

Fig.1 Initial treatment regimen of newly notified tuberculosis patients by age group,

Treatment history Re-treatment Proportion of Newly notified re-treatment Age group Re-treatment, past tuberculosis tuberculosis New Unknown history of LTBI patients patietns (%) Re-treatment, all treatment (re-count) Total 21,283 19,576 1,336 95 371 6.4 0-4 0 0 0.0 30 30 0 5-9 12 10 2 0 16.7 1 10-14 21 20 1 0 4.8 1 15-19 165 151 14 12 0 8.5 568 27 20-24535 8 6 4.8 39 25-29 720 677 11 4 5.4 32 30-34 712 675 9 5 4.5 35-39 816 764 47 5 5 5.8 40-44 850 803 45 9 2 5.3 45-49 750 61 10 3 686 8.2 789 50-54 749 36 3 4 4.6 55-59 1,006 923 81 9 2 8.1 60-64 1,537 1,425 91 5 21 6.0 65-69 1,475 1,355 108 4 12 7.4 70-74 1,984 1,802 140 2 42 7.2 75-79 2,611 2,378 187 4 46 7.3 80-84 3,100 211 76 7.0 2,813 1

162

52

90

53

1

0

6.3

3.6

Table 1 Number of tuberculosis patients by treatment history and age group, 2012

Proportion of re-treatment tuberculosis patients: those of unknown treatment history excluded

2,401

1,379

LTBI: Latent Tuberculosis Infection

2,653

1,484

85-89

90+

N/	<b>T</b> ( 1		Age group (yrs)									
Year	Total	0-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	(Re-count)*		
Total	1,336	17	66	79	106	117	199	327	425	165		
∼1949	97	0	0	0	0	0	4	12	81	10		
1950-59	190	0	0	0	0	1	7	72	110	11		
1960-69	99	0	0	0	1	4	22	37	35	8		
1970-79	52	0	0	1	1	5	8	20	17	5		
1980-89	54	0	0	2	5	14	12	11	10	2		
1990-99	92	1	2	6	18	14	18	22	11	14		
2000-09	407	8	25	36	44	50	71	84	89	46		
2010-12	342	8	39	33	37	29	57	69	70	68		
Unknown	3	0	0	) 1	0	0	0	0	2	1		
(Re-count) 20	000-2012											
2000	11	0	0	0	2	2	2	3	2	0		
2001	19	0	1	3	2	1	4	4	4	3		
2002	26	2	1	1	4	2	2	11	3	4		
2003	21	0	2	0	2	3	1	9	4	3		
2004	34	0	2	5	4	7	6	6	4	5		
2005	29	0	3	2	3	4	7	5	5	3		
2006	47	0	3	9	3	3	9	7	13	5		
2007	47	1	1	7	4	7	10	7	10	2		
2008	82	0	5	4	10	11	16	13	23	9		
2009	91	5	7	5	10	10	14	19	21	12		
2010	138	1	13	11	13	12	25	30	33	16		
2011	167	4	19	19	18	15	28	32	32	26		
2012	37	3	7	3	6	2	4	. 7	5	26		

Table 2 Number of retreatment tuberculosis patients by previous treatment year and age group, 2012

\*: (Re-count) Unknown of previous treatment regimen

Table 3 Treatment with PZA in initial phase among newly notified tuberculosis patients in 2011 and completed standard treatment

	Total	Completed (%)
Total	13,650	11,225(100)
2 months	8,609	8,252 (89.5)
$\geq$ 1 month and <2 months	607	503 (5.5)
<1 month	601	463 (5.0)
Unknown	3,833	2,007 (-)

(%):Proportions: unknown cases excluded PZA: Pyrazinamide

		Previous treatment regimen										
Age group	Retreatment	Regimen with HRZ	Other regimen with HR	Other regimen	LTBI treatment	Unknown						
総数 Total	1,266	398	241	173	95	359						
0-4	0	0	0	0	0	0						
5-9	1	0	0	0	1	0						
10-14	1	0	0	0	1	0						
15-19	14	2	0	0	12	0						
20-24	27	15	1	0	8	3						
25-29	37	16	2	0	11	8						
30-34	32	16	3	1	9	3						
35-39	45	25	8	1	5	6						
40-44	43	20	7	0	9	7						
45-49	58	28	10	0	10	10						
50-54	35	15	8	0	3	9						
55-59	79	30	17	3	9	20						
60-64	88	42	12	5	5	24						
65-69	100	43	15	16	4	22						
70-74	129	43	26	22	2	36						
75-79	175	47	25	35	4	64						
80-84	200	41	37	47	1	74						
85-89	155	10	56	35	1	53						
90+	47	5	14	8	0	20						

