2.509	2.427	2.485	2.610	2.727	2.474	2.621	2.460	2.116	1.671	652	892	2.029	1647	
The Former Yugoslav Republic of Macedonia***													1.602	1.712	728	786	724	
Turkey/Turquie	36.716	39.992	26.457	28.634	27.589	30.960	31.029	30.531	27.884	26.669	24.468	25.166	25.455		23.035	20212		
Turkmenistan	1.677	1.625	1.559	1.541	1.604	1.607	1.614	1.956	1.904	2.169	2.325	2.358	2.074	2.751		2.009	2072	
Ukraine	26.095	25.646	24.710	24.216	24.356	24.058	22.946	22.145	20.744	20.182	16.465	16.713	18.140	19.964	20.622	21.459	23414	
United Kingdom/Royaume-Uni	10.488	9.290	8.436	7.814	7.026	6.666	6.841	5.732	5.793	6.059	5.908	6.088	6.411	6.481	6.196	6.161	6238	
Uzbekistan/Ouzbekistan	9.163	9.682	8.697	8.817	8.544	8.717	9.427	9.794	10.134	10.632	9.414	9.370	9.774	14.890	9.866	11919		
Fed. Rep. of Yugoslavia	6.232	6.381	6.274	6.443	6.454	6.246	6.126	6.042	5.583	5.045	4.194	4.502	3.771	3.843	3.606	4.169	4017	
 <i>Other territories:</i>																		
Andorra/Andorre											12	23	24	21	15	24	17	
Liechtenstein	14	14	7	10	3	2	7	14	10	4	9	2	2	2				
 Total	348.866	346.049	324.501	319.157	308.365	298.874	302.561	290.585	277.114	267.213	242.318	231.610	248.482	241.779	243.132	304.018	321.033	
No. countries/No. de pays	49	49	49	49	49	49	49	49	49	50	51	49	50	45	45	50	50	
% countries reporting	94	94	94	94	94	94	94	94	94	96	98	94	96	87	87	96	96	

* Updated with the data from the WHO Collaborating Centre for Tuberculosis Surveillance in Europe - EuroTB

** Provisional data - updated information will be available latter in 1998 by the WHO Collaborating Centre for Tuberculosis Surveillance in Europe, CESES, Paris

*** The Former Yugoslav Republic of Macedonia/Ex-République Yougoslave de Macédoine

European Region - Case notification rates (per 100 000 population), 1980-1996

COUNTRY / PAYS	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996*	
Albania/Albanie	39,3	35,0	35,2	31,4	33,6	30,9	32,6	29,5	23,9	21,5	19,9	18,8		20,7	19,6	21,7		
Armenia/Arménie	24,6	29,7	24,1	22,1	24,1	23,8	25,6	23,4	19,8	19,6	17,6	21,8	6,8	16,9	21,2	23,0	25,5	
Austria/Autriche	29,0	27,3	25,8	24,2	23,4	19,1	18,2	18,3	18,4	17,4	19,7	18,4	17,3	16,1	16,0	17,2	17,0	
Azerbaijan/Azerbaïdjan	50,0	50,8	50,6	49,2	53,4	56,6	56,3	53,7	48,1	42,5	36,8	38,4	38,7	41,1	38,0	43,9	32,7	
Belarus	61,8	64,0	56,1	56,1	51,2	48,9	41,2	38,8	37,2	36,4	29,8	36,6	23,6	40,6	42,8	49,2	54,1	
Belgium/Belgique	27,3	28,8	26,9	22,2	21,8	19,8	19,2	17,9	16,0	16,6	15,8	14,6	13,3	15,0	15,1	13,6	13,3	
Bosnia-Herz./Bosnie-Herz.	113,0	110,8	117,4	111,1	115,3	113,2	109,9	105,8	94,2	95,7	94,5	85,2	15,2	18,3	45,2	59,7	61,2	
Bulgaria/Bulgarie	37,0	33,8	33,7	32,4	31,9	28,5	28,2	26,2	26,5	25,6	25,1	29,1	34,7	36,2	60,1	38,1	36,7	
Croatia/Croatie	91,4	91,4	84,1	81,8	81,1	80,6	74,8	74,0	66,0	63,4	57,0	47,8	48,5	50,5	49,2	46,9	48,3	
Czech Republic/Rép. tchèque	48,3	41,8	40,2	38,9	35,4	30,2	24,8	21,3	19,9	18,5	18,8	20,2	19,3	18,1	19,0	18,0	19,2	
Denmark/Danemark	8,4	7,7	7,4	6,8	5,9	6,1	5,8	6,3	5,9	6,4	6,8	6,5	7,0	8,0	9,6	8,6	9,2	
Estonia/Estonie	41,5	37,6	37,5	38,8	35,8	35,2	33,7	28,6	30,0	26,8	21,1	25,8	25,8	34,3	41,9	40,9	35,4	
Finland/Finlande	47,0	45,9	45,0	38,8	36,7	37,1	31,4	28,7	21,8	19,5	15,5	15,4	13,9	10,7	10,9	13,0	12,6	
France	31,9	30,4	28,4	25,3	22,4	20,5	19,0	18,4	16,4	16,0	15,9	14,9	15,0	16,6	15,7	14,6	12,8	
Georgia/Géorgie	41,6	41,8	42,3	36,4	35,6	34,7	34,0	29,8	29,8	28,4	39,1	68,7		29,8	64,7			
Germany/Allemagne	38,3	34,7	32,6	29,6	26,1	25,8	23,0	21,9	20,7	19,5	18,5	16,9	17,6	17,5	16,0	14,9	14,4	
Greece/Grèce	56,1	75,4	53,1	39,4	19,8	15,7	15,7	11,9	9,0	10,5	8,6	7,4	8,9		9,0			
Hungary/Hongrie	50,5	49,7	48,5	47,2	42,1	45,9	42,9	39,3	38,4	36,2	34,6	35,5	38,6	41,2	41,0	42,9	43,8	
Iceland/Islande	11,0	10,0	10,7	10,2	10,9	5,4	5,3	4,9	6,4	7,1	7,1	5,8	6,2	6,8	4,5	4,1		
Ireland/Irlande	33,9	29,6	28,0	26,3	23,7	22,6	16,9	16,4	15,1	19,1	17,8	18,3	17,2		12,4	12,2		
Israel/Israël	6,4	5,7	5,8	5,4	6,2	8,7	5,6	4,2	5,1	3,5	5,0	10,5	6,9	8,0	7,2	7,2	6,5	
Italy/Italie	5,9	5,6	6,8	7,5	6,1	7,2	7,2	5,8	6,3	7,0	7,4	6,5	8,2	8,3	10,2	9,1	7,3	
Kazakhstan/Kasakhstan	96,9	92,1	90,6	86,6	80,6	78,7	82,0	82,2	82,6	80,5	65,8	64,5	64,7	61,5	61,8	66,0	82,9	
Kyrgyzstan/Kirghizistan*	54,5	56,5	54,5	51,6	51,7	52,5	52,2	50,4	51,2	49,7	52,9	56,7	57,2	52,9	58,4	75,8	91,6	
Latvia/Lettonie	47,1	44,7	42,0	41,6	40,6	46,8	37,3	35,8	35,2	32,1	33,9	35,5	36,2	38,1	43,8	60,8	70,3	
Lithuania/Lituanie	47,7	46,2	42,8	41,9	39,9	40,5	39,0	37,6	36,4	37,4	39,6	41,9	43,0	51,1	57,6	63,2	70,0	
Luxembourg	19,5	12,4	11,3	11,2	12,6	11,4	12,2	12,9	4,3	11,9	12,6	12,5	6,4	8,9	8,2	7,9	10,0	
Malta/Malte	7,4	7,9	3,9	7,1	4,4	3,2	4,0	4,0	3,4	4,5	3,7	7,3	8,4	7,2	6,9	2,7	7,6	
Monaco	3,7						3,6	7,1	6,9	3,4	3,3	3,3		3,2	3,2	3,1		
Netherlands/Pays Bas	12,0	12,2	10,6	9,9	9,7	9,4	8,5	8,4	9,1	8,9	9,2	8,9	9,7	10,4	11,8	10,5	10,8	
Norway/Norvège	12,2	11,2	10,9	9,6	9,0	9,0	8,2	7,3	7,0	6,0	6,7	6,8	6,7	6,0	5,6	5,4	5,0	
Poland/Pologne	72,5	67,1	65,3	64,0	61,0	58,2	55,0	52,4	49,0	42,6	42,3	43,2	43,3	43,9	43,4	41,4	39,8	
Portugal	70,4	73,7	73,9	71,2	69,7	69,6	66,9	71,7	64,3	67,4	63,0	60,7	60,2	55,4	57,2	56,8	53,5	
Republic of Moldova	69,3	70,4	78,1	69,1	61,2	64,8	71,1	65,6	58,2	52,6	39,6	43,6	41,8	55,0	59,4	62,0	65,8	
Romania/Roumanie	61,0	60,9	60,5	60,2	57,2	55,8	56,3	58,2	61,2	63,3	70,0	66,8	78,3	88,4	93,5	102,4	106,8	
Russia/Russie	53,6	52,6	51,5	51,9	52,5	45,2	49,8	48,3	46,1	42,8	34,2	34,0	35,9	43,0	48,1	65,2	75,0	
San Marino/Saint Marin										4,3	4,3		12,5	8,0	8,0			
Slovakia/Slovaquie*	49,5	45,9	44,8	44,3	42,1	38,7	39,1	35,3	31,7	28,7	27,5	30,7	32,7	33,9	33,0	28,8	28,1	
Slovenia/Slovénie	59,2	50,9	52,9	49,6	47,8	49,1	43,2	41,8	39,9	40,2	37,6	30,3	33,1	33,4	27,1	27,3	29,3	
Spain/Espagne	12,9	14,7	20,9	23,5	26,3	27,9	35,6	24,4	21,8	20,6	19,4	22,9	24,6	23,9	22,1	21,0		
Sweden/Suède	11,1	10,5	9,4	10,0	9,0	8,4	7,6	6,5	6,3	7,0	6,5	6,1	7,1	7,1	6,1	6,4	5,6	
Switzerland/Suisse	18,4	18,8	18,3	17,1	14,6	14,7	13,4	15,3	17,9	16,3	18,7	16,4	14,1	13,2	13,0	11,6	10,6	
Tajikistan/Tadjikistan	66,9	64,7	62,8	58,3	54,8	54,5	55,6	56,4	49,6	51,1	46,5	38,9	29,8	76,5	80,8	34,0	36,5	33,3
TFYRM**																		
Turkey/Turquie	82,6	87,9	56,7	59,8	56,1	61,5	60,2	58,0	51,8	48,5	43,6	44,0	43,6		37,9	32,7		
Turkmenistan	58,6	55,4	51,9	50,1	51,0	49,8	48,8	57,7	54,7	60,8	63,6	63,0	54,1	70,2	49,3	49,9		
Ukraine	52,2	51,1	49,1	47,9	48,0	47,3	44,9	43,2	40,3	39,1	31,9	32,4	35,1	38,7	40,1	41,5	45,4	
United Kingdom/Royaume-Uni	18,6	16,5	15,0	13,8	12,4	11,8	12,1	10,1	10,2	10,6	10,3	10,6	11,1	11,2	10,7	10,6	10,7	
Uzbekistan/Ouzbekistan	57,5	59,2	51,8	51,2	48,4	48,1	50,8	51,5	52,0	53,3	46,1	43,8	44,7	66,6	43,3	51,4		
Fed. Rep. Yugoslavia	65,4	66,5	64,9	66,2	65,9	63,4	61,9	60,8	55,9	50,2	41,3	43,8	36,1	36,2	33,5	40,7	39,0	
Other territories:																		
Andorra/Andorre																		
Liechtenstein	56,0	56,0	26,9	38,5	11,5	7,4	25,9	50,0	35,7	14,3	31,0	6,9	6,9		23,9			
Total	43,9	43,3	40,3	39,4	37,9	36,5	36,7	35,0	33,1	31,7	28,6	28,1	29,1	30,9	32,9	35,1	37,4	

