

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Algeria

Countrywide

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	30,350,007	Year N.T.P was established	1969
Notification all cases (rate)	60.4 /100,000	Year of Rifampicin introduction	1980
Estimated incidence (all cases)	65.2 /100,000	Year of Isoniazid introduction	1952
Notification new sputum smear +	7998	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	26.3 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	87.3 %	Use of Directly Observed Therapy	Yes 100 %
Retreatment cases	635	During continuation phase	No
Retreatment as % of NTP	7.9 %	Use of Fixed Dose Combination	Yes 100 %
Estimated HIV positive TB cases	.30 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	Cluster
Culture Media	Löwenstein-Jensen
DST Method	Proportion
Supranational Reference Laboratory	Institut Pasteur, Centre National de Référence des Mycobacteries, Paris, France

*Notations to accompany profile: Estimated HIV positive TB cases is a WHO estimate

Retreatment indicates sputum smear positive pulmonary cases only

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Andorra

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	66,000	Year N.T.P was established	
Notification all cases (rate)	/100,000	Year of Rifampicin introduction	
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction	
Notification new sputum smear +	1	Use of Standardized Regimens	
Notification new sputum smear + (rate)	/100,000	% Use of Short Course Chemotherapy	%
Treatment Success	%	Use of Directly Observed Therapy	%
Retreatment cases	0	During continuation phase	
Retreatment as % of NTP	%	Use of Fixed Dose Combination	%
Estimated HIV positive TB cases	.34 %	Treatment in private sector	

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	
DST Method	
Supranational Reference Laboratory	Servicio de Microbiología, Hospital Universitari Vall d'Hebron, Barcelona, Spain

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Argentina

Countrywide

1999

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	36,577,000	Year N.T.P was established	1960
Notification all cases (rate)	32.5 /100,000	Year of Rifampicin introduction	1974
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction	1960
Notification new sputum smear +	5234	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	14.3 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	74.3 %	Use of Directly Observed Therapy	Yes 51.6 %
Retreatment cases	NA	During continuation phase	Yes
Retreatment as % of NTP	18 %	Use of Fixed Dose Combination	Yes 90 %
Estimated HIV positive TB cases	8.0 %	Treatment in private sector	Cat 2

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	Yes
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	Cluster
Culture Media	Löwenstein-Jensen and BACTEC
DST Method	Proportion and BACTEC
Supranational Reference Laboratory	Instituto Panamericano de Proteccion de Alimentos y Zoonosis (INPPAZ) Buenos Aires, Argentina

*Notations to accompany profile:

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Australia

Countrywide

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	19,383,424	Year N.T.P was established	1948
Notification all cases (rate)	/100,000	Year of Rifampicin introduction	early 1970s
Estimated incidence (all cases)	5.1 /100,000	Year of Isoniazid introduction	early 1950s
Notification new sputum smear +	261	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	1.3 /100,000	% Use of Short Course Chemotherapy	Yes >95 %
Treatment Success	%	Use of Directly Observed Therapy	Yes >95 %
Retreatment cases		During continuation phase	50%
Retreatment as % of NTP	%	Use of Fixed Dose Combination	No %
Estimated HIV positive TB cases	2.56 %	Treatment in private sector	Cat 2

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Various
DST Method	Radiometric
Supranational Reference Laboratory	Queensland Mycobacterium Reference Laboratory, Australia

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

Only 29.6 % of isolates tested for SM.

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Austria

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	8,080,000		Year N.T.P was established
Notification all cases (rate)	15	/100,000	Year of Rifampicin introduction
Estimated incidence (all cases)		/100,000	Year of Isoniazid introduction
Notification new sputum smear +			Use of Standardized Regimens
	324		
Notification new sputum smear + (rate)	4	/100,000	% Use of Short Course Chemotherapy
Treatment Success		%	
Retreatment cases			Use of Directly Observed Therapy
	25		
Retreatment as % of NTP		%	
Estimated HIV positive TB cases	6.92	%	During continuation phase
			Use of Fixed Dose Combination
			Treatment in private sector
			Category 1: virtually all TB patients public sector Category 2: <15% in private sector Category 3: 15% or more in private sector
			TB drugs available on the private market

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	
DST Method	
Supranational Reference Laboratory	

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Belgium

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	10,239,085	Year N.T.P was established	
Notification all cases (rate)	12.8 /100,000	Year of Rifampicin introduction	1967
Estimated incidence (all cases)	12.8 /100,000	Year of Isoniazid introduction	
Notification new sputum smear +	361	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	3.5 /100,000	% Use of Short Course Chemotherapy	%
Treatment Success	75.5 %	Use of Directly Observed Therapy	Yes 2 %
Retreatment cases	124	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes 4 %
Estimated HIV positive TB cases	4.89 %	Treatment in private sector	Cat 3

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market Rx required

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen and BACTEC
DST Method	Proportion
Supranational Reference Laboratory	Prince Leopold Institute of Tropical Medicine, Antwerp, Belgium

***Notations to accompany profile:** **Estimated HIV positive TB cases is a WHO estimate**

The combined column includes patients with unknown treatment history

Streptomycin is not routinely tested

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Bosnia Herzegovina

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	3,977,000	Year N.T.P was established	1998	
Notification all cases (rate)	60 /100,000	Year of Rifampicin introduction	1974	
Estimated incidence (all cases)	61 /100,000	Year of Isoniazid introduction	1957	
Notification new sputum smear +	759	Use of Standardized Regimens	Yes	
Notification new sputum smear + (rate)	16 /100,000	% Use of Short Course Chemotherapy	Yes 90 %	
Treatment Success	84 %	Use of Directly Observed Therapy	Yes 90 %	
Retreatment cases	145	During continuation phase	Yes	
Retreatment as % of NTP	12 %	Use of Fixed Dose Combination	No %	
Estimated HIV positive TB cases	0.14 %	Treatment in private sector	Cat 1	

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	1st line occasionally
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen
DST Method	Proportion
Supranational Reference Laboratory	National Reference Center for Mycobacteria, Borstel, Germany

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

The combined column includes patients with unknown treatment history

Culture/DST on all cases, but SS and culture in 6 labs, and DST in 3 labs only.

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Botswana

Countrywide

2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	1,680,863	Year N.T.P was established	1975
Notification all cases (rate)	442 /100,000	Year of Rifampicin introduction	1986
Estimated incidence (all cases)	620 /100,000	Year of Isoniazid introduction	NA
Notification new sputum smear +	3128	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	186 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	71 %	Use of Directly Observed Therapy	Yes 100 %
Retreatment cases	306	During continuation phase	Yes
Retreatment as % of NTP	7.2 %	Use of Fixed Dose Combination	No %
Estimated HIV positive TB cases	60.0 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	8 Months
Target Area	Countrywide
Sampling Method	All diagnostic centers
Culture Media	BACTEC MGIT and Löwenstein-Jensen
DST Method	Resistance ratio method
Supranational Reference Laboratory	Centers for Disease Control and Prevention (CDC), Atlanta, United States of America

***Notations to accompany profile:**

- Estimated HIV positive TB cases is a WHO estimate
- Retreatment indicates sputum smear positive pulmonary cases only
- Preliminary data

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Cambodia

Countrywide

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	11,739,999	Year N.T.P was established	1980
Notification all cases (rate)	164 /100,000	Year of Rifampicin introduction	1994
Estimated incidence (all cases)	573 /100,000	Year of Isoniazid introduction	1980
Notification new sputum smear +	14361	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	122 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	91 %	Use of Directly Observed Therapy	Yes >90 %
Retreatment cases	833	During continuation phase	No
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes 100 %
Estimated HIV positive TB cases	12.24 %	Treatment in private sector	Cat 3

