ANNUAL REPORT 2012

TUBERCULOSIS & CHEST SERVICE

OF THE

DEPARTMENT OF HEALTH

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PREFACE

Tuberculosis (TB) is still a major infectious disease worldwide. In 2012, 8.6 million new TB cases and 1.3 million deaths from TB were estimated to have occurred globally. Over 95% of TB deaths occur in low- and middle-income countries. TB is also causing a quarter of all deaths among people living with HIV. Effective anti-TB treatment has been available for half a century. However, with the long course of treatment required to cure the disease, non-adherence and emergence of drug resistance were encountered since the earliest days of chemotherapy. Globally, 450,000 cases of multidrug-resistant TB (MDR-TB) with bacillary resistance to at least isoniazid and rifampicin were estimated to have emerged in 2012, involving 3.6% of new TB cases and 20.2% of previously treated cases. While MDR-TB is present in virtually all countries surveyed.by the world Health Organisation, twelve countries (India, China, Russian Federation, Philippines, Pakistan, Kazakhstan, South Africa, Indonesia, Ukraine, Myanmar, Uzbekistan, Bangladesh) accounted for 80% of MDR-TB cases. An estimated 9.6% of MDR-TB cases were extensively drug-resistant TB (XDR-TB), defined as MDR-TB with additional resistance to fluoroquinolones and one or more of the three injectable drugs -- kanamycin, amikacin and capreomycin. XDR-TB carries a very poor prognosis with high treatment failure and mortality rates. Significant epidemiological clustering was also observed, probably reflecting the prolonged period of infectiousness with ineffective treatment, especially in the nosocomial settings.

With the effective implementation of directly observed treatment-short course (DOTS) and DOTS-plus in Hong Kong, the overall TB situation and drug resistance problem have been brought under progressive control. The notification rate of TB decreased from a peak of 697 per 100,000 in 1952 to 67.8 per 100,000 in 2011. Fluctuations did occur from time to time, possibly related to changes in attendance and/ or notification patterns. In 2012, the TB notification slightly increased to 67.9 per 100,000. However, with the ageing of the TB epidemic, 40.6% of the TB patients are aged 65 or above, likely reflecting both the high past TB burden and waning immunity/ increasing co-morbidities with age. Despite a smaller elderly population among the males, 47.4% of male TB patients were aged 65 or above, while the corresponding figure for females was 28.7%. The higher smoking prevalence in our male population likely accounted for a substantial portion of the gender disparity, but multiple other factors could also be involved. Bacillary resistance rates to the first-line TB drugs were also on a declining trend, with only about 1% of all culture-confirmed TB being MDR-TB and about 10% of the MDR-TB being XDR-TB. However, the high rates of drug-resistant TB in some neighbouring areas remain an important source of concern, especially in view of the increasingly frequent population movement.

XDR-TB was included as one of the specified diseases under the Prevention and

Control of Disease Regulation (CAP 599A) of the Prevention and Control of Disease Ordinance (CAP 599), which was introduced in 2008 to provide for the control and prevention of diseases, and to apply relevant measures of the International Health Regulations promulgated by the World Health Organization. As a result, statutory provision has been made for a health officer to prohibit, by order in writing, an XDR-TB patient from leaving Hong Kong. In 2012, an order was issued to an XDR-TB patient undergoing treatment for isolation in a hospital for 2 weeks, followed subsequently by another order for home surveillance. Other orders continued to be made to prohibit all known cases of XDR-TB patients from leaving Hong Kong, and XDR-TB patients intercepted at the border would be sent to an infectious disease hospital or other designated places for assessment.

In 2012, the Tuberculosis and Chest Service took an active part in the planning and development of the Communicable Disease Information System (CDIS) by the Centre for Health Protection of the Department of Health. The CDIS would incorporate state-of-the-art technologies such as automated electronic data transfer, geographic information system, advanced statistical packages and functions to support investigation and sharing of information, and it would allow efficient data capture from diverse sources, followed by accurate analysis and timely dissemination of communicable disease alerts and actionable information to the stakeholders as well as the general public. The in-service TB screening guideline was updated in 2012 to streamline the contact tracing and screening arrangements for close contacts. Apart from symptom surveillance, chest x-ray continued to be used as a screening tool for active TB disease. Targeted screening and treatment of latent TB infection were offered predominantly to four risk groups, including household contacts of smear-positive TB, silicosis patients, people living with HIV or patients with immune-mediated inflammatory diseases to be started on tumour necrosis factor-α or other biologics.

Collaborative efforts continued to be made in the evaluation of new diagnostic tools and drugs/ regimens to meet the new challenges in TB control. Conventional culture for TB takes a long turn-over time of weeks to months, and this may delay the diagnosis and affect the management/ public health control for some TB cases, especially for those with more extensive forms of drug resistance. New molecular tools allow rapid diagnosis of TB and early detection of drug resistance. To facilitate the proper management of our patients, real-time DNA amplification assays for sputum/ other clinical specimens for *Mycobacterium tuberculosis* were employed on a highly selective basis to allow rapid diagnosis of TB, especially among sputum smear-negative patients. They were also used to allow rapid differentiation of TB from non-tuberculous mycobacteria from smear-positive patients with atypical clinical and/ or radiological presentation. Genotypic tests for rifampicin, isoniazid and fluoroquinolone resistance were also performed where appropriate.

In line with our previous involvement in the milestone Hong Kong Chest Service/ British Medical Research Council TB trials that helped to establish the standard 6-month short-course regimen, the Hong Kong Tuberculosis Service also joined the Tuberculosis Trial Consortium (TBTC) in 2009 as one of the new study sites for the development and evaluation of new TB treatment regimens. In 2012, new TB patients continued to be recruited into a phase II clinical trial (TBTC study 29x) on the use of different daily doses of rifapentine to substitute for rifampicin in the intensive phase regimen for the treatment of active TB, and another phase IV clinical trial (TBTC study 33) comparing self-administered therapy against directly observed therapy among patients undergoing treatment with the twelve weekly doses of isoniazid and rifapentine for the treatment of latent TB infection was rolled out. It is hoped that some of these pilot and research activities will translate into effective, safe, and affordable tools suitable for large-scale implementation to control, and ultimately eliminate, this major killer in the history of mankind.

Staff members of the Tuberculosis and Chest Service continued to take an active part in various local and international conferences on TB and other lung diseases. A number of scientific papers were published by the TB&CS in collaboration with other investigators/ authors from different sectors in 2012.[1-13] Besides contributing to the body of scientific literature, they also helped to provide some of the necessary data to inform our local TB control programme as well as the management of various respiratory diseases. An exhibition was held by the Hong Kong Tuberculosis, Chest and Heart Diseases Association to commemorate World TB day at Dragon Centre, Shum Shui Po, Kowloon from 24 to 25 March 2012, with the support from the Department of Health and the Hospital Authority. The exhibition promoted public awareness on TB and helped to mobilize community support in the ongoing efforts on the control of TB in Hong Kong.

During the year, 86,577 patients attended the TB&CS as compared to 86,307 in 2011, and the total attendance was 715,005 in comparison with 731,449 in 2011. Among the 86,577 patients, 21,058 patients were new attendants, of whom 24.9% were found free of any chest diseases. The diagnoses among other new patients included active pulmonary tuberculosis (11.7%), active tuberculosis of other forms (4.1%), inactive tuberculosis (5.8%), bronchitis not specified as acute or chronic (14.2%), acute respiratory infection (4.0%), pneumonia (0.2%), malignant neoplasm of trachea and bronchus (1.4%), bronchiectasis (1.7%), asthma (0.7%) and emphysema (0.1%). Among all the attendance, 2,940 hospital admissions were arranged.

Part 1: Tuberculosis

The number of tuberculosis notifications in 2012 was 4,858, making a notification rate of 67.9 per 100,000 population. The corresponding figures in 2011 were 4,794 and 67.8 respectively.

The number of tuberculosis deaths was 199 in 2012 as compared with 187 in 2011. The corresponding tuberculosis mortality rates were 2.8 and 2.6 per 100,000 population in 2012 and 2011.

Tuberculosis stayed outside the top ten causes of death in 2012. Tuberculosis deaths accounted for 0.5% of the total registered deaths in Hong Kong. The average age of tuberculosis deaths was 75.2.

In 2012, 99.5% of the newborns were given direct BCG vaccination at birth. The BCG revaccination programme for primary school children was stopped since the school year starting from September 2000.

HIV testing was done among tuberculosis patients of the TB&CS on a voluntary basis after counselling and consent. The positive rate remained low. On the other hand, unlinked anonymous screening (UAS) was no longer considered necessary and surveillance of HIV among TB patients mainly depends on voluntary HIV testing.

Part 2: Pneumoconiosis

The Pneumoconiosis (Compensation) Ordinance was first introduced in 1980 for compensation of workers who acquired pneumoconiosis as a result of occupational exposure to silica and asbestos dusts. Compensation was paid out in the form of a lump sum according to the assessed degree of incapacity and the expected degree of further deterioration. The Ordinance was amended in 1993 to replace the lump sum payment with monthly payment. Reassessment at 2-yearly interval was also introduced at the same time to update the degree of incapacity for adjustment of the monthly compensation. Previously compensated post-1981 pneumoconiotics could apply for reassessment for compensation for additional incapacity. Further amendments were made in 1996. A flat-rate compensation for pain, suffering, and loss of amenities was payable to all post-1981 pneumoconiotics who had applied for reassessment under the revised scheme, irrespective of whether there was

additional degree of incapacity over previous lump-sum compensation. The 1996 amendment also allowed the Pneumoconiosis Medical Board to take other tests into consideration in adjusting the degree of incapacity as determined by FVC test by a maximum of 5%. The ex-gratia payment scheme for pre-1981 pneumoconiotics was also reviewed. On top of a flat-rate of monthly payment, additional payments were introduced for those in need of constant care, oxygen and medical appliances. In 2008, the Pneumoconiosis (Compensation) Ordinance was amended to cover compensation for mesothelioma and became the Pneumoconiosis and Mesothelioma (Compensation) Ordinance.

A new set of reference values for spirometry were published for the local population in 2006. A calibration study was subsequently performed in the Pneumoconiosis Clinic, comparing the new reference values with those published in 1982 among normal construction and quarry workers as well as silicosis patients. The new set of reference values was shown to reflect the lung function status of normal heavy manual workers better than the older set. Because of such finding, the new set of reference values was adopted for compensation assessment since 2009.

The Pneumoconiosis Clinic continued to provide a full range of outpatient services to patients with suspected or confirmed pneumoconiosis. These services covered not only the assessment aspect, but also addressed the patients' diversified needs in terms of treatment, prevention and rehabilitation. The attendance at the clinic was 6,977 in 2012 compared with 6,869 in 2011. In 2012, 122 new cases of pneumoconiosis or mesothelioma were registered in the TB&CS, and 59 new cases (including 44 cases of silicosis, 3 cases of asbestosis and 12 cases of mesothelioma) were confirmed by the Pneumoconiosis Medical Board. Up to the end of 2012, a total of 4,674 patients had been compensated.

Publications:

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5. Chang KC, Leung CC, Daley CL. Linezolid for multidrug-resistant tuberculosis. Lancet Infect Dis. 2012;12:502-3
6. Leung CC, Yu IT, Chen W. Silicosis. Lancet. 2012;379(9830):2008-18.
7. Leung CC, Lam TH, Yew WW, et al. Obstructive lung disease does not increase lung cancer mortality among female never-smokers in Hong Kong. Int J Tuberc Lung Dis. 2012;16:546-52.

8. Leung CC, Lee SS. Rapid HIV tests: from meta-analysis to field application. Lancet Infect Dis. 2012;12:356-7.
9. Chang KC, Nuermberger EL. 2011: the year in review. part I: tuberculosis. Int J Tuberc Lung Dis. 2012;16:740-8.
10. Porcel JM, Leung CC, Restrepo MI, Lee P. Year in review 2011: Respiratory infections, tuberculosis, pleural diseases, bronchoscopic intervention and imaging. Respirology. Respirology. 2012;17:573-582.
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Part 1

TUBERCULOSIS

Appendix No. Part 1 - Tuberculosis: Contents

APPENDIX 1

TB Notifications & Death Rate of Tuberculosis (All Forms)
1947 - 2012

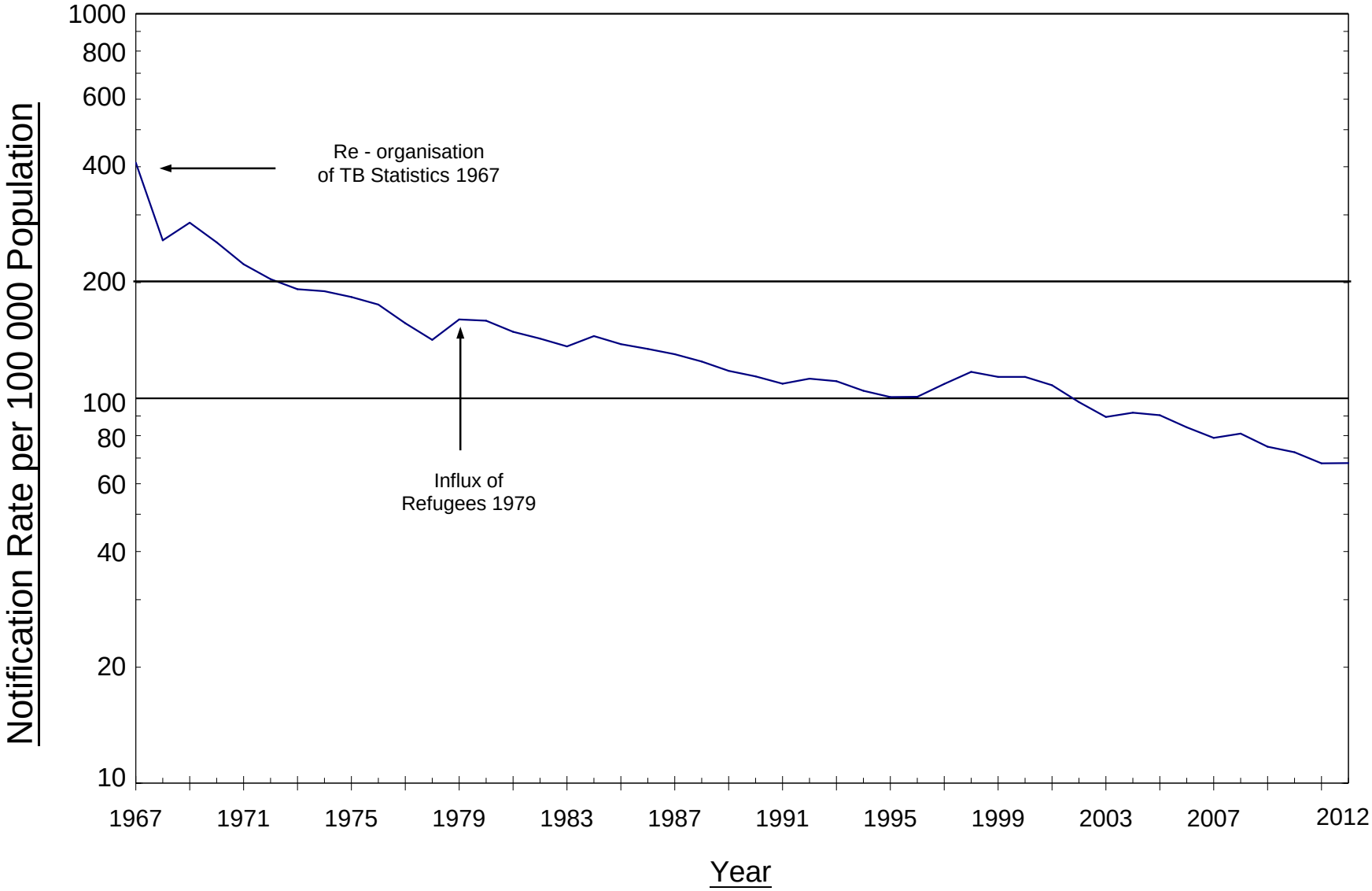
Year	TB Notifications			Notification Rate per 100,000 Pop	TB Deaths	Death Rate per 100,000 Pop	Ratio (Notifications/ Deaths)	Deaths ---------- x 100% Notifications
1947	4855			277.4	1861	106.3	2.61	38.33
1948	6279			348.8	1961	108.9	3.20	31.23
1949	7510			404.4	2611	140.6	2.88	34.77
1950	9067			405.3	3263	145.9	2.78	35.99
1951	13886			689.0	4190	207.9	3.31	30.17
1952	14821			697.2	3573	168.1	4.15	24.11
1953	11900			530.7	2939	131.1	4.05	24.70
1954	12508			528.9	2876	121.6	4.35	22.99
1955	14148			568.1	2810	112.8	5.03	19.86
1956	12155			464.9	2629	100.6	4.62	21.63
1957	13665			499.4	2675	97.8	5.11	19.58
1958	13485			472.5	2302	80.7	5.86	17.07
1959	14302			482.0	2178	73.4	6.57	15.23
1960	12425			405.5	2085	68.0	5.96	16.78
1961	12584			397.2	1907	60.2	6.60	15.15
1962	14263			431.5	1881	56.9	7.58	13.19
1963	13031			380.9	1762	51.5	7.40	13.52
1964	12557			358.3	1441	41.1	8.71	11.48
1965	9927			275.9	1278	35.5	7.77	12.87
1966	11427			314.8	1515	41.7	7.54	13.26
1967	15253			409.7	1493	40.1	10.22	9.79
1968	9792			257.5	1483	39.0	6.60	15.15
1969	11072			286.5	1470	38.0	7.53	13.28
1970	10077			254.5	1436	36.3	7.02	14.25
1971	9028			223.2	1250	30.9	7.22	13.85
1972	8420			204.2	1312	31.8	6.42	15.58
1973	8152			192.2	1154	27.2	7.06	14.16
1974	8320			190.0	974	22.2	8.54	11.71
1975	8192			183.6	646	14.5	12.68	7.89
1976	7928			175.5	568	12.6	13.96	7.16
1977	7191			156.9	532	11.6	13.52	7.40
1978	6623			141.9	420	9.0	15.77	6.34
1979	7907	(498) *		160.4	523	10.6	15.12	6.61
1980	8065	(712)		159.3	551	10.9	14.64	6.83
1981	7729	(254)		149.1	489	9.4	15.81	6.33
1982	7527	(112)		143.0	454	8.6	16.58	6.03
1983	7301	(73)		136.6	446	8.3	16.37	6.11
1984	7843	(69)		145.3	420	7.8	18.67	5.36
1985	7545	(59)	580 #	138.3	409	7.5	18.45	5.42
1986	7432	(46)	544	134.5	407	7.4	18.26	5.48
1987	7269	(41)	495	130.3	405	7.3	17.95	5.57
1988	7021	(121)	433	124.8	388	6.9	18.10	5.53
1989	6704	(226)	387	117.9	403	7.1	16.64	6.01
1990	6510	(288)	341	114.1	382	6.7	17.04	5.87
1991	6283	(281)	293	109.2	409	7.1	15.36	6.51
1992	6534	(309)	264	112.6	410	7.1	15.94	6.27
1993	6537	(264)	89	110.8	396	6.7	16.51	6.06
1994	6319	(230)	87	104.7	409	6.8	15.45	6.47
1995	6212	(175)	102	100.9	418	6.8	14.86	6.73
1996	6501	(88)	162	101.0	292	4.5	22.26	4.49
1997	7072	(34)	156	109.0	252	3.9	28.06	3.56
1998	7673	(7)	169	117.3	270	4.1	28.42	3.52
1999	7512	(5)	166	113.7	312	4.7	24.08	4.15
2000	7578	(7)	152	113.7	299	4.5	25.34	3.95
2001	7262	(0)	192	108.16	311	4.6	23.35	4.28
2002	6602	(0)	186	97.89	267	4.0	24.73	4.04
2003	6024	(0)	177	89.50	275	4.1	21.91	4.57
2004	6226	(0)	110	91.78	286	4.2	21.77	4.59
2005	6160	(0)	77	90.41	271	4.0	22.73	4.40
2006	5766	(0)	58	84.09	294	4.3	19.61	5.10
2007	5463	(0)	56	78.99	231	3.3	23.65	4.23
2008	5635	(0)	67	80.99	229	3.3	24.61	4.06
2009	5193	(0)	68	74.48	204	2.9	25.46	3.93
2010	5093	(0)	80	72.51	191	2.7	26.66	3.75
2011	4794	(0)	81	67.79	187	2.6	25.64	3.90
2012	4858	(0)	100	67.90	199	2.8	24.41	4.10

* Figures in brackets denote the number of Vietnamese refugees included.

\# Figures in this column denote the number of Chinese immigrants staying in Hong Kong for less than 7 years.

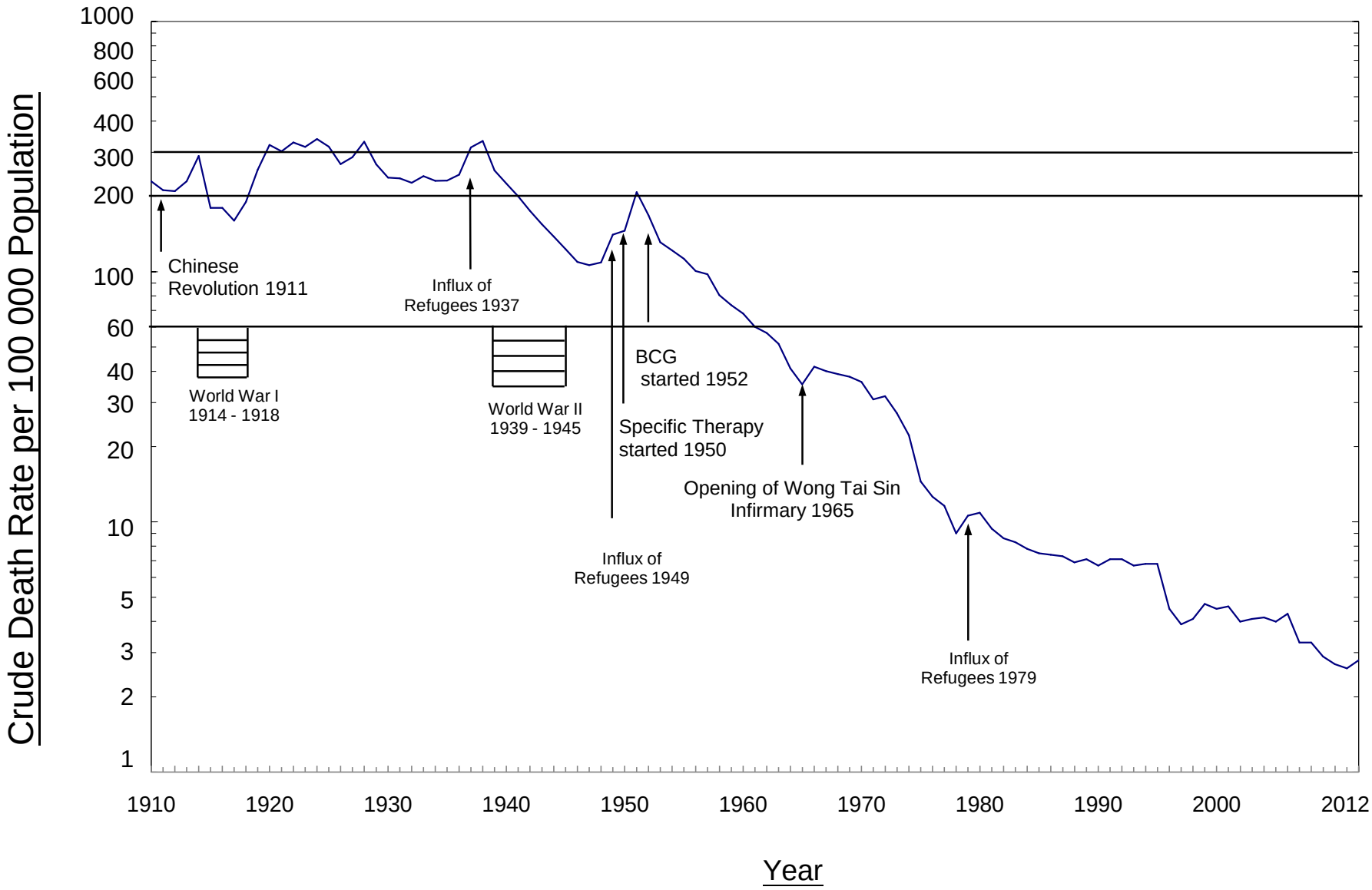
APPENDIX 2

TB Notification Rate (All Forms) 1967-2012



APPENDIX 3

Crude Death Rate due to Tuberculosis (All Forms) 1910-2012



APPENDIX 4 (a)

Tuberculosis Notifications (All Forms) & Rate by Age & Sex 2012

Age Group	Tuberculosis Notifications (All Forms)			Tuberculosis Notifications Rate (per 100,000 population)		
	Male	Female	Total	Male	Female	Total
Under 1	1	0	1	2.93	1.59	2.29
1	1	0	1			
2	1	1	2			
3	0	1	1			
4	1	0	1			
5-9	1	2	3	0.79	1.69	1.23
10-14	11	7	18	6.95	4.72	5.87
15-19	58	48	106	26.98	23.52	25.29
20-24	117	89	206	51.70	38.41	44.98
25-29	100	167	267	44.27	55.08	50.46
30-34	107	178	285	46.85	53.26	50.66
35-39	134	159	293	57.17	47.81	51.68
40-44	135	132	267	55.92	39.41	46.33
45-49	189	118	307	65.99	33.55	48.11
50-54	246	127	373	78.85	38.53	58.14
55-59	258	134	392	96.45	49.05	72.50
60-64	263	101	364	123.13	46.98	84.93
65-69	251	78	329	186.06	60.19	124.39
70-74	292	70	362	258.87	64.64	163.73
75-79	310	89	399	312.82	80.98	190.91
80-84	337	111	448	515.29	129.52	296.49
85 & over	273	160	433	623.29	176.21	321.69
Total	**3086**	**1772**	**4858**	**92.75**	**46.30**	**67.90**

Appendix 4 (b)

Pulmonary TB Notifications by Age & Sex 2012**

Age Group	Pulmonary TB			Bacteriologically * Positive Pulmonary TB			Smear Positive Pulmonary TB		
	M	F	T	M	F	T	M	F	T
Under 1	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0
3	0	1	1	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0
5-9	1	2	3	0	0	0	0	0	0
10-14	8	5	13	6	4	10	4	1	5
15-19	45	42	87	34	31	65	15	20	35
20-24	97	70	167	79	43	122	49	23	72
25-29	91	118	209	63	83	146	28	55	83
30-34	85	138	223	63	106	169	42	62	104
35-39	116	112	228	84	71	155	54	47	101
40-44	119	98	217	73	56	129	50	33	83
45-49	173	81	254	126	47	173	80	23	103
50-54	221	89	310	169	57	226	106	31	137
55-59	229	84	313	163	60	223	105	33	138
60-64	234	64	298	183	46	229	103	29	132
65-69	219	52	271	170	36	206	101	16	117
70-74	265	54	319	208	37	245	107	17	124
75-79	282	63	345	232	45	277	120	23	143
80-84	292	83	375	246	59	305	101	29	130
85 & over	245	121	366	212	96	308	82	38	120
Total	**2722**	**1277**	**3999**	**2111**	**877**	**2988**	**1147**	**480**	**1627**

** Pulmonary TB with or without extrapulmonary TB

* Either smear or culture positive

Appendix 4(c)

Rate of Pulmonary TB Notifications by Age & Sex 2012**

(Rate per 100,000 Population)

