





South-East Asia: Summary of TB control policies

COUNTRY	STATUS ^a	MANUAL ^b	MICROSCOPY ^c	MONITORING OF TB SUSPECTS ^d	SCC ^e	DOT ^f	OUTCOME MONITORING ^g
BANGLADESH	DOTS	YES	Implemented in all units/areas	Implemented in some units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas
BHUTAN	DOTS	NO	Implemented in all units/areas	Implemented in some units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas
DPR KOREA	DOTS	YES	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas
INDIA	DOTS	YES	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas
INDONESIA	DOTS	YES	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas
MALDIVES	DOTS	YES	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas
MYANMAR	DOTS	YES	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas
NEPAL	DOTS	YES	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas
SRI LANKA	DOTS	YES	Implemented in all units/areas	Not implemented	Implemented in all units/areas	Implemented in some units/areas	Implemented in all units/areas
THAILAND	DOTS	YES	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in some units/areas	Implemented in all units/areas
TIMOR-LESTE	DOTS	YES	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas	Implemented in all units/areas

	Implemented in all units/areas
	Implemented in some units/areas
	Not implemented
	Unknown

- a Status: DOTS status (**bold** indicates DOTS introduced in 2002)
 b Manual: National TB control manual (recommended)
 c Microscopy: Use of smear microscopy for diagnosis (core component of DOTS)
 d Monitoring of TB Suspects: Register of TB suspects (e.g. patients with cough \geq 3 weeks) kept at DOTS facilities (recommended)
 e SCC: Short course chemotherapy (core component of DOTS)
 f DOT: Directly observed treatment (core component of DOTS)
 g Outcome monitoring: Monitoring of treatment outcomes by cohort analysis (core component of DOTS)

Explanatory notes

Country-specific data are grouped by WHO region. For each country we present:

- 2002 notification, detection, and coverage data – for the whole country, and separately for DOTS and non-DOTS programmes.
- Treatment outcomes for 2001 cohorts – both the new smear-positive and the retreatment cohorts from DOTS programmes, and the new smear-positive treatment outcomes (where available) from non-DOTS programmes.
- New smear-positive notifications (numbers) by age and sex – from DOTS and from non-DOTS programmes.
- New smear-positive notification rates by age and sex for the whole country.
- Notification numbers and rates since 1980, all forms of TB.
- Notification numbers and rates since 1993, new smear-positive cases.
- Country notes: remarks that may help to explain data reported by selected countries.

Notation for 1st table

(Country data...notification, detection and DOTS coverage)

- a The population expressed in thousands (source: United Nations Population Division, World Population Prospects, 2002 revision).
- b' The total number of tuberculosis cases notified (European definition, includes all new, retreatment, and recurrent cases).
- b The total number of tuberculosis cases notified to WHO (WHO definition, includes new and relapse cases and, for Europe only, cases with previous history unknown).
- c The case notification rate (per 100 000 population), $b/a * 100$.
- d The number of new smear-positive cases notified to WHO.
- e The new smear-positive case notification rate (per 100 000 population), $d/a * 100$.
- f The number of new pulmonary laboratory-confirmed cases notified to WHO (includes smear-positive and/or culture-positive cases).
- g The new pulmonary laboratory-confirmed case notification rate (per 100 000 population), $f/a * 100$. These data are not required by WHO, but are provided by some countries, particularly those in the European region.
- h WHO estimate of the number of new cases (all forms of TB) in 2002.
- i The estimated incidence rate, all forms of TB, per 100 000 population), $h/a * 100$.
- j WHO estimate of the number of new sputum smear-positive cases in 2002.
- k The estimated incidence rate, smear-positive cases (per 100 000 population), $j/a * 100$.
- l The proportion of estimated cases (all forms) that were notified, $b/h * 100$.
- m The case detection rate: the proportion of estimated new smear-positive cases that were notified, $d/j * 100$.