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All drugs
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	7 Months
Target Area	Countrywide
Sampling Method	Proportionate Cluster
Culture Media	Ogawa and Löwenstein-Jensen
DST Method	Proportion
Supranational Reference Laboratory	Research Institute of Tuberculosis (RIT), Tokyo, Japan

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Chile

Countrywide

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	15,401,952	Year N.T.P was established	1973
Notification all cases (rate)	19.7 /100,000	Year of Rifampicin introduction	1970
Estimated incidence (all cases)	20.3 /100,000	Year of Isoniazid introduction	1955
Notification new sputum smear +	1355	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	8.8 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	82 %	Use of Directly Observed Therapy	Yes >95 %
Retreatment cases	234	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	No %
Estimated HIV positive TB cases	.63 %	Treatment in private sector	Cat 2

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	6 Months
Target Area	Countrywide
Sampling Method	Cluster
Culture Media	Löwenstein-Jensen
DST Method	Proportion method and MGIT 960
Supranational Reference Laboratory	Instituto de Salud Pública de Chile, Santiago, Chile

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

China

Henan

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	94,350,000	Year N.T.P was established	1991
Notification all cases (rate)	38.5 /100,000	Year of Rifampicin introduction	1972
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction	1951
Notification new sputum smear +	13942	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	14.8 /100,000	% Use of Short Course Chemotherapy	Yes %
Treatment Success	%	Use of Directly Observed Therapy	Yes %
Retreatment cases	1201	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes 42 %
Estimated HIV positive TB cases	NA %	Treatment in private sector	Cat 3

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All 1st line drugs including PZA
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Province
Sampling Method	Proportionate cluster
Culture Media	Ogawa and Löwenstein-Jensen
DST Method	Proportion method
Supranational Reference Laboratory	Korean Institute of Tuberculosis (KIT), Seoul, Republic of Korea

***Notations to accompany profile:**

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

China

Hubei

1999

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	59,165,000	Year N.T.P was established	1990
Notification all cases (rate)	55.7 /100,000	Year of Rifampicin introduction	1997
Estimated incidence (all cases)	440 /100,000	Year of Isoniazid introduction	1951
Notification new sputum smear +	17765	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	30.02 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	%	Use of Directly Observed Therapy	Yes 95 %
Retreatment cases	5868	During continuation phase	Yes
Retreatment as % of NTP	20 %	Use of Fixed Dose Combination	Yes 100 %
Estimated HIV positive TB cases	NA %	Treatment in private sector	Cat 2

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	10 Months
Target Area	Province
Sampling Method	Cluster
Culture Media	Löwenstein-Jensen
DST Method	Proportion method
Supranational Reference Laboratory	Korean Institute of Tuberculosis (KIT), Seoul, Republic of Korea

*Notations to accompany profile:

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

China

Hong Kong

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	6,665,000	Year N.T.P was established	1979
Notification all cases (rate)	112.5 /100,000	Year of Rifampicin introduction	1970s
Estimated incidence (all cases)	113.7 /100,000	Year of Isoniazid introduction	1950s-1960s
Notification new sputum smear +	1926	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	28.90 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	89 %	Use of Directly Observed Therapy	Yes 85 %
Retreatment cases	207	During continuation phase	Yes
Retreatment as % of NTP	3.11 %	Use of Fixed Dose Combination	Yes %
Estimated HIV positive TB cases	.49 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All 1st and 2nd line drugs
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All culture positive cases
Culture Media	Löwenstein-Jensen and BACTEC
DST Method	Absolute concentration
Supranational Reference Laboratory	Korean Institute of Tuberculosis (KIT), Seoul, Republic of Korea

*Notations to accompany profile:

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

China

Liaoning

1999

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	40,900,000	Year N.T.P was established	1992
Notification all cases (rate)	37.2 /100,000	Year of Rifampicin introduction	1970
Estimated incidence (all cases)	80 /100,000	Year of Isoniazid introduction	1952
Notification new sputum smear +	6537	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	15.98 /100,000	% Use of Short Course Chemotherapy	Yes 95 %
Treatment Success	%	Use of Directly Observed Therapy	Yes 95 %
Retreatment cases	1465	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	%
Estimated HIV positive TB cases	NA %	Treatment in private sector	Cat 2

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All drugs
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Province
Sampling Method	Cluster
Culture Media	Ogawa and Löwenstein-Jensen
DST Method	Proportion method
Supranational Reference Laboratory	Korean Institute of Tuberculosis (KIT), Seoul, Republic of Korea

***Notations to accompany profile:**

Retreatment indicates sputum smear positive pulmonary cases only

Based on some patient re-interviews it appears that 25-30% of new drug resistant cases had been misclassified. Therefore, MDR among new cases could be reduced from 10 to 8%. The reduction

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Colombia

Countrywide

1999-2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	40,772,994	Year N.T.P was established	1960
Notification all cases (rate)	21.1 /100,000	Year of Rifampicin introduction	1981
Estimated incidence (all cases)	55 /100,000	Year of Isoniazid introduction	
Notification new sputum smear +	8329	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	20.0 /100,000	% Use of Short Course Chemotherapy	Yes 90 %
Treatment Success	NA %	Use of Directly Observed Therapy	NA %
Retreatment cases	NA	During continuation phase	
Retreatment as % of NTP	20 %	Use of Fixed Dose Combination	Yes 100 %
Estimated HIV positive TB cases	1.05 %	Treatment in private sector	

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

**TB drugs available on the
private market**

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	Cluster
Culture Media	Ogawa
DST Method	Proportion
Supranational Reference Laboratory	Instituto de Salud Pública de Chile, Santiago, Chile

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Croatia

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	4,446,000	Year N.T.P was established
Notification all cases (rate)	/100,000	Year of Rifampicin introduction
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction
Notification new sputum smear +	866	Use of Standardized Regimens
Notification new sputum smear + (rate)	/100,000	% Use of Short Course Chemotherapy
Treatment Success	%	
Retreatment cases		Use of Directly Observed Therapy
Retreatment as % of NTP	%	
Estimated HIV positive TB cases	.06 %	During continuation phase
		Use of Fixed Dose Combination
		Treatment in private sector

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	
DST Method	
Supranational Reference Laboratory	National Reference Center for Mycobacteria, Borstel, Germany

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Cuba

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	11,187,673	Year N.T.P was established	1963
Notification all cases (rate)	10 /100,000	Year of Rifampicin introduction	1982
Estimated incidence (all cases)	10.1 /100,000	Year of Isoniazid introduction	1950
Notification new sputum smear +	677	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	6.0 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	93 %	Use of Directly Observed Therapy	Yes 100 %
Retreatment cases	71	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	No %
Estimated HIV positive TB cases	.11 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	Proportionate cluster
Culture Media	Löwenstein-Jensen
DST Method	Proportion
Supranational Reference Laboratory	Instituto de Salud Pública de Chile, Santiago, Chile

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Czech Republic

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	10,269,000	Year N.T.P was established	1982
Notification all cases (rate)	/100,000	Year of Rifampicin introduction	1980
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction	
Notification new sputum smear +	420	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	/100,000	% Use of Short Course Chemotherapy	Yes 80 %
Treatment Success	%	Use of Directly Observed Therapy	Yes 90 %
Retreatment cases	26	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes 100 %
Estimated HIV positive TB cases	1.46 %	Treatment in private sector	Cat 3

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	NA
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen and others
DST Method	Proportion
Supranational Reference Laboratory	National Institute of Public Health, Prague, Czech Republic

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Democratic Republic of Congo