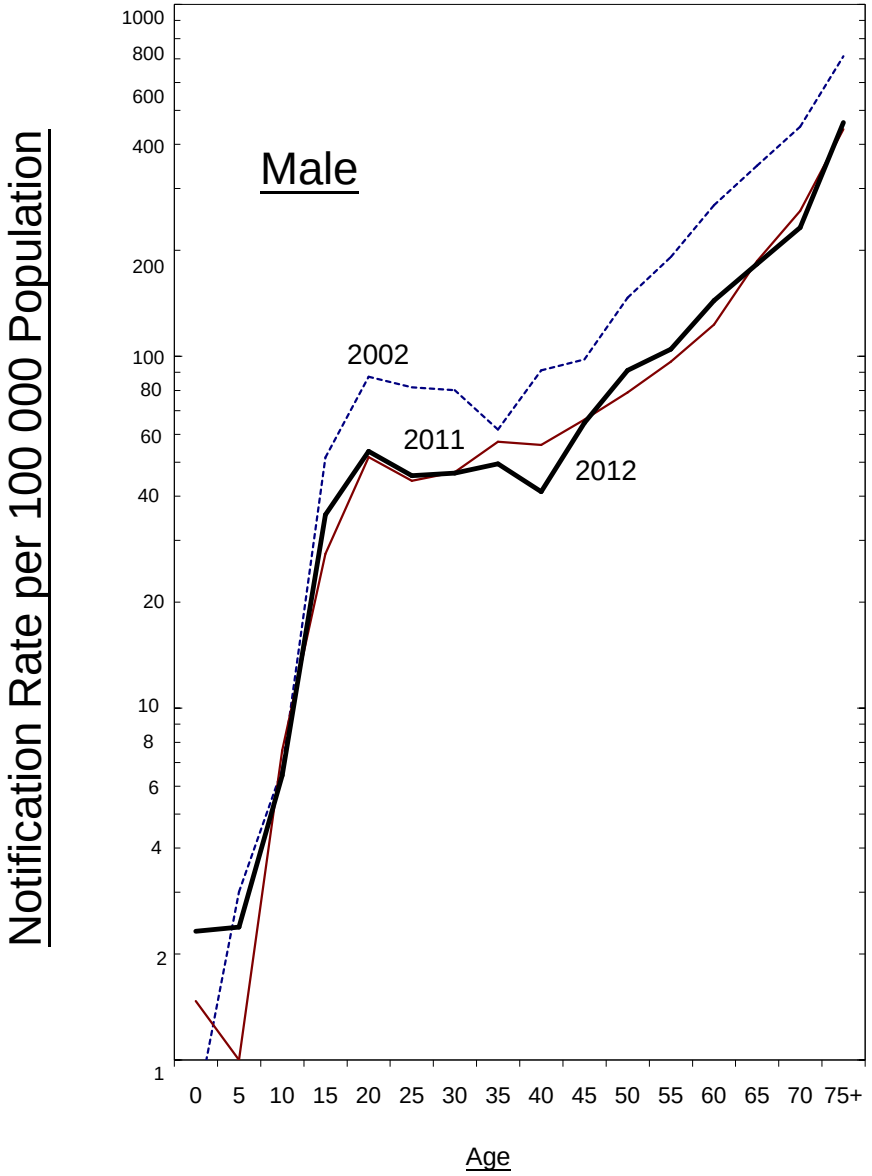
Age Group	Pulmonary TB			Bacteriologically * Positive Pulmonary TB			Smear Positive Pulmonary TB		
	M	F	T	M	F	T	M	F	T
0-4	0.0	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0
5-9	0.8	1.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0
10-14	5.1	3.4	4.2	3.8	2.7	3.3	2.5	0.7	1.6
15-19	20.9	20.6	20.8	15.8	15.2	15.5	7.0	9.8	8.4
20-24	42.9	30.2	36.5	34.9	18.6	26.6	21.7	9.9	15.7
25-29	40.3	38.9	39.5	27.9	27.4	27.6	12.4	18.1	15.7
30-34	37.2	41.3	39.6	27.6	31.7	30.0	18.4	18.6	18.5
35-39	49.5	33.7	40.2	35.8	21.3	27.3	23.0	14.1	17.8
40-44	49.3	29.3	37.7	30.2	16.7	22.4	20.7	9.9	14.4
45-49	60.4	23.0	39.8	44.0	13.4	27.1	27.9	6.5	16.1
50-54	70.8	27.0	48.3	54.2	17.3	35.2	34.0	9.4	21.4
55-59	85.6	30.7	57.9	60.9	22.0	41.2	39.3	12.1	25.5
60-64	109.6	29.8	69.5	85.7	21.4	53.4	48.2	13.5	30.8
65-69	162.3	40.1	102.5	126.0	27.8	77.9	74.9	12.3	44.2
70-74	234.9	49.9	144.3	184.4	34.2	110.8	94.9	15.7	56.1
75-79	284.6	57.3	165.1	234.1	40.9	132.5	121.1	20.9	68.4
80-84	446.5	96.8	248.2	376.1	68.8	201.9	154.4	33.8	86.0
85 & over	559.4	133.3	271.9	484.0	105.7	228.8	187.2	41.9	89.2
Total	**81.8**	**33.4**	**55.9**	**63.4**	**22.9**	**41.8**	**34.5**	**12.5**	**22.7**

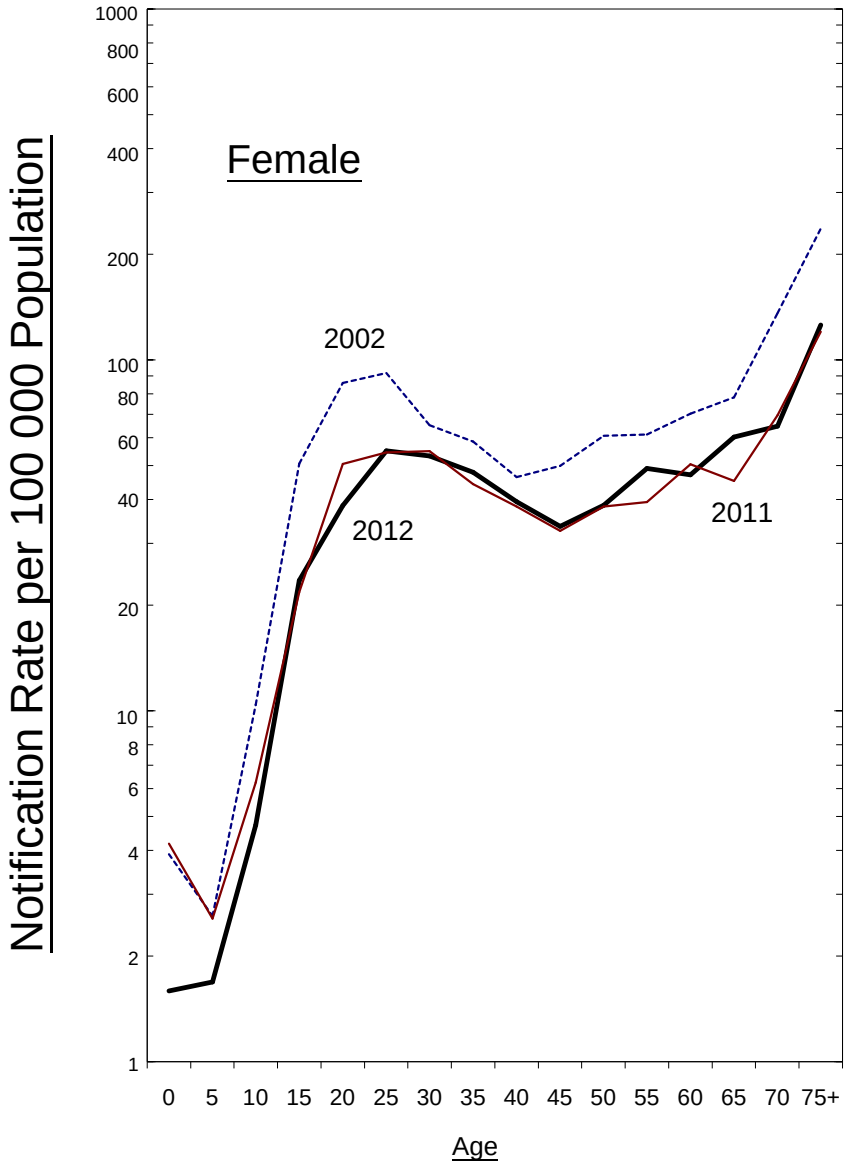
** Pulmonary TB with or without extrapulmonary TB

* Either smear or culture positive

APPENDIX 5

TB Notification Rate by Age & Sex 2002, 2011 & 2012





Appendix 6

Notifications of Tuberculosis by Type by Age & Sex 2012

Age Group	Pulmonary only #			Miliary			Meninges/ CNS			Bones & Joints			Others		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Under 1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
1	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2
3	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
4	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
5-9	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
10-14	8	5	13	-	-	-	-	-	-	-	-	-	3	2	5
15-19	41	39	80	-	1	1	-	1	1	-	-	-	17	7	24
20-24	92	57	149	1	-	1	1	-	1	1	-	1	22	32	54
25-29	79	99	178	-	2	2	2	3	5	-	4	4	19	59	78
30-34	76	120	196	-	2	2	1	2	3	-	5	5	30	49	79
35-39	103	99	202	3	3	6	1	1	2	1	3	4	26	53	79
40-44	107	83	190	1	1	2	1	1	2	3	5	8	23	42	65
45-49	151	69	220	2	1	3	1	1	2	3	2	5	32	45	77
50-54	203	81	284	3	1	4	1	2	3	4	3	7	35	40	75
55-59	211	71	282	4	1	5	2	1	3	4	3	7	37	58	95
60-64	217	58	275	1	2	3	-	1	1	-	2	2	45	38	83
65-69	200	46	246	3	2	5	1	1	2	4	4	8	43	25	68
70-74	245	47	292	5	-	5	1	2	3	2	3	5	39	18	57
75-79	263	59	322	2	-	2	-	1	1	2	5	7	43	24	67
80-84	276	76	352	2	2	4	1	-	1	6	1	7	52	32	84
85 & over	225	110	335	2	3	5	-	-	-	5	4	9	41	43	84
Total	2498	1121	3619	29	21	50 (a)	13	17	30 (b)	36	44	80 (c)	510	569	1079 (d)*

* Including

TB lymph node	452
TB urogenital system	61
TB peritonitis, intestines, mesenteric, appendicitis	88
TB pleuritis, pleural effusion	375
TB laryngitis	11
TB skin	43
TB other sites	48
Unspecified	1

(Note: some cases have more than one site of extrapulmonary TB)

(a) All miliary TB cases has coexisting pulmonary TB; also include 1 case with coexisting TB of bone & joints, 2 cases with coexisting TB of CNS, 5 cases with coexisting TB of other extrapulmonary sites, and 1 case with coexisting TB of CNS and other extrapulmonary sites.

(b) Including 5 cases with coexisting pulmonary TB; also include 1 case with coexisting TB of bone & joints and other extrapulmonary sites.

(c) Including 18 cases with coexisting pulmonary TB; also include 3 cases with coexisting TB of other extrapulmonary sites.

(d) Including 307 cases with coexisting pulmonary TB.

\# Pulmonary TB only, without extrapulmonary site involvement

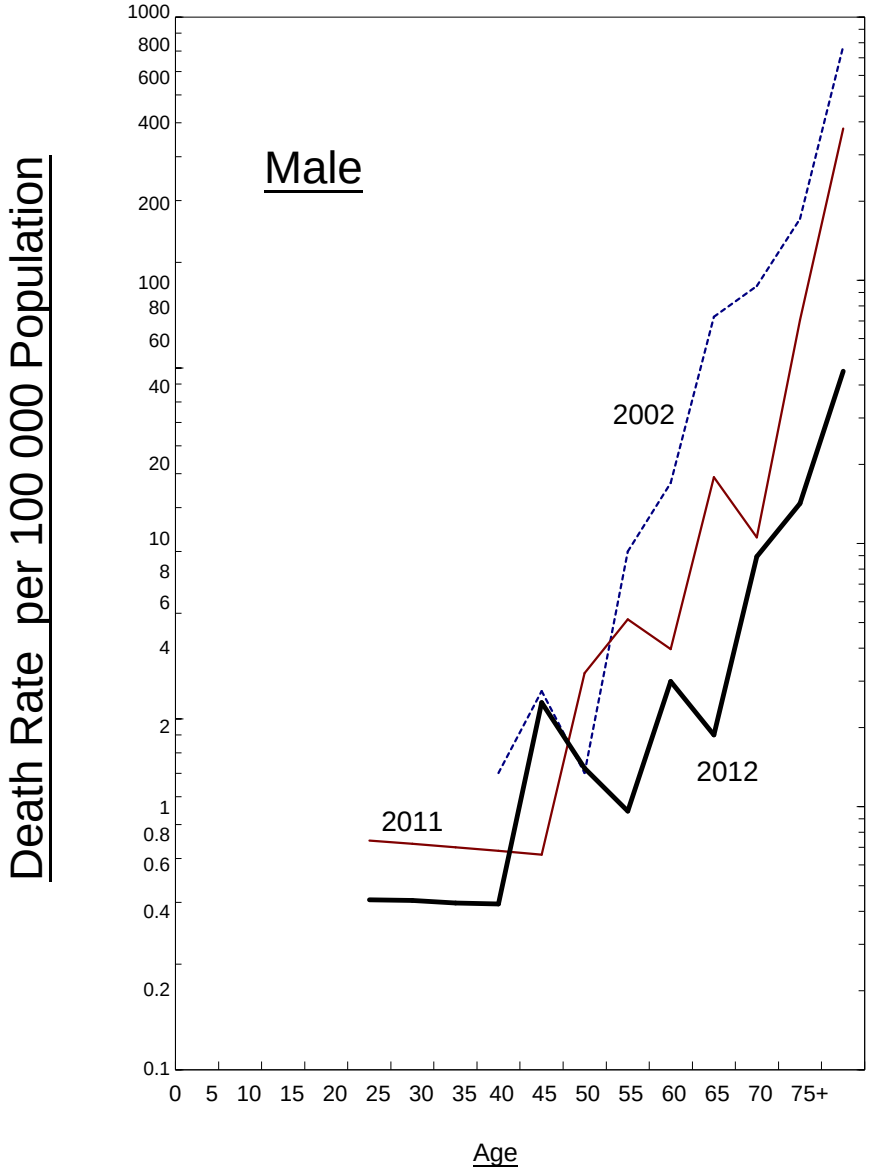
APPENDIX 7

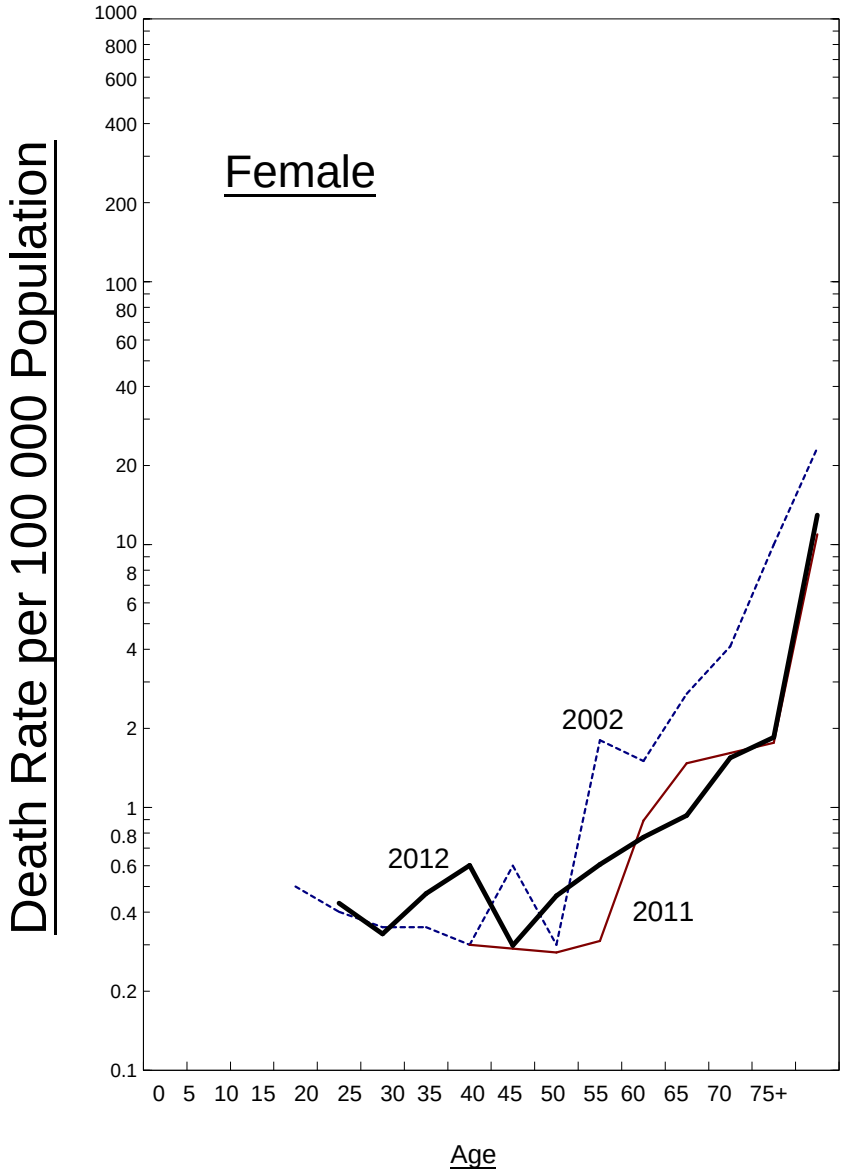
TB Death (All Forms) & Death Rate by Age & Sex 2012

Age Group	Tuberculosis Death (All Forms)			Death Rate (per 100,000 population)		
	Male	Female	Total	Male	Female	Total
Under 1	0	0	0	0.00	0.00	0.00
1	0	0	0			
2	0	0	0			
3	0	0	0			
4	0	0	0			
5-9	0	0	0	0.00	0.00	0.00
10-14	0	0	0	0.00	0.00	0.00
15-19	0	0	0	0.00	0.00	0.00
20-24	1	1	2	0.44	0.43	0.44
25-29	0	1	1	0.00	0.33	0.19
30-34	0	0	0	0.00	0.00	0.00
35-39	1	2	3	0.43	0.60	0.53
40-44	6	1	7	2.49	0.30	1.21
45-49	4	0	4	1.40	0.00	0.63
50-54	3	2	5	0.96	0.61	0.78
55-59	8	0	8	2.99	0.00	1.48
60-64	4	2	6	1.87	0.93	1.40
65-69	12	2	14	8.90	1.54	5.29
70-74	16	2	18	14.18	1.85	8.14
75-79	20	5	25	20.18	4.55	11.96
80-84	31	9	40	47.40	10.50	26.47
85 & over	43	23	66	98.17	25.33	49.03
Total	**149**	**50**	**199**	4.48	1.31	2.781

APPENDIX 8

TB Mortality Rate by Age & Sex 2002, 2011 & 2012





Appendix 9

TB Deaths by Type by Age & Sex 2012

Age Group	Pulmonary only #			Miliary			Meninges			Bones & Joints			Others		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Under 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20-24	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35-39	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-
40-44	3	1	4	2	-	2	-	-	-	-	-	-	1	-	1
45-49	4	-	4	-	-	-	-	-	-	-	-	-	-	-	-
50-54	2	2	4	-	-	-	-	-	-	-	-	-	1	-	1
55-59	7	-	7	1	-	1	-	-	-	-	-	-	-	-	-
60-64	4	1	5	-	1	1	-	-	-	-	-	-	-	-	-
65-69	10	1	11	1	-	1	-	-	-	1	-	1	-	1	1
70-74	15	2	17	-	-	-	-	-	-	-	-	-	1	-	1
75-79	19	3	22	1	-	1	-	-	-	-	-	-	-	2	2
80-84	27	7	34	2	1	3	1	-	1	-	-	-	1	1	2
85 & over	41	18	59	-	3	3	-	-	-	1	-	1	1	2	3
Total	134	38	172	7	5	12	1	1	2	2	0	2	5	6	11 *

* Breakdown of Deaths from other forms of TB:-

	Number
Tuberculosis of genitourinary system	1
Tuberculosis of intestines, peritoneum & mesenteric glands	5
Tuberculosis of adrenal glands	1
Sequelae of respiratory and unspecified tuberculosis	4
Total	11

\# Pulmonary TB only, without extrapulmonary site involvement.

APPENDIX 10

1950 - 2012

Year	% of TB Death below 5 years	% of TB Death below 1 year	Infant Mort. Rate from TB per 1,000 Registered Live Births	% of TB Deaths among Total Registered Deaths	Average Age of TB Death
1950	38.34	9.81	5.28	17.7	24.0
1951	34.22	7.73	4.73	20.0	25.0
1952	34.28	7.05	3.50	18.4	25.0
1953	36.27	9.02	3.51	16.1	26.0
1954	31.26	8.17	2.82	14.9	29.0
1955	28.51	8.61	2.67	14.7	31.0
1956	25.22	7.34	1.99	13.6	32.0
1957	21.20	5.76	1.57	13.8	36.0
1958	19.64	7.04	1.52	11.2	36.5
1959	18.92	5.56	1.16	10.8	37.0
1960	10.55	2.21	0.42	10.9	43.0
1961	11.48	2.62	0.46	10.2	43.0
1962	5.74	1.44	0.24	9.3	46.0
1963	5.51	1.08	0.16	8.9	47.0
1964	4.09	0.90	0.12	8.0	48.0
1965	3.36	0.70	0.09	7.3	49.0
1966	2.71	0.73	0.12	8.1	53.0
1967	2.01	0.33	0.06	7.6	54.5
1968	1.15	0.20	0.04	7.7	56.5
1969	0.95	0.27	0.05	7.8	56.0
1970	0.63	0.00	0.00	6.9	57.5
1971	0.64	0.08	0.01	6.2	57.5
1972	0.30	0.15	0.02	6.2	59.0
1973	0.35	0.09	0.01	5.4	58.0
1974	0.82	0.21	0.02	4.4	58.5
1975	1.39	0.31	0.03	3.0	58.5
1976	0.70	0.00	0.00	2.4	59.5
1977	0.38	0.00	0.00	2.3	61.0
1978	0.48	0.24	0.01	1.8	61.0
1979	0.96	0.19	0.01	2.0	61.0
1980	0.73	0.18	0.01	2.1	62.0
1981	0.41	0.00	0.00	2.0	63.0
1982	0.22	0.00	0.00	1.8	63.0
1983	0.45	0.00	0.00	1.7	63.0
1984	0.24	0.24	0.01	1.6	64.5
1985	0.00	0.00	0.00	1.6	65.5
1986	0.00	0.00	0.00	1.6	68.0
1987	0.00	0.00	0.00	1.5	68.5
1988	0.52	0.26	0.01	1.4	69.0
1989	0.25	0.25	0.01	1.4	69.0
1990	0.52	0.52	0.03	1.3	69.0
1991	0.00	0.00	0.00	1.4	69.0
1992	0.00	0.00	0.00	1.3	68.0
1993	0.25	0.25	0.01	1.3	69.0
1994	0.00	0.00	0.00	1.4	71.0
1995	0.00	0.00	0.00	1.4	71.1
1996	0.00	0.00	0.00	0.9	70.6
1997	0.00	0.00	0.00	0.8	72.1
1998	0.37	0.00	0.00	0.8	72.6
1999	0.00	0.00	0.00	0.9	72.9
2000	0.00	0.00	0.00	0.9	73.4
2001	0.00	0.00	0.00	0.9	74.3
2002	0.00	0.00	0.00	0.8	74.0
2003	0.36	0.00	0.00	0.8	72.3
2004	0.00	0.00	0.00	0.8	73.4
2005	0.00	0.00	0.00	0.7	74.3
2006	0.00	0.00	0.00	0.8	73.5
2007	0.00	0.00	0.00	0.6	74.2
2008	0.00	0.00	0.00	0.6	74.5
2009	0.00	0.00	0.00	0.5	73.7
2010	0.00	0.00	0.00	0.4	73.1
2011	0.00	0.00	0.00	0.4	77.3 *
2012	0.00	0.00	0.00	0.5	75.9

Note: * The average age of TB death is calculated by the exact age of TB death from 2011 onwards. Figures may be slightly different from previous years which were compiled basing on the age groups of TB death.

APPENDIX 11

Top Ten Causes of Death 2012

Rank	Causes of Death	Detailed List No.	2012		
		ICD 10th Revision	Male	Female	Total
	All Causes		24346	19321	43672 (5)
1	Malignant neoplasms	C00-C97	7933	5403	13336
2	Diseases of heart	I00-I09, I11 I13, I20-I51	3398	2885	6283
3	Pneumonia	J12-J18	3683	3277	6960
4	Cerebrovascular diseases	I60-I69	1680	1596	3276
5	External causes of morbidity and mortality #	V01-Y89	1069	585	1655 (1)
6	Chronic lower respiratory diseases *	J40-J47	1470	511	1981
7	Nephritis, nephrotic syndrome and nephrosis	N00-N07, N17-N19, N25-N27	799	830	1629
8	Septicaemia	A40-A41	430	407	837
9	Dementia	F01-F03	337	567	904
10	Diabetes mellitus	E10-E14	198	200	398
	Tuberculosis (including late effects of tuberculosis)		149	50	199
	All other causes	Residues of all causes	3200	3010	6214 (4)

Notes : 1. Figures in brackets denote number of deaths of unknown sex included.

2. Classification of diseases and causes of death is based on the International Statistical Classification of Diseases and Related Health Problems (ICD) 10th Revision from 2001 onwards. The disease groups for the purpose of ranking causes of death have also been redefined based on the ICD 10th Revision, and new disease groups have been added. Figures for 2001 may not be comparable with figures for previous years which were compiled based on the ICD 9th Revision.

* Chronic lower respiratory diseases has been included as a disease group for the purpose of ranking the causes of death since 2001.

\# According to the ICD 10th Revision, when the morbid condition is classifiable under Chapter XIX as "injury, poisoning and certain other consequences of external causes", the codes under Chapter XX for "external causes of morbidity and mortality" should be used as the primary cause.