- n The percentage of the population living in geographic areas nominally serviced by health facilities implementing DOTS.
- o The number of notifications (all forms of TB) from DOTS programmes in 2002.
- p The case notification rate (all forms of TB, per 100 000 population) from DOTS programmes, $o/a * 100$.
- q The number of new smear-positive cases notified by DOTS programmes in 2002.
- r The new smear-positive case notification rate (per 100 000 population) from DOTS programmes, $q/a * 100$.
- s DOTS detection rate: the proportion of estimated new smear-positive cases (countrywide) notified by DOTS programmes, $q/j * 100$.
- t The proportion of all new pulmonary cases that were smear-positive under DOTS.
- u, v and w: as in o,q and t, above, but from non-DOTS programmes.

Notation for 2nd table

(Country data...treatment outcomes)

- a The number of new smear-positive cases registered for treatment under DOTS in 2001.
- b–g The proportion of cases having treatment outcomes as defined in Table 2 (cured, completed, died, failed, defaulted, transferred) in the DOTS 2001 cohort of new smear-positive cases.
- h The proportion of cases not evaluated in the DOTS 2001 cohort of new smear-positive cases.
- i Treatment success in the DOTS 2001 cohort of new smear-positive cases (see Table 2).
- j–r: as in a–i, above, but for the DOTS 2001 cohort of retreatment cases (all types of retreatment combined).
- s–aa: as in a–i, above, but for the non-DOTS 2001 cohort of new smear-positive cases.

Country data for South-East Asia: notification, detection and DOTS coverage, 2002

	Country information																										
	Notified TB						Estimated TB						DOTS						non-DOTS								
	Pop thousands	All cases number	rate	New sst+ number	rate	%	All cases number	rate	New sst+ number	rate	%	Detection rate %	All cases number	rate	New sst+ number	rate	%	All cases number	rate	New sst+ number	rate	%	All cases number	rate	New sst+ number	rate	%
Bangladesh	143 809	81 822	57	46 771	33	317 839	221	143 004	99	26	33	95	71 637	50	45 701	32	32	70	10 185	1 070	13	936	407	57	1 539	654	55
Bhutan	2 190	1 089	50	364	17	2 577	118	1 159	53	42	31	100	1 089	50	364	17	31	49	9 347	4 286	52	936	407	57	1 539	654	55
DPR Korea	22 541	40 159	178	18 576	82	36 010	160	16 205	72	112	115	66	30 812	137	14 290	63	88	52	511 251	150 698	33	936	407	57	1 539	654	55
India	1 049 549	1 060 951	101	395 833	38	1 761 339	168	787 162	75	60	50	52	549 700	52	245 135	23	31	55	511 251	150 698	33	936	407	57	1 539	654	55
Indonesia	217 131	155 188	71	76 230	35	556 625	256	250 256	115	28	30	98	155 188	71	76 230	35	30	51	511 251	150 698	33	936	407	57	1 539	654	55
Maldives	309	125	40	60	19	145	47	65	21	86	92	100	125	40	60	19	92	67	511 251	150 698	33	936	407	57	1 539	654	55
Myanmar	48 852	57 012	117	24 162	49	75 030	154	33 211	68	76	73	88	57 012	117	24 162	49	73	57	511 251	150 698	33	936	407	57	1 539	654	55
Nepal	24 609	30 359	123	13 714	56	46 714	190	20 931	85	65	66	89	29 423	120	13 307	54	64	59	511 251	150 698	33	936	407	57	1 539	654	55
Sri Lanka	18 910	8 939	47	4 297	23	10 280	54	4 623	24	87	93	73	7 400	39	3 643	19	79	66	511 251	150 698	33	936	407	57	1 539	654	55
Thailand	62 193	49 581	80	25 593	41	79 503	128	35 246	57	62	73	100	49 581	80	25 593	41	73	61	511 251	150 698	33	936	407	57	1 539	654	55
Timor-Leste	739	2 760	374	1 090	148	4 103	556	1 845	250	67	59	78	2 760	374	1 090	148	59	48	511 251	150 698	33	936	407	57	1 539	654	55
Region	1 590 832 546	1 487 985	94	606 690	38	2 890 166	182	1 293 706	81	51	47	66	954 727	60	449 575	28	35	56	533 258	157 115	33	936	407	57	1 539	654	55

See explanatory notes, page 129.