Previous table Number of retreatment tuberculosis patients by previous tuberculosis treatment regimen and age group, 2012

H : Isoniazid, R : Rifampicin, Z : Pyrazinamide

LTBI : Latent Tuberculosis Infection

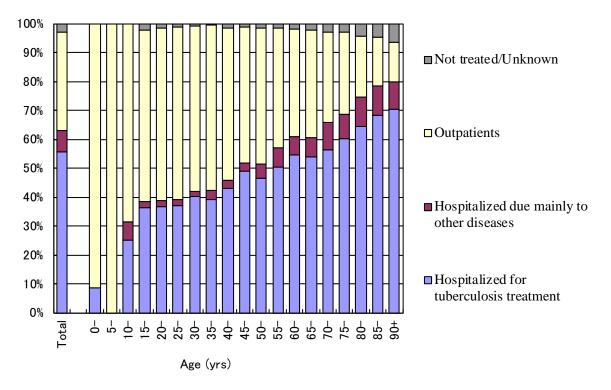


Fig.2 Proportion of initial treatment status among newly notified pulmonary tuberculosis patients by age group, 2012

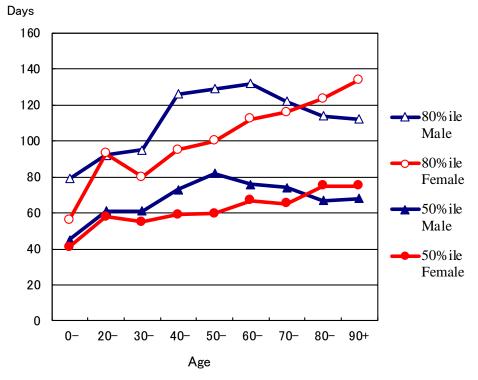


Fig.3 Median (50% ile) and 80% ile of duration of hospitalization among those hospitalized with tuberculosis and with known discharged day, new sputum-smear positive pulmonary tuberculosis patients in 2011 by sex

Table 4 Duration of hospitalization among newly notified tuberculosis patients receiving initial treatment at hospital in 2011 by patient classification

	Newly notified tuberculosis patients												
	64		Pulmonary tuberculosis patients										
	- Total	Total –	Sputum-sm	near positive	Other bacteriologicall	Bacteriologically negative and	Extra- pulmonary tuberculosis						
		Total	New	Re-treatment	y positive	others	patients						
Total	22,508	17,449	7,736	747	6,049	2,917	5,059						
Hospitalized with tuberculosis	10,922	9,510	7,046	641	1,475	348	1,412						
Known date of discharge	8,690	7,743	5,872	532	1,108	231	947						
Duration of hospitalization among those hospitali	zed with tuberc	ulosis and wi	th known da	te of discharge									
Median (days)	64	66	70	72	44	39	43						
80% ile (days)	114	116	118	122	95	107	99						