APPENDIX 12 (a)

Origin of Tuberculosis Notifications
2002 - 2012

Origin	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
East Kowloon Chest Clinic	144	123	121	132	86	121	129	100	99	105	101
Kowloon Chest Clinic	420	432	330	287	231	220	184	171	165	122	154
Sai Ying Pun Chest Clinic (a)	142	133	148	112	92	108	86	69	80	71	89
Shaukiwan Chest Clinic	148	122	138	111	104	128	105	80	72	74	65
Shaukiwan Pneumoconiosis	27	12	29	10	15	13	13	16	6	9	10
Shek Kip Mei Chest Clinic	180	162	157	140	96	111	127	92	87	90	101
South Kwai Chung Chest Clinic	279	300	261	282	224	187	200	158	166	146	158
Tai Po Chest Clinic	96	111	112	101	92	79	81	63	71	86	82
Wanchai Chest Clinic	279	264	223	214	191	169	168	170	143	118	110
Yan Oi Chest Clinic	355	320	290	263	238	165	179	172	152	173	144
Yaumatei Chest Clinic	271	233	203	249	204	151	137	139	131	128	132
Yuen Chau Kok Chest Clinic	223	226	181	148	136	122	116	124	131	112	108
Yung Fung Shee Chest Clinic	218	197	178	174	148	120	147	118	131	112	116
Castle Peak Hospital (Chest Clinic)			5	3	3	4	5	0	0	0	2
Cheung Chau Chest Clinic		2	2	3	1	1	2	1	1	1	1
Sai Kung Chest Clinic	11	7	7	4	9	5	9	1	3	6	4
Sheung Shui Chest Clinic	96	59	54	64	61	53	45	42	63	33	21
Tung Chung Chest Clinic	35	22	16	11	15	12	9	7	11	13	9
Yuen Long Chest Clinic	103	75	80	93	69	64	67	73	80	48	39
Sub-total	3027	2800	2535	2401	2015	1833	1809	1596	1592	1447	1446
Grantham Hospital	249	252	257	165	176	215	209	214	180	163	138
Haven of Hope Hospital	147	119	137	127	124	124	87	103	65	80	68
Kowloon Hospital	237	220	205	113	142	108	120	84	108	92	97
Ruttonjee Hospital	236	223	263	256	264	218	165	183	170	176	165
Wong Tai Sin Hospital	263	166	189	184	140	90	104	82	105	57	58
Other Govt. Institutions (b)	107	84	87	84	60	66	78	54	64	62	54
Other H.A. Hospitals	2133	1937	2301	2543	2538	2530	2648	2472	2425	2364	2497
Private Practitioners	130	159	136	156	164	90	83	57	101	100	109
Private Hospitals	73	64	116	131	143	189	332	348	283	253	226
Total	6602	6024	6226	6160	5766	5463	5635	5193	5093	4794	4858
% of cases from Chest Clinics among the total	45.8	46.5	40.7	39.0	34.9	33.6	32.1	30.7	31.3	30.2	29.8
% from Chest Hospitals (c)	17.1	16.3	16.9	13.7	14.7	13.8	12.2	12.8	12.3	11.9	10.8
% from Other Public Hospitals	33.9	33.5	38.4	42.6	45.1	47.5	48.4	48.6	48.9	50.6	52.5
% from Private Sector	3.1	3.7	4.0	4.7	5.3	5.1	7.4	7.8	7.5	7.4	6.9

Notes : (a) Including notifications from Cheung Chau Chest Clinic (1997-2002)
(b) Sources are from Public Mortuaries, Prison Hospitals, & Army Hospitals.
(c) Chest Hospitals include Kowloon Hospital, Wong Tai Sin Hospital, Ruttonjee Hospital, Grantham Hospital and Haven of Hope Hospital.

Appendix 12 (b)

Breakdown of Origin of TB
Notifications for "Other H.A. Hospitals" 2012

Name of Hospital	No. of TB Notification
Alice Ho Miu Ling Nethersole Hospital	100
Caritas Medical Centre	163
Duchess of Kent Children's Hospital	1
Fung Yiu King Hospital	3
Hong Kong Buddhist Hospital	1
Kwai Chung Hospital	1
Kwong Wah Hospital	183
North District Hospital	170
Our Lady of Maryknoll Hospital	16
Pamela Youde Nethersole Eastern Hospital	164
Pok Oi Hospital	64
Prince of Wales Hospital	261
Princess Margaret Hospital	230
Queen Elizabeth Hospital	256
Queen Mary Hospital	120
Shatin Hospital	11
Tai Po Hospital	4
Tseung Kwan O Hospital	99
Tuen Mun Hospital	263
Tung Wah Eastern Hospital	6
Tung Wah Hospital	8
United Christian Hospital	259
Yan Chai Hospital	114
Total	**2497**

Appendix 13

Tuberculosis Notifications & Notification Rates

by District Council District 2012

District Council District	Notification	Notification Rate (per 100,000 pop.)
Hong Kong Island	770	60.3
Central & Western	142	55.9
Wanchai	114	73.8
Eastern	323	54.8
Southern	191	68.3
Kowloon	1745	81.3
Kowloon City	226	59.1
Kwun Tong	528	83.3
Sham Shui Po	378	97.1
Wong Tai Sin	360	84.3
Yau Tsim Mong	253	80.4
NT (East)	1110	60.5
Islands	78	53.5
Northern	207	67.4
Sai Kung/Tseung Kwan O	227	51.4
Shatin	408	63.9
Tai Po	190	63.2
NT (West)	1190	62.8
Kwai Tsing	367	72.0
Tsuen Wan	162	53.0
Tuen Mun	297	60.4
Yuen Long	364	61.8
Marine	0	0.0
Unknown	13	0.0
Others	30	0.0
Total	**4858**	**67.9**

APPENDIX 14

Establishment & Strength of TB & Chest Service

As at 31.12.2012

Post	Establishment	Strength
Consultant Chest Physician i/c	1	1
Consultant Chest Physician	1	1
Senior Medical & Health Officer	7	7
Medical & Health Officer	23	23
Senior Nursing Officer	1	0
Nursing Officer	15	12
Registered Nurse	75	79
Enrolled Nurse	74	71
Senior Dispenser	9	9
Dispenser	2	3
Executive Officer I	1	1
Statistical Officer II	3	3
Personal Secretary I	1	1
Clerical Officer	16	15
Assistant Clerical Officer	20	21
Clerical Assistant	54	54
Office Assistant	9	9
Workman II	54	54
Senior Radiographer	3	3
Radiographer I	7	7
Radiographer II	21	21
Radiographic Technician	5	4
Darkroom Technician	10	9

APPENDIX 15

Total Attendances at Chest Clinics

2002 - 2012

Clinic/Hospital	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
East Kowloon Chest Clinic	60729	56132	58535	61835	56737	63191	59670	56566	58167	55678	49894
Kowloon Chest Clinic	98403	97223	86502	77337	73627	67093	62017	56658	56523	47693	50666
Sai Ying Pun Chest Clinic	51808	45437	46974	45159	42034	42770	40126	36036	34502	36441	36877
Shaukiwan Chest Clinic	57968	47541	50828	50699	49667	48207	50618	45028	41263	41804	40600
Shaukiwan Pneumoconiosis	9120	8008	8098	9144	8866	8359	8501	8187	7719	6869	6576
Shek Kip Mei Chest Clinic	65572	60461	60382	60789	57848	58679	52161	54933	49216	49500	47853
South Kwai Chung Chest Clinic	85221	78998	75487	80015	79455	78238	81441	82044	81923	75752	78785
Tai Po Chest Clinic (Full Time)	7866	33518	30879	35347	35728	34769	33297	35492	36215	37628	39318
Tung Chung (Full Time)	6129	6807	1928	-	-	-	-	-	-	-	-
Wanchai Chest Clinic	70500	62322	60406	57906	58545	56790	50465	50461	49609	48893	46777
Yan Oi Chest Clinic	66905	66084	70168	72078	72144	70643	66058	63411	67564	63333	67804
Yaumatei Chest Clinic	95700	71378	70294	80708	72180	69549	68587	70439	68633	68164	62688
Yuen Chau Kok Chest Clinic	64748	60339	56322	59328	57680	55454	57211	60481	58027	65627	59542
Yung Fung Shee Chest Clinic	77078	77516	71269	78279	72570	73944	71767	74196	80444	73038	74204
Castle Peak Hospital	416	372	373	317	241	240	192	146	149	145	146
Cheung Chau Chest Clinic	2404	1944	2032	2066	1589	2318	1411	869	1206	1286	1349
Sai Kung Chest Clinic	2119	2372	2495	2382	2542	2280	1885	1745	2277	1861	1546
Sheung Shui Chest Clinic	24273	22933	23211	22601	21765	22333	21909	22468	22303	21775	17495
Tai Po Chest Clinic (Part Time)	17761	-	-	-	-	-	-	-	-	-	-
Tung Chung (Part Time)	-	-	2802	5173	4447	4086	4263	5137	4433	4447	4248
Yuen Long Chest Clinic	29393	28702	31054	33056	29344	27960	29979	29935	30729	30201	27413
Hei Ling Chau ATC	2302	2352	1670	585	472	282	290	344	303	202	190
Lai Chi Kok Reception Centre	-	-	723	479	356	519	412	379	303	330	365
Shek Pik Prison Hospital	277	203	211	141	157	188	232	201	186	94	140
Stanley Prison Hospital	11977	8829	7459	527	603	665	796	719	687	688	529
Total	**908669**	**839471**	**820102**	**835951**	**798597**	**788557**	**763288**	**755875**	**752381**	**731449**	**715005**

Appendix 16

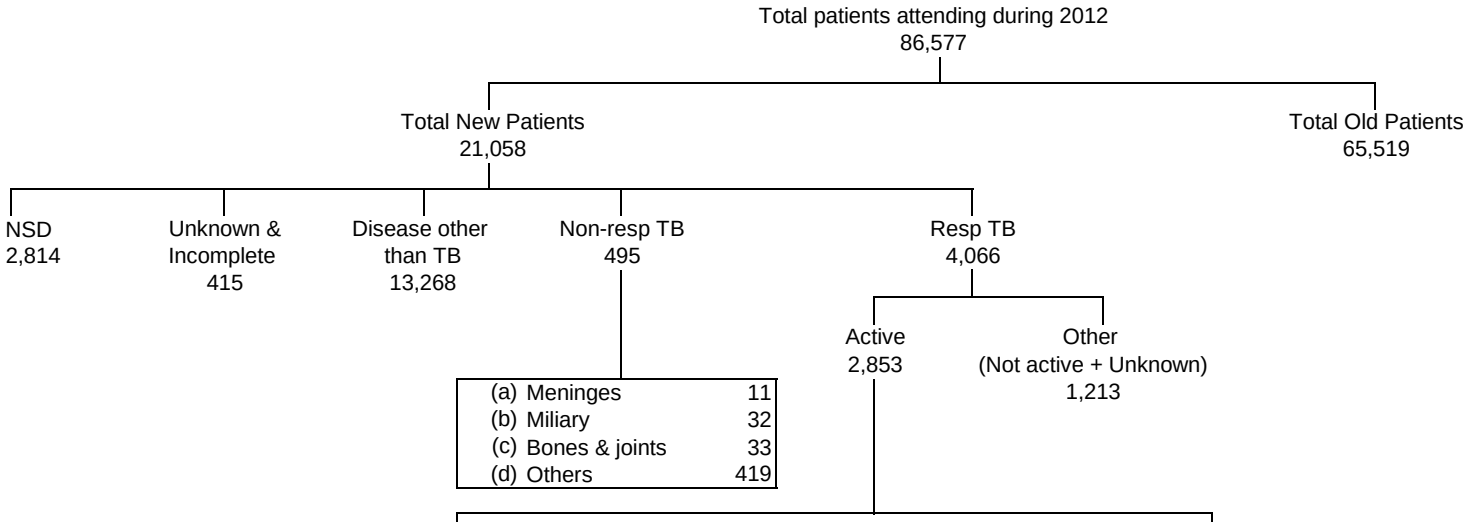
No. of Doctor Sessions, Cases Seen by Doctor and Patient/ Doctor Session 2012

Clinic/Hospital	Doctor Sessions	Cases Seen by Doctor	Patient/Doctor Session
Full Time Clinics			
East Kowloon	587	12921	22
Kowloon	923	16812	17
Pneumoconiosis	350	6601	19
Sai Ying Pun	609	13402	22
Shaukeiwan	570	12451	22
Shek Kip Mei	583	12893	22
South Kwai Chung	1060	22894	22
Tai Po	533	9670	18
Wanchai	883	16694	16
Yan Oi	894	21606	24
Yaumatei	1017	15374	15
Yuen Chau Kok	838	16712	20
Yung Fung Shee	638	15828	18
Sub-total	**9484**	**193858**	**20**
Part Time Clinics			
Castle Peak	25	143	6
Cheung Chau	23	285	4
Sai Kung	47	613	13
Sheung Shui	296	4654	16
Tung Chung	145	1724	12
Yuen Long	402	6714	17
Sub-total	**938**	**14133**	**15**
Institutions Correctional Ser Dept			
Hei Ling Chau	13	190	15
Lai Chi Kok Reception Center	49	297	6
Shek Pik	14	140	10
Stanley Prison	25	528	21
Sub-total	**101**	**1155**	**11**
Total	**10523**	**209146**	**20**

Note: Doctor Session - one doctor of a half-day session

APPENDIX 17

Flow Chart of Patients Attending Chest Clinics 2012 *



Bacteriology	Extent	Number
Negative	Minimal	309
	Moderate	104
	Extensive	38
	Not Recorded	152
Positive	Minimal	732
	Moderate	582
	Extensive	216
	Not Recorded	152
Incomplete	Minimal	168
	Moderate	78
	Extensive	51
	Not Recorded	271

Bacteriology	Cavity	Number
Negative	Yes	66
	No	332
Positive	Yes	476
	No	909
Incomplete	Yes	70
	No	127

* A total of 86577 patients attended, comprising 65519 old cases and 21058 new cases. Among new cases, 4066 had respiratory TB with 2853 being active, 495 had non-respiratory TB, 13268 had diseases other than TB, 415 had unknown and incomplete diagnoses, and 2814 had NSD (no specific diagnosis). Of the 495 new cases with non-respiratory TB, 11 had TB affecting meninges, 32 had miliary TB, 33 had TB affecting bones and joints, and 419 had TB affecting other sites.

Among the 2853 new cases with active respiratory TB, in terms of bacteriology (negative, positive, or incomplete) and cavity, 66 were negative with cavity, 332 were negative without cavity, 476 were positive with cavity, 909 were positive without cavity, 70 were incomplete with cavity, and 127 were incomplete without cavity. In terms of bacteriology and extent of disease (minimal, moderate, extensive or not recorded), 309 were negative with extent minimal, 104 were negative with extent moderate, 38 were negative with extent extensive, 152 were negative with extent not recorded, 732 were positive with extent minimal, 582 were positive with extent moderate, 216 were positive with extent extensive, 152 were positive with extent not recorded,168 were incomplete with extent minimal, 78 were incomplete with extent moderate, and 51 were incomplete with extent extensive, 271 were incomplete with extent not recorded.

APPENDIX 18

Classification of Patients of First Attendance with New Case Card Completed By Clinics According to International Classification of Diseases Code 2012

Code		Classification	Total
ICD 9	ICD 10		
010	A15.7, A16.7	Primary Tuberculosis Infection	2
011	A15.0-15.3, A16.0-16.3	Pulmonary Tuberculosis	2468
012	A15.4-15.6, A15.8-15.9, A16.3-16.5, A16.8-16.9	Other Respiratory Tuberculosis	337
013	A17.0-17.1	Tuberculosis of Nervous System	15
014	A18.3	Tuberculosis of Intestines	56
015	A18.0	Tuberculosis of Bones & Joints	33
016	A18.1	Tuberculosis of Genito-urinary System	37
017	A18.2, A18.4-18.8	Tuberculosis of Other Organs	361
018	A19.0-19.2, A19.8-19.9	Miliary Tuberculosis	32
137	B90.0-90.2, B90.8-90.9	Late effects of Tuberculosis	1211
160-165	C30-C39, C34.0-34.3, C34.8-34.9	Malignant Neoplasm of Respiratory System	298
212	D14.0-14.4	Benign Neoplasm of Respiratory System	0
460-466	J00-J06, J02.0, J02.8-02.9, J03.0, J03.9, J04.0-04.2, J05.0-05.1, J06.8-06.9	Acute Respiratory Infection	833
470-478	J30-39, J30.0-30.4, J39.9	Other Diseases of Upper Resp Tract	46
480-486	J09-J18, J12.9, J15.0-15.2, J15.5-15.9	Pneumonia	32
487	J09, J10.0-10.1, J10.8, J11.0-11.1, J11.8	Influenza	1
490-491	J40, J41.0-41.1, J41.8, J42	Bronchitis, (not specified as acute or chronic) & chronic brochitis	2989
492	J43, J43.0-43.2, J43.8-43.9	Emphysema	31
493	J45, J45.0-45.1, J45.8-45.9, J46	Asthma	156
494	J47	Bronchiectasis	349
495-496	J44, J44.0-44.1, J44.8-44.9	Others	168
501	J61	Asbestosis	1
502	J62, J62.0, J62.8	Silicosis	14
505	J64	Pneumoconiosis, unspecified	2
506-508	J63	Others	
510	J86	Pyothorax (Empyema)	6
511	J90	Pleurisy	44
512	J93, J93.0-93.1, J93.8-93.9	Pneumothorax	18
513-519	J95-99, J96.0-96.1, J96.9, J98.4, J99.1, [J99.0* (M05.1†), J99.1*, J99.1* (M33.0-M33.1†), J99.1* (M31.3†), J99.1* (M32.1†), J99.1* (M33.2†), J99.1* (M34.8†)]	Other Diseases of Respiratory System	1
786	R00-09, R04.0-04.2, R04.8-04.9 R06.0-06.2, R06.5-06.8, R07.0-07.4, R09.1, R09.3	Unknown	2827
V71	Z00, Z01.6, Z02, Z02.1-02.2, Z02.6-02.9, Z11.1, Z71.1	N.S.D.	2546
		Diseases Other than TB & Resp System	6144
Total			21058

NB. Above is a crude mapping of some of the codings in ICD9 to ICD10 as a reference only. Such mapping may result in mis-classification of some cases.

Appendix 19 (a)

Extent of Active Resporary TB in First Attenders at Chest Clinics 2010-2012

Extent *	2010		2011		2012	
	No.	%	No.	%	No.	%
1. Minimal	1794	63.6	1622	63.4	1211	42.4
2. Moderate	714	25.3	633	24.7	765	26.8
3. Extensive	311	11.0	304	11.9	305	10.7
4. Not Recorded	-	-	-	-	574	20.1
Total	2819	100.0	2559	100.0	2855	100.0
No. of first attenders	22588		20602		21058	
% of active TB	12.5		12.4		13.6	

* 1. Minimal : Less than right upper lobe
2. Moderate : More than right upper lobe
3. Extensive : More than a lung

Percentage on Sputum Results of Active TB in First Attenders at Chest Clinics 2012

	Number	%
Smear +	1095	38.4
Smear - Culture +	787	27.6
Smear - Culture -	527	18.5
Incomplete	446	15.6
Total	2855	100.0

APPENDIX 19 (b1)

Rate of Drug-resistant Tuberculosis

Among cases (mainly cases seen at chest clinics) registered during the period January to June 2012 (Data from Programme Forms)

Age Group	Category	% resistance to				* % resistance to			MDR-TB	# Total % resistance	Total no. of cases analysed
		E	R	H	S	1 drug	2 drugs	≥ 3 drugs			
0 - 19	New cases	0.00	2.63	5.26	10.53	10.53	0.00	2.63	2.63	13.16	38
	Previously treated cases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1
	Overall	0.00	2.56	5.13	10.26	10.26	0.00	2.56	2.56	12.82	39
20 - 39	New cases	0.68	1.02	3.74	11.56	10.88	2.04	0.68	1.02	13.61	294
	Previously treated cases	5.88	11.76	17.65	11.76	5.88	0.00	11.76	11.76	17.65	17
	Overall	0.96	1.61	4.50	11.58	10.61	1.93	1.29	1.61	3.83	311
40 - 59	New cases	1.71	2.00	6.86	12.00	10.20	3.43	1.43	1.71	15.14	350
	Previously treated cases	5.13	5.13	10.26	17.95	15.38	0.00	7.69	5.13	23.08	39
	Overall	2.06	2.31	7.20	12.60	10.80	3.08	2.06	2.06	15.94	389
60 up	New cases	0.58	0.19	4.46	8.14	6.78	2.91	0.19	0.19	9.88	516
	Previously treated cases	0.00	2.00	8.00	9.00	6.00	5.00	1.00	2.00	12.00	100
	Overall	0.49	0.49	5.03	8.28	6.66	3.25	0.32	0.49	10.23	616
All	New cases	0.92	1.00	5.01	10.18	8.93	2.75	0.75	0.92	12.44	1198
	Previously treated cases	1.91	3.82	9.55	11.46	8.28	3.18	3.82	3.82	15.29	157
	Overall	1.03	1.33	5.54	10.33	8.86	2.80	1.11	1.25	12.77	1355

Notes: E = ethambutol; R = rifampicin; H = isoniazid; S = streptomycin
* % resistant to one, two or more than two of the four drugs E, R, H and S
# total % resistance: resistant to at least one of the four drugs E, R, H and S
New cases: for cases with no past history of anti-tuberculosis treatment
Previously treated cases: for cases with past history of anti-tuberculosis treatment
Overall: for all cases

NB: The TB Reference Laboratory of Department of Health is using the absolute concentration method for drug susceptibility tests.

APPENDIX 19 (b2)

Rate of Drug-resistant Tuberculosis

Among cases (mainly cases seen at chest clinics) with date of starting treatment druing the period January to June 2012:

	New case		Previously treated cases		Combined	
	N	%	N	%	N	%
Total number of strains tested	1198	100	157	100	1355	100
Susceptible to all 4 drugs	1049	87.56	133	84.71	1182	87.23
Any resistance	149	12.44	24	15.29	173	12.77
H	60	5.01	15	9.55	75	5.54
R	12	1.00	6	3.82	18	1.33
E	11	0.92	3	1.91	14	1.03
S	122	10.18	18	11.46	140	10.33
Monoresistance	107	8.93	13	8.28	120	8.86
H	18	1.50	4	2.55	22	1.62
R	1	0.08	0	0.00	1	0.07
E	2	0.17	1	0.64	3	0.22
S	86	7.18	8	5.10	94	6.94
Multidrug resistance	11	0.92	6	3.82	17	1.25
H+R	2	0.17	1	0.64	3	0.22
H+R+E	0	0.00	0	0.00	0	0.00
H+R+S	4	0.33	4	2.55	8	0.59
H+R+E+S	5	0.42	1	0.64	6	0.44
Other patterns	31	2.59	5	3.18	36	2.66
H+E	4	0.33	0	0.00	4	0.30
H+S	27	2.25	4	2.55	31	2.29
H+E+S	0	0.00	1	0.64	1	0.07
R+E	0	0.00	0	0.00	0	0.00
R+S	0	0.00	0	0.00	0	0.00
R+E+S	0	0.00	0	0.00	0	0.00
E+S	0	0.00	0	0.00	0	0.00
Number of drugs resistant to:						
0 drug	1049	87.56	133	84.71	1182	87.23
1 drug	107	8.93	13	8.28	120	8.86
2 drugs	33	2.75	5	3.18	38	2.80
3 drugs	4	0.33	5	3.18	9	0.66
4 drugs	5	0.42	1	0.64	6	0.44

APPENDIX 19 (c1)

Rate of Drug-resistant Tuberculosis

Among cases (mainly cases seen at chest clinics) registered during the period January to December 2011 (Data from Programme Forms)

Age Group	Category	% resistance to				* % resistance to			MDR-TB	# Total % resistance	Total no. of cases analysed
		E	R	H	S	1 drug	2 drugs	≥ 3 drugs			
0 - 19	New cases	0.00	0.00	2.30	11.49	11.49	1.15	0.00	0.00	12.64	87
	Previously treated cases	0.00	0.00	50.00	50.00	0.00	50.00	0.00	0.00	50.00	2
	Overall	0.00	0.00	3.37	12.36	11.24	2.25	0.00	0.00	13.48	89
20 - 39	New cases	0.36	1.07	3.93	7.14	8.75	1.25	0.36	0.89	10.36	560
	Previously treated cases	0.00	7.41	3.70	18.52	11.11	3.70	3.70	3.70	18.52	27
	Overall	0.34	1.36	3.92	7.67	8.86	1.36	0.51	1.02	10.73	587
40 - 59	New cases	0.42	1.39	4.16	7.62	7.48	1.25	1.11	1.11	9.83	722
	Previously treated cases	0.00	5.80	10.14	8.70	7.25	4.35	2.90	4.35	14.49	69
	Overall	0.38	1.77	4.68	7.71	7.46	1.52	1.26	1.39	10.24	791
60 up	New cases	0.29	0.49	4.51	6.86	7.84	1.86	0.20	0.20	9.89	1021
	Previously treated cases	0.00	1.09	4.89	9.24	5.43	3.26	1.09	1.09	9.78	184
	Overall	0.25	0.58	4.56	7.22	7.47	2.07	0.33	0.33	9.88	1205
All	New cases	0.33	0.88	4.18	7.32	8.08	1.51	0.50	0.63	10.08	2390
	Previously treated cases	0.00	2.84	6.38	10.28	6.38	3.90	1.77	2.13	12.06	282
	Overall	0.30	1.09	4.42	7.63	7.90	1.76	0.64	0.79	10.29	2672

Notes: E = ethambutol; R = rifampicin; H = isoniazid; S = streptomycin
* % resistant to one, two or more than two of the four drugs E, R, H and S
# total % resistance: resistant to at least one of the four drugs E, R, H and S
New cases: for cases with no past history of anti-tuberculosis treatment
Previously treated cases: for cases with past history of anti-tuberculosis treatment
Overall: for all cases

NB: The TB Reference Laboratory of Department of Health is using the absolute concentration method for drug susceptibility tests.