Country data for South-East Asia, cont'd: age and sex distribution of smear-positive cases in DOTs areas, 2002 (absolute numbers)

	MALE						FEMALE						ALL									
	0-14	15-24	25-34	35-44	45-54	55-64	65+	0-14	15-24	25-34	35-44	45-54	55-64	65+	0-14	15-24	25-34	35-44	45-54	55-64	65+	
Bangladesh	439	4 381	6 113	6 864	5 845	4 387	3 603	569	3 046	3 864	2 747	2 043	963	837	1 008	7 427	9 977	9 611	7 888	5 350	4 440	4 440
Bhutan	5	54	51	32	26	22	19	6	54	38	22	20	5	10	11	108	89	54	46	27	29	29
DPR Korea	153	1 111	1 755	1 988	2 014	950	573	108	807	1 323	1 263	1 158	686	401	261	1 918	3 078	3 251	3 172	1 636	974	974
India	1 341	29 912	38 895	38 836	31 865	20 105	10 716	2 809	21 560	21 501	13 037	7 857	4 492	2 172	4 150	51 472	60 396	51 873	39 722	24 597	12 888	12 888
Indonesia	569	7 826	10 248	8 760	7 668	5 332	2 891	650	7 366	8 794	6 773	4 943	3 118	1 292	1 219	15 192	19 042	15 533	12 611	8 450	4 183	4 183
Maldives	0	11	9	0	1	5	8	1	8	5	4	5	1	2	1	19	14	4	6	6	6	10
Myanmar	64	2 125	3 986	4 016	3 022	1 671	1 067	109	1 563	2 044	1 758	1 348	845	544	173	3 688	6 030	5 774	4 370	2 516	1 611	1 611
Nepal	114	1 919	1 651	1 626	1 528	1 436	755	194	1 189	1 010	754	525	409	197	308	3 108	2 661	2 360	2 053	1 845	952	952
Sri Lanka	8	251	355	601	671	467	302	13	276	205	161	121	125	87	21	527	560	762	792	592	389	389
Thailand	35	1 352	3 805	3 699	3 155	2 556	3 077	61	897	1 525	1 212	1 143	1 307	1 769	96	2 249	5 330	4 911	4 298	3 863	4 846	4 846
Timor-Leste	13	119	145	119	107	58	35	20	118	124	88	91	40	13	33	237	269	207	198	98	48	48
Region	2 741	49 061	67 013	66 541	55 902	36 989	23 046	4 540	36 884	40 433	27 819	19 254	11 991	7 324	6 273	78 518	97 469	84 749	67 268	43 630	25 930	25 930

note: the sum of cases notified by age is less than the number of new smear-positive cases notified for some countries

Country data for South-East Asia, cont'd: age and sex distribution of smear-positive cases in non-DOTS areas, 2002 (absolute numbers)

	MALE					FEMALE					ALL										
	0-14	15-24	25-34	35-44	45-54	55-64	65+	0-14	15-24	25-34	35-44	45-54	55-64	65+	0-14	15-24	25-34	35-44	45-54	55-64	65+
Bangladesh	10	109	175	174	136	106	79	6	58	62	44	58	25	28	16	167	237	218	194	131	107
Bhutan	46	333	527	596	604	285	172	32	242	397	379	347	206	120	78	575	924	975	951	491	292
DPR Korea	1 210	10 011	15 824	16 983	12 667	8 094	4 244	1 391	7 013	10 445	8 341	5 376	3 144	1 642	2 601	17 024	26 269	25 334	18 043	11 238	5 886
Indonesia																					
Maldives																					
Myanmar																					
Nepal	15	61	56	60	51	29	3	8	14	31	42	19	17	1	23	75	87	102	70	46	4
Sri Lanka	3	36	56	81	117	84	64	6	44	43	44	30	26	20	9	80	99	125	147	110	84
Thailand																					
Timor-Leste																					
Region	1 284	10 550	16 638	17 904	13 575	8 598	4 562	1 443	7 371	10 978	8 850	5 830	3 418	1 811	2 727	17 921	27 616	26 754	19 405	12 016	6 373

note: the sum of cases notified by age is less than the number of new smear-positive cases notified for some countries

Country data for South-East Asia, cont'd: smear-positive notification rates (per 100 000 population) by age and sex, 2002