\*: Irrespective of the reason for discharge from hospital

classification Newly notified tuberculosis patients Pulmonary tuberculosis patients (Not included in the total) Extra-pulmonary Sputum-smear positive Other Bacteriologically Total LTBI tuberculosis patients bacteriologically Total negative and New Re-treatment positive others New cases in 2010\* 18,277 8,242 794 4,902 23,155 6,358 2,883 4,878 Known treatment status 22,612 (100%) 17,819 (100%) 8,068 (100%) 780 (100%) 6,138 (100%) 2,833 (100%) 4,793 (100%) 4,826 (100%) Stopped treatment 18,010 (79.6) 14,207 (79.7) 6,106 (75.7) 566 (72.6) 5,098 (83.1) 2,437 (86.0) 3,803 (79.3) (92.4) 4,461 Completed 16,072 (71.1) 12,704 (71.3) 5,294 (65.6) 475 (60.9) 4,694 (76.5) 2,241 (79.1) 3,368 (70.3) 4,018 (83.3)Others 1,732 (7.7) 1,336 (7.5) 735 (9.1) 82 (10.5) 361 (5.9)158 (5.6) 396 (8.3) 337 (7.0)Defaulted 197 (0.9) 160 (0.9) 72 (0.9) 9 (1.2) 41 (0.7) 38 (1.3) (0.8)(2.1)37 99 Unknown 9 (0.0) 7 (0.0) 5 (0.1) 0 (0.0) 2 (0.0) 0 (0.0) 2 (0.0) 7 (0.1)Median of duration of treatment among those completed treatment and still receiving treatment Subjects# 17,435 13,698 5,740 547 5,002 2,409 3,737 4,225 272 272 276 290 Median (days) 244 197 272 183 New cases in 2011\*\* 22,508 17,449 7,736 747 6,049 2,917 5,059 10,096 21.984 (100%) 17.001 (100%) 7.587 (100%) 734 (100%) 5.825 (100%) 2.855 (100%) 4.983 (100%) 10.015 (100%) Known treatment status Stopped treatment 18,525 (84.3) 14,318 (84.2) 6,126 (80.7) 574 (78.2) 5,058 (86.8) 2,560 (89.7) 4,207 (84.4) 9,318 (93.0) 461 (62.8) 4,570 (78.5) 2,344 (82.1) (82.2)Completed 16,099 (73.2) 12,493 (73.5) 5,118 (67.5) 3,606 (72.4) 8,232 Others 1,398 (6.4) 62 (8.4) (7.8)899 1,009 (5.9) 546 (7.2) 271 (4.7)130 (4.6) 389 (9.0)Defaulted 178 (0.8) 147 (0.9) 60 (0.8) 8 (1.1) 49 (0.8) 30 (1.1) 31 (0.6)170 (1.7)42 (5.7) Missing/Moved out of japan /Dead 838 (3.8) 658 (3.9) 399 (5.3) 166 (2.8) 51 (1.8) 180 (3.6)11 (0.1)12 (0.1) 11 (0.1) 3 (0.0) 1 (0.1) 2 (0.0) 5 (0.2) 1 (0.0) (0.1)Unknown 6 Median of duration of treatment among those completed treatment and still receiving treatment 12,930 2,422 8,609 Subjects# 16,742 5,299 491 4,718 3,812 273 274 184 Median (days) 272 276 288 269 196

Table 5 Treatment status and duration of treatment at the end of the following years (2011/2012) among those newly notified and started tuberculosis treatment in the previous years (2010/2011) by patient

\*: Based on the annual report database in 2011 \*\*: Based on the annual report database in 2012

# Subjects: Those who completed tuberculosis treatment or those who were still receiving treatment at the end of years (2011/2012).

LTBI: Latent Tuberculosis Infection

				Pulmon	ary TB							
Age	Total		Sputum smear Other bacilla positive positive			-	negative			Extra-pulmonary		
	Ht	Но	Ht	Но	Ht	Но	Ht	Но	Ht	Но		
Total	55.7	7.2	90.3	2.3	25.0	13.2	11.5	9.5	28.7	21.1		
0-19	30.5	2.1	88.9	0.0	24.5	8.2	5.4	0.0	41.5	7.3		
20-29	36.8	2.0	94.7	0.6	15.8	3.0	4.9	2.3	19.4	12.4		
30-39	39.6	2.4	90.8	0.2	13.8	4.4	7.2	2.6	17.7	10.8		
40-49	45.7	2.9	89.7	0.5	15.6	5.0	7.5	4.3	16.5	12.6		
50-59	48.7	5.8	89.9	2.2	15.7	8.4	7.3	9.8	23.6	16.2		
60-69	54.3	6.4	90.1	2.3	21.5	11.0	13.9	9.2	22.2	18.3		
70-79	58.6	8.8	91.3	2.5	23.8	15.5	12.1	17.8	28.4	22.9		
80-89	66.1	10.3	89.6	3.1	35.0	20.4	24.5	20.7	36.1	25.3		
90+	70.2	9.7	89.1	3.1	43.2	20.4	33.3	15.2	39.9	30.2		

Previous table Proportion (%) hospitalized among newly notified uberculosis patients in 2012 by age group and patient classification