Kinshasa

1999

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey		Year N.T.P was established
Notification all cases (rate)	/100,000	Year of Rifampicin introduction
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction
Notification new sputum smear +	10710	Use of Standardized Regimens
Notification new sputum smear + (rate)	/100,000	% Use of Short Course Chemotherapy
Treatment Success	%	
Retreatment cases	1338	Use of Directly Observed Therapy
Retreatment as % of NTP	%	%
Estimated HIV positive TB cases	NA	During continuation phase
	%	Use of Fixed Dose Combination
		%
		Treatment in private sector
		Category 1: virtually all TB patients public sector Category 2: <15% in private sector Category 3: 15% or more in private sector
		TB drugs available on the private market

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	Months
Target Area	
Sampling Method	Cluster sampling
Culture Media	
DST Method	
Supranational Reference Laboratory	Prince Leopold Institute of Tropical Medicine, Antwerp, Belgium

***Notations to accompany profile:**

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Denmark

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	5,330,020	Year N.T.P was established	NA	
Notification all cases (rate)	10.3 /100,000	Year of Rifampicin introduction	1969	
Estimated incidence (all cases)	10.3 /100,000	Year of Isoniazid introduction		
Notification new sputum smear +	139	Use of Standardized Regimens	Yes	
Notification new sputum smear + (rate)	2.6 /100,000	% Use of Short Course Chemotherapy	Yes	99 %
Treatment Success	88 %	Use of Directly Observed Therapy	Yes	10 %
Retreatment cases	34	During continuation phase		
Retreatment as % of NTP	6.2 %	Use of Fixed Dose Combination	No	%
Estimated HIV positive TB cases	5.46 %	Treatment in private sector	Cat 1	
Category 1: virtually all TB patients public sector Category 2: <15% in private sector Category 3: 15% or more in private sector				
		TB drugs available on the private market	Rx only	

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen and BACTEC
DST Method	BACTEC
Supranational Reference Laboratory	Reference Laboratory Mycobacteriology, Statens Serum Institut (SSI), Denmark under SIIDC, Sweden

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

Data from Denmark exclude Greenland and the Faroe Islands

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Ecuador

Countrywide

2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	12,880,000	Year N.T.P was established	1973
Notification all cases (rate)	47 /100,000	Year of Rifampicin introduction	1983
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction	1973
Notification new sputum smear +	4439	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	34.47 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	NA %	Use of Directly Observed Therapy	Yes 26 %
Retreatment cases	590	During continuation phase	No
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes 100 %
Estimated HIV positive TB cases	1.12 %	Treatment in private sector	NA

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All drugs
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen
DST Method	Proportion
Supranational Reference Laboratory	Instituto de Salud Pública de Chile, Santiago, Chile

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

Preliminary data

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Egypt

Countrywide

2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	68,355,826	Year N.T.P was established	1989
Notification all cases (rate)	16 /100,000	Year of Rifampicin introduction	1980
Estimated incidence (all cases)	29 /100,000	Year of Isoniazid introduction	1970s
Notification new sputum smear +	4889	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	7.2 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	87 %	Use of Directly Observed Therapy	Yes 100 %
Retreatment cases	848	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes %
Estimated HIV positive TB cases	.08 %	Treatment in private sector	Cat 3

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All first line
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	Proportionate cluster
Culture Media	Löwenstein-Jensen
DST Method	Proportion Method
Supranational Reference Laboratory	Laboratoire de la Tuberculose Institut Pasteur d'Algérie- Alger, Alger, Algeria

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

El Salvador

Countrywide

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	6,276,037	Year N.T.P was established	1942
Notification all cases (rate)	23 /100,000	Year of Rifampicin introduction	1975
Estimated incidence (all cases)	33 /100,000	Year of Isoniazid introduction	1952
Notification new sputum smear +	1003	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	16 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	79 %	Use of Directly Observed Therapy	Yes 100 %
Retreatment cases	83	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	No %
Estimated HIV positive TB cases	1.99 %	Treatment in private sector	NA

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein Jensen
DST Method	Proportion
Supranational Reference Laboratory	Instituto de Salud Pública de Chile, Santiago, Chile

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Estonia

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	1,369,515	Year N.T.P was established	1997
Notification all cases (rate)	55.5 /100,000	Year of Rifampicin introduction	1972
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction	1956
Notification new sputum smear +	255	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	18.6 /100,000	% Use of Short Course Chemotherapy	No 100 %
Treatment Success	66.2 %	Use of Directly Observed Therapy	Yes 98 %
Retreatment cases	39	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes 75 %
Estimated HIV positive TB cases	.15 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen and BACTEC
DST Method	Proportion and BACTEC
Supranational Reference Laboratory	Swedish Institute for Infectious Disease Control (SIIDC), Karolinska, Stockholm, Sweden

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

The Gambia

Countrywide

1999-2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	1,280,000	Year N.T.P was established	1986
Notification all cases (rate)	119 /100,000	Year of Rifampicin introduction	1986
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction	1950
Notification new sputum smear +	850	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	66 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	65 %	Use of Directly Observed Therapy	Yes 100 %
Retreatment cases	26	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes 100 %
Estimated HIV positive TB cases	7.64 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	7 Months
Target Area	Countrywide
Sampling Method	All diagnostic centers
Culture Media	Löwenstein-Jensen & Bactec
DST Method	Resistance Ratio
Supranational Reference Laboratory	Health Protection Agency Mycobacterium Reference Unit (HPA MRU), London, UK

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Honduras

Countrywide

2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	6,216,939	Year N.T.P was established	1950
Notification all cases (rate)	72 /100,000	Year of Rifampicin introduction	1985
Estimated incidence (all cases)	>80 /100,000	Year of Isoniazid introduction	1970
Notification new sputum smear +	2802	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	45.1 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	89 %	Use of Directly Observed Therapy	Yes 100 %
Retreatment cases	103	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes 100 %
Estimated HIV positive TB cases	9.0 %	Treatment in private sector	Cat 2

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	14 Months
Target Area	Countrywide
Sampling Method	Cluster
Culture Media	Löwenstein-Jensen
DST Method	Proportion
Supranational Reference Laboratory	Instituto de Salud Pública de Chile, Santiago, Chile

***Notations to accompany profile:**

Retreatment indicates sputum smear positive pulmonary cases only

Preliminary data

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Iceland

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	282,000	Year N.T.P was established	
Notification all cases (rate)	/100,000	Year of Rifampicin introduction	
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction	
Notification new sputum smear +	1	Use of Standardized Regimens	
Notification new sputum smear + (rate)	/100,000	% Use of Short Course Chemotherapy	%
Treatment Success	%	Use of Directly Observed Therapy	%
Retreatment cases		During continuation phase	
Retreatment as % of NTP	%	Use of Fixed Dose Combination	%
Estimated HIV positive TB cases	4.50 %	Treatment in private sector	

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	
DST Method	
Supranational Reference Laboratory	Reference Laboratory Mycobacteriology, Statens Serum Institut (SSI), Denmark under SIIDC, Sweden

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

India

Wardha District, Maharashtra State

2000-2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	1,230,640	Year N.T.P was established	1962
Notification all cases (rate)	120 /100,000	Year of Rifampicin introduction	1969
Estimated incidence (all cases)	190.9 /100,000	Year of Isoniazid introduction	1961
Notification new sputum smear +	954	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	75.5 /100,000	% Use of Short Course Chemotherapy	Yes 41 %
Treatment Success	%	Use of Directly Observed Therapy	No %
Retreatment cases	97	During continuation phase	No
Retreatment as % of NTP	%	Use of Fixed Dose Combination	No %
Estimated HIV positive TB cases	NA %	Treatment in private sector	Cat 3

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All 1st line, some 2nd line
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	10 Months
Target Area	Districtwide
Sampling Method	All diagnostic centers
Culture Media	Löwenstein-Jensen
DST Method	Proportion method
Supranational Reference Laboratory	Tuberculosis Research Centre, Chennai, India