** The Former Yugoslav Republic of Macedonia/Ex-République yougoslave de Macédoine

European Region - New Smear Positive Cases

COUNTRY / PAYS	No. of cases/No. de cas			Rate/Taux*				
	1993	1994	1995	1996	1993	1994	1995	1996
Albania/Albanie	250	139	173		7,3	4,1	5,1	
Armenia/Arménie	319	436	327		9,0	12,0	9,0	
Austria/Autriche		662	580			8,2	7,2	
Azerbaijan/Azerbaïdjan	499	513	669	990	6,8	6,9	8,9	13,0
Belarus	1.493	1.775	1.845	2117	14,7	17,5	17,8	20,5
Belgium/Belgique	484	427	400	364	4,8	4,2	3,9	3,6
Bosnia-Herz./Bosnie-Herz.		865	927			24,2	25,6	
Bulgaria/Bulgarie		3.096	1.087	903		35,1	12,8	10,7
Croatia/Croatie	1.147	1.083	1.204	1228	25,4	24,0	26,7	27,3
Czech Republic/Rép. tchèque	548	524	487	586	5,3	5,1	4,7	5,7
Denmark/Danemark	243	120	128	97	4,7	2,3	2,5	1,9
Estonia/Estonie	303	347	369	240	19,5	22,5	24,8	16,3
Finland/Finlande	123	176	244	240	2,4	3,5	4,8	4,7
France	4.455	3.196	3.449	3002	7,7	5,5	5,8	5,0
Georgia/Géorgie		221	482			4,1	8,9	
Germany/Allemagne	4.730	4.177	3.852	3689	5,8	5,1	4,7	4,5
Greece/Grèce								
Hungary/Hongrie	1.905	1.357	796	1066	18,7	13,4	7,9	10,6
Iceland/Islande		6	2	1		2,3	0,7	0,4
Ireland/Irlande				339				9,5
Israel/Israël	150	129		147	2,9	2,4		2,6
Italy/Italie		1.441	1.413	1738		2,5	2,5	3,0
Kazakhstan/Kasakhstan	3.207	3.022	3.022	4290	18,9	17,7	18,0	25,5
Kyrgyzstan/Kirghizstan		681	832	991		14,6	18,7	22,2
Latvia/Lettonie	470		504	575	18,0		19,9	23,0
Lithuania/Lituanie	688		979	1121	18,5		26,2	30,1
Luxembourg				29				7,0
Malta/Malte	13	6	5	5	3,6	1,6	1,4	1,4
Monaco				0				
Netherlands/Pays Bas	1.063			358	7,0			2,3
Norway/Norvège		86	62	103		2,0	1,4	2,4
Poland/Pologne	7.606	4.000	6.955	6819	19,9	10,4	18,0	17,7
Portugal		2.072	2.019	1938		21,1	20,6	19,8
Republic of Moldova	615	704	665	219	14,0	15,9	15,0	4,9
Romania/Roumanie	9.339	10.385	10.469	10359	40,6	45,3	46,1	45,7
Russian Federation/Russie		30.389	37.512	42534		20,6	25,3	28,7
San Marino/Saint Marin				0				
Slovakia/Slovaquie	882	409	788	760	16,6	7,7	14,8	14,2
Slovenia/Slovénie	361	294	303	221	18,6	15,1	15,7	11,5
Spain/Espagne			2.605	8331			6,6	21,0
Sweden/Suède	312	106	102	90	3,6	1,2	1,2	1,0
Switzerland/Suisse	528	507	185	172	7,5	7,1	2,6	2,4
Tajikistan/Tadjikistan		1.042	232			17,9	3,9	
TFYRM**		319	209			14,8	9,6	
Turkey/Turquie		4.383	2816			7,2	4,6	
Turkmenistan	472		544	557	12,0		13,3	13,4
Ukraine	8.314	8.471	8.263	7827	16,1	16,5	16,0	15,2
United Kingdom/Royaume-Uni	283	270		4147	0,5	0,5		7,1
Uzbekistan/Ouzbekistan		7.487	2.735	3350		33,5	12,0	14,4
Yugoslavia/Yugoslavie			1.497	1783		14,6	17,3	
Other territories:								
Andorra/Andorre	15	24		8	24,6	36,9		11,3
Liechtenstein								
Total	50.248	87.849	104.058	119.080	6,4	11,9	12,0	13,9

* per 100 000 population /pour 100 000 habitants

** The Former Yugoslav Republic of Macedonia/Ex-République yougoslave de Macédoine

SOUTH-EAST ASIA

South East Asia Region - Summary of TB control policies

Country	Category of the Country as of 31/12/96	National Manual ¹	Training ²	DOTS Technical Elements				
				Use of Microscopy for Diagnosis	SCC ³	DOT ⁴	Drug Availability ⁵	Recording and Reporting System ⁶
Bangladesh	3							
Bhutan	4							
India	2							
Indonesia	3							
Korea, (Dem. People's Rep. o'	0							
Maldives	4							
Myanmar	3							
Nepal	2							
Sri Lanka	4							
Thailand	2							

¹ Presence of national manual, or a document issued by the government or an authorised scientific body, including policy recommendations endorsed by WHO

² "WHO standard" training course on management of TB control programmes has been carried out within the past two years; or training materials endorsed by WHO or IUATLD

³ Short course chemotherapy

⁴ Directly observed treatment

⁵ A regular supply system of all essential anti-tuberculosis drugs and diagnostic materials

⁶ Presence of WHO/IUATLD recommended recording and reporting system showing assessment of treatment results

Legend: Element of DOTS strategy missing

White - Missing

Grey - Present in part of the Country

Blue - Fully implemented (more than 90%) in the country

Regional Profile - SEARO

As of 25-Nov-98

Countries	Country Information (1996)								WHO TB Control Strategy (DOTS)										
	Population	Notified Cases				New ss+ cases estimated	% case detection of new ss+ cases	Category	Population		Notified cases		% cases out of all cases	New ss+ cases notified		% new ss+ out of all new pulm. cases			
		All types		New ss+					No.	(%)	No.	Rate		No.	Rate				
		No.	Rate	No.	Rate														
	a	b	c	d	e	f	g	h	h/a	i	j	k	l	m	n				
Bangladesh	120,073,000	63,471	52.9	29,674	24.7	118,872	25.0	3	78,047,450	65.0	31,394	40.2	49.5	19,616	25.1	67.2			
Bhutan	1,812,000	1,271	70.1	308	17.0	734	42.0	4	1,812,000	100.0	1,271	70.1	100.0	308	17.0	33.3			
Democratic People's Republic of Korea	22,466,000					16,378		0											
India	944,580,000	1,300,935	137.7	291,205	30.8	935,134	31.1	2	18,891,600	2.0	15,136	80.1	1.2	6,254	33.1	50.3			
Indonesia	201,282,000	24,647	12.2	11,790	5.9	199,269	5.9	3	27,575,634	13.7	14,553	52.8	59.0	11,790	42.8	85.3			
Maldives	263,000	212	80.6	106	40.3	142	74.6	4	263,000	100.0	212	80.6	100.0	106	40.3	56.1			
Myanmar	45,922,000	22,201	48.3	9,716	21.2	39,057	24.9	3	27,093,980	59.0	19,955	73.7	89.9	8,796	32.5	51.5			
Nepal	22,021,000	22,970	104.3	10,365	47.1	16,549	62.6	2	1,651,575	7.5	2,082	126.1	9.1	1,130	68.4	63.2			
Sri Lanka	18,100,000	5,439	30.0	2,958	16.3	13,602	21.7	4	18,100,000	100.0	5,439	30.0	100.0	2,958	16.3	67.6			
Thailand	58,703,000	39,871	67.9	16,997	29.0	45,700	37.2	2	663,344	1.1	247	37.2	0.6	117	17.6	52.9			
Regional Total	1,435,222,000	1,481,017	104.8	373,119	26.4	1,385,437	26.9		174,098,583	12.1	90,289	51.9	6.1	51,075	29.3	63.9			

Countries	WHO TB Control Strategy (DOTS)																	
	Treatment Outcomes in 1995																	
	New ss+ cases									Retreatment cases								
	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)
	<i>o</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>s</i>	<i>t</i>	<i>u</i>	<i>v</i>	<i>w</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>aa</i>	<i>ab</i>	<i>ac</i>	<i>ad</i>	<i>ae</i>	<i>af</i>
Bangladesh	10,867	9.4	66.4	4.9	10.1	1.5	4.9	2.7	71.4	1,179		71.2	3.4	10.8	7.5	5.1	2.0	74.6
Bhutan	433		77.6	19.6	0.7	0.5	0.5	1.2	97.2	22	4.5	50.0	9.1	13.6	22.7			59.1
Democratic People's Republic of Korea																		
India	2,089		75.5	3.3	7.6	3.4	3.4	6.9	78.8	551		64.4	5.8	13.4	3.1	4.4	8.9	70.2
Indonesia	3,018		73.1	17.6	6.0	0.4	1.9	1.0	90.7	76	67.1	22.4	9.2	1.3				31.6
Maldives	114		95.6	1.8			2.6		97.4									
Myanmar	6,995		54.1	12.0	18.4	3.8	4.1	7.7	66.0	1,443		55.4	8.5	18.9	4.0	4.0	9.3	63.9
Nepal																		
Sri Lanka	3,058		75.1	4.3	13.3	0.5	3.1	3.7	79.4									
Thailand																		
Regional Total	26,574	3.9	66.0	8.2	11.8	2.0	3.9	4.2	74.2	3,271	1.6	61.8	6.2	14.6	5.1	4.3	6.3	68.1

Regional Profile - SEARO

As of 25-Nov-98

Countries	Country Information (1996)								Other Strategy (non-DOTS)									
	Population	Notified Cases				New ss+ cases estimated	% case detection of new ss+ cases	Category	Population		Notified cases		% cases out of all cases	New ss+ cases notified		% new ss+ out of all new pulm. cases		
		All types		New ss+					No.	(%)	No.	Rate		No.	Rate			
		No.	Rate	No.	Rate													
	a	b	c	d	e	f	d/f	g	h	h/a	i	j	k	l	m	n		
Bangladesh	120,073,000	63,471	52.9	29,674	24.7	118,872	25.0	3	42,025,550	35.0	32,077	76.3	50.5	10,058	23.9	33.5		
Bhutan	1,812,000	1,271	70.1	308	17.0	734	42.0	4										
Democratic People's Republic of Korea	22,466,000					16,378		0										
India	944,580,000	1,300,935	137.7	291,205	30.8	935,134	31.1	2	925,688,400	98.0	1,285,799	138.9	98.8	284,951	30.8	23.5		
Indonesia	201,282,000	24,647	12.2	11,790	5.9	199,269	5.9	3	173,706,366	86.3	10,094	5.8	41.0					
Maldives	263,000	212	80.6	106	40.3	142	74.6	4										
Myanmar	45,922,000	22,201	48.3	9,716	21.2	39,057	24.9	3	18,828,020	41.0	2,246	11.9	10.1	920	4.9	63.4		
Nepal	22,021,000	22,970	104.3	10,365	47.1	16,549	62.6	2	20,369,425	92.5	20,888	102.5	90.9	9,235	45.3	54.3		
Sri Lanka	18,100,000	5,439	30.0	2,958	16.3	13,602	21.7	4										
Thailand	58,703,000	39,871	67.9	16,997	29.0	45,700	37.2	2	58,039,656	98.9	39,624	68.3	99.4	16,880	29.1	45.2		
Regional Total	1,435,222,000	1,481,017	104.8	373,119	26.4	1,385,437	26.9		1,238,657,417	86.3	1,390,728	112.3	93.9	322,044	26.0	24.6		

NOTE

Bhutan 54 of the smear-negative cases are smear-not-done. Change in trend because in 1996 the country reported only for the period up to 31st July 1995. Recording and reporting system was improved in 1996.

Democratic People's Republic of Korea Document from MOH: 10 050 cases of all types, 8040 smear-positive and 2010 extrapulmonary cases.

India Data on treatment outcomes missing in non-DOTS areas.

Indonesia Coverage in DOTS areas is estimated. Breakdown by smear results not provided for non-DOTS areas.

Nepal Case notifications for mid March 1996 to mid March 1997. New pulmonary smear-positive cases by age and sex: not all districts reported. Case notifications in non-DOTS areas: smear-negatives include smear-not-done. No cohort because year ended mid March.

Sri Lanka No report on Tamil region (5% of total population).

Thailand No cohort because program was recently implemented.