Ht: Hospitalized for tuberculosis treatment

Ho: Hospitalized mainly due to other diseases

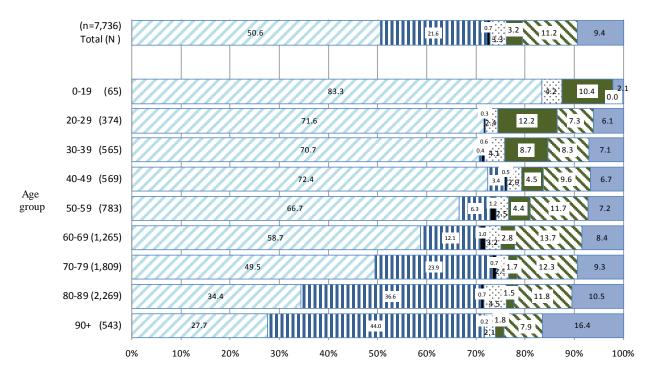
Previous table Outcome of treatment with INH or RFP in initial phase among those newly notified TB patients in 2011 by completion of standard regimen

	Treatment v	vith INH	Treatment with RFP					
	Total	Completed	Total	Completed				
Total	21,647	15,976 (100%)	21,484	15,964 (100%)				
Full course without interruption	12,091	11,359 (71.1)	12,171	11,516 (72.1)				
Full course with interruption	1,165	963 (6.0)	1,211	1,018 (6.4)				
Interrupted and discontinued	727	413 (2.6)	539	194 (1.2)				
Unknown*	7,664	3,241 (20.3)	7,563	3,236 (20.3)				

\*: Including those who were still receiving treatment with INH or RFP and those who were deleted from registration during their treatment.

INH : Isoniazid, RFP : Rifampicin

## [Treatment Outcomes]



□ Treatment □ Died ■ Treatment □ Lost to follow-up ■ Transfer out ■ Still on treatment ■ Unclassified success failure

Fig. 4 Treatment outcomes of newly notified sputum-smear positive pulmonary tuberculosis patients by age group, 2011 year cohort (%)

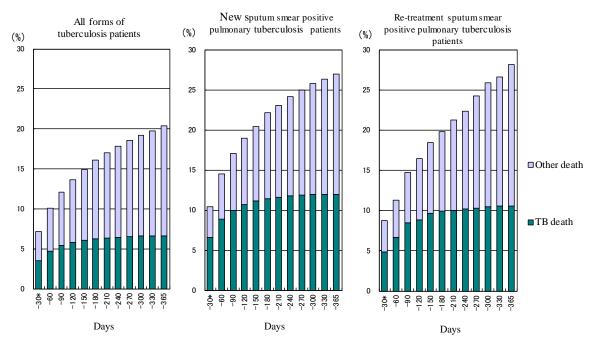


Fig. 5 Cumulative proportion of deaths among newly notified tuberculosis patients in 2011 by period from the beginning of treatment through one year

-30\*: Includes patients who died before the commencement of treatment. TB: tuberculosis

			Pulmonary tuberculosis patients										
	Tota		ŝ	Sputum-smea	r positive	C	ther bacter	iologically	Bacteriolo negative				
	1012	n —	Nev	v	Retreatment		positive		others				
New pulmonary tuberculosis patients	17,449	(100%)	7,736	(100%)	747	(100%)	6,049	(100%)	2,917	(100%)			
Treatment outcomes (*)													
1. Treatment Success	9,550	54.7	3,911	50.6	308	41.2	3,508	58.0	1,823	62.5			
Cure	2,764	15.8	1,544	20.0	136	18.2	779	12.9	305	10.5			
Treatment completed	6,786	38.9	2,367	30.6	172	23.0	2,729	45.1	1,518	52.0			
Treatment Completed 1	4,535	26.0	1,600	20.7	117	15.7	1,301	21.5	1,517	52.0			
Treatment Completed 2	2,251	12.9	767	9.9	55	7.4	1,428	23.6	1	0.0			
2. Died	2,754	15.8	1,673	21.6	159	21.3	739	12.2	183	6.3			
3. Treatment failed	173	1.0	56	0.7	10	1.3	100	1.7	7	0.2			
4. Lost to follow-up	1,004	5.8	255	3.3	25	3.3	406	6.7	318	10.9			
Lost to follow-up 1	262	1.5	82	1.1	13	1.7	85	1.4	82	2.8			
Lost to follow-up 2	742	4.3	173	2.2	12	1.6	321	5.3	236	8.1			
5. Transferred out	513	2.9	250	3.2	32	4.3	136	2.2	95	3.3			
6. Still on treatment	1,671	9.6	867	11.2	114	15.3	515	8.5	175	6.0			
Still on treatment 1	272	1.6	140	1.8	22	2.9	88	1.5	22	0.8			
Still on treatment 2	203	1.2	104	1.3	9	1.2	64	1.1	26	0.9			
Still on treatment 3	569	3.3	318	4.1	34	4.6	173	2.9	44	1.5			
Still on treatment 4	627	3.6	305	3.9	49	6.6	190	3.1	83	2.8			
7. Unclassified	1,784	10.2	724	9.4	99	13.3	645	10.7	316	10.8			
Unclassified 1	149	0.9	58	0.7	5	0.7	66	1.1	20	0.7			
Unclassified 2	142	0.8	80	1.0	8	1.1	37	0.6	17	0.6			
Unclassified 3	766	4.4	319	4.1	56	7.5	278	4.6	113	3.9			
Unclassified 4	105	0.6	31	0.4	3	0.4	53	0.9	18	0.6			
Unclassified 5	622	3.6	236	3.1	27	3.6	211	3.5	148	5.1			