*Notations to accompany profile:

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

India

Raichur District, Karnataka State

1999

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	1,783,822	Year N.T.P was established	1962
Notification all cases (rate)	162 /100,000	Year of Rifampicin introduction	1983
Estimated incidence (all cases)	127 /100,000	Year of Isoniazid introduction	1962
Notification new sputum smear +	1209	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	73 /100,000	% Use of Short Course Chemotherapy	Yes 90 %
Treatment Success	%	Use of Directly Observed Therapy	Yes 30 %
Retreatment cases	NA	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	No %
Estimated HIV positive TB cases	NA %	Treatment in private sector	Cat 3

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All 1st line, some 2nd line
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	6 Months
Target Area	Districtwide
Sampling Method	All diagnostic centers
Culture Media	Löwenstein-Jensen
DST Method	Proportion
Supranational Reference Laboratory	Tuberculosis Research Centre, Chennai, India

*Notations to accompany profile:

Patient numbers refers to treated not notified

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

India

North Arcot District, Tamil Nadu State

1999

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	5,664,823	Year N.T.P was established	1962
Notification all cases (rate)	NA /100,000	Year of Rifampicin introduction	1983
Estimated incidence (all cases)	400 /100,000	Year of Isoniazid introduction	1962
Notification new sputum smear +	26532	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	43 /100,000	% Use of Short Course Chemotherapy	Yes 90 %
Treatment Success	%	Use of Directly Observed Therapy	Yes %
Retreatment cases	NA	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	No %
Estimated HIV positive TB cases	NA %	Treatment in private sector	Cat 3

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All 1st line, some 2nd line
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	3 Months
Target Area	Districtwide
Sampling Method	All diagnostic centers
Culture Media	Löwenstein-Jensen
DST Method	Proportion
Supranational Reference Laboratory	Tuberculosis Research Centre, Chennai, India

*Notations to accompany profile:

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Ireland

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	3,596,543	Year N.T.P was established	1947
Notification all cases (rate)	10.9 /100,000	Year of Rifampicin introduction	1969
Estimated incidence (all cases)	10.8 /100,000	Year of Isoniazid introduction	1940s
Notification new sputum smear +	127	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	3.5 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	49.6 %	Use of Directly Observed Therapy	No %
Retreatment cases	17	During continuation phase	No
Retreatment as % of NTP	4.3 %	Use of Fixed Dose Combination	NA %
Estimated HIV positive TB cases	3.39 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector Category 2: <15% in private sector Category 3: 15% or more in private sector
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TB drugs available on the private market

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Ireland
Sampling Method	All cases
Culture Media	Löwenstein-Jensen and BACTEC
DST Method	Resistance Ratio
Supranational Reference Laboratory	Health Protection Agency Mycobacterium Reference Unit (HPA MRU), London, United Kingdom

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

The combined column includes patients with unknown treatment history

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Israel

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	6,369,300	Year N.T.P was established	1997
Notification all cases (rate)	9.3 /100,000	Year of Rifampicin introduction	NA
Estimated incidence (all cases)	9.3 /100,000	Year of Isoniazid introduction	NA
Notification new sputum smear +	253	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	0.42 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	78.5 %	Use of Directly Observed Therapy	Yes 100 %
Retreatment cases	24	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	No %
Estimated HIV positive TB cases	2.52 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector Category 2: <15% in private sector Category 3: 15% or more in private sector
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TB drugs available on the private market

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen
DST Method	Resistance ratio
Supranational Reference Laboratory	Health Protection Agency Mycobacterium Reference Unit (HPA MRU), London, United Kingdom

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

Indicators refer to culture positivity rather than smear positivity. The combined column includes patients with unknown treatment history. Data from Israel contain DST results on isolates taken during treatment (i.e. at registration as transferred from abroad). This may lead to an overestimate of resistance. The precise number is

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Italy

10 regions

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	57,536,000	Year N.T.P was established	1995
Notification all cases (rate)	6 /100,000	Year of Rifampicin introduction	1966
Estimated incidence (all cases)	10 /100,000	Year of Isoniazid introduction	1952
Notification new sputum smear +	687	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	1 /100,000	% Use of Short Course Chemotherapy	Yes 80 %
Treatment Success	74 %	Use of Directly Observed Therapy	Yes Yes %
Retreatment cases	72	During continuation phase	No
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes >10 %
Estimated HIV positive TB cases	10.05 %	Treatment in private sector	Cat 2

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market Rx required

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Half of country
Sampling Method	Cluster
Culture Media	Löwenstein-Jensen and BACTEC
DST Method	Proportion and BACTEC
Supranational Reference Laboratory	Instituto Superiore di Sanità, Rome, Italy

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Kazakhstan

Countrywide

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	14,831,400	Year N.T.P was established	revised 1998
Notification all cases (rate)	193.6 /100,000	Year of Rifampicin introduction	1973
Estimated incidence (all cases)	155.7 /100,000	Year of Isoniazid introduction	1960s
Notification new sputum smear +	9079	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	61.2 /100,000	% Use of Short Course Chemotherapy	Yes 76.5 %
Treatment Success	82.5 %	Use of Directly Observed Therapy	Yes %
Retreatment cases	2996	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes %
Estimated HIV positive TB cases	.17 %	Treatment in private sector	NA

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	2 Months
Target Area	Countrywide
Sampling Method	All diagnostic units
Culture Media	Löwenstein-Jensen
DST Method	Absolute Concentration
Supranational Reference Laboratory	National Reference Center for Mycobacteria, Borstel, Germany

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Latvia

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	2,373,000	Year N.T.P was established	1995
Notification all cases (rate)	82 /100,000	Year of Rifampicin introduction	1975
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction	
Notification new sputum smear +	637	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	26 /100,000	% Use of Short Course Chemotherapy	Yes 92 %
Treatment Success	%	Use of Directly Observed Therapy	Yes 100 %
Retreatment cases	192	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes %
Estimated HIV positive TB cases	.47 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen
DST Method	Absolute concentration
Supranational Reference Laboratory	Swedish Institute for Infectious Disease Control (SIIDC), Karolinska, Stockholm, Sweden

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Lithuania

Countrywide

2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	3,487,000	Year N.T.P was established	1998
Notification all cases (rate)	/100,000	Year of Rifampicin introduction	1972
Estimated incidence (all cases)	74.7 /100,000	Year of Isoniazid introduction	1960
Notification new sputum smear +	822	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	23.6 /100,000	% Use of Short Course Chemotherapy	Yes 95 %
Treatment Success	%	Use of Directly Observed Therapy	Yes 79 %
Retreatment cases	380	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes 100 %
Estimated HIV positive TB cases	.07 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All drugs
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen
DST Method	BACTEC 460
Supranational Reference Laboratory	Reference Laboratory Mycobacteriology, Statens Serum Institut (SSI), Denmark under SIIDC, Sweden

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Luxembourg

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	435,000	Year N.T.P was established			
Notification all cases (rate)	/100,000	Year of Rifampicin introduction	NA		
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction	NA		
Notification new sputum smear +	21	Use of Standardized Regimens	No		
Notification new sputum smear + (rate)	/100,000	% Use of Short Course Chemotherapy	No	.5-1	%
Treatment Success	%	Use of Directly Observed Therapy	Yes		%
Retreatment cases		During continuation phase			
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes		%
Estimated HIV positive TB cases	4.99 %	Treatment in private sector			
		Category 1: virtually all TB patients public sector Category 2: <15% in private sector Category 3: 15% or more in private sector			
		TB drugs available on the private market	No		

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	Months
Target Area	
Sampling Method	All cases
Culture Media	
DST Method	
Supranational Reference Laboratory	