APPENDIX 19 (c2)

Rate of Drug-resistant Tuberculosis

Among cases (mainly cases seen at chest clinics) with date of starting treatment druing the period January to December 2011:

	New case		Previously treated cases		Combined	
	N	%	N	%	N	%
Total number of strains tested	2390	100	282	100	2672	100
Susceptible to all 4 drugs	2149	89.92	248	87.94	2397	89.71
Any resistance	241	10.08	34	12.06	275	10.29
H	100	4.18	18	6.38	118	4.42
R	21	0.88	8	2.84	29	1.09
E	8	0.33	0	0.00	8	0.30
S	175	7.32	29	10.28	204	7.63
Monoresistance	193	8.08	18	6.38	211	7.90
H	53	2.22	3	1.06	56	2.10
R	5	0.21	1	0.35	6	0.22
E	3	0.13	0	0.00	3	0.11
S	132	5.52	14	4.96	146	5.46
Multidrug resistance	15	0.63	6	2.13	21	0.79
H+R	3	0.13	1	0.35	4	0.15
H+R+E	1	0.04	0	0.00	1	0.04
H+R+S	8	0.33	5	1.77	13	0.49
H+R+E+S	3	0.13	0	0.00	3	0.11
Other patterns	33	1.38	10	3.55	43	1.61
H+E	1	0.04	0	0.00	1	0.04
H+S	31	1.30	9	3.19	40	1.50
H+E+S	0	0.00	0	0.00	2	0.07
R+E	0	0.00	0	0.00	0	0.00
R+S	1	0.04	1	0.35	0	0.00
R+E+S	0	0.00	0	0.00	0	0.00
E+S	0	0.00	0	0.00	0	0.00
Number of drugs resistant to:						
0 drug	2149	89.92	248	87.94	2397	89.71
1 drug	193	8.08	18	6.38	211	7.90
2 drugs	36	1.51	11	3.90	47	1.76
3 drugs	9	0.38	5	1.77	14	0.52
4 drugs	3	0.13	0	0.00	3	0.11

Appendix 19 (d1)

Trend of anti-TB drug resistance (1998-2012) (Data from Programme Forms)

New cases

(Percentages)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 (Jan-Jun)
Ethambutol	1.24	1.11	0.54	0.96	0.65	0.42	0.34	0.54	0.35	0.12	0.45	0.26	0.25	0.33	0.92
Rifampicin	1.17	0.97	0.61	0.83	0.46	0.69	0.75	0.83	0.86	0.46	0.64	0.90	0.78	0.88	1.00
Isoniazid	6.78	6.22	5.21	5.02	4.71	4.64	3.65	4.16	4.13	3.79	4.33	4.19	4.86	4.18	5.01
Streptomycin	7.65	9.34	7.78	7.39	7.40	7.59	6.90	6.72	6.00	7.47	6.89	8.04	7.61	7.32	10.18
MDR-TB	1.06	0.75	0.47	0.55	0.34	0.46	0.48	0.51	0.55	0.31	0.30	0.67	0.70	0.63	0.92
Total % resistance	10.89	12.61	10.35	10.39	10.22	10.54	8.84	9.33	8.64	9.32	9.41	10.59	9.88	10.08	12.44

Previously treated cases

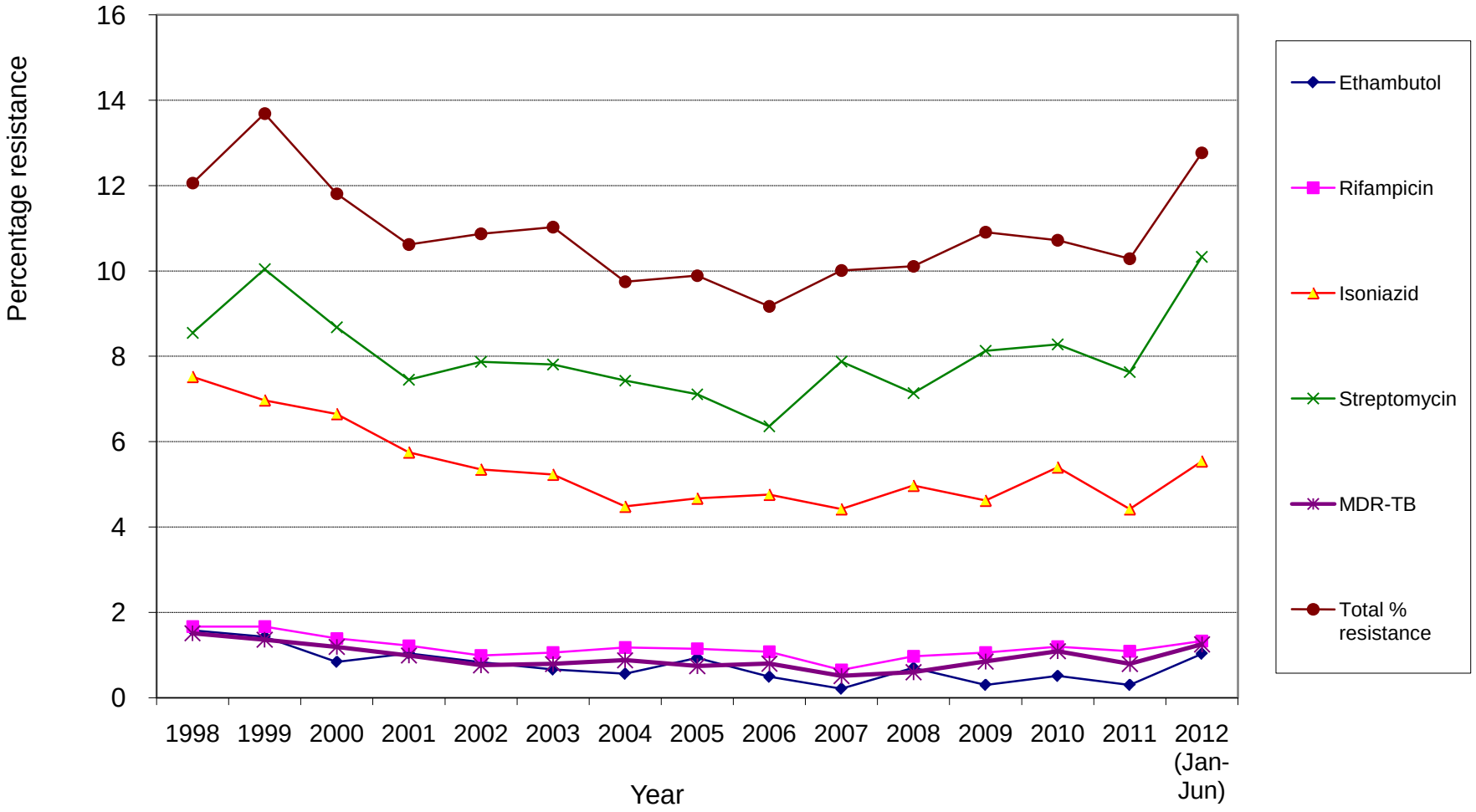
(Percentages)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 (Jan-Jun)
Ethambutol	3.51	3.16	2.68	1.85	2.04	2.19	2.14	3.92	1.61	0.90	2.65	0.47	2.56	0.00	1.91
Rifampicin	4.61	6.09	5.98	3.71	4.59	3.41	4.29	3.64	2.90	2.10	3.53	1.73	4.47	2.84	3.82
Isoniazid	11.84	11.51	15.26	11.80	9.69	9.00	10.46	8.68	10.00	9.31	10.00	6.45	9.58	6.38	9.55
Streptomycin	13.82	14.45	13.81	10.96	10.97	9.25	11.26	10.08	9.35	11.11	9.12	8.49	13.42	10.28	11.46
MDR-TB	4.17	5.19	5.36	3.54	3.57	2.92	3.75	2.52	2.90	2.10	2.94	1.57	4.15	2.13	3.82
Total % resistance	18.86	20.32	20.41	16.36	16.58	14.11	16.35	14.29	13.55	15.32	15.59	12.26	17.25	12.06	15.29

Overall

(Percentages)	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 (Jan-Jun)
Ethambutol	1.58	1.43	0.84	1.04	0.83	0.66	0.56	0.93	0.49	0.21	0.70	0.30	0.51	0.30	1.03
Rifampicin	1.67	1.67	1.39	1.22	0.99	1.06	1.18	1.15	1.08	0.65	0.97	1.06	1.20	1.09	1.33
Isoniazid	7.52	6.97	6.65	5.75	5.35	5.23	4.48	4.67	4.76	4.42	4.97	4.62	5.40	4.42	5.54
Streptomycin	8.55	10.04	8.68	7.45	7.87	7.81	7.43	7.11	6.36	7.88	7.14	8.13	8.28	7.63	10.33
MDR-TB	1.51	1.36	1.19	0.99	0.76	0.79	0.88	0.74	0.80	0.51	0.60	0.85	1.09	0.79	1.25
Total % resistance	12.06	13.69	11.81	10.62	10.87	11.03	9.75	9.89	9.17	10.01	10.11	10.91	10.72	10.29	12.77

Appendix 19 (d2)

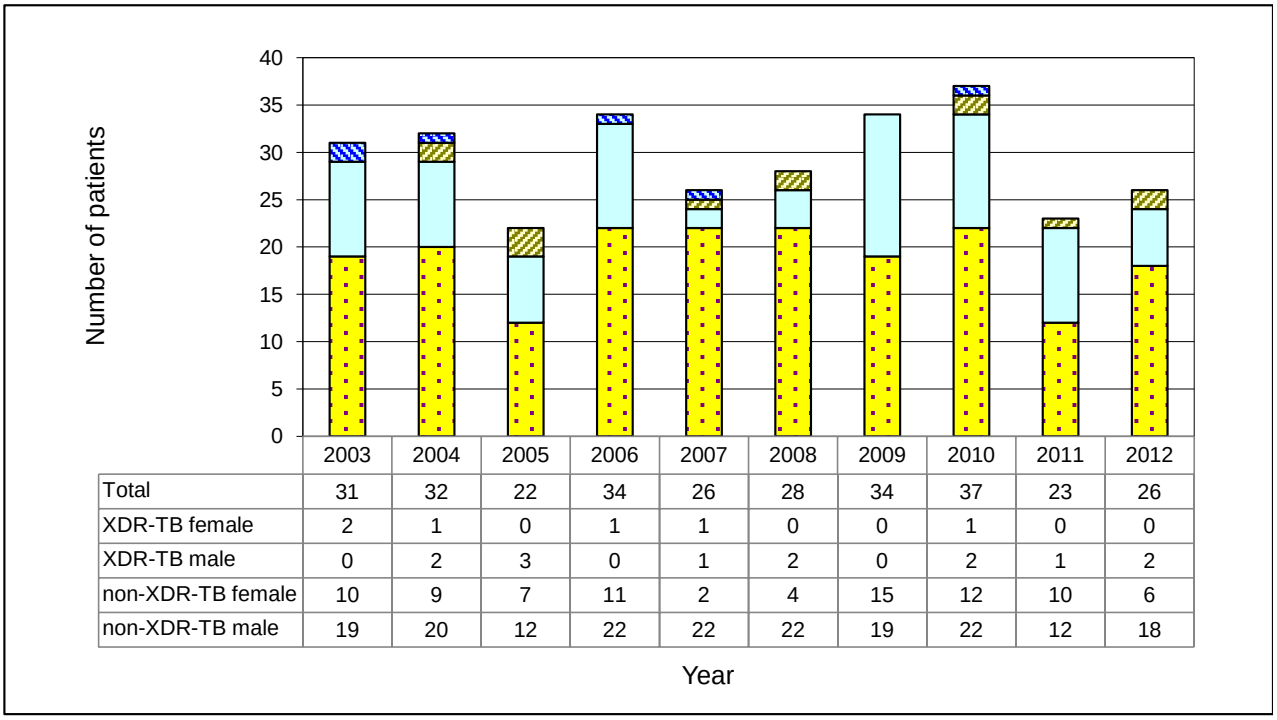
Trend of anti-TB drug resistance (1998-2012) (Overall) (Data from Programme Forms)



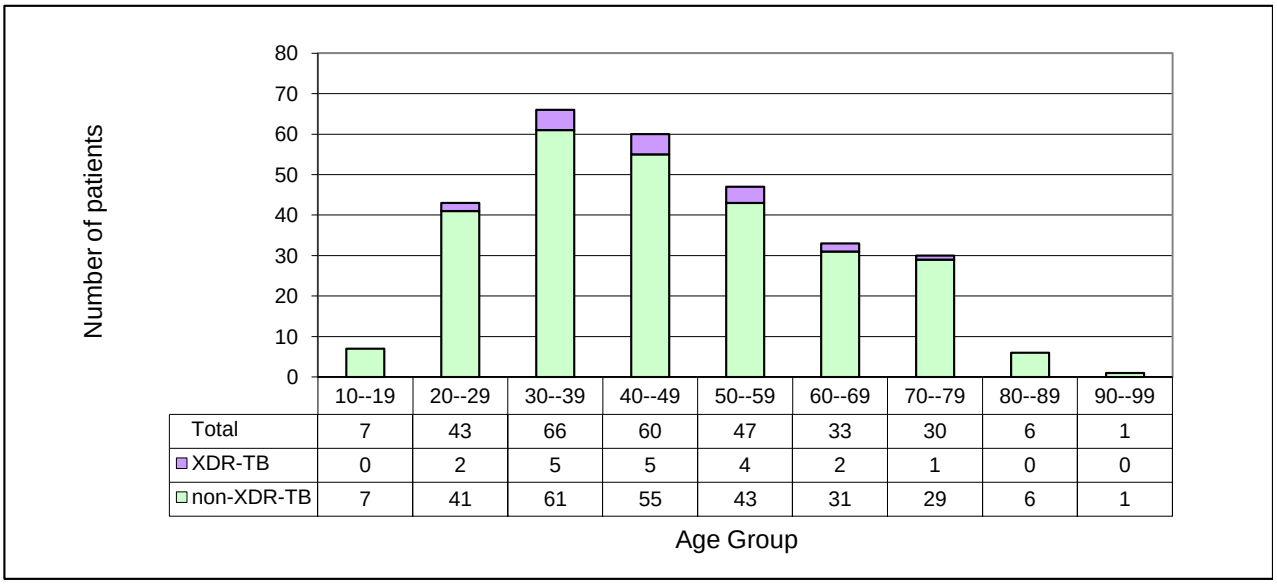
Appendix 19 (e)

MDR-TB and XDR-TB by Sex and Year (Upper Graph) and by Age (Lower Graph) (2003-2012)

Cases of MDR-TB and XDR-TB are identified from four main sources: (1) Programme forms; (2) MDR-TB registry; (3) Prison registry; (4) TB Reference Laboratory. The year to which the case belongs is defined as the year of starting treatment with second-line anti-TB drugs, or if treatment has not been started (e.g., patient died, or no effective second-line drugs are available for treatment), it is defined as the year of reporting MDR-TB.



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Total	31	32	22	34	26	28	34	37	23	26
XDR-TB female	2	1	0	1	1	0	0	1	0	0
XDR-TB male	0	2	3	0	1	2	0	2	1	2
non-XDR-TB female	10	9	7	11	2	4	15	12	10	6
non-XDR-TB male	19	20	12	22	22	22	19	22	12	18



	10--19	20--29	30--39	40--49	50--59	60--69	70--79	80--89	90--99
Total	7	43	66	60	47	33	30	6	1
XDR-TB	0	2	5	5	4	2	1	0	0
non-XDR-TB	7	41	61	55	43	31	29	6	1

Definitions: MDR-TB = multidrug-resistant tuberculosis [resistant to at least isoniazid and rifampicin]

XDR-TB = extensively drug-resistant tuberculosis [resistant to any fluoroquinolone, and at least one of the three injectable second-line drugs (capreomycin, kanamycin, and amikacin), in addition to MDR-TB]

NB: In the above graphs, non-XDR-TB refers to MDR-TB excluding XDR-TB cases.

Appendix 20 (a)
Treatment Return 2012

Name of Clinic/Hospital	Service Regimen																										
	No. put on Rx b/f	Bought in					Treatment completed					Transfer out to		Interrup	Died	Drop out				Complete defaulter				No. still onRx c/f	Unsup Rx	Incomp super. Rx	No. def. >2M <3M
		1	2	3	4	5	<6M	at 6M	>6M	MAI	%	hosp.	other cc	Rx temp		Rx by GP	Leave HK	Def. >1x	AMA	<2M	>2M <3M	>3M	%				
	A	B	C	D	E	F	G	H	I	J		K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Full Time Clinics																											
East Kowloon	165	109	8	10	106	42	2	25	173	8	85.3	33	12	0	13	0	5	0	1	2	4	1	3.0	161	8	77	0
Kowloon	179	158	7	14	124	62	11	37	176	11	83.203	52	18	0	15	1	6	0	7	0	2	1	1.2	207	0	64	0
South Kwai Chung	205	197	2	8	170	54	9	61	229	13	84.795	41	18	0	18	1	9	0	4	0	2	5	2.0	226	0	44	0
Sai Ying Pun	92	82	11	5	91	44	1	33	103	8	77.7	49	15	0	5	0	9	1	6	0	2	9	6.3	84	0	31	3
Shaukeiwan	141	90	11	9	86	29	7	49	115	1	90.1	26	16	0	6	1	6	0	2	0	1	1	1.1	135	0	36	3
Shek Kip Mei	85	134	9	6	129	50	8	59	138	12	82.8	38	15	1	18	1	2	4	7	0	0	1	0.4	109	0	82	8
Tai Po	142	99	2	3	88	23	2	23	108	13	70.4	1	8	0	13	2	3	1	7	0	0	17	9.1	159	0	0	0
Wanchai	132	132	4	6	62	66	11	69	127	1	80.0	31	13	0	6	3	32	0	1	0	5	1	2.4	102	0	32	0
Yan Oi	157	188	7	14	136	57	13	72	218	6	84.3	48	16	0	20	1	14	2	8	0	0	5	1.5	136	3	82	0
Yaumatei	196	136	6	9	138	42	9	48	165	4	82.9	35	25	0	9	3	17	1	4	3	2	2	2.7	200	2	61	3
Yuen Chau Kok	139	161	10	14	111	28	9	72	175	4	88.5	25	20	3	8	0	8	0	4	1	0	7	2.9	127	0	45	0
Yung Fung Shee	237	202	7	12	143	82	9	43	250	5	85.9	63	20	0	23	3	2	2	2	2	4	7	3.8	248	5	80	5
Sub-total	1870	1688	84	110	1384	579	91	591	1977	86	85.9	442	196	4	154	16	113	11	53	8	22	57	2.9	1980	18	634	22
Hosp Discharge Clinic																											
East Kowloon	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0
Part Time Clinics																											
Castle Peak	2	0	0	0	1	0	0	1	0	0	100.0	0	1	0	0	0	0	0	0	0	0	0	0.0	1	0	0	0
Cheung Chau	1	1	0	0	1	4	0	0	3	0	100.0	1	1	0	0	0	0	0	0	0	0	0	0.0	2	0	0	0
Sai Kung	8	8	0	1	5	1	0	1	5	1	60.0	1	1	0	1	0	2	0	0	0	0	1	10.0	10	0	2	0
Sheung Shui	107	44	5	2	55	15	5	24	82	0	82.8	7	6	0	12	0	0	2	2	0	1	7	6.3	80	0	114	0
Tung Chung	19	17	0	0	20	11	1	14	12	0	81.3	4	1	0	2	0	1	0	0	0	0	3	9.4	29	0	12	0
Yuen Long	112	71	4	1	84	33	2	18	91	0	82.6	26	5	0	9	1	2	0	4	0	2	5	5.3	140	0	105	5
Sub-total	249	141	9	4	166	64	8	58	193	1	82.0	39	15	0	24	1	5	2	6	0	3	16	6.2	263	0	233	5
Institutions Correctional Services Dept																											
Hei Ling Chau	2	1	7	0	0	0	2	0	0	0	0.0	1	4	0	0	0	0	0	0	0	0	0	1.0	3	0	0	0
Stanley Prison	12	0	0	0	0	0	9	2	0	0	100.0	0	0	0	0	0	0	0	0	0	0	0	1.0	1	0	0	0
Shek Pik Prison	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0
Sub-total	14	1	7	0	0	0	11	2	0	0	100.0	1	4	0	0	0	0	0	0	0	0	0	0.0	4	0	0	0
Total	2133	1830	100	114	1550	643	110	651	2170	87	85.5	482	215	4	178	17	118	13	59	8	25	73	3.2	2247	18	867	27

Appendix 20 (b)
Treatment Return 2012

Other Regimen																											
	No. put	Bought in					Treatment completed					Transfer out to		Interrup	Died	Drop out				Complete defaulter				No. still	Unsup	Incomp	No. def.
Name of Clinic/Hospital	on Rx b/f	1	2	3	4	5	<6M	at6M	>6M	MAI	%	hosp.	other cc	Rx temp		Rx by GP	Leave HK	Def. >1x	AMA	<2M	>2M <3M	>3M	%	onRx c/f	Rx	super. Rx	>2M <3M
	A	B	C	D	E	F	G	H	I	J		K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Full Time Clinics																											
East Kowloon	59	16	3	2	32	14	1	2	48	6	76.9	10	3	0	5	0	0	0	2	0	2	0	3.1	47	5	27	0
Kowloon	32	10	1	1	15	11	2	3	21	5	72.7	9	3	0	0	0	0	1	2	0	0	2	6.1	22	0	17	0
South Kwai Chung	95	11	1	4	60	16	2	9	49	4	85.3	16	3	0	5	0	0	0	1	0	0	0	0.0	98	0	24	0
Sai Ying Pun	56	4	5	2	27	13	2	5	21	3	72.2	17	2	0	6	0	0	1	0	0	1	0	2.8	49	1	7	0
Shaukeiwan	27	7	3	3	21	8	0	4	22	2	76.5	7	3	0	3	0	1	0	1	0	0	1	2.9	25	0	14	1
Shek Kip Mei	110	5	1	1	19	4	0	1	24	5	73.5	5	0	0	2	1	0	0	0	0	0	1	2.9	101	0	12	0
Tai Po	31	11	3	1	14	2	0	0	18	7	62.1	0	1	0	1	0	0	0	1	0	0	2	6.9	32	0	0	0
Wanchai	31	6	2	4	23	7	3	2	22	5	72.7	4	1	0	4	0	0	0	0	0	0	0	0.0	32	0	11	0
Yan Oi	136	9	2	1	26	11	2	2	14	13	47.1	8	2	0	3	0	0	0	0	0	1	1	5.9	139	2	5	0
Yaumatei	30	13	0	1	28	12	1	3	28	2	83.8	10	5	0	2	0	1	0	0	1	0	0	2.7	31	0	20	1
Yuen Chau Kok	58	30	1	3	20	6	3	6	28	7	69.4	8	1	0	6	0	1	1	0	0	0	1	2.0	56	0	27	0
Yung Fung Shee	30	13	0	4	21	9	1	1	11	4	66.7	9	3	0	1	0	1	0	0	0	0	0	0.0	46	1	2	0
Sub-total	695	135	22	27	306	113	17	38	306	63	84.5	103	27	0	38	1	4	3	7	1	4	8	3.2	741	9	166	2
Hosp Discharge Clinic																											
East Kowloon	0	0	0	0	0	0	0	0	0		0.0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0
Part Time Clinics																											
Castle Peak	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0
Cheung Chau	2	0	0	0	3	1	0	0	3	1	60.0	0	0	0	1	0	0	0	0	0	0	0	0.0	1	0	1	0
Sai Kung	0	0	0	0	1	0	0	0	0	0	0.0	0	1	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0
Sheung Shui	9	1	2	1	23	2	1	0	7	0	87.5	3	1	0	1	0	0	0	0	0	0	0	0.0	25	0	2	0
Tung Chung	5	1	0	0	2	0	0	0	5	2	71.4	0	0	0	0	0	0	0	0	0	0	0	0.0	1	0	1	0
Yuen Long	17	1	3	0	10	1	0	0	16	1	88.9	3	0	0	0	0	0	0	0	0	0	1	5.6	11	0	9	1
Sub-total	33	3	5	1	39	4	1	0	31	4	91.2	6	2	0	2	0	0	0	0	0	0	1	2.9	42	0	13	1
Institutions Correctional Services Dept																											
Hei Ling Chau	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0
Stanley Prison	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0
Shek Pik Prison	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0	0	0	0	0	0	0	0	0.0	0	0	0	0
Total	728	138	27	28	345	117	18	38	337	67	85.0	109	29	0	40	1	4	3	7	1	4	9	3.2	783	9	179	3

APPENDIX 20 (c)

Explanatory Notes for Appendices 20(a) & 20(b)

Name of clinic/hospital	Service regimen / Other regimens *																											
	b/f	Brought in					Treatment completed					Transfer out to		Interrup. Rx temp.	Died	Drop out				Complete defaulter				Number still on Rx c/f	Unsup. Rx	Incomp. Super. Rx	No. Def. >2m, <3m
							<6M	at 6M	>6M	NTM	%	hospi-tal	other cc			Rx by GP	Leave HK	Def. >1x	AMA	<2M	>2M, <3M	>3M	%				
	A	B *	C *	D *	E *	F *	G	H	I	J		K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z

$$\% = \frac{H + I}{A + B + C + D + E + F - G - K - L - M - Q - W} \Rightarrow$$

$$V = \frac{S + T + U}{A + B + C + D + E + F - G - K - L - M - Q - W} \Rightarrow$$

$$W = (A + B + C + D + E + F) - (G + H + I + K + L + M + N + O + P + Q + R + S + T + U) \Rightarrow$$

* Explanatory Notes :

Service regimen	Upon starting treatment, the regimen contains any combination of drugs including H (isoniazid), R (rifampicin), Z (pyrazinamide), E (ethambutol), and S (streptomycin).
Other regimens	Upon starting treatment, the regimen contains second line drugs apart from H, R, Z, E or S.
Item B	New cases with treatment started in chest clinics.
Item C	Retreatment cases, with treatment newly started. Previous treatment either not completed, or even if claimed to be completed, without documentation in the available clinic record.
Item D	Relapse cases, with treatment newly started. Previous treatment is completed with documentation in the available clinic record.
Item E	Treatment cases transferred in from hospitals, private doctors, etc. without treatment started previously at any chest clinics for this episode of tuberculosis.
Item F	Other transferred in treatment cases, with treatment given previously in any chest clinics for this episode of tuberculosis.

APPENDIX 20 (d)

Explanatory Notes For Appendices 20(a) and 20(b)

Appendix 20 (a) : Service regimen: For treatment cases who, upon starting anti-TB drugs, were given any combination of drugs including H (isoniazid), R (rifampicin), Z (pyrazinamide), E (ethambutol), and S (streptomycin).

Appendix 20 (b) : Other regimens: For treatment cases who, upon starting anti-TB drugs, were given also second line drugs apart from H, R, Z, E or S.

Number put on treatment b/f:

(A) - No. put on Rx b/f: Total number of treatment cases c/f from last month's balance.

Brought in:

- Items (B), (C), (D) & (E) will be using a new treatment number, while item (F) will be using the same previous treatment number, as follows:

(B) (1) Newly started treatment in your chest clinic.

(C) (2) Retreatment cases, with treatment newly started, including:

- Cases previously classified under items(O), (P), (Q), (R), (S), (T) or (U) in the most recent episode of treatment, with treatment restarted now after treatment has been interrupted for over 2 months;
- Cases claiming to have anti-TB treatment completed previously in chest clinic or chest hospital, but the clinic record is not available, e.g., because it has been destroyed;
- Cases claiming to have anti-TB treatment completed previously from sources other than chest clinic or chest hospital.

(D) (3) Relapse case:

- Cases having treatment completed previously (even if this is completed less than 2 months ago) in either chest clinic or chest hospital as indicated in the clinic record which is still available, e.g., cases classified under items (H) or (I) in the most recent episode.

(E) (4) Transfer in from hospitals, general practitioners (GPs), or prison:

- Cases previously unknown to any one chest clinic for this episode of treatment.

(F) (5) Cases using the same previous treatment number:

- Cases previously known to chest clinic for this episode of treatment, and now being transferred in from other chest clinics, hospitals, GPs, or prison, e.g., cases previously classified under items (K) or (L);
- Cases previously classified under items (O), (P), (Q), (R), or (S) in the most recent episode of treatment, with treatment restarted now after treatment has been interrupted for less than 2 months;
- Cases previously classified under item (M), and resuming treatment now.

Treatment completed:

(G) < 6m: Treatment stopped permanently by doctor prematurely, e.g., revised diagnosis.

(H) at 6m: Treatment stopped permanently by doctor at or within 2 weeks of 6 month from DOS.

(I) > 6m: Treatment stopped permanently by doctor at 7 month or more.

(J) NTM = Non-tuberculous mycobacteria cases

Column following (J): % = (H + I)/(A + B + C + D + E + F – G – K – L – M – Q – W)

Transfer out to:

(K) hosp: Admission to hospital.

(L) other cc: Transfer out to other chest clinics.

Interrup. Rx temp.:
(M) Treatment interrupted by doctor temporarily, e.g., due to side effects of drug such as impaired LFT.

Died:
(N) Treatment cases who died.

Drop out:
(O) Rx by GP: Changed to be treated by GP.
(P) Leave HK: Treatment cases known to be going back to Philippines, China, or other countries for good as stated in the clinic record (whether AMA has been signed or not).
(Q) Def. > 1x: Defaulted treatment and NFA in conference with MO for more than one time.
(R) AMA: Treatment cases who have signed AMA, excluding those who are to be classified under items (O) or (P).

Complete defaulter:
(S) < 2m: Defaulted treatment for less than 2 months, and NFA in conference with MO for the first time.
(T) > 2m, < 3m: Defaulted treatment for more than 2 months but less than 3 months, and NFA in conference with MO for the first time.
(U) > 3m: Defaulted treatment for more than 3 months, and NFA in conference with MO for the first time.
(V) % = (S + T + U)/(A + B + C + D + E + F – G – K – L – M – Q – W)

No. still on Rx c/f:
(W) - Number of treatment cases in hand at the end of the month = (A + B + C + D + E + F) – (G + H + I + K + L + M + N + O + P + Q + R + S + T + U)

Unsup. Rx:
(X) - Treatment cases with all anti-TB drugs supplied (not even taken one dose at chest clinic) and unsupervised. Count under this item if this happens within the first 2 month of treatment.

Incomp. super. Rx:
(Y) - Treatment incompletely supervised, including:
  - Treatment supervised by non-clinic staff, e.g., CNS, old aged home staff, Vietnamese camp, prison.
  - Drug supplied to patient or relatives.

  Count under this item if this happens within the first 2 months of treatment.

No. def. > 2m, < 3m:
(Z) - Number of defaulters who have defaulted treatment for more than 2 months but less than 3 months, but not yet NFA in conference with MO. (NB: No cases who have been counted under this item in the last month will be counted again under this item for the subsequent months.)