Table 6 Treatment outcome of newly notified pulmonary tuberculosis patients by patient classification, 2011 year cohort

\*Treatment outcomes: See Table 7. It includes those who did not start tuberculosis treatment (mostly caused by early death), those whose initial treatment regimen is unknown, those whose treatment is other than standard treatment, those who stopped INH and/or RFP before treatment completion, and those whose information is insufficient for classifying treatment outcomes.

INH: isoniazid, RFP: rifampicin

Treatment outcomes	Definition	2007	2008	2009	2 8,242 7   7 20.1 1   2 27.4 1   3 20.8 1   3 20.8 1   3 0.6 1   3 3.0 1   3 8.3 8.3	2011
	n=	9,421	8,999	8,772	8,242	7,736
1. Cure	A patient who completed treatment within 12 months and whose sputum culture tests were negative at least two times (one of the negative culture results was within three months before the completion of treatment).	16.9	17.6	20.7	20.1	20.0
2. Treatment completed 1	A patient who completed treatment within 12 months but had only one negative sputum culture result.	24.9	26.8	27.2	27.4	20.
3. completed 2	A patient who completed treatment within 12 months but did not have a negative sputum culture result.	3.8	3.4	3.9	4.5	9.9
4. Died	A patient who died for any reason during the course of treatment.	18.4	19.1	19.3	20.8	21.0
5. Treatment failure	A patient whose sputum culture was positive at 5 months or later during the course of treatment.	1.0	1.1	0.9	0.7	0.
6. Lost to follow-up 1	A patient whose treatment was interrupted for 60 days (or 2 consecutive months) or more.	0.7	0.6	0.8	0.6	1.1
7. Lost to follow-up 2	A patient whose physician stopped treatment but the amount of treatment days did not fulfil the standard duration.	4.3	3.2	2.9	2.3	2.:
8. Transferred out	A patient who has been transferred to another area of the public health center where the patient was registered.	3.2	2.8	3.3	3.0	3.:
9. Still on treatment 1	A patient who stopped Isoniazid (INH) and/or Rifampicin (RFP) and was still on treatment after 12 months.	1.7	1.4	2.0	1.6	1.8
0. Still on treatment 2*	A patient who has been on treatment with INH and/or RFP and was still on treatment after 12 months due possibly to treatment interruption.	10.3	10.5	8.8	8.3	1.:
1. Still on treatment 3	A patient who has been on treatment with INH and/or RFP and was still on treatment after 12 months without treatment interruption.					4.1
2. Still on treatment 4	A patient who has been on treatment with INH and/or RFP and was still on treatment after 12 months due to unknown reasons.					3.9
13. Unclassifi ed 1	A patient who did not start tuberculosis treatment (due mostly to early death).	1.9	2.2	2.1	2.1	0.
4. Unclassified 2	A patient whose initial treatment regimen was unknown.	4.3	3.9	1.4	1.2	1.0
5. Unclassified 3	A patient whose treatment regimen was other than the standard.	2.5	2.7	2.5	2.7	4.
6. Unclassified 4	A patient who stopped INH and/or RFP but completed treatment within 12 months.	1.1	1.1	1.3	1.1	0.4
17. Unclassified 5	A patient whose information was insufficient for classifying	5.1	3.8	2.9	3.5	3.1

Table 7 Treatment outcomes of newly notified sputum smear positive pulmonary tuberculosis patients, 2007-2011 year cohorts (%)

\*There were two categories of "Still on treatment" until 2010 cohorts. Since 2011, the categories have been divided into four kinds as indicated.