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Malta

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	389,000	Year N.T.P was established			
Notification all cases (rate)	/100,000	Year of Rifampicin introduction			
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction			
Notification new sputum smear +	5	Use of Standardized Regimens	Yes		
Notification new sputum smear + (rate)	/100,000	% Use of Short Course Chemotherapy	Yes	100	%
Treatment Success	%	Use of Directly Observed Therapy	Yes	100	%
Retreatment cases		During continuation phase	NA		
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes	100	%
Estimated HIV positive TB cases	3.73 %	Treatment in private sector	Category 1: virtually all TB patients public sector Category 2: <15% in private sector Category 3: 15% or more in private sector		
		TB drugs available on the private market	No		

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	Months
Target Area	
Sampling Method	All cases
Culture Media	
DST Method	
Supranational Reference Laboratory	Health Protection Agency Mycobacterium Reference Unit (HPA MRU), London, United Kingdom

*Notations to accompany profile: Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Mongolia

Countrywide

1999

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	2,448,220	Year N.T.P was established	revised 1994
Notification all cases (rate)	136.8 /100,000	Year of Rifampicin introduction	1988
Estimated incidence (all cases)	244 /100,000	Year of Isoniazid introduction	1959
Notification new sputum smear +	1513	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	61.8 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	86 %	Use of Directly Observed Therapy	Yes 100 %
Retreatment cases	127	During continuation phase	Yes
Retreatment as % of NTP	3.8 %	Use of Fixed Dose Combination	Yes 100 %
Estimated HIV positive TB cases	.01 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	Yes (INH, RMP)
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	7 Months
Target Area	Countrywide
Sampling Method	All diagnostic units
Culture Media	Ogawa and subcultured on LJ for DST
DST Method	Proportion method
Supranational Reference Laboratory	Research Institute of Tuberculosis (RIT), Tokyo, Japan

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Nepal

Countrywide

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	23,593,000	Year N.T.P was established	1989
Notification all cases (rate)	125 /100,000	Year of Rifampicin introduction	1990
Estimated incidence (all cases)	201 /100,000	Year of Isoniazid introduction	1965
Notification new sputum smear +	13683	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	58 /100,000	% Use of Short Course Chemotherapy	Yes %
Treatment Success	86 %	Use of Directly Observed Therapy	Yes 70.5 %
Retreatment cases	2044	During continuation phase	No
Retreatment as % of NTP	%	Use of Fixed Dose Combination	No %
Estimated HIV positive TB cases	1.15 %	Treatment in private sector	Cat 3

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All drugs
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	10 Months
Target Area	Countrywide
Sampling Method	Cluster sampling
Culture Media	Löwenstein-Jensen
DST Method	Proportion method
Supranational Reference Laboratory	Kuratorium Tuberkulose in der Welt E.V., Gauting, Germany

***Notations to accompany profile:**

Estimated HIV positive TB cases is a WHO estimate

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Netherlands

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	15,864,000	Year N.T.P was established	1953
Notification all cases (rate)	8.85 /100,000	Year of Rifampicin introduction	1966
Estimated incidence (all cases)	8.85 /100,000	Year of Isoniazid introduction	1955
Notification new sputum smear +	312	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	1.97 /100,000	% Use of Short Course Chemotherapy	Yes 88 %
Treatment Success	%	Use of Directly Observed Therapy	Yes 7.4 %
Retreatment cases	12	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes NA %
Estimated HIV positive TB cases	5.94 %	Treatment in private sector	Cat 3

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market Rx required

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Various
DST Method	Absolute concentration
Supranational Reference Laboratory	National Institute of Public Health and the Environment (RIVM), Bilthoven, The Netherlands

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

New Zealand

Countrywide

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	3,737,490	Year N.T.P was established	NA
Notification all cases (rate)	10.1 /100,000	Year of Rifampicin introduction	NA
Estimated incidence (all cases)	11-15 /100,000	Year of Isoniazid introduction	NA
Notification new sputum smear +	157	Use of Standardized Regimens	Yes, recommended
Notification new sputum smear + (rate)	4.2 /100,000	% Use of Short Course Chemotherapy	Yes 95 %
Treatment Success	>90 %	Use of Directly Observed Therapy	Yes 35 %
Retreatment cases	19	During continuation phase	Yes
Retreatment as % of NTP	7.2 %	Use of Fixed Dose Combination	Yes 95 %
Estimated HIV positive TB cases	1.13 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector Category 2: <15% in private sector Category 3: 15% or more in private sector
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TB drugs available on the private market Rx required

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	BACTEC
DST Method	BACTEC
Supranational Reference Laboratory	Queensland Mycobacterium Reference Laboratory, Australia

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Norway

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	4,473,000	Year N.T.P was established	1900
Notification all cases (rate)	5 /100,000	Year of Rifampicin introduction	1968
Estimated incidence (all cases)	6 /100,000	Year of Isoniazid introduction	1952
Notification new sputum smear +	37	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	1 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	70 %	Use of Directly Observed Therapy	Yes %
Retreatment cases	3	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes 50 %
Estimated HIV positive TB cases	2.46 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen
DST Method	BACTEC
Supranational Reference Laboratory	Swedish Institute for Infectious Disease Control (SIIDC), Stockholm, Sweden

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Oman

Countrywide

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	2,401,256	Year N.T.P was established	1981
Notification all cases (rate)	11.13 /100,000	Year of Rifampicin introduction	1982
Estimated incidence (all cases)	12.36 /100,000	Year of Isoniazid introduction	1981
Notification new sputum smear +	109	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	5.96 /100,000	% Use of Short Course Chemotherapy	Yes %
Treatment Success	93 %	Use of Directly Observed Therapy	Yes 100 %
Retreatment cases	5	During continuation phase	Not entirely
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes 100 %
Estimated HIV positive TB cases	.39 %	Treatment in private sector	cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen
DST Method	Critical proportion method
Supranational Reference Laboratory	Instituto Superiore di Sanità, Rome, Italy

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Poland

Countrywide

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	38,671,000	Year N.T.P was established	1963
Notification all cases (rate)	28 /100,000	Year of Rifampicin introduction	1970
Estimated incidence (all cases)	28.5 /100,000	Year of Isoniazid introduction	1952
Notification new sputum smear +	3180	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	8 /100,000	% Use of Short Course Chemotherapy	Yes 80 %
Treatment Success	86.7 %	Use of Directly Observed Therapy	Yes >90 %
Retreatment cases	632	During continuation phase	40%
Retreatment as % of NTP	13 %	Use of Fixed Dose Combination	Yes 90 %
Estimated HIV positive TB cases	.27 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases/ selected laboratories
Culture Media	Löwenstein-Jensen and BACTEC
DST Method	Proportion
Supranational Reference Laboratory	National Institute of Public Health and the Environment (RIVM), Bilthoven, The Netherlands

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Puerto Rico

Countrywide

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	3,839,810	Year N.T.P was established	1931
Notification all cases (rate)	3 /100,000	Year of Rifampicin introduction	1971
Estimated incidence (all cases)	3.2 /100,000	Year of Isoniazid introduction	1952
Notification new sputum smear +	71	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	1.8 /100,000	% Use of Short Course Chemotherapy	Yes 95 %
Treatment Success	72 %	Use of Directly Observed Therapy	Yes 64 %
Retreatment cases	NA	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	No %
Estimated HIV positive TB cases	28.0 %	Treatment in private sector	Cat 3

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All drugs
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	BACTEC
DST Method	Proportion and BACTEC
Supranational Reference Laboratory	Centers for Disease Control and Prevention (CDC), Atlanta, United States of America