	MALE					FEMALE					ALL										
	0-14	15-24	25-34	35-44	45-54	55-64	65+	0-14	15-24	25-34	35-44	45-54	55-64	65+	0-14	15-24	25-34	35-44	45-54	55-64	65+
Bangladesh	2	30	55	84	111	153	162	2	22	37	36	42	33	37	2	26	46	61	77	92	99
Bhutan	1	24	35	32	35	42	43	1	25	27	22	27	9	20	1	24	31	27	31	25	31
DPR Korea	7	82	111	147	244	119	123	5	62	87	97	142	80	63	6	72	99	122	193	99	89
India	1	39	64	81	92	93	60	2	30	41	34	29	24	14	2	35	53	59	62	58	35
Indonesia	2	36	55	61	79	87	58	2	35	47	48	51	45	21	2	36	51	54	65	64	38
Maldives	0	33	42	0	11	84	142	2	25	25	29	51	19	39	1	29	34	14	31	54	93
Myanmar	1	44	98	137	143	131	103	1	33	49	58	60	61	44	1	38	73	97	101	95	71
Nepal	3	79	95	131	181	253	179	4	52	61	63	62	70	41	3	66	78	98	122	159	105
Sri Lanka	0	16	26	46	70	73	56	1	18	17	15	16	24	16	1	17	22	31	45	51	36
Thailand	0	23	69	82	100	131	192	1	16	27	25	33	62	88	1	20	48	53	65	95	134
Timor-Leste	9	135	312	262	353	299	336	14	158	390	207	317	209	116	11	145	343	235	336	255	222
Region	1	38	64	82	97	101	75	2	30	42	38	37	33	22	2	34	53	60	67	66	47

Rates are missing where data for smear-positive cases are missing, or where age- and sex-specific population data are not available.

Country data for South-East Asia, cont'd: number of TB cases notified, 1980-2002

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Bangladesh	39 774	42 644	49 870	52 961	45 679	41 802	45 599	45 355	44 280	45 191	48 673	56 052	31 400	54 001	48 276	56 437	63 471	63 420	72 256	79 339	75 557	76 302	81 822
Bhutan	1 539	2 657	720	1 017	904	1 073	1 582	608	1 126	1 525	1 154	996	140	108	1 159	1 299	1 271	1 211	1 292	1 174	1 140	1 037	1 089
DPR Korea									0									11 050	1 152	12 287	34 131	29 284	40 159
India	705 600	769 540	923 095	1 075 098	1 109 310	1 168 804	1 279 536	1 403 122	1 457 288	1 510 500	1 519 182	1 555 353	1 121 120	1 081 279	1 114 374	1 218 183	1 290 343	1 132 859	1 102 002	1 218 743	1 115 718	1 085 075	1 060 951
Indonesia	25 235	32 461	33 000	31 809	32 432	17 681	16 750	97 505	105 516	74 470	60 808	98 458	92 92	62 966	49 647	35 529	24 647	22 184	40 497	69 064	84 591	92 792	155 188
Maldives	73	112	111	143	123	91	111	115	85	203	152	123	92	175	249	231	212	173	176	153	132	139	125
Myanmar	12 744	12 461	12 069	11 012	11 045	10 506	10 840	11 986	9 348	10 940	12 416	14 905	17 000	19 009	15 583	18 229	22 201	17 122	14 756	19 626	30 840	42 838	57 012
Nepal	1 020	337	1 459	700	190	52	252	1 012	1 603	11 003	8 983	8 983	13 161	15 572	19 604	22 970	22 970	24 158	24 135	27 356	29 519	29 519	30 359
Sri Lanka	6 212	6 288	7 334	6 666	6 376	5 889	6 596	6 411	6 092	6 429	6 666	6 174	6 802	6 809	6 132	5 710	5 366	6 542	6 925	7 157	8 413	7 499	8 939
Thailand	45 704	49 452	48 553	65 413	69 240	77 611	52 152	51 835	50 021	44 553	46 510	43 858	47 687	49 668	47 767	45 428	39 871	30 262	15 850	29 413	34 187	49 656	49 581
Timor-Leste																							2 760
Region	837 901	915 952	1 076 211	1 244 819	1 275 299	1 323 509	1 413 418	1 520 444	1 667 348	1 735 860	1 719 365	1 747 252	1 322 709	1 287 176	1 298 759	1 400 850	1 470 352	1 308 981	1 279 041	1 464 312	1 414 228	1 414 141	1 487 985
number reporting	9	9	9	9	9	9	9	8	10	9	9	9	8	9	9	9	9	10	10	10	10	10	11
percent reporting	90	90	90	90	90	90	90	80	100	90	90	90	80	90	90	90	90	100	100	100	100	100	100