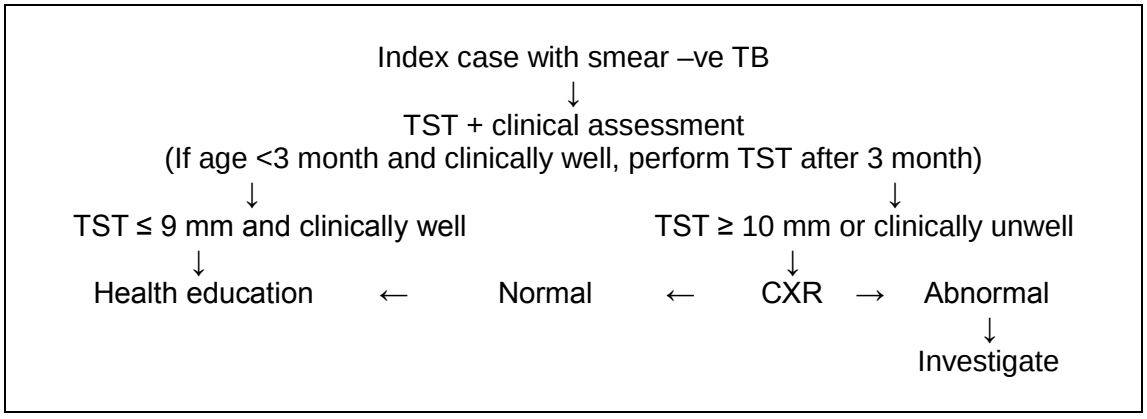
  This item needs to be counted only on the last working day of the month when completing the monthly treatment return.

Appendix 21 (a)

Scheme for Investigation of Close Contacts (Household) in the Tuberculosis & Chest Service, Department of Health

Scenario	Strategy
Index case is smear-negative and the close contact < 5 years old	Tuberculin skin test, with chest X-ray if the test reads 10 mm or more.
Index case is smear-negative and the close contact aged 5 years or more	Chest X-ray
Index case is smear-positive and the close contact < 35 years old	Chest X-ray and tuberculin skin test, with treatment of latent TB infection if appropriate.
Index case is smear-positive and the close contact aged 35 years or more	Chest X-ray, with tuberculin skin test and treatment of latent TB infection after assessment on a case-by-case basis.

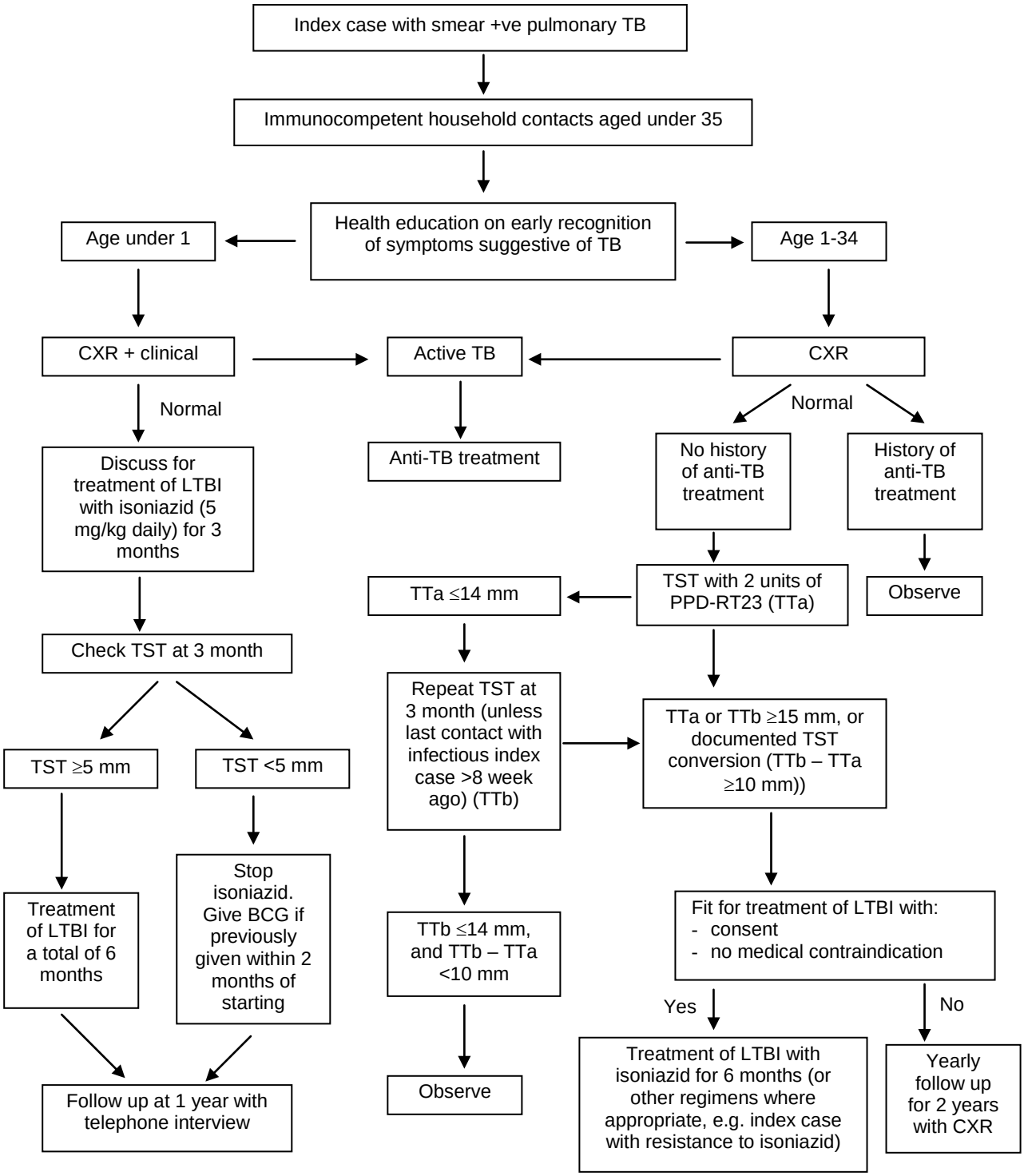
Flow chart for contact investigation of close contacts aged below 5 with smear negative index case *



* If the index case has smear-negative TB and the close contact case is aged below five, the contact case is first evaluated by tuberculin skin test alongside clinical assessment. If the contact case is aged below 3 months and clinically well, the tuberculin test can be postponed until the contact case is 3 months old. If the contact case is clinically well and the tuberculin skin test result is 9 mm or less, health education is all that is required. If the contact case is clinically unwell or the tuberculin skin test result is 10 mm or more, chest X-ray is taken. If chest X-ray is normal, only health education is required. Otherwise, further investigation may be considered.

Appendix 21 (b)

Tuberculin Testing (TST) And Treatment Of Latent Tuberculosis Infection (LTBI) Among Immunocompetent Household Contacts Aged Under 35 Of Smear-positive Pulmonary Tuberculosis (TB) Patients *



* After finding an index case with smear-positive pulmonary TB, tuberculin testing should be arranged for immunocompetent household contacts aged under 35. All of them should receive health education on early recognition of symptoms suggestive of TB in addition to chest X-ray examination. If active TB is likely, consider anti-TB treatment. If chest X-ray is normal, further management depends on the age.

For infants (aged under 1) with normal chest X-ray, if clinical assessment is also normal, discuss for treatment of latent TB infection with isoniazid 5 mg per kg daily for three months. Tuberculin skin test (TST) is to be done at 3 months. A TST response of 5 mm or more indicates that treatment of latent TB infection should be given for a total of 6 months. If TST response is below 5 mm, stop isoniazid. Additionally, repeat BCG vaccination if it has been given within 2 months before starting isoniazid. All infants are followed up at one year by telephone interview.

For contacts aged 1-34 with normal chest X-ray, consider observation in the presence of a history of anti-TB treatment. In the absence of such a history, arrange TST with 2 units of PPD-RT23 (TTa). If response to TTa is 14 mm or less, repeat TST 3 months later (TTb) unless TTa is done more than 8 weeks after the last contact with the infectious index case. If response to TTb is 14 mm or less, or the difference between TTb and TTa is less than 10 mm, consider observation. On the other hand, if response to TTa or TTb is at least 15 mm, or TST conversion is documented with a difference of at least 10 mm between TTb and TTa, consider treatment of latent TB infection with isoniazid for 6 months, after obtaining consent and excluding medical contraindications. Other alternative preventive treatment regimens may also be given where appropriate, for example, presence of bacillary resistance to isoniazid in the index case. If the contact is unfit for preventive treatment, arrange yearly follow up with chest X-ray for two years.

APPENDIX 21 (c)

Examination of Contacts in the Chest Clinics 2012

Particulars	Smear Positive Index Cases	Smear Negative Index Cases	Total
No. of patients (new & old) listed	1467	3232	4699
No. of contacts listed	3558	7481	11039
Number of contacts x-rayed	3614 (100.00%)	7580 (100.00%)	11194 (100.00%)
Results			
(a) NSD & Unknown	3308 (91.53%)	6987 (92.18%)	10295 (91.97%)
(b) Disease other than TB	181 (5.01%)	343 (4.53%)	524 (4.68%)
(c) Inactive respiratory TB	62 (1.72%)	158 (2.08%)	220 (1.97%)
(d) Active respiratory TB			
A (radiologically)	14 (0.39%)	17 (0.22%)	31 (0.28%)
B (bacteriogically)	8 (0.22%) > 26 (0.72%)	12 (0.16%) > 36 (0.47%)	20 (0.18%) > 62 (0.55%)
C (incomplete)	4 (0.11%)	7 (0.09%)	11 (0.10%)
(e) Non-respiratory TB	6 (0.17%)	10 (0.13%)	16 (0.14%)
(f) Result not yet known	31 (0.86%)	46 (0.61%)	77 (0.69%)

APPENDIX 22 (a)

Scheme for BCG Administration in Hong Kong, 2012

Population Group		Procedures
Newborns		Direct BCG with intradermal method
Children under the age of 15	Negative BCG history and negative BCG scar	Direct BCG with intradermal method (since September 2000)
	BCG history and / or BCG scar	No action
Primary School Children (aged 6-10)		BCG revaccination programme stopped since September 2000

Notes: (1) Freeze dried BCG from Statens Serum Institut of Denmark being used

(2) Any child with symptoms and/or BCG complications should be seen by a doctor

APPENDIX 22 (b)

BCG Vaccinations at Birth 2012

Institution		No. of Live-births	BCG Vaccination	% Vaccinated
Hospital under HA management	P.Y. Nethersole East	4247	4201	98.9
	Queen Mary	4536	4397	96.9
Private Hospital	Canossa	2170	2145	98.8
	H.K. Adventist	1298	1250	96.3
	H.K. Sanatorium	3097	3084	99.6
	Matilda International	1241	1104	89.0
	St. Paul's	4163	4142	99.5
Total (HK Island)		20752	20323	97.9
Hospital under HA management	Kwong Wah	6214	6161	99.1
	Queen Elizabeth	6187	6248	101.0 *
	United Christian	5026	5010	99.7
Private Hospital	H.K. Baptist	12061	11966	99.2
	St. Teresa's	8806	8699	98.8
	Precious Blood	3325	3303	99.3
Total (Kowloon)		41619	41387	99.4
Hospital under HA management	Alice H.M.L. Nethersole	-	-	-
	Prince of Wales	7266	7246	99.7
	Princess Margaret	5574	5632	101.0 *
	Tuen Mun	5516	5510	99.9
Private Hospital	T.W. Adventist	3427	3392	99.0
	Shatin Int'l Medical Ctr Union	7392	7358	99.5
Total (NT Areas)		29175	29138	99.9
Mother & Child Health Centre		-	220	-
Grand Total		91546	91068	99.5

Note: * Including vaccinations of live births transferred from other maternity institutions and vaccinations of live births at end of 2011

APPENDIX 23

TB Beds in Public Services, 2012

Hospital		No. of TB Beds
Hospital Authority	Grantham Hospital	135
	Kowloon Hospital	114
	Ruttonjee Hospital	151
	Haven of Hope Hospital	129
	Wong Tai Sin Hospital	96
	Total (Hospital Authority)	625
Custody	Stanley Prison Hospital	25
	Grand Total (2012)	650
	Grand Total (2011)	664
	Grand Total (2010)	644

APPENDIX 24

Annual Admissions to Hospitals from Government Chest Clinics

2000 - 2012

Year	Total Admissions
2000	5408
2001	5317
2002	5183
2003	4603
2004	4986
2005	4435
2006	4571
2007	4038
2008	3170
2009	3345
2010	3330
2011	3142
2012	2940

Admissions by Clinic	Year 2012
East Kowloon	244
Kowloon	127
Sai Ying Pun	459
Shaukeiwan	168
Shaukeiwan Pneumoconiosis	67
Shek Kip Mei	117
South Kwai Chung	366
Tai Po	71
Tung Chung	24
Wanchai	194
Yan Oi	466
Yaumatei	213
Yuen Chau Kok	161
Yung Fung Shee	167
Cheung Chau	4
NT Unit	92
Total	2940

APPENDIX 25

HIV Surveillance Among TB Patients

Provider-initiated HIV Antibody Testing Among TB Patients in Government Chest Clinics (2005 – 2012)

Year	HIV positive		HIV negative		HIV results unknown or not done		Total	
	Number	%	Number	%	Number	%	Number	%
2005	35	0.7%	4174	80.5%	973	18.8%	5182	100%
2006	33	0.7%	4478	90.4%	445	9.0%	4956	100%
2007	41	0.9%	4034	87.8%	517	11.3%	4592	100%
2008	48	1.0%	4073	88.8%	464	10.1%	4585	100%
2009	40	0.9%	3953	88.1%	496	11.0%	4489	100%
2010	28	0.7%	3805	89.5%	418	9.8%	4251	100%
2011	33	0.8%	3623	89.7%	381	9.4%	4037	100%
2012	22	0.5%	3685	90.7%	357	8.8%	4064	100%

Unlinked Anonymous Screening (UAS) for HIV in TB & Chest Service

Period	Category	Sample	Number Tested (No. +ve) (% +ve)
1.12.90 - 31.1.91	Outpatient	Blood	1548
5.6.91 - 5.8.91	Inpatient	Blood	485
1.4.92 – 30.6.92	Outpatient	Blood	1469 (2) (0.14%)
1.4.93 – 30.6.93	Outpatient	Blood	1173
Sep 95 – Nov 95	Outpatient	Urine	895 (2) (0.22%)
Sep 96 – Dec 96	Outpatient	Urine	998 (4) (0.40%)
Oct 97 – Jan 98	Outpatient	Urine	1003 (2) (0.20%)
Oct 98 – Jan 99	Outpatient	Urine	833 (4) (0.48%)
Sep 99 – Dec 99	Outpatient	Urine	1166 (8) (0.69%)
Sep 00 – Dec 00	Outpatient	Urine	1018 (5) (0.49%)
Oct 01 – Dec 01	Outpatient	Urine	1071 (4) (0.37%)
Oct 02 – Jan 03	Outpatient	Urine	1000 (8) (0.80%)
Nov 03 – Feb 04	Outpatient	Urine	920 (6) (0.65%)
Oct 04 – Feb 05	Outpatient	Urine	1056 (9) (0.85%)
Nov 05 – Jan 06	Outpatient	Urine	841 (7) (0.83%)
Nov 06 – Feb 07	Outpatient	Urine	841 (5) (0.59%)
Nov 07 – Feb 08	Outpatient	Urine	887 (11) (1.24%)

Since late 2008, UAS is no longer performed, and surveillance of HIV among TB patients mainly depends on voluntary HIV testing.

APPENDIX 26

Number of 'Confirmed' cases of TB in health care staff
Notified to Labour Department (1993 – 2012)

Year	Number
1993	0
1994	1
1995	2
1996	2
1997	10
1998	39
1999	57
2000	39
2001	41
2002	29
2003	30
2004	42
2005	30
2006	18
2007	16
2008	25
2009	18
2010	11
2011	17
2012	15

'Confirmed' Cases of TB in Health Care Staff Notified
to Labour Department (2012) by Age and Job Title

Age Group	Doctor	Nurse	Other Allied Health Professional	Other Supporting Staff	Total
20 – 24		1			1
25 – 29	1		1		2
30 – 34					0
35 – 39		5			5
40 – 44	1	2			3
45 – 49			1	1	2
50 – 54					0
55 – 59				2	2
60 – 64					0
Total	2	8	2	3	15

Appendix 27
Cohorts of TB Patients

Treatment outcomes for TB cases (including both HIV-negative and HIV-positive cases) registered in 2011 calendar year (number of patients)

	Total number of cases registered		Cured		Completed		Died		Failed		Defaulted		Not evaluated	
New pulmonary smear-positive	1378	100.00%	811	58.85%	134	9.72%	199	14.44%	0	0.00%	49	3.56%	185	13.43%
New pulmonary smear-negative and extrapulmonary (or smear unknown/not done)	2963	100.00%	-	-	1962	66.22%	525	17.72%	0	0.00%	111	3.75%	365	12.32%
Re-treatment	453	100.00%	122	26.93%	158	34.88%	69	15.23%	0	0.00%	31	6.84%	73	16.11%

NB:
- The above table shows the treatment outcomes for the cases at 12 month (from DOS, date of starting treatment).
- "Not evaluated": includes "transferred out", "still on treatment" and any other registered cases where the treatment outcome has not been evaluated.
- Regarding the item "new pulmonary smear-positive", the total number of cases registered is 1378, including 1145 cases under DOTS and 233 cases under non-DOTS. Among the 1145 DOTS cases, 885 cases had treatment completed at 12 month, representing a treatment success rate of 77.4% for "new pulmonary smear-positive cases under DOTS". On the other hand, the overall treatment success rate (for both DOTS and non-DOTS cases counted together) is 68.58% [(811+134)/1378].

Treatment outcomes for HIV-positive TB cases registered in 2011 calendar year (number of patients)

	Total number of cases registered		Cured		Completed		Died		Failed		Defaulted		Not evaluated	
New pulmonary smear-positive (and/or culture positive)	9	100.00%	7	77.78%	0	0.00%	0	0.00%	0	0.00%	1	11.11%	1	11.11%
New pulmonary smear-negative and extrapulmonary (or smear unknown/not done)	18	100.00%	-	-	12	66.67%	0	0.00%	0	0.00%	0	0.00%	6	33.33%
Re-treatment	1	100.00%	0	0.00%	1	100.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

NB: Overall treatment success rate (at 12 month from DOS) for new cases = 70.37% [(7+12)/(9+18)]

Final treatment outcomes for MDR-TB and XDR-TB cases registered in 2010 calendar year (number of patients)

	Total number of cases registered		Cured		Completed		Died		Failed		Defaulted		Not evaluated	
MDR-TB	33	100.00%	22	66.67%	0	0.00%	2	6.06%	0	0.00%	2	6.06%	7	21.21%
XDR-TB	3	100.00%	2	66.67%	0	0.00%	1	33.33%	0	0.00%	0	0.00%	0	0.00%

NB: Overall treatment success rate (at completion or cessation of drug treatment) = 66.67% [(22+2)/(33+3)].

Part 2

PNEUMOCONIOSIS

Part 2 - Pneumoconiosis: Contents

APPENDIX 1

New Cases of Suspected Pneumoconiosis attending
the Pneumoconiosis Clinic in Hong Kong 1956 - 2012

Year	Number of New Cases Undergoing Assessment					
	Government Workers	Non-government Workers	Total	Cumulative Total	Cumulative Total Compensated	
					R1	R2
1956	1	-	1	1		
1957	4	4	8	9		
1958	9	13	22	31		
1959	5	7	12	43		
1960	9	6	15	58		
1961	8	-	8	66		
1962	3	1	4	70		
1963	9	5	14	84		
1964	21	17	38	122		
1965	9	4	13	135		
1966	7	9	16	151		
1967	3	6	9	160		
1968	4	2	6	166		
1969	4	10	14	180		
1970	22	36	58	238		
1971	9	18	27	265		
1972	9	29	38	303		
1973	3	39	42	345		
1974	-	97	97	442		
1975	5	84	89	531		
1976	15	252	267	798		
1977	3	216	219	1017		
1978	12	207	219	1236		
1979	2	210	212	1448		
1980	12	532 (a)	544	1992	386 (a)	-
1981	8	608	616	2608	1332	162
1982	4	511	515	3123	1434	634
1983	2	292	294	3417	1469	945
1984	1	231	232	3649	1477	1140
1985	1	179	180 (b)	3829	1479	1322
1986	3	176	179 (3)	4008	1485	1513
1987	4	166	170 (2)	4178	1485	1679
1988	6	172	178 (4)	4356	1488	1877
1989	-	156	156 (1)	4512	1488	2023
1990	2	147	149 (1)	4661	1489	2142
1991	-	171	171 (1)	4832	1489	2151
1992	2	171	173 (3)	5005	1490	2340
1993	2	247	249 (4)	5254	1492	2492
1994	-	327	327 (7)	5581	1493	2770
1995	9	245	254 (9)	5835	1494	3000
1996	4	193	197 (9)	6032	1494	3119
1997	4	154	158 (7)	6190	1494	3242
1998	2	197	199 (5)	6389	1494	3351
1999	-	291	291 (15)	6680	1494	3505
2000	3	235	238 (11)	6918	1494	3619
2001	6	230	236 (9)	7154	1494	3751
2002	3	212	215 (9)	7369	1494	3868
2003	3	142	145 (6)	7514	1494	3948
2004	3	138	141 (4)	7655	1494	4021
2005	-	134	134 (2)	7789	1494	4091
2006	-	278	278 (7)	8067	1494	4207
2007	-	120	120 (2)	8187	1494	4276
2008	3	118	121 (5)	8308	1494	4348
2009	-	167	167 (5)	8475	1494	4456
2010	-	152	152 (1)	8627	1494	4518
2011	-	130	130 (9)	8757	1494	4590
2012	-	122	122 (c) (3)	8879	1494 (d)	4637

Notes :

(a) The Pneumoconiosis Compensation Scheme was initiated in 1980, before that reporting were voluntary.

(b) The figures in this column denote the number of patient with asbestos-related lung disease.

(c) Up to the moment that this report is being compiled, only 47 of the 122 cases in 2012 had been assesed and confirmed pneumoconiosis by the Pneumoconiosis Medical Board. And the following tables (Appendix 2 to Appendix 8) are compiled basing on the data of these 47 cases.

(d) Under Revised Ordinance 1993 : 584 out of 1494 pneumoconiotics had joined the pneumoconiosis ex-gratia scheme up to the year 2012. 104 living pneumoconiotics were each receiving a monthly ex-gratia payment of $4860.00 in 2012.

APPENDIX 2

Age Distribution of Pneumoconiosis Cases 2012

Age	Number of Cases	%
25 - 29	-	-
30 - 34	-	-
35 - 39	-	-
40 - 44	-	-
45 - 49	-	-
50 - 54	2	4
55 - 59	13	28
60 - 64	15	32
65 - 69	8	17
70 - 74	4	8
75+	5	11
Total	47	100

APPENDIX 3

Occupation Distribution of Confirmed Pneumoconiosis 2012

Type of Occupation	Number of Cases	%
Construction Construction/Quarry Others	32 2 13	68 4 28
Total	47	100

APPENDIX 4

Pneumoconiosis Patients by Duration of Exposure to Dust 2012

Duration	Number of Cases	%
<5 years	1	2
5 - 9	-	-
10 - 14	1	2
15 - 19	6	13
20 - 24	8	17
25 - 29	14	30
30+	16	34
Unknown	1	2
Total	47	100

APPENDIX 5

Pneumoconiosis Patients by Degree of Incapacity 2012

Degree of Incapacity (%)	No. of New Cases Compensated under Compensation Ordinance
5	16
10	16
15	4
20	4
25	1
30	1
35	2
40	-
45	-
50	-
55	-
60	-
70	-
75	-
80	1
100	1
N. A.	1
Total	47

APPENDIX 6

Confirmed Pneumoconiosis Patients
Classified by Radiological Appearance 2012

Type of Opacity	Profusion 1	2	3	Sub-Total
Small opacities				
Rounded				
p (up to 1.5 mm diameter)	24	1	-	25
q (1.5 to 3.0 mm diameter)	12	4	-	16
r (3.0 to 10.0 mm diameter)	-	2	-	2
Irregular				
s (fine irregular or linear)	3	-	-	3
t (medium irregular)	-	-	-	-
u (coarse irregular)	-	-	-	-
Sub-total	39	7	-	46
Combined opacities	-	-	-	-
N. A.	-	-	-	1
Total				47

6 out of the 47 patients have large opacities as follows :

Large opacities	
A (Single opacity 1 - 5 cm or multiple opacities > 1 cm each but sum of diameter < 5 cm)	3
B (Single or multiple opacities with combined area < the equivalent of right upper zone)	3
C (Single or multiple opacities with combined area > the equivalent of right upper zone)	-
Total	6

Appendix 7

History of Tuberculosis (TB) among Patients with Pneumoconiosis Confirmed in 2012

History of TB		Number of Cases	%
History of TB	Bacteriological Positive	5	11
	Bacteriological Negative	-	-
	Not Available	5	11
No History of TB		37	78
Total		47	100

Appendix 8

Confirmed Pneumoconiosis Patients by Other Particulars 2012

Characteristics		Number of Cases	%
Smoking	Smoker/Ex-smoker	42	90
	Non-smoker	4	8
	Unknown	1	2
	Total	47	100
Still exposed to dust when seen by the Pneumoconiosis Clinic	Yes	18	38
	No	28	60
	Unknown	1	2
	Total	47	100
General Condition	Good	41	87
	Fair	5	11
	Poor	-	-
	Died	1	2
	Total	47	100

Part 3

ANNEX

Part 3 – Annex: Contents

Annex 1 (a)

Treatment Outcomes up to 2 year of the 2009 Cohort of TB Patients

A total of 5193 cases of TB were notified in the year 2009. Among them, 4199 were ever seen at chest clinics (ES) while 994 were never seen at chest clinics (NS). They are categorised as follows:

Categories		ES	%	NS	%	ES/NS	%
(A)	New pulmonary, smear positive	1121	26.7	27	2.7	1148	22.1
(B)	New pulmonary, smear negative	1909	45.5	66	6.6	1975	38.0
(C)	New pulmonary, smear not done/ unknown	141	3.4	10	1.0	151	2.9
(D)	New extra-pulmonary	551	13.1	4	0.4	555	10.7
(E)	Relapse pulmonary, smear positive	101	2.4	16	1.6	117	2.3
(F)	Pulmonary smear-positive retreatment after failure or default	6	0.1	0	0.0	6	0.1
(G)	Other retreatment cases (not included in E and F) [i.e., including relapses (pulmonary, smear negative or unknown or not done; and extrapulmonary) and retreatment after failure or default (pulmonary, smear negative or unknown or not done; and extrapulmonary)]	370	8.8	871	87.6	1241	23.9
Total		4199	100.0	994	100.0	5193	100.0

Analysis has been done on this cohort of patients and the results are shown in the following Annexes:

Annex 1 (b)	Various age groups (0-19), (20-39), (40-59), (60+), and all age groups
	for (i) ES/NS (cases ever or never seen at chest clinics) - sheet 01 to 09
	(ii) ES (cases ever seen at chest clinics) - sheet 01 to 03
	(iii) NS (cases never seen at chest clinics) - sheet 01 to 03
Annex 1 (c)	Pulmonary pretreatment smear positive, pretreatment culture positive, and MDR-TB cases
	for ES/NS (cases ever or never seen at chest clinics) - sheet 01 to 08
Annex 1 (d)	New pulmonary smear positive and retreatment pulmonary smear positive cases
	for ES/NS (cases ever or never seen at chest clinics) - sheet 01 to 02
Annex 1 (e)	Treatment defaulters (outcome at 2 year = defaulting)
	for ES/NS (cases ever or never seen at chest clinics) - sheet 01 to 05
Annex 1 (f)	Sources completing Programme Forms PFA, PFB1, PFB2, PFC, and PFD

Annex 1 (g)	Sample of the set of "Programme Forms" (PFA, PFB1, PFB2, PFC, and PFD) used for the cohort of patients in 2009

Discussion

Annex 1 (b) – Various age groups

Among the total of 5193 patients, 179 (3.5%) were aged between 0 and 19, 1152 (22.2%) between 20 and 39, 1438 (27.7%) between 40 and 59, and 2424 (46.7%) above 60. 62.6% were male. 38.2%, 23.5%, and 14.1% were never smokers, ex-smokers, and current smokers respectively. 75.3% were permanent local residents while 76.0% were of Chinese ethnicity. Most of them (69.2%) presented because of symptoms. 9.4% presented as incidental finding to pre-employment, pre-immigration, other body check or incidental to other illness, while 1.7% were diagnosed through contact tracing.