SEARO NOTIFICATION RATES BY AGE & SEX

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)									
		Age groups							Age groups							Age groups									
		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total
Bangladesh	1996	0.18	5.66	15.49	19.91	20.88	27.95	22.66	8.88	0.38	3.55	7.87	7.03	7.01	6.48	2.25	3.56	0.28	4.63	11.71	13.56	14.39	17.88	13.13	6.29
Bhutan	1996	1.02	29.82	36.00	46.74	34.92	30.00	32.00	20.33	2.09	25.15	33.88	24.72	21.88	14.29	18.75	15.44	1.55	27.51	34.96	35.91	28.35	21.95	24.56	17.88
India	1996	0.03	1.04	1.46	1.57	1.68	1.56	1.01	0.90	0.05	0.72	0.80	0.52	0.44	0.37	0.18	0.41	0.04	0.89	1.15	1.07	1.07	0.96	0.58	0.66
Indonesia	1996	0.08	3.73	8.07	11.97	17.07	18.83	12.58	6.45	0.17	4.21	7.04	8.79	11.33	9.70	5.22	4.91	0.13	3.96	7.55	10.35	14.12	14.05	8.61	5.65
Maldives	1996	0.00	96.00	52.94	25.00	71.43	280.00	200.00	46.67	1.69	50.00	56.25	41.67	100.00	125.00	125.00	33.59	0.83	73.47	54.55	33.33	84.62	211.11	162.50	40.30
Myanmar	1996	0.70	16.36	40.88	59.11	70.79	66.44	44.94	27.02	0.69	12.66	24.62	30.53	34.00	30.91	17.33	15.34	0.70	14.54	32.63	44.60	51.98	47.84	29.92	21.16
Nepal	1996	1.85	67.99	92.71	116.18	136.90	145.85	105.17	55.90	3.40	42.02	46.99	48.68	37.35	40.34	28.42	26.33	2.60	55.33	68.49	81.70	86.64	94.98	66.80	41.29
Sri Lanka	1996	0.37	9.28	22.34	42.51	62.71	64.90	46.77	23.61	0.70	11.52	11.13	11.48	14.68	19.04	10.97	9.17	0.53	10.39	16.65	26.20	37.70	41.24	28.48	16.34
Thailand	1996	0.66	17.89	50.54	61.89	78.72	121.23	133.94	41.59	0.64	10.17	15.38	16.72	28.57	50.14	57.41	16.32	0.65	14.10	33.22	39.16	53.37	83.87	90.83	28.95
SEARO		0.13	4.25	8.48	10.85	13.13	15.58	13.26	5.99	0.22	3.17	4.73	4.91	5.50	15.58	5.04	3.06	0.17	3.73	6.67	7.97	9.36	10.79	8.97	4.56

SEARO - AGE & SEX DISTRIBUTION OF TB CASES IN DOTS AREAS (absolute numbers)

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)									
		Age groups						Age groups						Age groups						Age groups					
0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total		
Bangladesh	1996	45	723	1322	1264	908	737	472	5471	89	434	663	434	268	151	41	2080	134	1157	1985	1698	1176	888	513	7551
Bhutan	1996	4	51	45	43	22	12	8	185	8	42	41	22	14	6	6	139	12	93	86	65	36	18	14	324
India	1996	47	966	1143	934	666	424	213	4393	79	618	571	2810	167	103	42	4390	126	1584	1714	3744	833	527	255	8783
Indonesia	1996	28	781	1349	1443	1305	1037	510	6453	54	860	1175	1091	915	586	247	4928	82	1641	2524	2534	2220	1623	757	11381
Maldives	1996	0	24	9	3	5	14	8	63	1	12	9	5	6	5	5	43	1	36	18	8	11	19	13	106
Myanmar	1996	46	719	1391	1407	1011	720	354	5648	48	529	838	733	490	348	162	3148	94	1248	2229	2140	1501	1068	516	8796
Nepal	1996	10	189	120	117	102	100	41	679	13	99	66	49	31	16	14	288	23	288	186	166	133	116	55	967
Sri Lanka	1996	10	163	327	491	523	355	253	2122	18	197	168	147	133	111	62	836	28	360	495	638	656	466	315	2958
Thailand	1996	0	3	14	14	21	11	15	78	0	4	2	2	8	10	13	39	7	16	16	29	21	28	117	
No.		190	3619	5720	5716	4563	3410	1874	25092	310	2795	3533	5293	2032	1336	592	15891	500	6414	9253	11009	6595	4746	2466	40983
SEARO	%	0.76	14.42	22.80	22.78	18.19	13.59	7.47	100.0	1.95	17.59	22.23	33.31	12.79	8.41	3.73	100.0	1.22	15.65	22.58	26.86	16.09	11.58	6.02	100.0

SEARO - AGE & SEX DISTRIBUTION OF TB CASES IN NON-DOTS AREAS (absolute numbers)

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)													
		Age groups						Age groups						Age groups						Age groups									
		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total			0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total			0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total
Bangladesh	1996																												
India	1996																												
Indonesia	1996																												
Myanmar	1996	12	48	120	128	99	78	46	531			7	48	100	84	68	60	22	389			19	96	220	212	167	138	68	920
Nepal	1996	81	1262	1165	1104	933	638	366	5549			142	754	668	485	257	174	96	2576			223	2016	1833	1589	1190	812	462	8125
Thailand	1996	54	1085	2843	2482	1914	1993	1757	12128			50	594	842	681	710	908	967	4752			104	1679	3685	3163	2624	2901	2724	16880
SEARO	No.	147	2395	4128	3714	2946	2709	2169	18208			199	1396	1610	1250	1035	1142	1085	7717			346	3791	5738	4964	3981	3851	3254	25925
SEARO	%	0.81	13.15	22.67	20.40	16.18	14.88	11.91	100			2.58	18.09	20.86	16.20	13.41	14.80	14.06	100.0			1.33	14.62	22.13	19.15	15.36	14.85	12.55	100.0

South East Asian Region - Number of tuberculosis cases notified, 1980-1996

COUNTRY / PAYS	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Bangladesh	39.774	42.644	49.870	52.961	45.679	41.802	45.599	45.355	44.280	45.191	48.673	56.052	31.400	54.001	48.276	42.610	63.471
Bhutan/Bhoutan	1.539	2.657	720	1.017	904	1.073	1.582	608	1.126	1.525	1.154	996	140	108	1.159	1.299	1.271
Democratic People's Republic of Korea																	
India/Inde	705.600	769.540	923.095	1.075.098	1.109.310	1.168.804	1.279.536	1.403.122	1.457.288	1.510.500	1.519.182	1.555.353	1.121.120	1.081.279	1.114.374	1.214.876	1.300.935
Indonesia/Indonésie	25.235	32.461	33.000	31.809	32.432	17.681	16.750	97.505	105.516	74.470	469.832	98.458	62.966	49.647	31.908	24.647	
Maldives	73	112	111	143	123	91	111	115	85	203	152	123	92	175	249	231	212
Myanmar	12.744	12.461	12.069	11.012	11.045	10.506	10.840	11.986	9.348	10.940	12.416	14.905	17.000	19.009	15.583	18.229	22.201
Nepal/Népal	1.020	337	1.459	700	190	52	252	1.012	1.603	11.003	10.142	8.983	13.161	15.572	19.804	22.970	
Sri Lanka	6.212	6.288	7.334	6.666	6.376	5.889	6.596	6.411	6.092	6.429	6.666	6.174	6.802	6.809	6.132	5.956	5.439
Thailand/Thaïlande	45.704	49.452	48.553	65.413	69.240	77.611	52.152	51.835	50.021	44.553	46.510	43.858	47.697	49.668	47.767	45.428	39.871
Total	837.901	915.952	1.076.211	1.244.819	1.275.299	1.323.509	1.413.418	1.520.444	1.667.348	1.735.860	1.719.365	2.156.276	1.322.709	1.287.176	1.298.759	1.380.341	1.481.017
No. countries/No. de pays	9	9	9	9	9	9	9	8	9	9	9	9	8	9	9	9	9
% of countries reporting	90	90	90	90	90	90	90	80	90	90	90	90	80	90	90	90	90

COUNTRY / PAYS	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Bangladesh	45,1	47,2	53,9	56,0	47,3	42,4	45,4	44,3	42,5	42,6	45,0	50,8	27,9	46,9	41,0	36,0	52,9
Bhutan/Bhoutan	124,4	210,4	55,9	77,3	67,2	78,0	112,2	42,0	75,9	100,6	74,7	63,6	8,8	6,8	71,8	73,4	70,1
DPR Korea/RPD Corée																	
India/Inde	102,4	109,3	128,3	146,2	147,5	152,2	163,1	175,2	178,3	181,1	178,6	179,3	126,8	119,9	121,3	130,8	137,7
Indonesia/Indonésie	16,7	21,0	20,9	19,7	19,7	10,5	9,8		54,9	58,5	40,6	251,9	52,0	32,7	25,4	16,1	12,2
Maldives	46,2	68,7	66,1	82,7	69,1	49,5	58,7	58,7	42,1	97,1	70,4	55,2	39,8	73,5	101,2	90,9	80,6
Myanmar	37,7	36,1	34,2	30,6	30,0	28,0	28,3	30,6	23,3	26,7	29,7	34,9	38,9	42,6	34,2	40,4	48,3
Nepal/Népal	6,9	2,2	9,3	4,3	1,1	0,3	1,4	5,7	8,8	58,6	52,7	45,5		63,2	72,9	92,3	104,3
Sri Lanka	41,9	41,7	47,8	42,7	40,2	36,5	40,3	38,7	36,3	37,8	38,7	35,4	38,5	38,0	33,8	33,2	30,0
Thailand/Thaïlande	97,8	103,8	100,0	132,4	137,8	151,8	100,2	97,9	92,8	81,3	83,7	77,9	83,7	86,3	82,1	78,0	67,9
Total	80,5	86,2	99,1	112,1	112,4	114,3	119,6	147,4	135,6	138,5	134,5	165,6	101,2	95,2	94,3	99,3	104,8

* per 100 000 population /pour 100 000 habitants

South East Asian Region - New Smear Positive Cases

COUNTRY / PAYS	No. of cases/No. de cas				Rate/Taux*			
	1993	1994	1995	1996	1993	1994	1995	1996
Bangladesh	18.993	1.710	20.524	29.674	16,5	1,5	17,4	24,7
Bhutan/Bhoutan		352	367	308		21,8	20,7	17,0
DPR Korea/RPD Corée								
India/Inde	225.256	226.543	264.618	291.205	25,0	24,7	28,5	30,8
Indonesia/Indonésie	62.966	49.647	31.768	11.790	32,7	25,4	16,0	5,9
Maldives	126	125	114	106	52,9	50,8	44,9	40,3
Myanmar			8.681	9.716			19,2	21,2
Nepal/Népal	6.679	10.442	8.591	10.365	32,1	48,9	40,0	47,1
Sri Lanka	3.335	3.405	3.049	2.958	18,6	18,8	17,0	16,3
Thailand/Thaïlande		20.260	20.273	16.997		34,8	34,8	29,0
Total	317.355	312.484	357.985	373.119	23,5	22,7	25,7	26,4

* per 100 000 population/pour 100 000 habitants

WESTERN PACIFIC

Western Pacific Region - Summary of TB control policies

Country	Category of the Country as of 31/12/96	National Manual ¹	Training ²	DOTS Technical Elements					DOTS Implemented in 1997
				Use of Microscopy for Diagnosis	SCC ³	DOT ⁴	Drug Availability ⁵	Recording and Reporting System ⁶	
American Samoa	4								
Australia	0								
Brunei Darussalam	0								
Cambodia	3								
China	3								
Cook Islands	4								
Fiji	4								
French Polynesia	4								
Guam	0								
China, Hong Kong SAR	1								
Japan	1								
Kiribati	1								
Lao People's Dem. Rep.	3								
Macau	4								
Malaysia	4								
Marshall Islands	1								
Micronesia, (Fed. States of)	4								
Mongolia	3								
Nauru	0								
New Caledonia	4								
New Zealand	5								
Niue	1								
Northern Mariana Islands	0								
Palau	4								
Papua New Guinea	2								
Philippines	2								
Republic of Korea	4								
Samoa	4								
Singapore	3								
Solomon Islands	4								
Tokelau	5								
Tonga	4								
Tuvalu	0								
Vanuatu	1								
Viet Nam	4								
Wallis and Futuna Islands	1								

1 Presence of national manual, or a document issued by the government or an authorised scientific body, including policy recommendations endorsed by WHO

2 "WHO standard" training course on management of TB control programmes has been carried out within the past two years; or training materials endorsed by WHO or IUATLD