Country data for South-East Asia, cont'd: case notification rates (per 100 000 population), 1980-2002

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Bangladesh	47	49	56	58	48	43	46	45	43	42	44	50	27	46	40	46	50	49	55	59	55	54	57
Bhutan	117	197	52	72	62	72	104	39	70	92	68	58	8	6	65	72	69	64	66	59	55	49	50
DPR Korea									0									51	5	56	153	131	178
India	102	109	129	147	148	153	164	176	179	182	179	180	127	121	122	131	136	117	112	122	110	105	101
Indonesia	17	21	21	20	20	11	10	55	59	41	33	52	33	26	18	12	12	11	20	33	40	43	71
Maldives	46	69	66	83	69	50	59	59	42	97	70	55	40	74	102	92	82	65	64	54	45	46	40
Myanmar	38	36	34	31	30	28	29	31	24	27	31	36	41	45	36	41	50	38	32	42	65	89	117
Nepal	7	2	9	4	1	0	1	6	9	60	54	47	66	76	95	107	107	110	107	119	126	123	123
Sri Lanka	43	43	49	44	41	38	42	40	37	39	40	36	39	39	35	32	30	36	38	39	45	40	47
Thailand	99	105	101	134	139	153	101	99	95	83	86	80	85	88	84	79	68	51	27	49	56	81	80
Timor-Leste																							374
Region	80	85	98	111	111	113	119	125	134	137	133	133	99	94	93	99	102	89	86	96	92	90	94

Country data for South-East Asia, cont'd: new smear-positive cases, 1993-2002

	Number of cases												Rate (per 100 000 population)											
	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002				
Bangladesh	18 993	1 710	20 524	29 674	33 117	37 737	37 821	38 484	40 777	46 771	16	1	17	23	26	29	28	28	29	33				
Bhutan		352	367	308	284	270	315	347	359	364		20	20	17	15	14	16	17	17	17				
DPR Korea					3 960	403	5 073	16 440	14 429	18 576		25	28	31	28	2	23	74	64	82				
India	225 256	226 543	264 515	290 953	274 877	278 275	345 150	349 374	384 827	395 833	25	25	28	28	28	28	35	34	37	38				
Indonesia	62 966	49 647	31 768	11 790	19 492	32 260	49 172	52 338	53 965	76 230	33	26	16	6	10	16	24	25	25	35				
Maldives	126	125	114	106	95	88	88	65	59	60	53	51	46	41	36	32	31	22	20	19				
Myanmar			8 681	9 716	9 695	10 089	11 458	17 254	21 161	24 162														
Nepal	6 679	10 442	8 591	10 365	11 323	11 306	13 410	13 683	13 683	13 714	33	51	41	48	52	50	58	58	57	56				
Sri Lanka	3 335	3 405	3 049	2 958	3 506	3 761	3 911	4 314	4 316	4 297	19	19	17	16	19	21	21	23	23	23				
Thailand																								
Timor-Leste		20 260	20 273	16 997	13 214	7 962	14 934	17 754	28 363	25 593		35	35	29	22	13	25	29	46	41				
Region	317 355	312 484	357 882	372 867	369 583	382 171	481 332	510 053	561 939	606 690	23	22	25	26	25	26	32	33	36	38				

Notes

BANGLADESH There is a discrepancy between the population estimates used by the government (129 247 233) and that used by the UN (140 000 546). Country offers additional information on geographic “access” to DOTS services, which it estimates to be about 50% (versus 95% DOTS coverage).

BHUTAN Estimates of the population vary widely, from 800 000 to over 2 million.

NEPAL Data are from a calendar starting 16 July.

THAILAND Prisons contributed to case notifications. Notifications are from a October-September calendar.