72.3% of patients had pulmonary TB, 14.6% had extra-pulmonary TB and 13.1% had both. TB pleura and TB lymph node accounted for 10.5% and 7.9% of the site of involvement respectively. Among pulmonary TB patients, 35.7% had pretreatment sputum smear +ve, 66.5% had pretreatment culture +ve and 16.9% had cavitary lesion on their chest radiographs.

With regard to co-morbidity factors for TB, 12.5% of TB patients had diabetes mellitus, 4.7% of patients had coexisting malignancy, 1.2% of patients were immuno-suppressed because of either steroid or cytotoxic therapy. HIV infection was reported for 0.8% of cases. 4.1% of all TB patients were reported to be hepatitis B carrier while 0.5% had chronic active hepatitis.

60.8% of patients were on 6 months short course chemotherapy for TB or other standard regimen based on HREZS. Treatment side effect was reported in 36.5% of patients. 12.5% were GI side effects, 12.9% were skin rash, 2.8% had transient rise in liver enzyme and 7.2% had frank hepatitis.

Among the 4199 patients ever seen in chest clinic, 73.9% received >90% DOT in initial 2 months, while 64.8% received >90% DOT in subsequent 4 months. Treatment completion/cure rates at 6 months, 12 months and 24 months were: 24.4%, 76.4% and 85.2% respectively. Death rates at corresponding periods were 6.7%, 8.3% and 8.7% respectively.

Among the 994 patients never seen in chest clinic, 1.5% received >90% DOT in initial 2 months, while 1.3% received >90% DOT in subsequent 4 months. Treatment completion/cure rates at 6 months, 12 months and 24 months were: 0.4%, 34.7% and 34.8% respectively. Death rates at corresponding periods were 0.3%, 49.9% and 49.9% respectively. However, a high percentage of the programme forms of this group of patients were not completed.

Annex 1 (c) – Pulmonary pretreatment smear +ve, culture +ve, and MDR-TB cases

Regarding patients with pulmonary TB, 1408 were pretreatment smear +ve, 2951 were pretreatment culture +ve, and 24 were MDR-TB patients.

In the initial 2 months, over 60% of pretreatment smear +ve, culture +ve patients and MDR-TB received >90% DOT. The corresponding percentages were over 50% for all three groups of patients in subsequent 4 months.

Overall sputum smear conversion rate at 2 months were 80.4% for smear +ve patients and 46.7% for MDRTB patients. Culture conversion rate at 2 months were 86.0% for culture +ve patients and 33.3% for MDR-TB patients.

Treatment success rates for smear +ve patients at 6 months, 12 months and 24 months were 16.5%, 70.5% and 79.1% respectively. Those for culture +ve patients were 20.2%, 67.6% and 74.8% respectively. Those for MDR-TB patients were 0.0%, 0.0% and 50.0% respectively. 3 out of 24 (12.5%) MDR-TB patients defaulted treatment at 24 months.

Annex 1 (d) – New and retreatment pulmonary smear +ve cases

Treatment success rates for new pulmonary smear +ve patients at 6 months, 12 months and 24 months were 19.7%, 76.4% and 85.9% respectively. The corresponding treatment success rates for retreatment pulmonary smear +ve patients were 2.3%, 44.6% and 49.2% respectively.

Annex 1 (e) – Treatment defaulters

There were 126 treatment defaulters at 24 months in the 2009 cohort. Around 42.1%, 31.0%, and 23.8% are in each of the age groups 20 to 39, 40 to 59, and 60+ respectively. 32.5% worked full time, 9.5% part time, 18.3% retired, and 26.2% were unemployed. 85.7% were new case, 7.9% were relapse, 6.3% were retreatment after default cases, and 0.0% were retreatment after failure of previous treatment cases. 30.6% had pretreatment smear +ve and 21.3% had cavitary lesions on the chest radiograph. 66.7% of patients lost contact after default and 8.7% of patients were retreated after default.

Annex 1 (b) - (i) ES/NS (cases ever or never seen at chest clinics) - 01

Age group	0 to 19		20 to 39		40 to 59		60+		All	
	N	%	N	%	N	%	N	%	N	%
Female	87	48.6	663	57.6	502	34.9	690	28.5	1942	37.4
Male	92	51.4	489	42.4	936	65.1	1734	71.5	3251	62.6
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
Marital status										
Single	151	84.4	586	50.9	183	12.7	120	5.0	1040	20.0
Married	0	0.0	385	33.4	958	66.6	1556	64.2	2899	55.8
Separated	0	0.0	4	0.3	22	1.5	15	0.6	41	0.8
Divorce	0	0.0	13	1.1	76	5.3	29	1.2	118	2.3
Widowed	0	0.0	2	0.2	9	0.6	95	3.9	106	2.0
Not recorded	28	15.6	162	14.1	190	13.2	609	25.1	989	19.0
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
Smoking status										
Never	120	67.0	629	54.6	576	40.1	659	27.2	1984	38.2
Ex-smoker	9	5.0	134	11.6	309	21.5	770	31.8	1222	23.5
Current smoker	13	7.3	181	15.7	311	21.6	225	9.3	730	14.1
Not recorded	37	20.7	208	18.1	242	16.8	770	31.8	1257	24.2
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
Institution-related										
Yes	111	62.0	110	9.5	64	4.5	307	12.7	592	11.4
No	43	24.0	889	77.2	1189	82.7	1543	63.7	3664	70.6
Not recorded	25	14.0	153	13.3	185	12.9	574	23.7	937	18.0
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
Institution										
Client	95	-	64	-	24	-	276	-	459	-
Staff	1	-	20	-	29	-	2	-	52	-
Institution type										
Old age home	30	-	25	-	20	-	285	-	360	-
School	104	-	66	-	19	-	149	-	338	-
Hospital	0	-	8	-	10	-	2	-	20	-
Handicapped	1	-	17	-	14	-	0	-	32	-
Prison	1	-	21	-	9	-	1	-	32	-
Others	2	-	12	-	9	-	3	-	26	-
Living situation										
Street-sleeper	0	0.0	3	0.3	2	0.1	3	0.1	8	0.2
Cubicle bed space	0	0.0	1	0.1	1	0.1	19	0.8	21	0.4
Institution	5	2.8	32	2.8	26	1.8	265	10.9	328	6.3
Work quarter	0	0.0	47	4.1	10	0.7	0	0.0	57	1.1
Alone (not above)	0	0.0	60	5.2	161	11.2	232	9.6	453	8.7
With friends	2	1.1	45	3.9	20	1.4	22	0.9	89	1.7
With family	145	81.0	795	69.0	1019	70.9	1292	53.3	3251	62.6
Not recorded	27	15.1	169	14.7	199	13.8	591	24.4	986	19.0
Residential status										
Permanent resident	143	79.9	764	66.3	1184	82.3	1817	75.0	3908	75.3
Chinese immigrant	10	5.6	61	5.3	25	1.7	12	0.5	108	2.1
Imported worker	0	0.0	132	11.5	34	2.4	2	0.1	168	3.2
Tourist - 2 way permit Chinese	0	0.0	14	1.2	0	0.0	2	0.1	16	0.3
Other tourist	0	0.0	6	0.5	1	0.1	2	0.1	9	0.2
Vietnamese	0	0.0	3	0.3	0	0.0	0	0.0	3	0.1
Illegal immigrants	0	0.0	16	1.4	3	0.2	1	0.0	20	0.4
Not recorded	26	14.5	156	13.5	191	13.3	588	24.3	961	18.5
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0

Annex 1 (b) - (i) ES/NS (cases ever or never seen at chest clinics) - 02

Age group	0 to 19		20 to 39		40 to 59		60+		All	
	N	%	N	%	N	%	N	%	N	%
Place of birth										
Hong Kong	95	53.1	559	48.5	715	49.7	380	15.7	1749	33.7
Mainland China	52	29.1	239	20.7	460	32.0	1367	56.4	2118	40.8
Others	6	3.4	208	18.1	95	6.6	82	3.4	391	7.5
Not recorded	26	14.5	146	12.7	168	11.7	595	24.5	935	18.0
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
Ethnicity										
Chinese	146	81.6	791	68.7	1190	82.8	1819	75.0	3946	76.0
Other Asian	6	3.4	162	14.1	59	4.1	28	1.2	255	4.9
Caucasian	0	0.0	2	0.2	0	0.0	1	0.0	3	0.1
Others	0	0.0	34	3.0	7	0.5	6	0.2	47	0.9
Not recorded	27	15.1	163	14.1	182	12.7	570	23.5	942	18.1
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
Previous BCG history										
Yes	125	69.8	693	60.2	535	37.2	117	4.8	1470	28.3
No	10	5.6	65	5.6	193	13.4	656	27.1	924	17.8
Unknown	44	24.6	394	34.2	710	49.4	1651	68.1	2799	53.9
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
BCG scar										
Yes	118	-	664	-	503	-	127	-	1412	-
No	29	-	287	-	697	-	1494	-	2507	-
Evidence of previous BCG										
BCG history +ve or scar +ve	131	73.2	750	65.1	610	42.4	156	6.4	1647	31.7
Employment status										
Full-time	9	5.0	626	54.3	620	43.1	100	4.1	1355	26.1
Part-time	5	2.8	31	2.7	74	5.1	19	0.8	129	2.5
Retired	0	0.0	1	0.1	104	7.2	1311	54.1	1416	27.3
Unemployed	27	15.1	186	16.1	285	19.8	99	4.1	597	11.5
Housewife	1	0.6	91	7.9	169	11.8	309	12.7	570	11.0
Student	110	61.5	54	4.7	0	0.0	0	0.0	164	3.2
Not recorded	27	15.1	163	14.1	186	12.9	586	24.2	962	18.5
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
Occupation										
Blue collar	6	3.4	278	24.1	387	26.9	93	3.8	764	14.7
White collar	1	0.6	232	20.1	150	10.4	12	0.5	395	7.6
Medical	0	0.0	2	0.2	3	0.2	1	0.0	6	0.1
Nursing	0	0.0	6	0.5	2	0.1	0	0.0	8	0.2
Paramedical	0	0.0	0	0.0	2	0.1	0	0.0	2	0.0
Supporting health staff	0	0.0	0	0.0	8	0.6	0	0.0	8	0.2
Not applicable	111	62.0	337	29.3	541	37.6	1608	66.3	2597	50.0
Not recorded	61	34.1	297	25.8	345	24.0	710	29.3	1413	27.2
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
First presentation										
Private doctor	33	18.4	247	21.4	230	16.0	121	5.0	631	12.2
Private hospital	5	2.8	29	2.5	19	1.3	21	0.9	74	1.4
GOPC	6	3.4	33	2.9	59	4.1	72	3.0	170	3.3
Chest Clinic	25	14.0	124	10.8	163	11.3	214	8.8	526	10.1
Other DH Clinic	0	0.0	24	2.1	19	1.3	24	1.0	67	1.3
HA Clinic	2	1.1	39	3.4	57	4.0	59	2.4	157	3.0
HA Hospital	81	45.3	489	42.4	689	47.9	1344	55.4	2603	50.1
Mainland	2	1.1	18	1.6	28	1.9	13	0.5	61	1.2
Overseas	0	0.0	7	0.6	7	0.5	2	0.1	16	0.3
Not recorded	25	14.0	142	12.3	167	11.6	554	22.9	888	17.1
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0

Annex 1 (b) - (i) ES/NS (cases ever or never seen at chest clinics) - 03

Age group	0 to 19		20 to 39		40 to 59		60+		All	
	N	%	N	%	N	%	N	%	N	%
Symptomatic on presentation										
Y	136	76.0	880	76.4	1094	76.1	1620	66.8	3730	71.8
N	14	7.8	123	10.7	166	11.5	190	7.8	493	9.5
Not recorded	29	16.2	149	12.9	178	12.4	614	25.3	970	18.7
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
Chest symptoms	103	-	608	-	792	-	1253	-	2756	-
Systemic symptoms	28	-	154	-	189	-	327	-	698	-
Other site-specific symptoms	28	-	229	-	233	-	240	-	730	-
Reason for presentation										
Symptom	128	71.5	858	74.5	1056	73.4	1549	63.9	3591	69.2
Contact screening	12	6.7	32	2.8	25	1.7	17	0.7	86	1.7
Pre-employment	1	0.6	38	3.3	19	1.3	1	0.0	59	1.1
Pre-emigration	1	0.6	5	0.4	3	0.2	2	0.1	11	0.2
Other body check	3	1.7	35	3.0	59	4.1	55	2.3	152	2.9
Incidental to other illness	2	1.1	25	2.2	80	5.6	158	6.5	265	5.1
Others	1	0.6	4	0.3	12	0.8	19	0.8	36	0.7
Not recorded	31	17.3	155	13.5	184	12.8	623	25.7	993	19.1
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
Contact with TB patients										
Yes	30	16.8	108	9.4	83	5.8	53	2.2	274	5.3
No	121	67.6	896	77.8	1176	81.8	1746	72.0	3939	75.9
Not recorded	28	15.6	148	12.8	179	12.4	625	25.8	980	18.9
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
Contact type										
Household	25	-	78	-	62	-	39	-	204	-
Work	1	-	8	-	9	-	3	-	21	-
Casual	0	-	11	-	10	-	3	-	24	-
Time of contact										
Within 2 year	9	-	51	-	32	-	23	-	115	-
Over 2 year	9	-	39	-	41	-	24	-	113	-
Previous chemoprophylaxis										
Yes	0	-	2	-	0	-	4	-	6	-
Reason for chemoprophylaxis										
Contact	0	-	0	-	0	-	0	-	0	-
Silicosis	0	-	0	-	0	-	2	-	2	-
HIV	0	-	0	-	0	-	1	-	1	-
Old scar on CXR	0	-	1	-	0	-	0	-	1	-
Others	0	-	0	-	0	-	0	-	0	-
Disease Classification										
Pulmonary TB only	120	67.0	745	64.7	1061	73.8	1831	75.5	3757	72.3
Extrapulmonary TB only	25	14.0	223	19.4	230	16.0	278	11.5	756	14.6
Both	34	19.0	184	16.0	147	10.2	315	13.0	680	13.1
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0

Annex 1 (b) - (i) ES/NS (cases ever or never seen at chest clinics) - 04

Age group	0 to 19		20 to 39		40 to 59		60+		All	
	N	%	N	%	N	%	N	%	N	%
Extrapulmonary TB										
Pleura	27	15.1	120	10.4	107	7.4	291	12.0	545	10.5
Lymph node	19	10.6	172	14.9	125	8.7	92	3.8	408	7.9
Meninges	2	1.1	8	0.7	12	0.8	11	0.5	33	0.6
Miliary	0	0.0	12	1.0	7	0.5	16	0.7	35	0.7
Abdomen	1	0.6	18	1.6	22	1.5	37	1.5	78	1.5
Bone and joint (not spine)	2	1.1	10	0.9	8	0.6	12	0.5	32	0.6
Spine	2	1.1	3	0.3	11	0.8	16	0.7	32	0.6
Genito-urinary tract	0	0.0	9	0.8	21	1.5	19	0.8	49	0.9
Naso/oro-pharynx	1	0.6	3	0.3	7	0.5	4	0.2	15	0.3
Larynx	0	0.0	3	0.3	2	0.1	4	0.2	9	0.2
Pericardium	0	0.0	2	0.2	3	0.2	4	0.2	9	0.2
Skin	2	1.1	12	1.0	17	1.2	14	0.6	45	0.9
Other sites	3	1.7	20	1.7	17	1.2	19	0.8	59	1.1
Case category										
New case	176	98.3	1103	95.7	1313	91.3	2120	87.5	4712	90.7
Relapse	2	1.1	39	3.4	117	8.1	294	12.1	452	8.7
Treatment after default	1	0.6	10	0.9	8	0.6	10	0.4	29	0.6
Failure of previous treatment	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
Disease characteristics (pulmonary cases)										
Pretreatment smear +ve	56	36.4	324	34.9	483	40.0	720	33.6	1583	35.7
Pretreatment culture +ve	87	56.5	541	58.2	766	63.4	1557	72.6	2951	66.5
Extent = 1	68	44.2	510	54.9	607	50.2	836	39.0	2021	45.5
Extent=1 & cavity=N	*58*	*37.7*	*433*	*46.6*	*529*	*43.8*	*749*	*34.9*	*1769*	*39.9*
Extent=1 & cavity=Y	*10*	*6.5*	*77*	*8.3*	*78*	*6.5*	*87*	*4.1*	*252*	*5.7*
Extent = 2	34	22.1	167	18.0	241	20.0	415	19.3	857	19.3
Extent=2 & cavity=N	*21*	*13.6*	*103*	*11.1*	*121*	*10.0*	*317*	*14.8*	*562*	*12.7*
Extent=2 & cavity=Y	*13*	*8.4*	*64*	*6.9*	*120*	*9.9*	*98*	*4.6*	*295*	*6.6*
Extent=3	11	7.1	69	7.4	133	11.0	230	10.7	443	10.0
Extent=3 & cavity=N	*5*	*3.2*	*29*	*3.1*	*64*	*5.3*	*150*	*7.0*	*248*	*5.6*
Extent=3 & cavity=Y	*6*	*3.9*	*40*	*4.3*	*69*	*5.7*	*80*	*3.7*	*195*	*4.4*
Extent=not specified	41	26.6	183	19.7	227	18.8	665	31.0	1116	25.2
Extent=ns & cavity=N	*40*	*26.0*	*181*	*19.5*	*225*	*18.6*	*663*	*30.9*	*1109*	*25.0*
Extent=ns & cavity=Y	*1*	*0.6*	*2*	*0.2*	*2*	*0.2*	*2*	*0.1*	*7*	*0.2*
Cavity=N	124	80.5	746	80.3	939	77.7	1879	87.6	3688	83.1
Cavity=Y	30	19.5	183	19.7	269	22.3	267	12.4	749	16.9
Mode of diagnosis										
Bacteriological	115	64.2	727	63.1	988	68.7	1870	77.1	3700	71.2
Histological	15	8.4	132	11.5	149	10.4	163	6.7	459	8.8
Clinical-radiological	29	16.2	187	16.2	172	12.0	144	5.9	532	10.2
Clinical only	2	1.1	2	0.2	6	0.4	6	0.2	16	0.3
Not recorded	18	10.1	104	9.0	123	8.6	241	9.9	486	9.4
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
Histology										
Typical (with caseation)	9	-	53	-	49	-	48	-	159	-
Granulomatous inflammation	8	-	111	-	129	-	149	-	397	-
Other	4	-	26	-	32	-	25	-	87	-
Ziehl-Neelzen staining										
Positive	9	-	89	-	107	-	116	-	321	-

Annex 1 (b) - (i) ES/NS (cases ever or never seen at chest clinics) - 05

Age group	0 to 19		20 to 39		40 to 59		60+		All	
	N	%	N	%	N	%	N	%	N	%
Risk factors for TB										
Yes	3	1.7	63	5.5	367	25.5	881	36.3	1314	25.3
Diabetes mellitus	0	0.0	10	0.9	203	14.1	437	18.0	650	12.5
Lung cancer	0	0.0	0	0.0	22	1.5	50	2.1	72	1.4
Other malignancies	1	0.6	4	0.3	34	2.4	132	5.4	171	3.3
On cytotoxic drugs	1	0.6	3	0.3	11	0.8	8	0.3	23	0.4
On steroid	0	0.0	5	0.4	14	1.0	22	0.9	41	0.8
Chronic renal failure	0	0.0	3	0.3	20	1.4	46	1.9	69	1.3
HIV	0	0.0	19	1.6	17	1.2	7	0.3	43	0.8
Silicosis	0	0.0	0	0.0	12	0.8	25	1.0	37	0.7
Alcoholism	0	0.0	4	0.3	39	2.7	43	1.8	86	1.7
Drug abuser	0	0.0	16	1.4	24	1.7	10	0.4	50	1.0
Gastrectomy	0	0.0	0	0.0	2	0.1	12	0.5	14	0.3
General debilitation	1	0.6	0	0.0	4	0.3	245	10.1	250	4.8
Others	1	0.6	5	0.4	13	0.9	31	1.3	50	1.0
Factors affecting treatment choices										
Yes	7	3.9	77	6.7	213	14.8	568	23.4	865	16.7
Hepatitis-B carrier	4	2.2	42	3.6	90	6.3	78	3.2	214	4.1
Chronic active hepatitis	0	0.0	2	0.2	13	0.9	9	0.4	24	0.5
Impaired renal function	0	0.0	4	0.3	16	1.1	69	2.8	89	1.7
Chronic renal failure	0	0.0	3	0.3	10	0.7	27	1.1	40	0.8
Impaired vision	2	1.1	8	0.7	52	3.6	332	13.7	394	7.6
Impaired heaering	1	0.6	1	0.1	7	0.5	37	1.5	46	0.9
Known drug reaction	0	0.0	0	0.0	2	0.1	6	0.2	8	0.2
Known drug resistance	0	0.0	5	0.4	3	0.2	1	0.0	9	0.2
Gout	0	0.0	0	0.0	7	0.5	56	2.3	63	1.2
Idiopathic thromb. purpura	0	0.0	0	0.0	1	0.1	4	0.2	5	0.1
Others	1	0.6	15	1.3	33	2.3	67	2.8	116	2.2
6-month short course treatment										
Yes	42	23.5	283	24.6	236	16.4	148	6.1	709	13.7
2HRZE+4HR	38	21.2	266	23.1	201	14.0	117	4.8	622	12.0
2HRZS+4HR	1	0.6	1	0.1	5	0.3	9	0.4	16	0.3
Other standard regimen based on HRZES										
Yes	96	53.6	550	47.7	766	53.3	1034	42.7	2446	47.1
Treatment side effects										
Yes	46	25.7	359	31.2	598	41.6	892	36.8	1895	36.5
GI upset	27	15.1	163	14.1	188	13.1	270	11.1	648	12.5
Skin rash	10	5.6	109	9.5	209	14.5	341	14.1	669	12.9
Visual	2	1.1	25	2.2	42	2.9	63	2.6	132	2.5
Transient rise liver enzyme	1	0.6	31	2.7	46	3.2	70	2.9	148	2.8
Hepatitis	8	4.5	52	4.5	136	9.5	177	7.3	373	7.2
Vestibular	2	1.1	3	0.3	5	0.3	5	0.2	15	0.3
Arthropathy	1	0.6	12	1.0	30	2.1	32	1.3	75	1.4
Fever-chill	1	0.6	14	1.2	27	1.9	20	0.8	62	1.2
Dizziness	0	0.0	20	1.7	27	1.9	43	1.8	90	1.7
Thrombocytopenia	0	0.0	5	0.4	3	0.2	23	0.9	31	0.6
Leucopenia	0	0.0	1	0.1	5	0.3	4	0.2	10	0.2
Flush face	0	0.0	3	0.3	8	0.6	0	0.0	11	0.2
Others	2	1.1	27	2.3	68	4.7	91	3.8	188	3.6
Consequence of side effects										
Rx temporarily withheld	26	14.5	198	17.2	356	24.8	566	23.3	1146	22.1
Desensitiation or drug trial	12	6.7	113	9.8	234	16.3	406	16.7	765	14.7
Change in dosage/frequency	6	3.4	56	4.9	124	8.6	177	7.3	363	7.0
Change of drugs	12	6.7	111	9.6	231	16.1	463	19.1	817	15.7

Annex 1 (b) - (i) ES/NS (cases ever or never seen at chest clinics) - 06

Age group	0 to 19		20 to 39		40 to 59		60+		All	
	N	%	N	%	N	%	N	%	N	%
Treatment supervision										
Under DOT at chest clinic, hospital, CNS or other health staff (initial 2 months)										
>90%	112	62.6	724	62.8	926	64.4	1354	55.9	3116	60.0
>75%	14	7.8	85	7.4	87	6.1	76	3.1	262	5.0
>50%	7	3.9	50	4.3	83	5.8	63	2.6	203	3.9
>25%	6	3.4	40	3.5	49	3.4	52	2.1	147	2.8
≤25%	3	1.7	38	3.3	45	3.1	29	1.2	115	2.2
Not recorded	37	20.7	215	18.7	248	17.2	850	35.1	1350	26.0
Under DOT at chest clinic, hospital, CNS or other health staff (subsequent 4 months)										
>90%	100	55.9	582	50.5	825	57.4	1228	50.7	2735	52.7
>75%	22	12.3	140	12.2	136	9.5	87	3.6	385	7.4
>50%	10	5.6	64	5.6	78	5.4	70	2.9	222	4.3
>25%	2	1.1	51	4.4	50	3.5	41	1.7	144	2.8
≤25%	7	3.9	53	4.6	64	4.5	51	2.1	175	3.4
Not recorded	38	21.2	262	22.7	285	19.8	947	39.1	1532	29.5
Under supervision by relatives (initial 2 months)										
>90%	0	0.0	3	0.3	6	0.4	6	0.2	15	0.3
>75%	0	0.0	4	0.3	8	0.6	1	0.0	13	0.3
>50%	0	0.0	2	0.2	2	0.1	4	0.2	8	0.2
>25%	2	1.1	10	0.9	15	1.0	13	0.5	40	0.8
≤25%	86	48.0	616	53.5	731	50.8	963	39.7	2396	46.1
Not recorded	91	50.8	517	44.9	676	47.0	1437	59.3	2721	52.4
Under supervision by relatives (subsequent 4 months)										
>90%	1	0.6	5	0.4	8	0.6	8	0.3	22	0.4
>75%	1	0.6	9	0.8	8	0.6	3	0.1	21	0.4
>50%	1	0.6	5	0.4	2	0.1	2	0.1	10	0.2
>25%	0	0.0	11	1.0	18	1.3	15	0.6	44	0.8
≤25%	82	45.8	576	50.0	705	49.0	896	37.0	2259	43.5
Not recorded	94	52.5	546	47.4	697	48.5	1500	61.9	2837	54.6
Supplied for unsupervised treatment (initial 2 months)										
<5%	105	58.7	672	58.3	825	57.4	1112	45.9	2714	52.3
<10%	7	3.9	50	4.3	79	5.5	37	1.5	173	3.3
<15%	5	2.8	33	2.9	35	2.4	34	1.4	107	2.1
<25%	0	0.0	31	2.7	38	2.6	26	1.1	95	1.8
<50%	8	4.5	47	4.1	70	4.9	68	2.8	193	3.7
≥50%	5	2.8	29	2.5	40	2.8	38	1.6	112	2.2
Not recorded	49	27.4	290	25.2	351	24.4	1109	45.8	1799	34.6
Supplied for unsupervised treatment (subsequent 4 months)										
<5%	95	53.1	576	50.0	741	51.5	983	40.6	2395	46.1
<10%	14	7.8	64	5.6	85	5.9	64	2.6	227	4.4
<15%	4	2.2	49	4.3	53	3.7	25	1.0	131	2.5
<25%	7	3.9	53	4.6	61	4.2	41	1.7	162	3.1
<50%	3	1.7	39	3.4	47	3.3	59	2.4	148	2.8
≥50%	8	4.5	58	5.0	81	5.6	75	3.1	222	4.3
Not recorded	48	26.8	313	27.2	370	25.7	1177	48.6	1908	36.7
Defaulted (initial 2 months)										
<5%	106	59.2	725	62.9	935	65.0	1222	50.4	2988	57.5
<10%	4	2.2	38	3.3	28	1.9	16	0.7	86	1.7
<15%	2	1.1	5	0.4	11	0.8	8	0.3	26	0.5
<25%	3	1.7	16	1.4	19	1.3	8	0.3	46	0.9
<50%	1	0.6	15	1.3	12	0.8	14	0.6	42	0.8
≥50%	1	0.6	16	1.4	18	1.3	11	0.5	46	0.9
Not recorded	62	34.6	337	29.3	415	28.9	1145	47.2	1959	37.7
Defaulted (subsequent 4 months)										
<5%	96	53.6	642	55.7	890	61.9	1145	47.2	2773	53.4
<10%	5	2.8	32	2.8	28	1.9	20	0.8	85	1.6
<15%	6	3.4	36	3.1	14	1.0	13	0.5	69	1.3
<25%	10	5.6	35	3.0	20	1.4	13	0.5	78	1.5
<50%	2	1.1	23	2.0	23	1.6	4	0.2	52	1.0
≥50%	2	1.1	30	2.6	22	1.5	13	0.5	67	1.3
Not recorded	58	32.4	354	30.7	441	30.7	1216	50.2	2069	39.8