3 Short course chemotherapy

4 Directly observed treatment

5 A regular supply system of all essential anti-tuberculosis drugs and diagnostic materials

6 Presence of WHO/IUATLD recommended recording and reporting system showing assessment of treatment results

Legend: Element of DOTS strategy missing

White - Missing

Grey - Present in part of the Country

Blue - Fully implemented (more than 90%) in the country

Regional Profile - WPRO

As of 25-Nov-98

Countries	Country Information (1996)								WHO TB Control Strategy (DOTS)										
	Population	Notified Cases				New ss+ cases estimated	% case detection of new ss+ cases	Category	Population		Notified cases		% cases out of all cases	New ss+ cases notified		% new ss+ out of all new pulm. cases			
		All types		New ss+					No.	(%)	No.	Rate		No.	Rate				
		No.	Rate	No.	Rate														
	a	b	c	d	e	f	g	h	h/a	i	j	k	l	m	n				
Australia	18,057,000					488		0											
Brunei Darussalam	300,000					95		0											
Cambodia	10,273,000	14,857	144.6	12,065	117.4	10,864	111.1	3	8,218,400	80.0	11,885	144.6	80.0	9,652	117.4	94.5			
China	1,232,083,000	469,358	38.1	168,270	13.7	471,272	35.7	3	744,178,132	60.4	221,287	29.7	47.1	137,634	18.5	67.7			
Cook Islands	19,000					3		4	19,000	100.0									
Fiji	797,000	200	25.1	69	8.7	143	48.3	4	797,000	100.0	200	25.1	100.0	69	8.7	43.9			
Japan	125,351,000	42,122	33.6	12,867	10.3	23,691	54.3	1											
Kiribati	80,000	327	408.8	29	36.3	144	20.1	1											
Lao People's Democratic Republic	5,035,000	1,440	28.6	886	17.6	5,325	16.6	3	2,114,700	42.0	1,440	68.1	100.0	886	41.9	67.7			
Malaysia	20,581,000	12,902	62.7	7,271	35.3	6,205	117.2	4	20,581,000	100.0	12,902	62.7	100.0	7,271	35.3	63.4			
Marshall Islands	57,000	56	98.2	17	29.8	38	44.7	1											
Micronesia (Federated States of)	126,000	94	74.6	10	7.9	34	29.4	4	126,000	100.0	94	74.6	100.0	10	7.9	14.7			
Mongolia	2,515,000	2,987	118.8	1,171	46.6	1,132	103.4	3	1,307,800	52.0	1,840	140.7	61.6	705	53.9	56.1			
Nauru	11,000					2		0											
New Zealand	3,602,000	323	9.0	76	2.1	162	46.9	5											
Niue	2,000	2	100.0	1	50.0	1	100.0	1											
Palau	17,000	5	29.4	4	23.5	19	21.1	4	17,000	100.0	5	29.4	100.0	4	23.5	100.0			
Papua New Guinea	4,400,000	5,087	115.6	652	14.8	5,445	12.0	2	264,000	6.0	1,892	716.7	37.2	205	77.7	15.5			
Philippines	69,282,000	276,295	398.8	86,695	125.1	87,295	99.3	2	1,385,640	2.0	1,738	125.4	0.6	460	33.2	27.4			
Republic of Korea	45,314,000	31,134	68.7	11,420	25.2	14,274	80.0	4	45,314,000	100.0	31,134	68.7	100.0	11,420	25.2	39.1			
Samoa	166,000	37	22.3	10	6.0	22	45.5	4	166,000	100.0	37	22.3	100.0	10	6.0	31.3			
Singapore	3,384,000	737	21.8	208	6.1	1,249	16.7	3	1,353,600	40.0	737	54.4	100.0	208	15.4	31.7			
Solomon Islands	391,000	289	73.9	90	23.0	211	42.7	4	391,000	100.0	289	73.9	100.0	90	23.0	41.9			
Tokelau	2,000					1		5											
Tonga	98,000	22	22.4	16	16.3	18	88.9	4	98,000	100.0	22	22.4	100.0	16	16.3	84.2			
Tuvalu	10,000					11		0											
Vanuatu	174,000	126	72.4	50	28.7	94	53.2	1											
Viet Nam	75,181,000	74,711	99.4	48,911	65.1	56,160	87.1	4	71,421,950	95.0	50,551	70.8	67.7	37,675	52.7	91.6			
Other Territories																			
American Samoa	56,000					4		4	56,000	100.0									
China, Hong Kong SAR	6,191,000	6,501	105.0	2,116	34.2	3,900	54.3	1											
Commonwealth of the Northern Mariana Isl	49,000					26		0											
French Polynesia	223,000	86	38.6	37	16.6	60	61.7	4	223,000	100.0	86	38.6	100.0	37	16.6	54.4			

Regional Profile - WPRO

As of 25-Nov-98

Countries	Country Information (1996)								WHO TB Control Strategy (DOTS)										
	Population	Notified Cases				New ss+ cases estimated	% case detection of new ss+ cases	Category	Population		Notified cases		% cases out of all cases	New ss+ cases notified		% new ss+ out of all new pulm. cases			
		All types		New ss+					No.	(%)	No.	Rate		No.	Rate				
		No.	Rate	No.	Rate														
		a	b	c	d	e	f	g	h	h/a	i	j	k	l	m	n			
Guam	153,000					55		0											
Macao	440,000	455	103.4	204	46.4	198	103.0	4	440,000	100.0	455	103.4	100.0	204	46.4	58.5			
New Caledonia	184,000	205	111.4	26	14.1	75	34.7	4	184,000	100.0	205	111.4	100.0	26	14.1	33.8			
Wallis and Futuna Islands	15,000	8	53.3	3	20.0	7	42.9	1											
Regional Total	1,624,619,000	940,366	58.6	353,174	22.0	688,723	51.3		898,656,222	55.3	336,799	37.5	35.8	206,582	23.0	68.3			

Countries	WHO TB Control Strategy (DOTS)																	
	Treatment Outcomes in 1995																	
	New ss+ cases									Retreatment cases								
	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)
	<i>o</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>s</i>	<i>t</i>	<i>u</i>	<i>v</i>	<i>w</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>aa</i>	<i>ab</i>	<i>ac</i>	<i>ad</i>	<i>ae</i>	<i>af</i>
Australia																		
Brunei Darussalam																		
Cambodia	4,363		83.1	7.7	4.2	1.1	2.2	1.5	90.8	436	1.6	58.9	25.9	2.8	3.0	5.3	2.5	84.9
China	99,528	0.4	94.5	1.4	0.8	1.0	1.5	0.3	95.8	54,052	0.7	90.1	2.3	1.1	3.2	2.5	0.2	92.3
Cook Islands	0									0								
Fiji	73	4.1	78.1	8.2	2.7		6.8		86.3									
Japan																		
Kiribati																		
Lao People's Democratic Republic	343		62.4	7.6	19.0	1.7	5.5	3.8	70.0	1		100.0						100.0
Malaysia	13,398		69.5		8.1	2.0	6.3	14.2	69.5									
Marshall Islands																		
Micronesia (Federated States of)	10		80.0		10.0		10.0		80.0	9		100.0						100.0
Mongolia	128		78.1		6.3	6.3	6.3	3.1	78.1	23		60.9		13.0	13.0	8.7	4.3	60.9
Nauru																		
New Zealand																		
Niue																		
Palau	9		55.6	11.1	11.1			22.2	66.7									
Papua New Guinea	199	13.6		59.8	22.1		1.0	3.5		34	5.9		73.5	17.6				2.9
Philippines																		
Republic of Korea	11,675	3.7	74.2	2.2	4.8	3.3	1.5	10.2	76.4	2,004	37.9	39.5	0.9	2.7	2.2	1.1	15.6	40.4
Samoa	15		13.3	66.7			20.0		80.0									
Singapore	122		71.3	14.8	11.5		2.5		86.1									
Solomon Islands	368	23.6		65.2	3.5		5.7	1.9										
Tokelau																		
Tonga	20		75.0			5.0	10.0	10.0	75.0	9		100.0						100.0
Tuvalu																		
Vanuatu																		
Viet Nam	21,954		89.1	2.1	2.2	1.4	2.7	2.4	91.3	2,384		79.7	1.6	2.3	8.1	4.5	3.8	81.3
Other Territories																		
American Samoa	4		100.0						100.0									
China, Hong Kong SAR																		
Commonwealth of the Northern Mariana																		
French Polynesia	33	6.1	66.7		21.2		3.0	3.0	66.7	2		50.0				50.0		50.0

Countries	WHO TB Control Strategy (DOTS)																	
	Treatment Outcomes in 1995																	
	New ss+ cases									Retreatment cases								
	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)
	<i>o</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>s</i>	<i>t</i>	<i>u</i>	<i>v</i>	<i>w</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>aa</i>	<i>ab</i>	<i>ac</i>	<i>ad</i>	<i>ae</i>	<i>af</i>
Guam																		
Macao																		
New Caledonia	32	9.4	75.0		3.1		12.5		75.0	4		100.0						100.0
Wallis and Futuna Islands																		
Regional Total	152,274	0.6	89.1	1.9	2.2	1.4	2.2	2.7	91.0	58,958	1.9	87.6	2.4	1.2	3.3	2.5	0.9	90.1

Regional Profile - WPRO

As of 25-Nov-98

Regional Profile - WPRO

As of 25-Nov-98

Countries	Country Information (1996)								Other Strategy (non-DOTS)									
	Population	Notified Cases				New ss+ cases estimated	% case detection of new ss+ cases	Category	Population		Notified cases		% cases out of all cases	New ss+ cases notified		% new ss+ out of all new pulm. cases		
		All types		New ss+					No.	(%)	No.	Rate		No.	Rate			
		No.	Rate	No.	Rate													
	a	b	c	d	e	f	d/f	g	h	h/a	i	j	k	l	m	n		
Guam	153,000					55		0										
Macao	440,000	455	103.4	204	46.4	198	103.0	4										
New Caledonia	184,000	205	111.4	26	14.1	75	34.7	4										
Wallis and Futuna Islands	15,000	8	53.3	3	20.0	7	42.9	1	15,000	100.0	8	53.3	100.0	3	20.0	50.0		
Regional Total	1,624,619,000	940,366	58.6	353,174	22.0	688,723	51.3		705,352,378	43.4	603,567	85.6	64.2	146,592	20.8	27.2		

NOTE

Cambodia Case notifications in DOTS areas were estimated (80% of reported).

China Non-DOTS areas: cases cured and completing treatment were combined. Include data from Infectious and Endemic Disease Control (IEDC) and MOH projects.

Cook Islands No cases.

Japan Treatment results for patients registered from 1 Jan 1991 and 31 Dec 1993, except Tokyo and Fukuoka city (10% of pop). Unable to enter data in the database because they do not follow WHO standards.

Kiribati Treatment results apply to period July to Dec 1995 when SCC was implemented.

Lao People's Democratic Republic Data for non-DOTS areas not available.

Macao No cohort analysis because programme was recently implemented.

Malaysia Country has a recording/reporting system slightly different from that of WHO. Cured probably include treatment completed.

New Caledonia New pulmonary smear-positive cases by age and sex include relapses. Cured probably included treatment completed.

Papua New Guinea Non-DOTS areas: treatment results for all TB cases. With new HIS being developed, not possible to give new pulmonary smear-positive cases by age and sex and treatment results. WHO forms not yet utilized.

Philippines Case notifications in non-DOTS areas: relapses include other treatment failures. No cohort analysis from DOTS areas because programme was recently implemented. Treatment results from non-DOTS areas: not all regions sent reports (or complete reports). Thus, 32% of registered cases not evaluated. Section 16: only 7 regions gave complete report. Four regions had no report and five regions had incomplete report. As a result, the treatment outcomes of 28,519 cases were unknown.

Tokelau Data for non-DOTS areas not available.

Vanuatu Unable to provide data on DOTS projects.

Viet Nam Revised data from MOH report submitted to KNCV.