	Newly notified tuberculosis patients													
				Pulmonary tuberculosis									- LTBI patients	
	Tota	Total		Sub-total		Sputum-smear positive		Other bacillary	Bacteriol	ogically	- Extra-pulmonary	(Not included in the total) 4,902		
	23,155				New	New 8,242		ment	positive	2,883				
New tuberculosis cases in 2010*					8,242				6,358					4,878
Total number of patients excluded from tuberculosis registration by the end of 2011	6,372	(27.5)	5,086	(27.8)	2,744	(33.3)	272	(34.3)	1,547 (24.3	523	(18.1)	1,286 (26.4)	843	(17.2)
No need for follow-up	239	(1.0)	111	(0.6)	10	(0.1)	0	(0.0)	43 (0.7	') 58	(2.0)	128 (2.6)	431	(8.8)
Died	4,935	(21.3)	3,964	(21.7)	2,293	(27.8)	234	(29.5)	1,160 (18.2	2) 277	(9.6)	971 (19.9)	41	(0.8)
Tuberculosis death	1,484	(6.4)	1,266	(6.9)	957	(11.6)	77	(9.7)	188 (3.0	)) 44	(1.5)	218 (4.5)	1	(0.0)
Other death	3,451	(14.9)	2,698	(14.8)	1,336	(16.2)	157	(19.8)	972 (15.3	3) 233	(8.1)	753 (15.4)	40	(0.8)
Transfer out	934	(4.0)	793	(4.3)	358	(4.3)	24	(3.0)	263 (4.1	) 148	(5.1)	141 (2.9)	263	(5.4)
Re-treatment during registration	149	(0.6)	127	(0.7)	55	(0.7)	9	(1.1)	44 (0.7	') 19	(0.7)	22 (0.5)	28	(0.6)
Other reason	115	(0.5)	91	(0.5)	28	(0.3)	5	(0.6)	37 (0.6	5) 21	(0.7)	24 (0.5)	80	(1.6)
New tuberculosis cases in 2011**	22,508		17,449		7,736		747		6,049	2,917		5,059	10,096	
Total number of patients excluded from tuberculosis registration by the end of 2012	6,385	(28.4)	5,045	(28.9)	2,710	(35.0)	279	(37.3)	1,532 (25.3	3) 524	(18.0)	1,340 (26.5)	1,240	(12.3)
No need for follow-up	136	(0.6)	48	(0.3)	5	(0.1)	1	(0.1)	16 (0.3	3) 26	(0.9)	88 (1.7)	465	(4.6)
Died	5,050	(22.4)	3,994	(22.9)	2,267	(29.3)		(30.4)	1,206 (19.9	·	(10.1)	, ,	65	(0.6)
Tuberculosis death	1,502	(6.7)	1,258	(7.2)	932	(12.0)	80	(10.7)	184 (3.0	)) 62	(2.1)	) 244 (4.8)	0	(0.0)
Other death	3,548	(15.8)	2,736	(15.7)	1335	(17.3)	147	(19.7)	1022 (16.9	) 232	(8.0)	812 (16.1)	65	(0.6)
Transfer out	983	(4.4)	828	(4.7)	354	(4.6)	47	(6.3)	255 (4.2	2) 172	(5.9)	155 (3.1)	592	(5.9)
Re-treatment during registration	138	(0.6)	118	(0.7)	65	(0.8)	4	(0.5)	34 (0.6	5) 15	(0.5)	20 (0.4)	51	(0.5)
その他の理由 Other reason	78	(0.3)	57	(0.3)	19	(0.2)	0	(0.0)	21 (0.3	6) 17	(0.6)	) 21 (0.4)	67	(0.7)

\*: Based on the annual report database in 2011 \*\*: Based on the annual report database in 2012

LTBI : Latent Tuberculosis Infection