Annex 1 (b) - (i) ES/NS (cases ever or never seen at chest clinics) - 07

Age group	0 to 19		20 to 39		40 to 59		60+		All	
	N	%	N	%	N	%	N	%	N	%
Outcome at 6 months										
Cured/ treatment completed	60	33.5	357	31.0	314	21.8	296	12.2	1027	19.8
Still on treatment	85	47.5	524	45.5	818	56.9	1168	48.2	2595	50.0
Died	1	0.6	1	0.1	31	2.2	250	10.3	283	5.4
Transferred	3	1.7	82	7.1	49	3.4	30	1.2	164	3.2
Defaulted	2	1.1	29	2.5	30	2.1	16	0.7	77	1.5
Failure	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Revised dx/ others	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not recorded	28	15.6	159	13.8	196	13.6	664	27.4	1047	20.2
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
Among those cured/ treatment completed										
Bacteriological conversion	38	63.3	197	55.2	172	54.8	203	68.6	610	59.4
Radiological improvement	57	95.0	308	86.3	252	80.3	233	78.7	850	82.8
Other clinical improvement	4	6.7	61	17.1	51	16.2	42	14.2	158	15.4
No evidence of response	1	1.7	12	3.4	17	5.4	8	2.7	38	3.7
Among those still on treatment										
Reasons for still on treatment:										
Retreatment case	1	1.2	23	4.4	68	8.3	125	10.7	217	8.4
Extrapulmonary disease	36	42.4	236	45.0	236	28.9	238	20.4	746	28.7
Extensive disease	21	24.7	90	17.2	153	18.7	180	15.4	444	17.1
Interrupted treatment	13	15.3	98	18.7	188	23.0	283	24.2	582	22.4
Drug resistance	3	3.5	38	7.3	38	4.6	46	3.9	125	4.8
Poor response	6	7.1	42	8.0	76	9.3	77	6.6	201	7.7
Others	14	16.5	92	17.6	267	32.6	512	43.8	885	34.1
Among those died - causes of death:										
TB-related cause	1	-	0	0.0	0	0.0	23	9.2	24	8.5
Not TB-related	0	-	1	100.0	19	61.3	115	46.0	135	47.7
Unknown	0	-	0	0.0	12	38.7	111	44.4	123	43.5
Among those transferred, new sources of care:										
GP	0	0.0	7	8.5	15	30.6	3	10.0	25	15.2
Chest Clinic	0	0.0	1	1.2	0	0.0	0	0.0	1	0.6
Hospital	2	66.7	2	2.4	8	16.3	14	46.7	26	15.9
Outside HK	1	33.3	71	86.6	26	53.1	13	43.3	111	67.7
Not recorded	0	0.0	1	1.2	0	0.0	0	0.0	1	0.6
Among those defaulted										
Never found	2	100.0	24	82.8	22	73.3	9	56.3	57	74.0
Retreated after default	0	0.0	2	6.9	0	0.0	0	0.0	2	2.6
Treatment stopped by doctor	0	0.0	2	6.9	8	26.7	6	37.5	16	20.8
Not recorded	0	0.0	1	3.4	0	0.0	1	6.3	2	2.6

Annex 1 (b) - (i) ES/NS (cases ever or never seen at chest clinics) - 08

Age group	0 to 19		20 to 39		40 to 59		60+		All	
	N	%	N	%	N	%	N	%	N	%
Outcome at 12 months										
Cured/ treatment completed	161	89.9	878	76.2	1122	78.0	1392	57.4	3553	68.4
Still on treatment	8	4.5	77	6.7	133	9.2	199	8.2	417	8.0
Died	1	0.6	10	0.9	87	6.1	745	30.7	843	16.2
Transferred	2	1.1	108	9.4	37	2.6	25	1.0	172	3.3
Defaulted	7	3.9	75	6.5	58	4.0	59	2.4	199	3.8
Failure	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Revised dx/ others	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not recorded	0	0.0	4	0.3	1	0.1	4	0.2	9	0.2
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
Among those cured/ treatment completed										
Bacteriological conversion	80	49.7	449	51.1	613	54.6	852	61.2	1994	56.1
Radiological improvement	113	70.2	639	72.8	772	68.8	959	68.9	2483	69.9
Other clinical improvement	33	20.5	262	29.8	272	24.2	258	18.5	825	23.2
No evidence of response	1	0.6	10	1.1	36	3.2	25	1.8	72	2.0
After treatment completed:										
No relapse	112	69.6	663	75.5	855	76.2	1042	74.9	2672	75.2
Loss to follow up	16	9.9	82	9.3	52	4.6	49	3.5	199	5.6
Died	1	0.6	0	0.0	5	0.4	18	1.3	24	0.7
TB-related	*0*		*0*		*0*		*1*		*1*	
Not TB-related	*1*		*0*		*4*		*12*		*17*	
Unknown	*0*		*0*		*0*		*5*		*5*	
Relapse	0	0.0	2	0.2	2	0.2	2	0.1	6	0.2
Bacteriological	*0*		*1*		*2*		*1*		*4*	
Histological	*0*		*1*		*0*		*1*		*2*	
Clinico-radiological	*0*		*0*		*0*		*0*		*0*	
Not recorded	32	19.9	131	14.9	208	18.5	281	20.2	652	18.4
Among those still on treatment										
Reasons for still on treatment:										
Retreatment case	0	0.0	2	2.6	5	3.8	13	6.5	20	4.8
Extrapulmonary disease	2	25.0	27	35.1	32	24.1	37	18.6	98	23.5
Extensive disease	2	25.0	5	6.5	18	13.5	23	11.6	48	11.5
Interrupted treatment	1	12.5	25	32.5	63	47.4	80	40.2	169	40.5
Drug resistance	1	12.5	21	27.3	19	14.3	22	11.1	63	15.1
Poor response	0	0.0	13	16.9	20	15.0	17	8.5	50	12.0
Others	4	50.0	19	24.7	47	35.3	90	45.2	160	38.4
Among those died - causes of death:										
TB-related cause	1	-	0	0.0	0	0.0	25	3.4	26	3.1
Not TB-related	0	-	2	20.0	23	26.4	148	19.9	173	20.5
Unknown	0	-	0	0.0	12	13.8	128	17.2	140	16.6
Among those transferred, new sources of care:										
GP	0	0.0	3	2.8	4	10.8	1	4.0	8	4.7
Chest Clinic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hospital	0	0.0	0	0.0	2	5.4	4	16.0	6	3.5
Outside HK	0	0.0	59	54.6	15	40.5	8	32.0	82	47.7
Not recorded	2	100.0	46	42.6	16	43.2	12	48.0	76	44.2
Among those defaulted										
Never found	4	57.1	31	41.3	20	34.5	15	25.4	70	35.2
Retreated after default	0	0.0	4	5.3	5	8.6	1	1.7	10	5.0
Treatment stopped by doctor	0	0.0	5	6.7	11	19.0	6	10.2	22	11.1
Not recorded	3	42.9	35	46.7	22	37.9	37	62.7	97	48.7

Annex 1 (b) - (i) ES/NS (cases ever or never seen at chest clinics) - 09

Age group	0 to 19		20 to 39		40 to 59		60+		All	
	N	%	N	%	N	%	N	%	N	%
Outcome at 24 months										
Cured/ treatment completed	168	93.9	942	81.8	1241	86.3	1574	64.9	3925	75.6
Still on treatment	1	0.6	8	0.7	4	0.3	3	0.1	16	0.3
Died	1	0.6	12	1.0	91	6.3	756	31.2	860	16.6
Transferred	1	0.6	65	5.6	23	1.6	12	0.5	101	1.9
Defaulted	4	2.2	53	4.6	39	2.7	30	1.2	126	2.4
Failure	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Revised dx/ others	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not recorded	4	2.2	72	6.3	40	2.8	49	2.0	165	3.2
Total	179	100.0	1152	100.0	1438	100.0	2424	100.0	5193	100.0
Among those cured/ treatment completed										
Bacteriological conversion	88	52.4	505	53.6	742	59.8	1049	66.6	2384	60.7
Radiological improvement	121	72.0	699	74.2	902	72.7	1170	74.3	2892	73.7
Other clinical improvement	52	31.0	342	36.3	402	32.4	391	24.8	1187	30.2
No evidence of response	1	0.6	16	1.7	48	3.9	23	1.5	88	2.2
After treatment completed:										
No relapse	107	63.7	606	64.3	963	77.6	1145	72.7	2821	71.9
Loss to follow up	33	19.6	209	22.2	130	10.5	144	9.1	516	13.1
Died	0	0.0	1	0.1	7	0.6	73	4.6	81	2.1
TB-related	*0*		*1*		*0*		*1*		*2*	
Not TB-related	*0*		*1*		*6*		*57*		*64*	
Unknown	*0*		*0*		*1*		*17*		*18*	
Relapse	0	0.0	10	1.1	9	0.7	9	0.6	28	0.7
Bacteriological	*0*		*1*		*7*		*4*		*12*	
Histological	*0*		*7*		*0*		*3*		*10*	
Clinico-radiological	*0*		*0*		*3*		*1*		*4*	
Clinical only	*0*		*0*		*0*		*0*		*0*	
Not recorded	28	16.7	116	12.3	132	10.6	203	12.9	479	12.2
Among those still on treatment										
Reasons for still on treatment:										
Retreatment case	0	-	0	-	0	-	0	-	0	0.0
Extrapulmonary disease	1	-	1	-	1	-	1	-	4	25.0
Extensive disease	0	-	2	-	0	-	1	-	3	18.8
Interrupted treatment	0	-	2	-	2	-	2	-	6	37.5
Drug resistance	0	-	4	-	1	-	0	-	5	31.3
Poor response	0	-	2	-	1	-	1	-	4	25.0
Others	0	-	2	-	1	-	1	-	4	25.0
Among those died - causes of death:										
TB-related cause	1	-	0	0.0	0	0.0	25	3.3	26	3.0
Not TB-related	0	-	2	16.7	26	28.6	159	21.0	187	21.7
Unknown	0	-	1	8.3	13	14.3	132	17.5	146	17.0
Among those transferred, new sources of care:										
GP	0	0.0	1	1.5	4	17.4	1	8.3	6	5.9
Chest Clinic	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hospital	0	0.0	0	0.0	2	8.7	3	25.0	5	5.0
Outside HK	1	100.0	64	98.5	17	73.9	8	66.7	90	89.1
Not recorded	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Among those defaulted										
Never found	4	100.0	41	77.4	23	59.0	16	53.3	84	66.7
Retreated after default	0	0.0	4	7.5	6	15.4	1	3.3	11	8.7
Treatment stopped by doctor	0	0.0	6	11.3	7	17.9	8	26.7	21	16.7
Not recorded	0	0.0	2	3.8	3	7.7	5	16.7	10	7.9

Annex 1 (b) - (ii) ES (cases ever seen at chest clinics) - 01

Age group	0 to 19		20 to 39		40 to 59		60+		All	
	N	%	N	%	N	%	N	%	N	%
Female	73	47.7	561	56.4	442	35.1	497	27.7	1573	37.5
Male	80	52.3	434	43.6	817	64.9	1295	72.3	2626	62.5
Total	153	100.0	995	100.0	1259	100.0	1792	100.0	4199	100.0
First presentation										
Private doctor	33	21.6	245	24.6	229	18.2	120	6.7	627	14.9
Private hospital	5	3.3	29	2.9	19	1.5	19	1.1	72	1.7
GOPC	6	3.9	33	3.3	59	4.7	72	4.0	170	4.0
Chest Clinic	25	16.3	121	12.2	163	12.9	209	11.7	518	12.3
Other DH Clinic	0	0.0	17	1.7	14	1.1	24	1.3	55	1.3
HA Clinic	2	1.3	38	3.8	57	4.5	56	3.1	153	3.6
HA Hospital	80	52.3	482	48.4	677	53.8	1265	70.6	2504	59.6
Mainland	2	1.3	18	1.8	28	2.2	12	0.7	60	1.4
Overseas	0	0.0	7	0.7	7	0.6	2	0.1	16	0.4
Not recorded	0	0.0	5	0.5	6	0.5	13	0.7	24	0.6
Total	153	100.0	995	100.0	1259	100.0	1792	100.0	4199	100.0
Symptomatic on presentation										
Y	135	88.2	866	87.0	1078	85.6	1538	85.8	3617	86.1
N	14	9.2	117	11.8	164	13.0	182	10.2	477	11.4
Not recorded	4	2.6	12	1.2	17	1.4	72	4.0	105	2.5
Total	153	100.0	995	100.0	1259	100.0	1792	100.0	4199	100.0
Chest symptoms	102	-	600	-	783	-	1184	-	2669	-
Systemic symptoms	28	-	147	-	187	-	309	-	671	-
Other site-specific symptoms	28	-	227	-	230	-	237	-	722	-
Reason for presentation										
Symptom	127	83.0	847	85.1	1043	82.8	1470	82.0	3487	83.0
Contact screening	12	7.8	32	3.2	25	2.0	17	0.9	86	2.0
Pre-employment	1	0.7	36	3.6	19	1.5	1	0.1	57	1.4
Pre-emigration	1	0.7	5	0.5	3	0.2	2	0.1	11	0.3
Other body check	3	2.0	31	3.1	57	4.5	55	3.1	146	3.5
Incidental to other illness	2	1.3	24	2.4	78	6.2	150	8.4	254	6.0
Others	1	0.7	3	0.3	11	0.9	16	0.9	31	0.7
Not recorded	6	3.9	17	1.7	23	1.8	81	4.5	127	3.0
Total	153	100.0	995	100.0	1259	100.0	1792	100.0	4199	100.0
Disease Classification										
Pulmonary TB only	98	64.1	632	63.5	916	72.8	1286	71.8	2932	69.8
Extrapulmonary TB only	21	13.7	186	18.7	198	15.7	203	11.3	608	14.5
Both	34	22.2	177	17.8	145	11.5	303	16.9	659	15.7
Total	153	100.0	995	100.0	1259	100.0	1792	100.0	4199	100.0
6-month short course treatment										
Yes	42	27.5	281	28.2	233	18.5	148	8.3	704	16.8
2HRZE+4HR	38	24.8	264	26.5	199	15.8	117	6.5	618	14.7
2HRZS+4HR	1	0.7	1	0.1	5	0.4	9	0.5	16	0.4
Other standard regimen based on HRZES										
Yes	96	62.7	545	54.8	763	60.6	1029	57.4	2433	57.9

Annex 1 (b) - (ii) ES (cases ever seen at chest clinics) - 02

Age group	0 to 19		20 to 39		40 to 59		60+		All	
	N	%	N	%	N	%	N	%	N	%
Treatment supervision										
Under DOT at chest clinic, hospital, CNS or other health staff (initial 2 months)										
>90%	112	73.2	716	72.0	921	73.2	1352	75.4	3101	73.9
>75%	14	9.2	85	8.5	87	6.9	76	4.2	262	6.2
>50%	7	4.6	50	5.0	83	6.6	63	3.5	203	4.8
>25%	6	3.9	40	4.0	49	3.9	52	2.9	147	3.5
≤25%	3	2.0	38	3.8	45	3.6	29	1.6	115	2.7
Not recorded	11	7.2	66	6.6	74	5.9	220	12.3	371	8.8
Under DOT at chest clinic, hospital, CNS or other health staff (subsequent 4 months)										
>90%	100	65.4	575	57.8	821	65.2	1226	68.4	2722	64.8
>75%	22	14.4	140	14.1	136	10.8	87	4.9	385	9.2
>50%	10	6.5	64	6.4	78	6.2	70	3.9	222	5.3
>25%	2	1.3	51	5.1	50	4.0	41	2.3	144	3.4
≤25%	7	4.6	53	5.3	63	5.0	51	2.8	174	4.1
Not recorded	12	7.8	112	11.3	111	8.8	317	17.7	552	13.1
Under supervision by relatives (initial 2 months)										
>90%	0	0.0	3	0.3	6	0.5	5	0.3	14	0.3
>75%	0	0.0	4	0.4	8	0.6	1	0.1	13	0.3
>50%	0	0.0	2	0.2	2	0.2	4	0.2	8	0.2
>25%	2	1.3	10	1.0	15	1.2	13	0.7	40	1.0
≤25%	86	56.2	616	61.9	730	58.0	962	53.7	2394	57.0
Not recorded	65	42.5	360	36.2	498	39.6	807	45.0	1730	41.2
Under supervision by relatives (subsequent 4 months)										
>90%	1	0.7	5	0.5	8	0.6	7	0.4	21	0.5
>75%	1	0.7	9	0.9	8	0.6	3	0.2	21	0.5
>50%	1	0.7	5	0.5	2	0.2	2	0.1	10	0.2
>25%	0	0.0	11	1.1	18	1.4	15	0.8	44	1.0
≤25%	82	53.6	576	57.9	704	55.9	895	49.9	2257	53.8
Not recorded	68	44.4	389	39.1	519	41.2	870	48.5	1846	44.0
Supplied for unsupervised treatment (initial 2 months)										
<5%	105	68.6	672	67.5	824	65.4	1110	61.9	2711	64.6
<10%	7	4.6	50	5.0	79	6.3	37	2.1	173	4.1
<15%	5	3.3	33	3.3	35	2.8	34	1.9	107	2.5
<25%	0	0.0	31	3.1	38	3.0	26	1.5	95	2.3
<50%	8	5.2	47	4.7	70	5.6	68	3.8	193	4.6
≥50%	5	3.3	29	2.9	40	3.2	38	2.1	112	2.7
Not recorded	23	15.0	133	13.4	173	13.7	479	26.7	808	19.2
Supplied for unsupervised treatment (subsequent 4 months)										
<5%	95	62.1	576	57.9	740	58.8	982	54.8	2393	57.0
<10%	14	9.2	64	6.4	85	6.8	63	3.5	226	5.4
<15%	4	2.6	49	4.9	53	4.2	25	1.4	131	3.1
<25%	7	4.6	53	5.3	61	4.8	41	2.3	162	3.9
<50%	3	2.0	39	3.9	47	3.7	59	3.3	148	3.5
≥50%	8	5.2	58	5.8	81	6.4	75	4.2	222	5.3
Not recorded	22	14.4	156	15.7	192	15.3	547	30.5	917	21.8
Defaulted (initial 2 months)										
<5%	106	69.3	725	72.9	934	74.2	1220	68.1	2985	71.1
<10%	4	2.6	38	3.8	28	2.2	16	0.9	86	2.0
<15%	2	1.3	5	0.5	11	0.9	8	0.4	26	0.6
<25%	3	2.0	16	1.6	19	1.5	8	0.4	46	1.1
<50%	1	0.7	15	1.5	12	1.0	14	0.8	42	1.0
≥50%	1	0.7	16	1.6	18	1.4	11	0.6	46	1.1
Not recorded	36	23.5	180	18.1	237	18.8	515	28.7	968	23.1
Defaulted (subsequent 4 months)										
<5%	96	62.7	642	64.5	889	70.6	1143	63.8	2770	66.0
<10%	5	3.3	32	3.2	28	2.2	20	1.1	85	2.0
<15%	6	3.9	36	3.6	14	1.1	13	0.7	69	1.6
<25%	10	6.5	35	3.5	20	1.6	13	0.7	78	1.9
<50%	2	1.3	23	2.3	23	1.8	4	0.2	52	1.2
≥50%	2	1.3	30	3.0	22	1.7	13	0.7	67	1.6
Not recorded	32	20.9	197	19.8	263	20.9	586	32.7	1078	25.7

Annex 1 (b) - (ii) ES (cases ever seen at chest clinics) - 03

Age group	0 to 19		20 to 39		40 to 59		60+		All	
	N	%	N	%	N	%	N	%	N	%
Outcome at 6 months										
Cured/ treatment completed	60	39.2	355	35.7	312	24.8	296	16.5	1023	24.4
Still on treatment	85	55.6	518	52.1	815	64.7	1162	64.8	2580	61.4
Died	1	0.7	1	0.1	31	2.5	247	13.8	280	6.7
Transferred	3	2.0	80	8.0	48	3.8	30	1.7	161	3.8
Defaulted	2	1.3	29	2.9	30	2.4	16	0.9	77	1.8
Failure	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Revised dx/ others	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not recorded	2	1.3	12	1.2	23	1.8	41	2.3	78	1.9
Total	153	100.0	995	100.0	1259	100.0	1792	100.0	4199	100.0
Outcome at 12 months										
Cured/ treatment completed	139	90.8	799	80.3	1029	81.7	1241	69.3	3208	76.4
Still on treatment	8	5.2	76	7.6	128	10.2	191	10.7	403	9.6
Died	1	0.7	2	0.2	35	2.8	309	17.2	347	8.3
Transferred	0	0.0	67	6.7	24	1.9	17	0.9	108	2.6
Defaulted	5	3.3	50	5.0	43	3.4	33	1.8	131	3.1
Failure	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Revised dx/ others	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not recorded	0	0.0	1	0.1	0	0.0	1	0.1	2	0.0
Total	153	100.0	995	100.0	1259	100.0	1792	100.0	4199	100.0
Outcome at 24 months										
Cured/ treatment completed	146	95.4	863	86.7	1148	91.2	1422	79.4	3579	85.2
Still on treatment	1	0.7	8	0.8	4	0.3	3	0.2	16	0.4
Died	1	0.7	4	0.4	39	3.1	320	17.9	364	8.7
Transferred	1	0.7	62	6.2	23	1.8	12	0.7	98	2.3
Defaulted	4	2.6	53	5.3	38	3.0	29	1.6	124	3.0
Failure	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Revised dx/ others	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not recorded	0	0.0	5	0.5	7	0.6	6	0.3	18	0.4
Total	153	100.0	995	100.0	1259	100.0	1792	100.0	4199	100.0

Annex 1 (b) - (iii) NS (cases never seen at chest clinics) - 01

Age group	0 to 19		20 to 39		40 to 59		60+		All	
	N	%	N	%	N	%	N	%	N	%
Female	14	53.8	102	65.0	60	33.5	193	30.5	369	37.1
Male	12	46.2	55	35.0	119	66.5	439	69.5	625	62.9
Total	26	100.0	157	100.0	179	100.0	632	100.0	994	100.0
First presentation										
Private doctor	0	0.0	2	1.3	1	0.6	1	0.2	4	0.4
Private hospital	0	0.0	0	0.0	0	0.0	2	0.3	2	0.2
GOPC	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Chest Clinic	0	0.0	3	1.9	0	0.0	5	0.8	8	0.8
Other DH Clinic	0	0.0	7	4.5	5	2.8	0	0.0	12	1.2
HA Clinic	0	0.0	1	0.6	0	0.0	3	0.5	4	0.4
HA Hospital	1	3.8	7	4.5	12	6.7	79	12.5	99	10.0
Mainland	0	0.0	0	0.0	0	0.0	1	0.2	1	0.1
Overseas	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not recorded	25	96.2	137	87.3	161	89.9	541	85.6	864	86.9
Total	26	100.0	157	100.0	179	100.0	632	100.0	994	100.0
Symptomatic on presentation										
Y	1	3.8	14	8.9	16	8.9	82	13.0	113	11.4
N	0	0.0	6	3.8	2	1.1	8	1.3	16	1.6
Not recorded	25	96.2	137	87.3	161	89.9	542	85.8	865	87.0
Total	26	100.0	157	100.0	179	100.0	632	100.0	994	100.0
Chest symptoms	1	-	8	-	9	-	69	-	87	-
Systemic symptoms	0	-	7	-	2	-	18	-	27	-
Other site-specific symptoms	0	-	2	-	3	-	3	-	8	-
Reason for presentation										
Symptom	1	3.8	11	7.0	13	7.3	79	12.5	104	10.5
Contact screening	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Pre-employment	0	0.0	2	1.3	0	0.0	0	0.0	2	0.2
Pre-emigration	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other body check	0	0.0	4	2.5	2	1.1	0	0.0	6	0.6
Incidental to other illness	0	0.0	1	0.6	2	1.1	8	1.3	11	1.1
Others	0	0.0	1	0.6	1	0.6	3	0.5	5	0.5
Not recorded	25	96.2	138	87.9	161	89.9	542	85.8	866	87.1
Total	26	100.0	157	100.0	179	100.0	632	100.0	994	100.0
Disease Classification										
Pulmonary TB only	22	84.6	113	72.0	145	81.0	545	86.2	825	83.0
Extrapulmonary TB only	4	15.4	37	23.6	32	17.9	75	11.9	148	14.9
Both	0	0.0	7	4.5	2	1.1	12	1.9	21	2.1
Total	26	100.0	157	100.0	179	100.0	632	100.0	994	100.0
6-month short course treatment										
Yes	0	0.0	2	1.3	3	1.7	0	0.0	5	0.5
2HRZE+4HR	0	0.0	2	1.3	2	1.1	0	0.0	4	0.4
2HRZS+4HR	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other standard regimen based on HRZES										
Yes	0	0.0	5	3.2	3	1.7	5	0.8	13	1.3