WPRO NOTIFICATION RATES BY AGE & SEX

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)										
		Age groups							Age groups							Age groups										
		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	
Cambodia	1996	6.68	3.96	157.82	254.29	414.77	785.90	654.05	123.31	5.76	3.38	126.25	228.43	364.37	467.32	284.90	111.97	6.23	3.67	141.51	240.36	386.33	587.65	420.13	117.44	
China	1996	0.84	14.93	19.35	21.80	27.55	38.30	38.66	17.19	1.06	13.28	14.74	12.08	12.33	13.12	9.55	9.90	0.94	14.13	17.11	17.10	20.25	26.16	23.00	13.66	
Fiji	1996	0.72	9.52	13.33	18.00	26.47	13.64	13.33	9.90	2.29	7.59	13.56	4.08	18.18	9.09	12.50	7.40	1.49	8.59	13.45	11.11	22.39	11.36	12.90	8.66	
French Polynesia	1996	2.63	19.05	35.00	35.71	22.22	16.67	75.00	20.00	0.00	25.00	23.53	15.38	0.00	40.00	25.00	13.08	1.33	21.95	29.73	25.93	11.76	27.27	50.00	16.59	
Japan	1996	0.16	3.31	7.11	10.15	17.93	24.92	47.64	14.72	0.07	2.52	4.82	3.20	3.70	7.10	18.37	5.96	0.12	2.93	5.98	6.70	10.80	15.77	30.53	10.26	
Macao	1996	1.75	59.26	85.29	73.91	80.00	145.45	216.67	66.05	0.00	37.04	43.75	31.11	15.00	30.00	64.71	27.56	0.90	48.15	60.98	52.75	51.11	90.48	127.59	46.36	
Malaysia	1996	1.13	37.89	62.60	74.19	105.14	134.47	238.46	48.75	2.05	25.21	28.78	29.28	41.76	47.17	60.40	21.65	1.58	31.70	45.84	51.17	73.73	90.22	140.32	35.32	
Mongolia	1996	1.22	65.53	143.27	154.55	102.86	62.75	42.50	63.70	2.53	42.08	64.42	52.99	30.00	24.53	16.98	29.43	1.87	53.92	103.85	103.38	66.43	43.27	27.96	46.56	
New Caledonia	1996	3.57	16.67	7.14	27.27	55.56	133.33	75.00	25.81	0.00	11.76	14.29	9.09	25.00	20.00	25.00	10.00	1.82	14.29	10.71	18.18	41.18	81.82	50.00	17.93	
New Zealand	1996	0.47	1.44	1.08	3.46	4.72	2.07	6.78	2.42	0.49	2.24	3.18	1.12	2.82	2.04	5.58	2.31	0.48	1.83	2.14	2.27	3.76	2.05	6.10	2.36	
Pap	1996	1.24	6.72	6.83	7.69	2.52	3.09	3.23	4.14	1.30	9.58	9.46	5.19	6.25	6.12	2.99	5.21	1.27	8.10	8.05	6.50	4.39	4.62	3.10	4.66	
Philippines	1996	0.01	0.37	0.88	1.45	2.02	1.83	2.59	0.68	0.01	0.16	0.38	0.48	0.60	0.31	0.70	0.23	0.01	0.27	0.63	0.97	1.31	1.05	1.56	0.46	
Republic of Korea	1996	0.57	26.96	36.39	39.08	47.49	72.38	114.23	33.62	0.65	23.66	19.83	12.75	12.89	18.43	50.91	16.66	0.61	25.36	28.30	26.13	30.38	44.14	74.48	25.20	
Samoa	1996			0.00	0.00	0.00	25.00	66.67	3.49			30.00	28.57	40.00	0.00	0.00	8.86				13.04	14.29	22.22	12.50	33.33	6.02
Solomon Islands	1996	4.55	21.95	33.33	16.67	63.64	57.14	120.00	20.90	6.02	13.16	36.00	47.06	109.09	85.71	60.00	25.40	5.26	17.72	34.62	31.43	86.36	71.43	90.00	23.02	
Vanuatu	1996	5.26	25.00	18.18	75.00	66.67	133.33	33.33	26.44	5.56	66.67	23.08	55.56	60.00	133.33	0.00	31.40	5.41	45.16	20.83	64.71	63.64	133.33	20.00	28.74	
Viet Nam	1996	0.65	25.83	89.76	185.18	267.46	355.82	430.08	87.05	0.68	15.33	41.35	66.54	109.68	168.42	173.33	43.71	0.67	20.71	65.68	120.78	182.02	253.00	273.90	65.06	
WPRO		0.80	14.71	22.74	28.16	34.29	48.46	55.80	21.01	0.99	12.46	15.81	14.80	16.05	48.46	19.84	11.87	0.89	13.62	19.37	21.64	25.43	34.51	35.97	16.54	

WPRO - AGE & SEX DISTRIBUTION OF TB CASES IN DOTS AREAS (absolute numbers)

Country	Year	New ss+ TB (males) Age groups							New ss+ TB (females) Age groups							New ss+ TB (males + females) Age groups									
		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total
American Samoa	1996	0	1	0	0	0	2	1	4	0	0	0	0	0	0	0	1	2	1	2	1	4	4	4	
Palau	1996	148	32	1272	1363	1348	1226	726	6115	124	27	1087	1430	1534	1201	547	5950	272	59	2359	2793	2882	2427	1273	12065
Cambodia	1996	1111	12485	17400	13806	12105	12235	9832	78974	1291	10685	12664	7044	4942	3855	2796	43277	2402	23170	30064	20850	17047	16090	12628	122251
China	1996																								
Cook Islands	1996																								
Fiji	1996	1	8	8	9	9	3	2	40	3	6	8	2	6	2	2	29	4	14	16	11	15	5	4	69
French Polynesia	1996	1	4	7	5	2	1	3	23	0	5	4	2	0	2	1	14	1	9	11	7	2	3	4	37
Republic of Korea	1996	31	1150	1587	1457	1118	1216	1116	7675	32	950	827	460	297	340	839	3745	63	2100	2414	1917	1415	1556	1955	11420
Lao People's Democratic Repub	1996	1	42	80	97	131	127	84	562	4	31	62	80	64	59	24	324	5	73	142	177	195	186	108	886
Malaysia	1996	45	720	1026	894	838	671	868	5062	77	457	463	371	327	242	270	2207	122	1177	1489	1265	1165	913	1138	7269
Macao	1996	1	16	29	34	20	16	26	142	0	10	21	14	3	3	11	62	1	26	50	48	23	19	37	204
Micronesia (Federated States)	1996	0	1	0	0	1	2	0	4	0	1	1	1	3	0	0	6	2	1	1	4	2	10		
Mongolia	1996	6	104	156	75	35	21	12	409	9	86	107	59	18	10	7	296	15	190	263	134	53	31	19	705
New Caledonia	1996	1	3	1	3	5	8	3	24	0	2	2	1	2	1	1	9	1	5	3	4	7	9	4	33
Philippines	1996	1	26	47	58	50	28	28	238	1	11	20	19	15	5	9	80	2	37	67	77	65	33	37	318
Papua New Guinea	1996	11	31	25	18	4	3	2	94	11	41	30	11	10	6	2	111	22	72	55	29	14	9	4	205
Singapore	1996																								
Samoa	1996	0	0	0	0	0	1	2	3	0	0	3	2	2	0	0	7			3	2	2	1	2	10
Solomon Islands	1996	4	9	9	3	7	4	6	42	5	5	9	8	12	6	3	48	9	14	18	11	19	10	9	90
Tonga	1996	0	1	1	2	0	6	0	10	0	1	1	1	0	1	2	6		2	2	3	7	2	16	
Viet Nam	1996	92	1994	5716	7137	5170	5839	6292	32240	91	1127	2606	3045	2504	3360	3938	16671	183	3121	8322	10182	7674	9199	10230	48911
	No.	1454	16627	27364	24961	20843	21409	19003	131661	1648	13445	17915	12550	9739	9093	8452	72842	3102	30072	45279	37511	30582	30502	27455	204503
	%	1.10	12.63	20.78	18.96	15.83	16.26	14.43	100.0	2.26	18.46	24.59	17.23	13.37	12.48	11.60	100.0	1.52	14.70	22.14	18.34	14.95	14.92	13.43	100.0

WPRO - AGE & SEX DISTRIBUTION OF TB CASES IN NON-DOTS AREAS (absolute numbers)

Country	Year	New ss+ TB (males)							New ss+ TB (females)							New ss+ TB (males + females)							Age groups				
		Age groups						Age groups						Age groups						Age groups						Age groups	
		0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total	0-14	15-24	25-34	35-44	45-54	55-64	>=65	Total		
Cambodia	1996																										
China	1996	298	4005	6657	5889	4919	4523	3865	30156	333	3088	4554	3170	2078	1491	1149	15863	631	7093	11211	9059	6997	6014	5014	46019		
China, Hong Kong SAR	1996																										
Japan	1996	16	309	621	843	1756	1878	3639	9062	7	224	409	262	364	565	1974	3805	23	533	1030	1105	2120	2443	5613	12867		
Kiribati	1996	0	4	1	2	2	2	2	13	2	3	3	4	2	1	1	16	2	7	4	6	4	3	3	29		
Lao People's Democratic Repub	1996																										
Mongolia	1996	0	69	142	129	37	11	5	393	3	23	27	12	3	3	2	73	3	92	169	141	40	14	7	466		
Marshall Islands	1996	7	8	3	3	5	3	0	29	12	7	3	3	2	3	2	32	19	15	6	6	7	6	2	61		
New Zealand	1996	2	4	3	9	10	3	12	43	2	6	9	3	6	3	13	42	4	10	12	12	16	6	25	85		
Niue	1996																										
Philippines	1996																										
Papua New Guinea	1996																										
Tokelau	1996																										
Vanuatu	1996	2	4	2	6	4	4	1	23	2	10	3	5	3	4	0	27	4	14	5	11	7	8	1	50		
Viet Nam	1996																										
Wallis and Futuna Islands	1996	0	1	1	0	0	0	0	2	0	1	3	1	1	0	0	6		2	4	1	1			8		
	No.	325	4404	7430	6881	6733	6424	7524	39721	361	3362	5011	3460	2459	2070	3141	19864	686	7766	12441	10341	9192	8494	10665	59585		
	%	0.82	11.09	18.71	17.32	16.95	16.17	18.94	100.0	1.82	16.93	25.23	17.42	12.38	10.42	15.81	100.0	1.15	13.03	20.88	17.36	15.43	14.26	17.90	100.0		

Western Pacific Region - Number of tuberculosis cases notified, 1980-1996

COUNTRY / PAYS	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Australia/Australie	1.457	1.386	1.270	1.219	1.299	1.088	906	907	954	952	1.016	950	1.011	991	1.057	1.073	
Brunei Darussalam/Brunéi Daru	196	285	245	276	256	238	212	189	126	128	143		180	160			
Cambodia/Cambodge	2.576	1.980	8.158	7.572	10.241	10.145	10.325	9.106	10.691	7.906	6.501	10.903	16.148	13.270	15.172	14.599	14857
China/Chine		98.654	117.557	151.564	226.899	265.095	251.600	304.639	310.607	375.481	345.000	320.426	344.218	363.804	357.829	469358	
Cook Islands/Iles Cook	37	10	19	29	20	36	17	16	20	1	1	8	12	6	4	2	0
Fiji/Fidji	210	180	163	185	165	230	199	173	162	218	226	247	240	183	280	203	200
Japan/Japon	70.916	65.867	63.940	62.021	61.521	58.567	56.690	56.496	54.357	53.112	51.821	50.612	48.956	48.461	44.425	43.078	42122
Kiribati	146	187	193	127	111	103	129	110	208	121	68	91	100	99	253		327
Lao People's Democratic Repub	7.630		4.706	4.700	6.528	4.258	1.514	3.468	7.279	2.952	1.826	1.951	994	2.093	1.135	1.227	1440
Malaysia/Malaisie	11.218	10.970	11.944	11.634	10.577	10.569	10.735	11.068	10.944	10.686	11.702	11.059	11.420	12.285	11.708	11.988	12902
Marshall Islands/Iles Marshall	6	7	12	15	12	15	37	32	11	7		26	52	61		56	
Micronesia/Micronésie		67	73	75	66	60	98	77	68	367	350	111	151	173		94	
Mongolia/Mongolie	1.161	1.094	1.340	1.512	1.651	2.992	2.818	2.432	2.541	2.237	1.577	1.611	1.502	1.433	1.730	3.010	2987
Nauru	0	2	8	0	0	0	8	6	8	0	7			4			
New Zealand/Nouvelle-Zélande	474	448	437	415	404	359	320	296	295	303	348	335	317	274	352	307	323
Niue	1	0	2	3	1	0	5	0	3		0	2	1	2	2	2	
Palau	17	10	17	14	20	26	13	38	17	3		6	4	25	41	19	5
Papua N.Guinea/Pap.N.-Guinée	2.525	2.508	2.742	2.955	3.505	3.453	2.877	2.251	4.261	3.396	2.497	3.401	2.540	7.451	5.335	8.041	5087
Philippines	112.307	116.821	104.715	106.300	151.863	151.028	153.129	163.740	183.113	217.272	317.008	207.371	236.172	178.134	180.044	235.496	276295
Republic of Korea/Rép. Corée	89.803	98.532	100.878	91.572	85.669	87.169	88.789	87.419	74.460	70.012	63.904	57.864	48.070	46.999	38.155	33.196	31134
Samoa	59	49	43	41	37	43	65	29	29	37	44	44	26	49	45	51	37
Singapore/Singapour	2.710	2.425	2.179	2.065	2.143	1.952	1.760	1.616	1.666	1.617	1.591	1.841	1.778	1.830	1.677	1.889	737
Solomon Islands/Iles Salomon	266	313	324	302	337	377	292	334	372	488	382	309	364	367	332	352	289
Tokelau	0	1	0	0	0	2	0	9	1	0	1	1	1		0	2	0
Tonga	64	49	45	50	54	49	35	24	14	36	23	20	29	33	23	20	22
Tuvalu	33	18	12	23	9	32	27	22	24	26	23	30	30	28	19	36	
Vanuatu	178	92	173	196	188	124	131	90	118	144	140	230	193	114	152	79	126
Viet Nam	43.062	43.506	51.206	43.185	43.875	46.941	47.557	55.505	52.463	52.270	50.203	59.784	56.594	52.994	51.763	55.739	74711
Other territories:																	
American Samoa/Samoa am.	2	6	6	8	12	5	8	9	13	5	9	3	1	4	4		0
Commonwealth of Northern Mariana Islands	26	75	74	58	64	16	56	27	28	28		67		46	48		
French Polynesia/Polynésie fra	76	66	65	78	80	78	85	80	63	73	59	49	83	82	89		86
Guam	55	41	49	48	54	37	49	34	41	75		60	70	94			
China, Hong Kong SAR	8.065	7.729	7.527	7.301	7.843	7.545	7.432	7.269	7.021	6.704	6.510	6.283	6.545	6.537	6.319	6.212	6501
Macau/Macao	1.101	585	233	455	671	571	420	389	320	274	343	329	294	285		354	455
New Caledonia/Nouvelle-Calédonie	108	128	120	171	144	104	98	74	111	128	143	140	140	149	132		205
Wallis & Futuna	23	24	5	17	14	14		34	1	30		22	4	11	11		8
Total	356.482	355.345	461.572	462.193	541.001	615.179	651.853	655.019	716.450	741.916	893.992	760.870	754.466	718.848	724.380	774.852	940.366
No. countries/No. de pays	33	33	36	36	36	36	35	36	36	35	32	31	35	33	33	27	30
% of countries reporting	92	92	100	100	100	100	97	100	97	89	86	97	92	92	75	83	