***Notations to accompany profile:**

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Qatar

Countrywide

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	610,000	Year N.T.P was established	1997
Notification all cases (rate)	46.55 /100,000	Year of Rifampicin introduction	Early 1970s
Estimated incidence (all cases)	25 /100,000	Year of Isoniazid introduction	Early 1970s
Notification new sputum smear +	77	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	12.6 /100,000	% Use of Short Course Chemotherapy	Yes 90 %
Treatment Success	66 %	Use of Directly Observed Therapy	Yes 100 %
Retreatment cases	1	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes >90 %
Estimated HIV positive TB cases	.32 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Bact/Alert 3D and Löwenstein-Jensen
DST Method	Bact/Alert 3D
Supranational Reference Laboratory	Instituto Superiore di Sanità, Rome, Italy

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Russia

Tomsk Oblast

2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	941,278	Year N.T.P was established	1920
Notification all cases (rate)	93 /100,000	Year of Rifampicin introduction	1972
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction	1950s
Notification new sputum smear +	380	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	40.4 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	%	Use of Directly Observed Therapy	Yes 60-70 %
Retreatment cases	97	During continuation phase	Yes
Retreatment as % of NTP	17.3 %	Use of Fixed Dose Combination	Yes %
Estimated HIV positive TB cases	NA %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All drugs
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen
DST Method	Absolute concentration
Supranational Reference Laboratory	Massachusetts State Laboratory, Boston, United States of America

*Notations to accompany profile:

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Russia

Orel Oblast

2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	890,700	Year N.T.P was established	1997	
Notification all cases (rate)	/100,000	Year of Rifampicin introduction	NA	
Estimated incidence (all cases)	67 /100,000	Year of Isoniazid introduction	NA	
Notification new sputum smear +	286	Use of Standardized Regimens	Yes	
Notification new sputum smear + (rate)	/100,000	% Use of Short Course Chemotherapy	Yes 100 %	
Treatment Success	%	Use of Directly Observed Therapy	Yes 100 %	
Retreatment cases	43	During continuation phase	Yes	
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes <1 %	
Estimated HIV positive TB cases	NA %	Treatment in private sector	Cat 1	

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Oblast
Sampling Method	All cases
Culture Media	Löwenstein-Jensen
DST Method	Absolute concentration
Supranational Reference Laboratory	Centers for Disease Control and Prevention (CDC), Atlanta, United States of America

***Notations to accompany profile:**

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Serbia and Montenegro

Belgrade

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	<input style="width: 100%;" type="text"/>	Year N.T.P was established
Notification all cases (rate)	/100,000	Year of Rifampicin introduction
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction
Notification new sputum smear +	<input style="width: 100%;" type="text"/>	Use of Standardized Regimens
Notification new sputum smear + (rate)	/100,000	% Use of Short Course Chemotherapy
Treatment Success	%	
Retreatment cases	<input style="width: 100%;" type="text"/>	Use of Directly Observed Therapy
Retreatment as % of NTP	%	
Estimated HIV positive TB cases	NA	During continuation phase
		Use of Fixed Dose Combination
		%
		Treatment in private sector
		Category 1: virtually all TB patients public sector Category 2: <15% in private sector Category 3: 15% or more in private sector
		TB drugs available on the private market

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	regionwide
Sampling Method	All cases
Culture Media	
DST Method	
Supranational Reference Laboratory	National Reference Center for Mycobacteria, Borstel, Germany

***Notations to accompany profile:**

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Slovakia

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	5,391,000	Year N.T.P was established	1982
Notification all cases (rate)	19 /100,000	Year of Rifampicin introduction	1970
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction	1952
Notification new sputum smear +	236	Use of Standardized Regimens	No
Notification new sputum smear + (rate)	4 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	82 %	Use of Directly Observed Therapy	Yes 100 %
Retreatment cases	62	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	No %
Estimated HIV positive TB cases	.04 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen
DST Method	Proportion

Supranational Reference Laboratory

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Slovenia

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	1,990,000	Year N.T.P was established	1952
Notification all cases (rate)	19 /100,000	Year of Rifampicin introduction	1973
Estimated incidence (all cases)	23 /100,000	Year of Isoniazid introduction	1956
Notification new sputum smear +	145	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	7 /100,000	% Use of Short Course Chemotherapy	Yes 93 %
Treatment Success	84 %	Use of Directly Observed Therapy	Yes 60 %
Retreatment cases	24	During continuation phase	No
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes 75 %
Estimated HIV positive TB cases	.07 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen
DST Method	Proportion
Supranational Reference Laboratory	National Reference Center for Mycobacteria, Borstel, Germany

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

South Africa

Kwazulu-Natal Province

2001-2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	9,146,297	Year N.T.P was established	1999 (revised progr
Notification all cases (rate)	251 /100,000	Year of Rifampicin introduction	1979
Estimated incidence (all cases)	827 /100,000	Year of Isoniazid introduction	1968
Notification new sputum smear +	12393	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	135 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	58.8 %	Use of Directly Observed Therapy	Yes 60 %
Retreatment cases	2727	During continuation phase	Variable
Retreatment as % of NTP	7 %	Use of Fixed Dose Combination	Yes 100 %
Estimated HIV positive TB cases	64.4 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Kwazulu-Natal Province
Sampling Method	Multistage stratified cluster sampling
Culture Media	Löwenstein-Jensen
DST Method	Indirect proportion
Supranational Reference Laboratory	Medical Research Council (MRC) National TB Research Programme, South Africa

*Notations to accompany profile:

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

South Africa

Eastern Cape Province

2001-2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	7,001,260	Year N.T.P was established	1996 (revised progr	
Notification all cases (rate)	400 /100,000	Year of Rifampicin introduction	1979	
Estimated incidence (all cases)	875 /100,000	Year of Isoniazid introduction	1968	
Notification new sputum smear +	15346	Use of Standardized Regimens	Yes	
Notification new sputum smear + (rate)	219 /100,000	% Use of Short Course Chemotherapy	Yes	100 %
Treatment Success	60.3 %	Use of Directly Observed Therapy	Yes	60 %
Retreatment cases	7540	During continuation phase	Variable	
Retreatment as % of NTP	12 %	Use of Fixed Dose Combination	Yes	100 %
Estimated HIV positive TB cases	30.5 %	Treatment in private sector	Cat 1	
Category 1: virtually all TB patients public sector Category 2: <15% in private sector Category 3: 15% or more in private sector				
		TB drugs available on the private market	No	

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Eastern Cape Province
Sampling Method	Multistage stratified cluster sampling
Culture Media	Löwenstein-Jensen
DST Method	Indirect proportion
Supranational Reference Laboratory	Medical Research Council (MRC) National TB Research Programme, South Africa

*Notations to accompany profile:

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

South Africa

Mpumalanga

2001-2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	3,111,069	Year N.T.P was established	1996 (revised progr	
Notification all cases (rate)	188 /100,000	Year of Rifampicin introduction	1979	
Estimated incidence (all cases)	578 /100,000	Year of Isoniazid introduction	1968	
Notification new sputum smear +	4296	Use of Standardized Regimens	Yes	
Notification new sputum smear + (rate)	138 /100,000	% Use of Short Course Chemotherapy	Yes	100 %
Treatment Success	67.2 %	Use of Directly Observed Therapy	Yes	60 %
Retreatment cases	618	During continuation phase	Variable	
Retreatment as % of NTP	8 %	Use of Fixed Dose Combination	Yes	100 %
Estimated HIV positive TB cases	67.2 %	Treatment in private sector	Cat 1	
Category 1: virtually all TB patients public sector Category 2: <15% in private sector Category 3: 15% or more in private sector				
		TB drugs available on the private market	No	

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Mpumalanga
Sampling Method	Multistage stratified cluster sampling
Culture Media	Löwenstein-Jensen
DST Method	Indirect proportion
Supranational Reference Laboratory	Medical Research Council (MRC), Unit for TB Operational Research and Policy, Pretoria, South Africa

*Notations to accompany profile:

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

South Africa

Gauteng Province

2001-2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	8,020,408	Year N.T.P was established	1996 (revised progr	
Notification all cases (rate)	299 /100,000	Year of Rifampicin introduction	1979	
Estimated incidence (all cases)	670 /100,000	Year of Isoniazid introduction	1968	
Notification new sputum smear +	14742	Use of Standardized Regimens	Yes	
Notification new sputum smear + (rate)	184 /100,000	% Use of Short Course Chemotherapy	Yes	100 %
Treatment Success	68 %	Use of Directly Observed Therapy	Yes	60 %
Retreatment cases	2909	During continuation phase	Variable	
Retreatment as % of NTP	9 %	Use of Fixed Dose Combination	Yes	100 %
Estimated HIV positive TB cases	63.8 %	Treatment in private sector	Cat 1	

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Gauteng Province
Sampling Method	Multistage stratified cluster sampling
Culture Media	Löwenstein-Jensen
DST Method	Indirect proportion
Supranational Reference Laboratory	Medical Research Council (MRC) National TB Research Programme, South Africa

*Notations to accompany profile:

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

South Africa

Free State Province

2001-2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	2,834,519	Year N.T.P was established	1996 (revised progr	
Notification all cases (rate)	423 /100,000	Year of Rifampicin introduction	1979	
Estimated incidence (all cases)	530 /100,000	Year of Isoniazid introduction	1968	
Notification new sputum smear +	6455	Use of Standardized Regimens	Yes	
Notification new sputum smear + (rate)	228 /100,000	% Use of Short Course Chemotherapy	Yes	100 %
Treatment Success	69.3 %	Use of Directly Observed Therapy	Yes	70 %
Retreatment cases	1891	During continuation phase	Variable	
Retreatment as % of NTP	16 %	Use of Fixed Dose Combination	Yes	100 %
Estimated HIV positive TB cases	71.9 %	Treatment in private sector	Cat 1	
Category 1: virtually all TB patients public sector Category 2: <15% in private sector Category 3: 15% or more in private sector				
		TB drugs available on the private market	No	

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Free State Province
Sampling Method	Multistage stratified cluster sampling
Culture Media	Löwenstein-Jensen
DST Method	Indirect proportion
Supranational Reference Laboratory	Medical Research Council (MRC) National TB Research Programme, South Africa

*Notations to accompany profile:

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

South Africa

Western Cape Province

2001-2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	4,255,743	Year N.T.P was established	1996 (revised progr	
Notification all cases (rate)	632 /100,000	Year of Rifampicin introduction	1979	
Estimated incidence (all cases)	932 /100,000	Year of Isoniazid introduction	1968	
Notification new sputum smear +	15264	Use of Standardized Regimens	Yes	
Notification new sputum smear + (rate)	359 /100,000	% Use of Short Course	Yes	100 %
Treatment Success	70.9 %	Chemotherapy		
Retreatment cases	7553	Use of Directly Observed	Yes	80 %
Retreatment as % of NTP	21 %	Therapy		
Estimated HIV positive TB cases	28.2 %	During continuation phase	Variable	
		Use of Fixed Dose Combination	Yes	100 %
		Treatment in private sector	Cat 1	
		Category 1: virtually all TB patients public sector Category 2: <15% in private sector Category 3: 15% or more in private sector		
		TB drugs available on the private market	No	

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Western Cape Province
Sampling Method	Multistage stratified cluster sampling
Culture Media	Löwenstein-Jensen
DST Method	Indirect proportion
Supranational Reference Laboratory	Medical Research Council (MRC) National TB Research Programme, South Africa

*Notations to accompany profile:

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

South Africa

Limpopo Province

2001-2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	5,683,605	Year N.T.P was established	1996 (revised progr	
Notification all cases (rate)	166 /100,000	Year of Rifampicin introduction	1979	
Estimated incidence (all cases)	443 /100,000	Year of Isoniazid introduction	1968	
Notification new sputum smear +	4717	Use of Standardized Regimens	Yes	
Notification new sputum smear + (rate)	83 /100,000	% Use of Short Course Chemotherapy	Yes	100 %
Treatment Success	59 %	Use of Directly Observed Therapy	Yes	60 %
Retreatment cases	1097	During continuation phase	Variable	
Retreatment as % of NTP	4 %	Use of Fixed Dose Combination	Yes	100 %
Estimated HIV positive TB cases	52.4 %	Treatment in private sector	Cat 1	

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Limpopo Province
Sampling Method	Multistage stratified cluster sampling
Culture Media	Löwenstein-Jensen
DST Method	Indirect proportion
Supranational Reference Laboratory	Medical Research Council (MRC) National TB Research Programme, South Africa

*Notations to accompany profile:

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

South Africa

North West Province

2001-2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	3,625,924	Year N.T.P was established	1996 (revised progr	
Notification all cases (rate)	337 /100,000	Year of Rifampicin introduction	1979	
Estimated incidence (all cases)	486 /100,000	Year of Isoniazid introduction	1968	
Notification new sputum smear +	8136	Use of Standardized Regimens	Yes	
Notification new sputum smear + (rate)	224 /100,000	% Use of Short Course Chemotherapy	Yes	100 %
Treatment Success	68 %	Use of Directly Observed Therapy	Yes	75 %
Retreatment cases	1639	During continuation phase	Variable	
Retreatment as % of NTP	9 %	Use of Fixed Dose Combination	Yes	100 %
Estimated HIV positive TB cases	66 %	Treatment in private sector	Cat 1	
Category 1: virtually all TB patients public sector Category 2: <15% in private sector Category 3: 15% or more in private sector				
		TB drugs available on the private market	No	

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	North West Province
Sampling Method	Multistage stratified cluster sampling
Culture Media	Löwenstein-Jensen
DST Method	Indirect proportion
Supranational Reference Laboratory	Medical Research Council (MRC) National TB Research Programme, South Africa

*Notations to accompany profile:

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Spain

Galicia 2001-2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	2,724,809	Year N.T.P was established	1995
Notification all cases (rate)	50.72 /100,000	Year of Rifampicin introduction	1968
Estimated incidence (all cases)	50.72 /100,000	Year of Isoniazid introduction	1952
Notification new sputum smear +	446	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	16.36 /100,000	% Use of Short Course Chemotherapy	Yes 88.4 %
Treatment Success	89.2 %	Use of Directly Observed Therapy	Yes 13.07 %
Retreatment cases	47	During continuation phase	Yes
Retreatment as % of NTP	8.8 %	Use of Fixed Dose Combination	Yes 79.5 %
Estimated HIV positive TB cases	6.17 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	No
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	8 Months
Target Area	Statewide
Sampling Method	All cases
Culture Media	Middlebrook 7H12
DST Method	BACTEC 460
Supranational Reference Laboratory	Servicio de Microbiología, Hospital Universitari Vall d'Hebron, Barcelona, Spain

***Notations to accompany profile:**

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Spain

Barcelona

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	1,508,952	Year N.T.P was established	1982
Notification all cases (rate)	31.6 /100,000	Year of Rifampicin introduction	1968
Estimated incidence (all cases)	34.9 /100,000	Year of Isoniazid introduction	1954
Notification new sputum smear +	210	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	13.9 /100,000	% Use of Short Course Chemotherapy	Yes >90 %
Treatment Success	74.0 %	Use of Directly Observed Therapy	Yes 21.3 %
Retreatment cases	30	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes >90 %
Estimated HIV positive TB cases	14.8 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