Western Pacific Region - Case notification rates (per 100 000 population), 1980-1996

COUNTRY / PAYS	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Australia/Australie	10,0	9,4	8,5	8,0	8,4	7,0	5,7	5,6	5,8	5,7	6,0	5,5	5,8	5,6	5,9	6,0	
Brunei Darussalam/Brunéi Daru	101,6	142,5	118,9	129,6	116,4	105,3	91,0	79,1	51,4	51,0	55,6	66,9	58,4				
Cambodia/Cambodge	39,6	30,1	120,6	107,9	140,5	134,2	132,1	112,8	128,5	92,2	73,5	119,6	171,8	137,0	152,2	145,6	144,6
China/Chine			9,6	11,3	14,4	21,2	24,4	22,8	27,2	27,3	32,5	29,5	27,1	28,8	30,1	29,3	38,1
Cook Islands/Iles Cook	205,6	55,6	111,8	170,6	117,6	211,8	100,0	94,1	111,1	5,6	5,6	42,1	63,2	31,6	21,1	10,5	
Fiji/Fidji	33,1	27,8	24,6	27,4	23,9	32,9	28,1	24,3	22,7	30,3	31,1	33,6	32,2	24,1	36,3	25,9	25,1
Japan/Japon	60,7	56,0	53,9	52,0	51,2	48,5	46,7	46,3	44,3	43,1	41,9	40,8	39,4	38,9	35,6	34,4	33,6
Kiribati	239,3	301,6	306,3	198,4	168,2	153,7	189,7	159,4	297,1	170,4	94,4	123,0	133,3	130,3	328,6	408,8	
Lao PDR	238,1		141,3	137,9	186,7	118,5	40,9	90,8	184,7	72,5	43,5	45,0	22,2	45,5	23,9	25,1	28,6
Malaysia/Malaisie	81,5	77,7	82,5	78,3	69,3	67,4	66,7	66,9	64,4	61,3	65,4	60,3	60,8	63,8	59,4	59,5	62,7
Marshall Islands/Iles Marshall	17,1	19,4	32,4	39,5	30,8	37,5	90,2	76,2	25,0	15,6		54,2	106,1	122,0		98,2	
Micronesia/Micronésie			19,9	21,2	21,3	18,2	16,0	25,3	19,2	16,3	85,5	79,4	24,6	32,8	36,7	74,6	
Mongolia/Mongolie	69,8	64,0	76,2	83,7	88,9	156,7	143,6	120,6	122,6	105,2	72,4	72,4	66,1	61,8	73,2	122,2	118,8
Nauru	25,0		100,0				88,9	66,7	88,9		70,0				36,4		
New Zealand/Nouvelle-Zélande	15,2	14,3	13,8	13,0	12,5	11,1	9,8	9,0	8,9	9,1	10,4	9,9	9,2	7,9	10,0	8,6	9,0
Niue	33,3		66,7	100,0	33,3		250,0		150,0			100,0	50,0	100,0	100,0	100,0	100,0
Palau	141,7	83,3	130,8	107,7	153,8	185,7	92,9	271,4	113,3	20,0		37,5	25,0	156,3	241,2	111,8	29,4
Papua N.Guinea/Pap.N.-Guinée	81,8	79,4	85,0	89,6	104,0	100,3	81,8	62,6	116,0	90,4	65,0	86,6	63,2	181,3	126,9	187,0	115,6
Philippines	232,4	235,9	206,2	204,1	284,4	276,3	273,9	286,7	314,1	365,0	521,6	334,0	372,4	274,9	272,0	347,1	398,8
Republic of Korea/Rép. Corée	235,6	254,7	257,1	230,1	212,5	213,6	215,2	209,8	177,0	164,9	149,1	133,7	110,0	106,5	85,6	73,9	68,7
Samoa	37,1	30,8	26,9	25,6	23,1	26,9	40,4	18,0	18,0	22,8	27,2	26,8	15,8	29,3	26,6	30,9	22,3
Singapore/Singapour	112,2	99,3	88,1	82,6	84,7	76,3	68,0	61,8	63,0	60,4	58,8	67,3	64,3	65,5	59,4	56,8	21,8
Solomon Islands/Iles Salomon	117,2	133,2	133,3	119,8	129,1	139,6	104,7	115,6	124,4	157,4	119,4	93,4	106,1	103,7	90,7	93,1	73,9
Tokelau	50,0				100,0			450,0	50,0		50,0	50,0	50,0	50,0		100,0	
Tonga	69,6	53,3	49,5	54,9	59,3	53,8	38,0	25,8	14,9	37,9	24,0	20,6	29,9	33,7	23,5	20,4	22,4
Tuvalu	412,5	225,0	150,0	287,5	112,5	400,0	337,5	275,0	300,0	288,9	255,6	333,3	333,3	311,1	211,1	360,0	
Vanuatu	152,1	76,7	140,7	155,6	145,7	93,9	96,3	64,7	83,1	98,6	94,0	150,3	122,9	70,8	92,1	46,7	72,4
Viet-Nam	80,2	79,2	91,2	75,3	74,8	78,4	77,7	88,8	82,2	80,1	75,3	87,7	81,2	74,3	71,0	75,5	99,4
Other territories:																	
American Samoa/Samoa am.	6,3	18,2	17,1	22,2	31,6	12,8	19,5	21,4	29,5	11,1	19,1	6,3	2,0	7,8	7,5		
Mariana Islands/Iles Mariannes	162,5	468,8	462,5	341,2	336,8	69,6	200,0	79,4	71,8	65,1		142,6		97,9	100,0		
French Polynesia/Polynésie frai	50,3	42,3	40,6	47,3	47,3	44,8	47,5	43,7	33,5	37,8	29,9	24,3	40,3	38,9	41,4		38,6
Guam	51,4	37,6	43,8	42,1	46,2	31,1	40,2	27,2	32,0	57,3		42,9	48,6	63,9			
China, Hong Kong SAR	160,1	150,3	143,8	137,3	145,5	138,3	134,7	130,5	124,9	118,4	114,1	109,4	113,3	112,5	108,2	101,5	105,0
Macau/Macao	455,0	235,9	91,4	172,3	245,8	201,1	142,9	127,5	100,9	83,0	100,3	92,4	79,5	74,2		82,3	103,4
New Caledonia/Nouvelle-Calédonie	75,5	88,3	81,6	114,0	94,7	67,1	62,4	46,3	68,5	77,6	85,1	82,4	80,9	85,1	74,2		111,4
Wallis & Futuna	209,1	218,2	41,7	141,7	116,7	116,7		261,5	7,7	230,8		157,1	28,6	78,6	78,6		53,3
Total	114,0	113,1	34,2	33,8	39,0	43,7	45,6	45,1	48,6	49,6	58,9	49,5	48,5	45,7	45,5	48,2	58,6

Western Pacific Region - New Smear Positive Cases

COUNTRY / PAYS	No. of cases/No. de cas				Rate/Taux*			
	1993	1994	1995	1996	1993	1994	1995	1996
Australia/Australie	557				3,2			
Brunei Darussalam/Brunéi Daru	68				24,8			
Cambodia/Cambodge		11.058	11101	12065		110,9	110,7	117,4
China/Chine	84.898	104.729	134488	168270	7,1	8,7	11,0	13,7
Cook Islands/Iles Cook	4	1	0		21,1	5,3	0,0	
Fiji/Fidji	58	60	68	69	7,7	7,8	8,7	8,7
Japan/Japon	17.890	16.770	14367	12867	14,4	13,4	11,5	10,3
Kiribati	99	184		29	130,3	239,0		36,3
Lao PDR	765	752	726	886	16,6	15,9	14,9	17,6
Malaysia/Malaisie	6.954	6.861	6688	7271	36,1	34,8	33,2	35,3
Marshall Islands/Iles Marshall	12			17	24,0			29,8
Micronesia/Micronésie	8	15		10	1,7	3,2		7,9
Mongolia/Mongolie	86	145	622	1171	3,7	6,1	25,3	46,6
Nauru		2			18,2			
New Zealand/Nouvelle-Zélande	91	61	47	76	2,6	1,7	1,3	2,1
Niue	0	0	1	1		50,0	50,0	
Palau	8	11	9	4	50,0	64,7	52,9	23,5
Papua N.Guinea/Pap.N.-Guinée	1.653	573	1652	652	40,2	13,6	38,4	14,8
Philippines	92.279	87.401	94768	86695	142,4	132,0	139,7	125,1
Republic of Korea/Rép. Corée	16.630	13.266	11754	11420	37,7	29,8	26,2	25,2
Samoa	21	18	15	10	12,6	10,7	9,1	6,0
Singapore/Singapour	513	861	455	208	18,4	30,5	13,7	6,1
Solomon Islands/Iles Salomon	155	114	109	90	43,8	31,1	28,8	23,0
Tokelau		0	1	0		50,0	0,0	
Tonga	16	17	9	16	16,3	17,3	9,2	
Tuvalu	2	1	6		22,2	11,1	60,0	
Vanuatu		62	30	50		37,6	17,8	0,1
Viet-Nam	36.534	35.813	37550	48911	51,2	49,1	50,9	65,1
Total	261.880	278.923	314.621	353.174	16,6	17,5	19,6	22,0

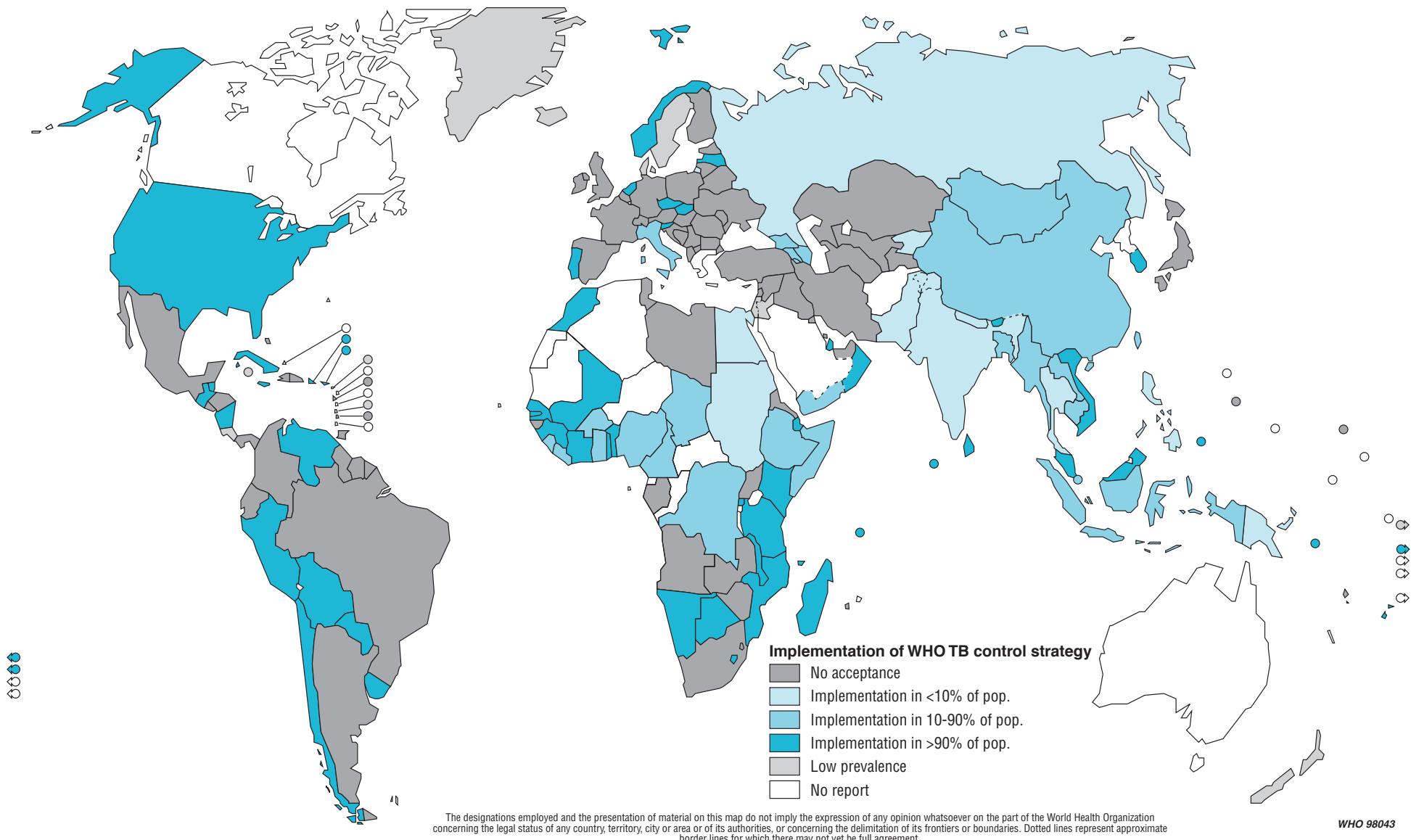
* per 100 000 population/pour 100 000 habitants