**TB drugs available on the
private market**

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Citywide
Sampling Method	Cluster
Culture Media	Löwenstein-Jensen & MB/BacT Alert 3D
DST Method	Proportion method and BACTEC
Supranational Reference Laboratory	Servicio de Microbiología, Hospital Universitario Vall d'Hebron, Barcelona, Spain

***Notations to accompany profile:**

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Thailand

Countrywide

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	63,584,000	Year N.T.P was established	1949
Notification all cases (rate)	76 /100,000	Year of Rifampicin introduction	1985
Estimated incidence (all cases)	110 /100,000	Year of Isoniazid introduction	1949
Notification new sputum smear +	28363	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	45 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	77 %	Use of Directly Observed Therapy	Yes 76 %
Retreatment cases	1405	During continuation phase	Yes
Retreatment as % of NTP	4.95 %	Use of Fixed Dose Combination	Yes 20 %
Estimated HIV positive TB cases	7.12 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All 1st line
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	24 Months
Target Area	Countrywide
Sampling Method	Proportional cluster
Culture Media	Ogawa and Löwenstein-Jensen
DST Method	Proportion
Supranational Reference Laboratory	Korean Institute of Tuberculosis (KIT), Seoul, Republic of Korea

***Notations to accompany profile:** **Estimated HIV positive TB cases is a WHO estimate**

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Turkmenistan

Dashoguz Velayat (Aral Sea Region)

2001-2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	1,141,900	Year N.T.P was established	1999
Notification all cases (rate)	166.5 /100,000	Year of Rifampicin introduction	NA
Estimated incidence (all cases)	92.9 /100,000	Year of Isoniazid introduction	NA
Notification new sputum smear +	366	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	32.3 /100,000	% Use of Short Course Chemotherapy	Yes >80 %
Treatment Success	82 %	Use of Directly Observed Therapy	Yes %
Retreatment cases	425	During continuation phase	Yes
Retreatment as % of NTP	44 %	Use of Fixed Dose Combination	Yes 100 %
Estimated HIV positive TB cases	NA %	Treatment in private sector	Cat 2

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All 1st line, some 2nd line
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	9 Months
Target Area	4 districts
Sampling Method	All cases
Culture Media	Löwenstein-Jensen
DST Method	Absolute concentration
Supranational Reference Laboratory	National Reference Center for Mycobacteria, Borstel, Germany

*Notations to accompany profile:

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

United Kingdom (without Scotland)

Countrywide

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey		Year N.T.P was established	NA
Notification all cases (rate)	/100,000	Year of Rifampicin introduction	1969
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction	
Notification new sputum smear +		Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	/100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	%	Use of Directly Observed Therapy	No %
Retreatment cases		During continuation phase	No
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes %
Estimated HIV positive TB cases	3.56 %	Treatment in private sector	Cat 1

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen and BACTEC
DST Method	Resistance Ratio
Supranational Reference Laboratory	Health Protection Agency Mycobacterium Reference Unit (HPA MRU), London, United Kingdom

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

The combined column includes patients with unknown treatment history, SM is not routinely tested for in the UK

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

United Kingdom

Scotland

2000

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	5,064,200	Year N.T.P was established	NA	
Notification all cases (rate)	7.9 /100,000	Year of Rifampicin introduction	1969	
Estimated incidence (all cases)	7.9 /100,000	Year of Isoniazid introduction	NA	
Notification new sputum smear +	118	Use of Standardized Regimens	Yes	
Notification new sputum smear + (rate)	2.3 /100,000	% Use of Short Course Chemotherapy	Yes	100 %
Treatment Success	NA %	Use of Directly Observed Therapy	No	%
Retreatment cases	18	During continuation phase	No	
Retreatment as % of NTP	NA %	Use of Fixed Dose Combination	Yes	100 %
Estimated HIV positive TB cases	NA %	Treatment in private sector	Cat 1	

Category 1: virtually all TB patients public sector Category 2: <15% in private sector Category 3: 15% or more in private sector
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TB drugs available on the private market Rx required

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	BACTEC
DST Method	BACTEC
Supranational Reference Laboratory	Health Protection Agency Mycobacterium Reference Unit (HPA MRU), London, UK

***Notations to accompany profile:**

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

United States

Countrywide

2001

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	284,796,887	Year N.T.P was established	1953
Notification all cases (rate)	6 /100,000	Year of Rifampicin introduction	1971
Estimated incidence (all cases)	5.6 /100,000	Year of Isoniazid introduction	1952
Notification new sputum smear +	5600	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	2.0 /100,000	% Use of Short Course Chemotherapy	Yes 90 %
Treatment Success	76 %	Use of Directly Observed Therapy	Yes 49 %
Retreatment cases	NA	During continuation phase	Yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	Yes %
Estimated HIV positive TB cases	9.00 %	Treatment in private sector	Cat 3

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market Rx required

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	12 Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Various
DST Method	Various
Supranational Reference Laboratory	Centers for Disease Control and Prevention (CDC), Atlanta, United States of America

***Notations to accompany profile:** Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Uruguay

Countrywide

1999

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	3,313,000	Year N.T.P was established	1980
Notification all cases (rate)	19 /100,000	Year of Rifampicin introduction	1970
Estimated incidence (all cases)	/100,000	Year of Isoniazid introduction	
Notification new sputum smear +	392	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	12 /100,000	% Use of Short Course Chemotherapy	Yes 100 %
Treatment Success	83 %	Use of Directly Observed Therapy	Yes 87 %
Retreatment cases	40	During continuation phase	yes
Retreatment as % of NTP	%	Use of Fixed Dose Combination	No %
Estimated HIV positive TB cases	1.11 %	Treatment in private sector	Cat 2

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market

CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	Months
Target Area	Countrywide
Sampling Method	All cases
Culture Media	Löwenstein-Jensen
DST Method	Proportion
Supranational Reference Laboratory	Instituto de Salud Pública de Chile, Santiago, Chile

*Notations to accompany profile: Estimated HIV positive TB cases is a WHO estimate

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

WHO/IUATLD Global Surveillance Project on Drug Resistance in Tuberculosis

Uzbekistan

Karakalpakstan (Aral Sea Region)

2001-2002

PROFILE OF THE COUNTRY AND ITS CONTROL PROGRAM

Population in year of survey	1,527,009	Year N.T.P was established	1998
Notification all cases (rate)	477.8 /100,000	Year of Rifampicin introduction	NA
Estimated incidence (all cases)	267.4 /100,000	Year of Isoniazid introduction	NA
Notification new sputum smear +	643	Use of Standardized Regimens	Yes
Notification new sputum smear + (rate)	94.4 /100,000	% Use of Short Course Chemotherapy	Yes >90 %
Treatment Success	68 %	Use of Directly Observed Therapy	Yes %
Retreatment cases	651	During continuation phase	Yes
Retreatment as % of NTP	44 %	Use of Fixed Dose Combination	Yes 100 %
Estimated HIV positive TB cases	NA %	Treatment in private sector	Cat 2

Category 1: virtually all TB patients public sector
 Category 2: <15% in private sector
 Category 3: 15% or more in private sector

TB drugs available on the private market	All 1st line, some 2nd line
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CHARACTERISTICS OF THE SURVEY/SURVEILLANCE PROGRAM

Study Duration	7 Months
Target Area	4 districts
Sampling Method	All cases
Culture Media	Löwenstein-Jensen
DST Method	Absolute concentration
Supranational Reference Laboratory	National Reference Center for Mycobacteria, Borstel, Germany

*Notations to accompany profile:

Retreatment indicates sputum smear positive pulmonary cases only

*For survey settings where less than 100% of cases are sampled, combined estimates are based on the rates of new and previously treated cases obtained in the survey, but weighted by the absolute number of new and previously treated sputum positive TB cases, as published by the national authorities.