ANNEX 4

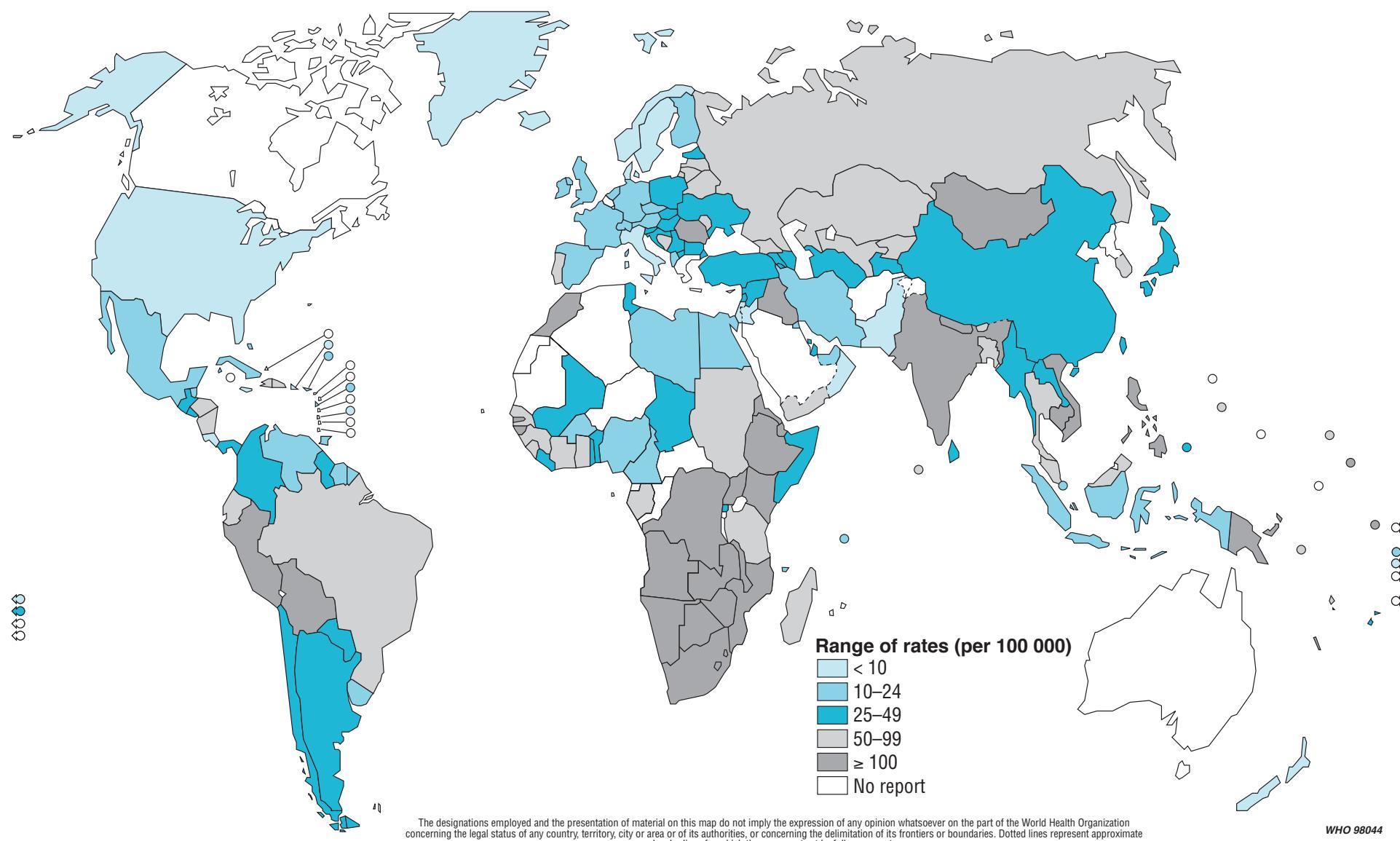
World maps

- 1 Implementation status of DOTS, 1996
- 2 Tuberculosis notification rates, 1996
- 3 Estimated tuberculosis incidence rates, 1996

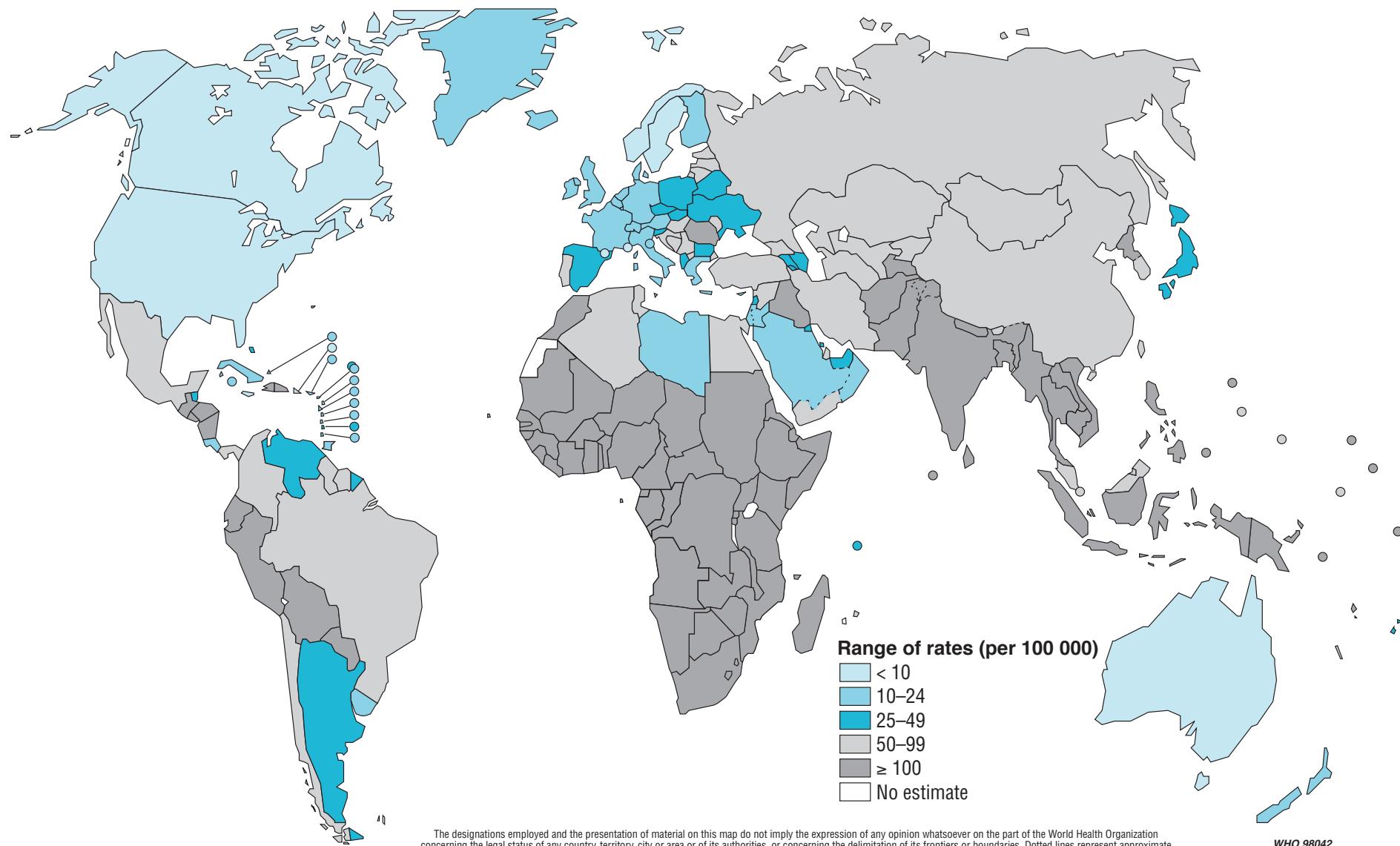
1. Implementation status of DOTS, 1996



2. Tuberculosis notification rates, 1996



3. Estimated tuberculosis incidence rates, 1996



ANNEX 5

**1995 case notifications
as reported to WHO in 1996
and
1995 cases registered
for treatment as reported
to WHO in 1997**

Comparison between case notifications for 1995 as reported to WHO in 1996 and cases registered for treatment for 1995 as reported to WHO in 1997

Country	No. of notified cases	No. of cases registered	% registered out of notified	Country	No. of notified cases	No. of cases registered	% registered out of notified
American Samoa	-	4		Marshall Islands	-	163	
Argentina	5.698	5.707	100	Mexico	9.220	9.220	100
Armenia	436	507	116	Micronesia, (Fed. States of)	7	10	143
Azerbaijan	669	538	80	Mongolia	622	769	124
Bangladesh	20.524	10.867	53	Morocco	14.171	14.171	100
Belize	22	29	132	Mozambique	10.566	10.566	100
Benin	1.839	1.785	97	Myanmar	8.681	7.872	91
Bhutan	367	433	118	Nepal	8.591	8.053	94
Bolivia	7.010	7.010	100	Netherlands	575	715	124
Bosnia and Herzegovina	865	865	100	New Caledonia	26	32	123
Botswana	1.903	2.060	108	Nicaragua	1.568	1.536	98
Brazil	45.004	45.650	101	Nigeria	9.476	9.476	100
Burkina Faso	1.028	1.200	117	Norway	62	87	140
Burundi	1.121	1.798	160	West Bank and Gaza Strip	9	13	144
Cambodia	11.101	4.363	39	Oman	107	93	87
Cameroon	2.896	2.740	95	Pakistan	2.578	802	31
Chad	2.002	529	26	Palau	9	9	100
Chile	1.624	1.111	68	Panama	1.066	1.388	130
China	134.488	131.413	98	Papua New Guinea	1.652	4.904	297
Comoros	105	113	108	Paraguay	748	748	100
Congo (Democratic Rep.)	20.084	16.247	81	Peru	32.096	28.185	88
Cuba	834	834	100	Philippines	94.768	90.297	95
Cyprus	12	6	50	Portugal	2.019	1.240	61
Czech Republic	487	487	100	Puerto Rico	126	128	102
Djibouti	-	1.751		Qatar	59	43	73
Dominican Republic	2.187	2.007	92	Republic of Korea	11.754	11.675	99
Ecuador	5.236	5.236	100	Romania	10.469	11.597	111
Egypt	8.803	2.118	24	Russian Federation	37.512	54	0
Ethiopia	6.080	5.042	83	Saint Kitts and Nevis	4	5	125
Fiji	68	73	107	Samoa	15	15	100
French Polynesia	-	33		Senegal	5.421	5.421	100
Gabon	486	249	51	Seychelles	6	9	150
Gambia	778	686	88	Sierra Leone	1.454	1.315	90
Georgia	221	221	100	Singapore	455	122	27
Ghana	2.638	361	14	Slovakia	788	807	102
Guatemala	2.368	2.368	100	Slovenia	303	270	89
Guinea	2.263	2.263	100	Solomon Islands	109	368	338
Guinea-Bissau	956	959	100	Somalia	1.739	1.278	73
Guyana	85	296	348	South Africa	1.408	28.209	2003
Haiti	-	3.081		Sri Lanka	3.049	3.058	100
Honduras	2.438	2.226	91	Sudan	6.280	8.326	133
Iceland	2	2	100	Suriname	-	51	
India	264.618	264.722	100	Syrian Arab Republic	1.295	1.295	100
Indonesia	31.768	3.018	10	Tajikistan	1.042	348	33
Iraq	11.553	11.553	100	United Rep. of Tanzania	19.955	19.955	100
Italy	1.413	295	21	TFYR Macedonia	319	222	70
Ivory Coast	8.254	7.221	87	Thailand	20.273	20.273	100
Jamaica	91	93	102	Togo	887	856	97
Jordan	187	193	103	Tonga	9	20	222
Kenya	13.934	6.470	46	Trinidad and Tobago	76	78	103
Kiribati	-	31		Turkmenistan	544	544	100
Kuwait	175	175	100	Uganda	13.678	15.301	112
Lao People's Dem. Rep.	726	343	47	Ukraine	8.263	9.564	116
Latvia	504	475	94	Uruguay	349	370	106
Lebanon	197	200	102	USA	8.013	8.047	100
Lesotho	1.361	1.788	131	Uzbekistan	2.735	2.598	95
Liberia	1.154	1.595	138	Vanuatu	30	13	43
Libyan Arab Jamahiriya	-	626		Venezuela	3.056	3.056	100
Luxembourg	-	37		Viet Nam	37.550	38.114	102
Madagascar	8.026	9.101	113	Virgin Islands (USA)	2	2	100
Malawi	6.293	6.293	100	Yemen	3.681	3.797	103
Malaysia	6.688	13.398	200	Fed. Rep. of Yugoslavia	1.497	1.956	131
Maldives	114	114	100	Zambia	8577	5957	69
Mali	1.866	1.290	69	Zimbabwe	8965	9702	108
Malta	5	5	100				0

ANNEX 6

Change in DOTS coverage, treatment success, and DOTS detection rate, 1996 and 1997 surveys

**Change in DOTS coverage, treatment success, and DOTS detection rate
as reported to WHO in 1996 and 1997**

Country	Coverage		Treatment success		Detection rate	
	1995	1996	1995	1996	1995	1996
American Samoa		100		100		-
Armenia	49	60		83	12	29
Azerbaijan	30	12			6	11
Bangladesh	41	65	73	71	8	17
Belize		100		52		51
Benin	97	100	76	73	54	55
Bhutan	100	100	71	97	50	42
Bolivia	50	100	66	62	31	61
Botswana	100	100	72	67	71	90
Burkina Faso	44	80		25	5	10
Burundi	100	100	44	45	11	15
Cambodia	60	80	84	91	102	89
Cameroon		13				3
Chad	70	47	63	47	41	18
Chile	100	100	83	79	37	34
China	49	60	94	96	19	29
Comoros	100	100	94	90	25	26
Congo	100		69		67	
Democratic Rep. of the Congo	47	51	71	80	27	34
Cook Islands		100				-
Cuba	100	100	86	90	84	84
Czech Republic	100	100	73	60	42	51
Djibouti		100		75		108
Egypt	54	3	52		19	0
Equatorial Guinea	100		89		79	
Ethiopia	39	39	71	60	15	23
Fiji	40	100	90	86	48	48
French Polynesia		100		67		62
Gambia	100	100	74	76	91	87
Georgia	40	40		58	13	28
Ghana	60	19		54	15	14
Guatemala	70	100	62	61	31	43
Guinea	100	100	78	78	40	51
India	2	2	83	79	0	1
Indonesia	6	14	94	91	2	6
Italy		21		80		9
Ivory Coast	100	100	17	68	67	72
Jamaica		100		67		67
Kenya	15	100	73	75	80	97
Kyrgyzstan		5				4
Lao People's Dem. Rep		42		70		17
Latvia		100		61		73
Lesotho	100	100	56	47	58	76
Liberia		35		79		66
Macau	100	100	75		71	103
Madagascar	69	100	51	55	30	39
Malawi	100	100	22	71	82	87
Malaysia	100	100			108	117
Maldives	100	100	95	97	80	75
Mali	57	100	68	59	13	15
Malta		100		100		29
Mauritius	100		96		52	
Micronesia, (Fed. States of)	100	100	64	80	21	29

**Change in DOTS coverage, treatment success, and DOTS detection rate
as reported to WHO in 1996 and 1997**

Country	Coverage		Treatment success		Detection rate	
	1995	1996	1995	1996	1995	1996
Mongolia	4	52	59	78	15	62
Morocco	100	100	86	84	93	94
Mozambique	97	100	67	39	70	69
Myanmar		59		66		23
Namibia	20	100			25	99
Nepal		8				7
Netherlands	100	100	81	72	63	39
New Caledonia	100	100	62	75	35	35
Nicaragua	95	100	81	80	75	82
Nigeria	47	30	65	49	8	14
Norway		100		77		66
Oman		100		84		52
Pakistan	2	8	74	70	1	2
Palau	100	100	64	67	47	21
Papua New Guinea		6		60		4
Paraguay	30	100	46	51	6	24
Peru	100	100	81	83	119	99
Philippines	4	2	80		0	1
Portugal	100	100	48	69	76	73
Puerto Rico		100		65		82
Qatar	100	100	83	81	47	34
Republic of Korea	50	100	71	76	41	80
Russian Federation		2		65		0
Rwanda	100	100			29	32
Samoa	89	100	50	80	68	45
San Marino		100				-
Senegal	94	100	35	39	85	93
Seychelles		100		89		69
Sierra Leone	25	87	75	69	45	69
Singapore	70	40	88	86	36	17
Slovakia	100	100	96	64	82	79
Slovenia		100		90		73
Solomon Islands		100		65		43
Somalia		15		86		24
Sri Lanka	100	100	77	79	22	22
Sudan		2				2
United Rep. of Tanzania	98	100	80	73	77	83
Thailand		1				0
Togo	86	100	45	60	19	20
Tonga	100	100	89	75	50	89
Uganda	100				50	
Uruguay	100	100	83	68	121	148
USA		100		75		71
Venezuela	100	100	68	74	69	72
Viet Nam	50	95	91	91	33	67
Virgin Islands (USA)		100		50		100
Yemen		15				10

ANNEX 7

Global Profile 1997 (updated)

This Global Profile is an updated version of the “1997 Global Profile” published in “Global Tuberculosis Control: WHO Report 1997”. This is not the most recent set of data on TB worldwide (for it, see Annex 2).

Global Profile

As of 05-nov-98

Case Finding (1995)

	Population Covered		Notified Cases					Estimated Cases	Case detection of new ss+ cases	New ss+ cases/ new pulm. cases
			All types			New ss+				
	No.	% of total	No.	Rate	% of total	No.	Rate	No.	%	%
	a	b	c	d	e	f	g	h	f/h	i
AFRO	DOTS	283.611.645	48,9	304.439	107,3	65,2	153.322	54,1	565.209	61,2
	non-DOTS	295.029.355	50,9	162.687	55,1	34,8	34.855	11,8		25,2
	no report	792.000	0,1							
	Total	579.433.000	100,0	467.126	80,7	99,0	188.177	32,5		33,3
AMRO	DOTS	90.242.950	11,7	67.786	75,1	28,0	44.914	49,8	205.558	76,9
	non-DOTS	644.694.050	83,4	174.736	27,1	72,0	91.815	14,2		61,2
	no report	38.205.000	4,9							
	Total	773.142.000	100,0	242.522	33,0	100,0	136.729	17,9		66,5
EMRO	DOTS	103.185.380	22,9	56.133	54,4	37,7	24.696	23,9	240.065	64,9
	non-DOTS	307.003.620	68,1	92.908	30,3	62,3	36.733	12,0		48,9
	no report	40.727.000	9,0							
	Total	450.916.000	100,0	149.041	36,3	99,0	61.429	15,0		25,6
EURO	DOTS	47.116.980	5,4	13.544	28,7	4,7	4.259	9,0	192.629	42,1
	non-DOTS	798.024.220	92,3	275.173	34,5	95,3	100.374	12,6		41,7
	no report	19.724.800	2,3							
	Total	864.866.000	100,0	288.717	34,2	99,0	104.633	12,4		54,3
SEARO	DOTS	93.617.420	6,6	29.979	32,0	2,2	18.142	19,4	1.375.873	69,6
	non-DOTS	1.295.832.580	91,8	1.350.362	104,2	97,8	339.843	26,2		26,7
	no report	22.097.000	1,6							
	Total	1.411.547.000	100,0	1.380.341	99,3	99,0	357.985	25,8		26,0
WPRO	DOTS	690.080.937	42,9	233.039	33,8	30,1	134.332	19,5	682.934	63,7
	non-DOTS	916.860.063	57,0	542.043	59,1	69,9	180.325	19,7		34,6
	no report	879.000	0,1							
	Total	1.607.820.000	100,0	775.082	48,2	99,0	314.657	19,6		46,1
GLOBAL	DOTS	1.307.855.312	23,0	704.920	53,9	21,3	379.665	29,0	3.262.268	63,9
	non-DOTS	4.257.443.888	74,9	2.597.909	61,0	78,7	783.945	18,4		32,7
	no report	122.424.800	2,2							
	Total	5.687.724.000	100,0	3.302.829	59,3	99,0	1.163.610	20,9		35,7



Treatment Outcomes (1994)

		New ss+ cases									Retreatment cases								
		Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)	Registered	% not eval.	Cured (%)	Comp. (%)	Def. (%)	Failed (%)	Dead (%)	Trans. (%)	treatm. success (%)
		<i>j</i>	<i>k</i>	<i>l</i>	<i>m</i>	<i>n</i>	<i>o</i>	<i>p</i>	<i>q</i>	<i>r</i>	<i>s</i>	<i>t</i>	<i>u</i>	<i>v</i>	<i>w</i>	<i>x</i>	<i>y</i>	<i>z</i>	<i>aa</i>
AFRO	DOTS	78.753	17,4	47,0	11,3	11,3	1,1	6,2	5,6	58,4	7.158	19,7	37,9	15,3	11,8	2,8	7,4	5,2	53,2
	non-DOTS	11.823	8,0	14,6	54,4	12,8	1,5	4,4	4,4	69,0									
AMRO	DOTS	46.140	8,7	61,1	15,4	7,4	1,6	3,2	2,7	76,5	853	11,7	54,5	7,9	14,1	2,5	5,0	4,3	62,4
	non-DOTS	34.805	32,0	26,7	24,0	9,7	1,8	2,8	3,1	50,7									
EMRO	DOTS	18.091	0,9	73,6	8,0	7,0	1,3	2,0	7,1	81,6	22		86,4			9,1	4,5		86,4
	non-DOTS	16.804	3,8	60,9	16,2	13,4	1,7	0,6	3,5	77,1									
EURO	DOTS	2.854	17,8	44,5	23,3	3,6	2,2	4,9	3,6	67,8	1.193	46,4	27,2	13,1	2,9	3,2	5,1	2,2	40,2
	non-DOTS	28.315	16,4	59,8	7,3	4,1	6,7	3,9	1,8	67,1									
SEARO	DOTS	7.742	1,0	74,2	5,4	9,9	1,4	3,4	4,5	79,7	463		75,6	1,1	6,0	3,2	5,2	8,9	76,7
	non-DOTS	171.511	84,6	7,5	2,5	2,1	0,2	0,5	2,7	10,0									
WPRO	DOTS	94.882	2,4	87,7	2,1	1,9	1,8	2,0	2,1	89,8	48.507	0,9	85,8	3,1	2,2	4,6	3,0	0,4	88,9
	non-DOTS	101.194	2,8	75,6	9,4	5,1	2,8	1,8	2,6	85,0									
GLOBAL	DOTS	248.462	8,4	67,9	8,3	6,5	1,5	3,6	3,8	76,2	58.196	4	78,1	4,9	3,6	4,3	3,6	1,2	83,0
	non-DOTS	364.452	45,3	35,0	9,1	4,7	1,7	1,5	2,7	44,1									



WHO TB Control Categories (1995)

Regions	No. of countries	No. of countries reporting	No. of countries in category					Proportion of population in category (%)						
			0	1	2	3	4	5	0	1	2	3	4	5
AFRO	48	45	3	14	1	12	18		0,1	14,4	7,2	53,6	24,7	
AMRO	47	38	9	16		3	6	13	1,1	46,1		3,0	10,1	39,7
EMRO	23	19	4	10	1	3	3	2	9,0	23,1	30,2	29,6	7,2	0,8
EURO	52	44	8	31		3	4	6	2,3	82,2		1,9	4,7	8,8
SEARO	10	9	1	3	2	1	3		1,6	8,8	79,8	8,4	1,4	
WPRO	36	28	8	10	3	7	6	2	0,1	8,8	4,4	84,2	1,3	1,3
GLOBAL	216	183	33	84	7	29	40	23	1,6	26,8	24,2	34,4	5,9	7,2