Annex 1 (b) - (iii) NS (cases never seen at chest clinics) - 02

Age group	0 to 19		20 to 39		40 to 59		60+		All	
	N	%	N	%	N	%	N	%	N	%
Treatment supervision										
Under DOT at chest clinic, hospital, CNS or other health staff (initial 2 months)										
>90%	0	0.0	8	5.1	5	2.8	2	0.3	15	1.5
>75%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
>50%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
>25%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
≤25%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not recorded	26	100.0	149	94.9	174	97.2	630	99.7	979	98.5
Under DOT at chest clinic, hospital, CNS or other health staff (subsequent 4 months)										
>90%	0	0.0	7	4.5	4	2.2	2	0.3	13	1.3
>75%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
>50%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
>25%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
≤25%	0	0.0	0	0.0	1	0.6	0	0.0	1	0.1
Not recorded	26	100.0	150	95.5	174	97.2	630	99.7	980	98.6
Under supervision by relatives (initial 2 months)										
>90%	0	0.0	0	0.0	0	0.0	1	0.2	1	0.1
>75%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
>50%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
>25%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
≤25%	0	0.0	0	0.0	1	0.6	1	0.2	2	0.2
Not recorded	26	100.0	157	100.0	178	99.4	630	99.7	991	99.7
Under supervision by relatives (subsequent 4 months)										
>90%	0	0.0	0	0.0	0	0.0	1	0.2	1	0.1
>75%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
>50%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
>25%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
≤25%	0	0.0	0	0.0	1	0.6	1	0.2	2	0.2
Not recorded	26	100.0	157	100.0	178	99.4	630	99.7	991	99.7
Supplied for unsupervised treatment (initial 2 months)										
<5%	0	0.0	0	0.0	1	0.6	2	0.3	3	0.3
<10%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<15%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<25%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<50%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
≥50%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not recorded	26	100.0	157	100.0	178	99.4	630	99.7	991	99.7
Supplied for unsupervised treatment (subsequent 4 months)										
<5%	0	0.0	0	0.0	1	0.6	1	0.2	2	0.2
<10%	0	0.0	0	0.0	0	0.0	1	0.2	1	0.1
<15%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<25%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<50%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
≥50%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not recorded	26	100.0	157	100.0	178	99.4	630	99.7	991	99.7
Defaulted (initial 2 months)										
<5%	0	0.0	0	0.0	1	0.6	2	0.3	3	0.3
<10%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<15%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<25%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<50%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
≥50%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not recorded	26	100.0	157	100.0	178	99.4	630	99.7	991	99.7
Defaulted (subsequent 4 months)										
<5%	0	0.0	0	0.0	1	0.6	2	0.3	3	0.3
<10%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<15%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<25%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<50%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
≥50%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not recorded	26	100.0	157	100.0	178	99.4	630	99.7	991	99.7

Annex 1 (b) - (iii) NS (cases never seen at chest clinics) - 03

Age group	0 to 19		20 to 39		40 to 59		60+		All	
	N	%	N	%	N	%	N	%	N	%
Outcome at 6 months										
Cured/ treatment completed	0	0.0	2	1.3	2	1.1	0	0.0	4	0.4
Still on treatment	0	0.0	6	3.8	3	1.7	6	0.9	15	1.5
Died	0	0.0	0	0.0	0	0.0	3	0.5	3	0.3
Transferred	0	0.0	2	1.3	1	0.6	0	0.0	3	0.3
Defaulted	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Failure	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Revised dx/ others	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not recorded	26	100.0	147	93.6	173	96.6	623	98.6	969	97.5
Total	26	100.0	157	100.0	179	100.0	632	100.0	994	100.0
Outcome at 12 months										
Cured/ treatment completed	22	84.6	79	50.3	93	52.0	151	23.9	345	34.7
Still on treatment	0	0.0	1	0.6	5	2.8	8	1.3	14	1.4
Died	0	0.0	8	5.1	52	29.1	436	69.0	496	49.9
Transferred	2	7.7	41	26.1	13	7.3	8	1.3	64	6.4
Defaulted	2	7.7	25	15.9	15	8.4	26	4.1	68	6.8
Failure	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Revised dx/ others	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not recorded	0	0.0	3	1.9	1	0.6	3	0.5	7	0.7
Total	26	100.0	157	100.0	179	100.0	632	100.0	994	100.0
Outcome at 24 months										
Cured/ treatment completed	22	84.6	79	50.3	93	52.0	152	24.1	346	34.8
Still on treatment	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Died	0	0.0	8	5.1	52	29.1	436	69.0	496	49.9
Transferred	0	0.0	3	1.9	0	0.0	0	0.0	3	0.3
Defaulted	0	0.0	0	0.0	1	0.6	1	0.2	2	0.2
Failure	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Revised dx/ others	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Not recorded	4	15.4	67	42.7	33	18.4	43	6.8	147	14.8
Total	26	100.0	157	100.0	179	100.0	632	100.0	994	100.0

Annex 1 (c) - ES/NS (cases ever or never seen at chest clinics) - 01

Group (Pulmonary cases)	PreRx smear +ve		PreRx culture +ve		MDR-TB	
	N	%	N	%	N	%
Ever seen at chest clinics						
Yes	1243	88.3	2470	83.7	22	91.7
No	165	11.7	481	16.3	2	8.3
Total	1408	100.0	2951	100.0	24	100.0
Age group						
0 to 19	50	3.6	87	2.9	0	0.0
Female	26		43		0	
Male	24		44		0	
20 to 39	297	21.1	541	18.3	16	66.7
Female	168		295		7	
Male	129		246		9	
40 to 59	438	31.1	766	26.0	5	20.8
Female	108		196		0	
Male	330		570		5	
60+	623	44.2	1557	52.8	3	12.5
Female	114		356		1	
Male	509		1201		2	
Total	1408	100.0	2951	100.0	24	100.0
Female	416	29.5	890	30.2	8	33.3
Male	992	70.5	2061	69.8	16	66.7
Marital status						
Single	311	22.1	558	18.9	8	33.3
Married	852	60.5	1750	59.3	14	58.3
Separated	15	1.1	23	0.8	0	0.0
Divorce	45	3.2	75	2.5	0	0.0
Widowed	17	1.2	62	2.1	0	0.0
Not recorded	168	11.9	483	16.4	2	8.3
Total	1408	100.0	2951	100.0	24	100.0
Smoking status						
Never	465	33.0	984	33.3	10	41.7
Ex-smoker	419	29.8	842	28.5	7	29.2
Current smoker	280	19.9	481	16.3	3	12.5
Not recorded	244	17.3	644	21.8	4	16.7
Total	1408	100.0	2951	100.0	24	100.0
Institution-related						
Yes	122	8.7	335	11.4	0	0.0
No	1133	80.5	2174	73.7	24	100.0
Not recorded	153	10.9	442	15.0	0	0.0
Total	1408	100.0	2951	100.0	24	100.0
Institution						
Client	97	-	277	-	0	-
Staff	11	-	19	-	0	-
Institution type						
Old age home	70	-	214	-	0	-
School	6	-	184	-	0	-
Hospital	4	-	10	-	0	-
Handicapped	3	-	11	-	0	-
Prison	6	-	19	-	0	-
Others	5	-	12	-	0	-

Annex 1 (c) - ES/NS (cases ever or never seen at chest clinics) - 02

Group (Pulmonary cases)	PreRx smear +ve		PreRx culture +ve		MDR-TB	
	N	%	N	%	N	%
Living situation						
Street-sleeper	4	0.3	5	0.2	0	0.0
Cubicle bed space	7	0.5	14	0.5	0	0.0
Institution	59	4.2	201	6.8	0	0.0
Work quarter	18	1.3	29	1.0	0	0.0
Alone (not above)	167	11.9	290	9.8	2	8.3
With friends	31	2.2	59	2.0	1	4.2
With family	955	67.8	1880	63.7	19	79.2
Not recorded	167	11.9	473	16.0	2	8.3
Residential status						
Permanent resident	1166	82.8	2335	79.1	15	62.5
Chinese immigrant	35	2.5	67	2.3	3	12.5
Imported worker	36	2.6	64	2.2	0	0.0
Tourist - 2 way permit Chinese	6	0.4	10	0.3	1	4.2
Other tourist	4	0.3	7	0.2	0	0.0
Vietnamese	0	0.0	2	0.1	0	0.0
Illegal immigrants	4	0.3	10	0.3	1	4.2
Not recorded	157	11.2	456	15.5	4	16.7
Total	1408	100.0	2951	100.0	24	100.0
Place of birth						
Hong Kong	552	39.2	992	33.6	8	33.3
Mainland China	590	41.9	1317	44.6	11	45.8
Others	111	7.9	190	6.4	3	12.5
Not recorded	155	11.0	452	15.3	2	8.3
Total	1408	100.0	2951	100.0	24	100.0
Ethnicity						
Chinese	1169	83.0	2360	80.0	19	79.2
Other Asian	70	5.0	116	3.9	1	4.2
Caucasian	2	0.1	2	0.1	1	4.2
Others	13	0.9	19	0.6	0	0.0
Not recorded	154	10.9	454	15.4	3	12.5
Total	1408	100.0	2951	100.0	24	100.0
Previous BCG history						
Yes	453	32.2	807	27.3	8	33.3
No	255	18.1	569	19.3	4	16.7
Unknown	700	49.7	1575	53.4	12	50.0
Total	1408	100.0	2951	100.0	24	100.0
BCG scar						
Yes	440	-	771	-	8	-
No	749	-	1533	-	14	-
Employment status						
Full-time	404	28.7	718	24.3	7	29.2
Part-time	37	2.6	65	2.2	1	4.2
Retired	430	30.5	973	33.0	4	16.7
Unemployed	212	15.1	363	12.3	6	25.0
Housewife	122	8.7	283	9.6	4	16.7
Student	44	3.1	84	2.8	0	0.0
Not recorded	159	11.3	465	15.8	2	8.3
Total	1408	100.0	2951	100.0	24	100.0

Annex 1 (c) - ES/NS (cases ever or never seen at chest clinics) - 03

Group (Pulmonary cases)	PreRx smear +ve		PreRx culture +ve		MDR-TB	
	N	%	N	%	N	%
Occupation						
Blue collar	247	17.5	434	14.7	6	25.0
White collar	98	7.0	176	6.0	1	4.2
Medical	2	0.1	3	0.1	0	0.0
Nursing	2	0.1	5	0.2	0	0.0
Paramedical	1	0.1	2	0.1	0	0.0
Supporting health staff	0	0.0	1	0.0	0	0.0
Not applicable	782	55.5	1626	55.1	13	54.2
Not recorded	276	19.6	704	23.9	4	16.7
Total	1408	100.0	2951	100.0	24	100.0
First presentation						
Private doctor	205	14.6	336	11.4	3	12.5
Private hospital	17	1.2	32	1.1	0	0.0
GOPC	69	4.9	110	3.7	0	0.0
Chest Clinic	107	7.6	308	10.4	4	16.7
Other DH Clinic	15	1.1	36	1.2	0	0.0
HA Clinic	23	1.6	59	2.0	0	0.0
HA Hospital	812	57.7	1617	54.8	12	50.0
Mainland	15	1.1	29	1.0	3	12.5
Overseas	3	0.2	4	0.1	0	0.0
Not recorded	142	10.1	420	14.2	2	8.3
Total	1408	100.0	2951	100.0	24	100.0
Symptomatic on presentation						
Y	1207	85.7	2247	76.1	20	83.3
N	43	3.1	229	7.8	2	8.3
Not recorded	158	11.2	475	16.1	2	8.3
Total	1408	100.0	2951	100.0	24	100.0
Chest symptoms	1075	-	1977	-	16	-
Systemic symptoms	298	-	456	-	5	-
Other site-specific symptoms	75	-	155	-	1	-
Reason for presentation						
Symptom	1171	83.2	2154	73.0	19	79.2
Contact screening	6	0.4	37	1.3	0	0.0
Pre-employment	4	0.3	22	0.7	0	0.0
Pre-emigration	0	0.0	3	0.1	0	0.0
Other body check	12	0.9	66	2.2	1	4.2
Incidental to other illness	44	3.1	154	5.2	1	4.2
Others	5	0.4	25	0.8	1	4.2
Not recorded	166	11.8	490	16.6	2	8.3
Total	1408	100.0	2951	100.0	24	100.0

Annex 1 (c) - ES/NS (cases ever or never seen at chest clinics) - 04

Group (Pulmonary cases)	PreRx smear +ve		PreRx culture +ve		MDR-TB	
	N	%	N	%	N	%
Contact with TB patients						
Yes	62	4.4	148	5.0	2	8.3
No	1182	83.9	2320	78.6	20	83.3
Not recorded	164	11.6	483	16.4	2	8.3
Total	1408	100.0	2951	100.0	24	100.0
Contact type						
Household	52	-	113	-	1	-
Work	6	-	14	-	0	-
Casual	1	-	8	-	1	-
Time of contact						
Within 2 year	17	-	57	-	0	-
Over 2 year	36	-	70	-	2	-
Previous chemoprophylaxis						
Yes	0	-	4	-	0	-
Reason for chemoprophylaxis						
Contact	0	-	0	-	0	-
Silicosis	0	-	1	-	0	-
HIV	0	-	1	-	0	-
Old scar on CXR	0	-	1	-	0	-
Others	0	-	0	-	0	-
Disease Classification						
Pulmonary TB only	1307	92.8	2639	89.4	20	83.3
Both pulm & extrapulm	101	7.2	312	10.6	4	16.7
Total	1408	100.0	2951	100.0	24	100.0
Case category						
New case	1285	91.3	2649	89.8	18	75.0
Relapse	117	8.3	286	9.7	6	25.0
Treatment after default	6	0.4	16	0.5	0	0.0
Failure of previous treatment	0	0.0	0	0.0	0	0.0
Total	1408	100.0	2951	100.0	24	100.0
Disease characteristics (pulmonary cases)						
Extent = 1	471	33.5	1280	43.4	10	41.7
Extent=1 & cavity=N	*345*	*24.5*	*1085*	*36.8*	*6*	*25.0*
Extent=1 & cavity=Y	*126*	*8.9*	*195*	*6.6*	*4*	*16.7*
Extent = 2	468	33.2	718	24.3	6	25.0
Extent=2 & cavity=N	*250*	*17.8*	*452*	*15.3*	*4*	*16.7*
Extent=2 & cavity=Y	*218*	*15.5*	*266*	*9.0*	*2*	*8.3*
Extent=3	276	19.6	371	12.6	5	20.8
Extent=3 & cavity=N	*126*	*8.9*	*199*	*6.7*	*2*	*8.3*
Extent=3 & cavity=Y	*150*	*10.7*	*172*	*5.8*	*3*	*12.5*
Extent=not specified	193	13.7	582	19.7	3	12.5
Extent=ns & cavity=N	*188*	*13.4*	*576*	*19.5*	*3*	*12.5*
Extent=ns & cavity=Y	*5*	*0.4*	*6*	*0.2*	*0*	*0.0*
Cavity=N	909	64.6	2312	78.3	15	62.5
Cavity=Y	499	35.4	639	21.7	9	37.5
6-month short course treatment						
Yes	143	10.2	401	13.6	0	0.0
2HRZE+4HR	119	8.5	339	11.5	0	0.0
2HRZS+4HR	1	0.1	9	0.3	0	0.0
Other standard regimen based on HRZES						
Yes	807	57.3	1432	48.5	0	0.0

Annex 1 (c) - ES/NS (cases ever or never seen at chest clinics) - 05

Group (Pulmonary cases)	PreRx smear +ve		PreRx culture +ve		MDR-TB	
	N	%	N	%	N	%
Treatment supervision						
Under DOT at chest clinic, hospital, CNS or other health staff (initial 2 months)						
>90%	932	66.2	1842	62.4	16	66.7
>75%	82	5.8	145	4.9	2	8.3
>50%	79	5.6	130	4.4	2	8.3
>25%	53	3.8	99	3.4	0	0.0
≤25%	20	1.4	51	1.7	0	0.0
Not recorded	242	17.2	684	23.2	4	16.7
Under DOT at chest clinic, hospital, CNS or other health staff (subsequent 4 months)						
>90%	815	57.9	1620	54.9	14	58.3
>75%	124	8.8	223	7.6	4	16.7
>50%	70	5.0	131	4.4	0	0.0
>25%	49	3.5	90	3.0	1	4.2
≤25%	56	4.0	97	3.3	0	0.0
Not recorded	294	20.9	790	26.8	5	20.8
Under supervision by relatives (initial 2 months)						
>90%	2	0.1	11	0.4	0	0.0
>75%	6	0.4	6	0.2	0	0.0
>50%	1	0.1	1	0.0	0	0.0
>25%	12	0.9	23	0.8	0	0.0
≤25%	704	50.0	1388	47.0	15	62.5
Not recorded	683	48.5	1522	51.6	9	37.5
Under supervision by relatives (subsequent 4 months)						
>90%	6	0.4	15	0.5	0	0.0
>75%	6	0.4	10	0.3	0	0.0
>50%	0	0.0	2	0.1	0	0.0
>25%	14	1.0	26	0.9	0	0.0
≤25%	666	47.3	1308	44.3	14	58.3
Not recorded	716	50.9	1590	53.9	10	41.7
Supplied for unsupervised treatment (initial 2 months)						
<5%	794	56.4	1576	53.4	13	54.2
<10%	58	4.1	101	3.4	2	8.3
<15%	34	2.4	57	1.9	0	0.0
<25%	35	2.5	57	1.9	2	8.3
<50%	88	6.3	134	4.5	1	4.2
≥50%	28	2.0	56	1.9	0	0.0
Not recorded	371	26.3	970	32.9	6	25.0
Supplied for unsupervised treatment (subsequent 4 months)						
<5%	720	51.1	1400	47.4	13	54.2
<10%	57	4.0	127	4.3	2	8.3
<15%	40	2.8	68	2.3	2	8.3
<25%	55	3.9	96	3.3	0	0.0
<50%	49	3.5	90	3.0	0	0.0
≥50%	83	5.9	133	4.5	0	0.0
Not recorded	404	28.7	1037	35.1	7	29.2
Defaulted (initial 2 months)						
<5%	900	63.9	1751	59.3	17	70.8
<10%	22	1.6	42	1.4	1	4.2
<15%	9	0.6	15	0.5	0	0.0
<25%	7	0.5	26	0.9	0	0.0
<50%	16	1.1	27	0.9	0	0.0
≥50%	6	0.4	21	0.7	0	0.0
Not recorded	448	31.8	1069	36.2	6	25.0
Defaulted (subsequent 4 months)						
<5%	833	59.2	1618	54.8	13	54.2
<10%	28	2.0	48	1.6	0	0.0
<15%	17	1.2	38	1.3	0	0.0
<25%	26	1.8	49	1.7	1	4.2
<50%	16	1.1	26	0.9	1	4.2
≥50%	23	1.6	36	1.2	0	0.0
Not recorded	465	33.0	1136	38.5	9	37.5

Annex 1 (c) - ES/NS (cases ever or never seen at chest clinics) - 06

Group (Pulmonary cases)	PreRx smear +ve		PreRx culture +ve		MDR-TB	
	N	%	N	%	N	%
Outcome at 6 months						
Cured/ treatment completed	232	16.5	595	20.2	0	0.0
Still on treatment	875	62.1	1528	51.8	19	79.2
Died	75	5.3	203	6.9	2	8.3
Transferred	42	3.0	74	2.5	0	0.0
Defaulted	13	0.9	40	1.4	0	0.0
Failure	0	0.0	0	0.0	0	0.0
Not recorded	171	12.1	511	17.3	3	12.5
Total	1408	100.0	2951	100.0	24	100.0
Outcome at 12 months						
Cured/ treatment completed	993	70.5	1996	67.6	0	0.0
Still on treatment	137	9.7	229	7.8	17	70.8
Died	190	13.5	542	18.4	2	8.3
Transferred	43	3.1	77	2.6	3	12.5
Defaulted	43	3.1	102	3.5	2	8.3
Failure	0	0.0	0	0.0	0	0.0
Not recorded	2	0.1	5	0.2	0	0.0
Total	1408	100.0	2951	100.0	24	100.0

Annex 1 (c) - ES/NS (cases ever or never seen at chest clinics) - 07

Group (Pulmonary cases)	PreRx smear +ve		PreRx culture +ve		MDR-TB	
	N	%	N	%	N	%
Outcome at 24 months						
Cured/ treatment completed	1114	79.1	2206	74.8	12	50.0
Still on treatment	5	0.4	9	0.3	4	16.7
Died	199	14.1	553	18.7	2	8.3
Transferred	28	2.0	47	1.6	1	4.2
Defaulted	33	2.3	68	2.3	3	12.5
Failure	0	0.0	0	0.0	0	0.0
Not recorded	29	2.1	68	2.3	2	8.3
Total	1408	100.0	2951	100.0	24	100.0
Among those cured/ treatment completed						
Bacteriological conversion	1046	93.9	2020	91.6	12	100.0
Radiological improvement	1029	92.4	1947	88.3	11	91.7
Other clinical improvement	204	18.3	417	18.9	4	33.3
No evidence of response	2	0.2	4	0.2	0	0.0
After treatment completed:						
No relapse	845	75.9	1656	75.1	11	91.7
Loss to follow up	167	15.0	298	13.5	0	0.0
Died	19	1.7	57	2.6	0	0.0
TB-related	*0*		*1*		*0*	
Not TB-related	*12*		*43*		*0*	
Unknown	*7*		*15*		*0*	
Relapse	12	1.1	17	0.8	0	0.0
Bacteriological	*5*		*8*		*1*	
Histological	*4*		*5*		*0*	
Clinico-radiological	*3*		*4*		*0*	
Not recorded	71	6.4	178	8.1	1	8.3
Among those still on treatment						
Reasons for still on treatment:						
Retreatment case	0	-	0	-	0	-
Extrapulmonary disease	0	-	1	-	0	-
Extensive disease	0	-	3	-	0	-
Interrupted treatment	1	-	4	-	1	-
Drug resistance	4	-	5	-	4	-
Poor response	0	-	1	-	1	-
Others	1	-	1	-	1	-
Among those died - causes of death:						
TB-related cause	7	3.5	16	2.9	0	-
Not TB-related	55	27.6	127	23.0	2	-
Unknown	38	19.1	112	20.3	0	-
Among those transferred, new sources of care:						
GP	1	3.6	1	2.1	0	0.0
Chest Clinic	0	0.0	0	0.0	0	0.0
Hospital	0	0.0	2	4.3	0	0.0
Outside HK	27	96.4	44	93.6	1	100.0
Not recorded	0	0.0	0	0.0	0	0.0
Among those defaulted						
Never found	24	72.7	47	69.1	2	66.7
Retreated after default	4	12.1	6	8.8	0	0.0
Treatment stopped by doctor	5	15.2	11	16.2	1	33.3
Not recorded	0	0.0	4	5.9	0	0.0

Annex 1 (c) - ES/NS (cases ever or never seen at chest clinics) - 08

Group (Pulmonary cases)	PreRx smear +ve		PreRx culture +ve		MDR-TB	
	N	%	N	%	N	%
Drug susceptibility pattern						
Streptomycin - R	131	9.7	232	8.4	20	83.3
Streptomycin - S	1217	90.3	2527	91.6	4	16.7
Isoniazid - R	72	5.3	135	4.9	24	100.0
Isoniazid - S	1276	94.7	2624	95.1	0	0.0
Rifampicin - R	19	1.4	30	1.1	24	100.0
Rifampicin - S	1329	98.6	2729	98.9	0	0.0
Ethambutol - R	4	0.3	8	0.3	6	26.1
Ethambutol - S	1343	99.7	2750	99.7	17	73.9
Pyrazinamide - R	7	17.9	12	18.2	10	45.5
Pyrazinamide - S	32	82.1	54	81.8	12	54.5
Ofloxacin - R	2	3.0	6	4.3	4	17.4
Ofloxacin - S	65	97.0	135	95.7	19	82.6
Smear conversion rates						
1. Smear at 2 month = N (a)	679				7	
2. Smear at 2 month = P (b)	166				8	
2. Sm 2m (P); Sm 3m (N) (c)	84				5	
2. Sm 2m (P); Sm 3m (P) (d)	57				3	
2. Sm 2m (P); Sm 3m (U) (e)	25				0	
3. Smear at 2 month = U (f)	563				9	
3. Sm 2m (U); Sm 3m (N) (g)	177				3	
3. Sm 2m (U); Sm 3m (P) (h)	19				1	
3. Sm 2m (U); Sm 3m (U) (i)	367				5	
Overall percentage of smear conversion at 2m = (a)/ [(a)+(b)]	80.4		-		46.7	
Overall percentage of smear conversion at 3m = [(a)+(c)+(g)]/ [(a)+(c)+(d)+(g)+(h)]	92.5		-		78.9	
Culture conversion rates						
1. Culture at 2 month = N (a)			1256		5	
2. Culture at 2 month = P (b)			205		10	
2. Cu 2m (P); Cu 3m (N) (c)			122		5	
2. Cu 2m (P); Cu 3m (P) (d)			21		4	
2. Cu 2m (P); Cu 3m (U) (e)			62		1	
3. Culture at 2 month = U (f)			1490		9	
3. Cu 2m (U); Cu 3m (N) (g)			403		2	
3. Cu 2m (U); Cu 3m (P) (h)			10		2	
3. Cu 2m (U); Cu 3m (U) (i)			1077		5	
Overall percentage of culture conversion at 2m = (a)/ [(a)+(b)]	-		86.0		33.3	
Overall percentage of culture conversion at 3m = [(a)+(c)+(g)]/ [(a)+(c)+(d)+(g)+(h)]	-		98.3		66.7	

Annex 1 (d) - ES/NS (cases ever or never seen at chest clinics) - 01

Group	New pulmonary smear +ve		ReRx pulmonary smear +ve	
	N	%	N	%
Ever seen at chest clinics				
Yes	1121	97.6	122	46.9
No	27	2.4	138	53.1
Total	1148	100.0	260	100.0
Age group				
0 to 19	48	4.2	2	0.8
Female	25		1	
Male	23		1	
20 to 39	269	23.4	28	10.8
Female	150		18	
Male	119		10	
40 to 59	373	32.5	65	25.0
Female	93		15	
Male	280		50	
60+	458	39.9	165	63.5
Female	91		23	
Male	367		142	
Total	1148	100.0	260	100.0
Female	359	31.3	57	21.9
Male	789	68.7	203	78.1
Disease Classification				
Pulmonary TB only	1057	92.1	250	96.2
Both pulmon and extrapulm	91	7.9	10	3.8
Total	1148	100.0	260	100.0
6-month short course treatment				
Yes	138	12.0	5	1.9
2HRZE+4HR	115	10.0	4	1.5
2HRZS+4HR	1	0.1	0	0.0
Other standard regimen based on HRZES				
Yes	724	63.1	83	31.9
Outcome at 6 months				
Cured/ treatment completed	226	19.7	6	2.3
Still on treatment	782	68.1	93	35.8
Died	57	5.0	18	6.9
Transferred	37	3.2	5	1.9
Defaulted	11	1.0	2	0.8
Failure	0	0.0	0	0.0
Not recorded	35	3.0	136	52.3
Total	1148	100.0	260	100.0
Outcome at 12 months				
Cured/ treatment completed	877	76.4	116	44.6
Still on treatment	123	10.7	14	5.4
Died	89	7.8	101	38.8
Transferred	29	2.5	14	5.4
Defaulted	29	2.5	14	5.4
Failure	0	0.0	0	0.0
Not recorded	1	0.1	1	0.4
Total	1148	100.0	260	100.0

Annex 1 (d) - ES/NS (cases ever or never seen at chest clinics) - 02

Group	New pulmonary smear +ve		ReRx pulmonary smear +ve	
	N	%	N	%
Outcome at 24 months				
Cured/ treatment completed	986	85.9	128	49.2
Still on treatment	5	0.4	0	0.0
Died	98	8.5	101	38.8
Transferred	24	2.1	4	1.5
Defaulted	28	2.4	5	1.9
Failure	0	0.0	0	0.0
Not recorded	7	0.6	22	8.5
Total	1148	100.0	260	100.0
Among those cured/ treatment completed				
Bacteriological conversion	952	96.6	94	73.4
Radiological improvement	938	95.1	91	71.1
Other clinical improvement	192	19.5	12	9.4
No evidence of response	2	0.2	0	0.0
After treatment completed:				
No relapse	764	77.5	81	63.3
Loss to follow up	155	15.7	12	9.4
Died	15	1.5	4	3.1
TB-related	*0*		*0*	
Not TB-related	*10*		*2*	
Unknown	*5*		*2*	
Relapse	12	1.2	0	0.0
Bacteriological	*5*		*0*	
Histological	*4*		*0*	
Clinico-radiological	*3*		*0*	
Not recorded	40	4.1	31	24.2
Among those still on treatment				
Reasons for still on treatment:				
Retreatment case	0	-	0	-
Extrapulmonary disease	0	-	0	-
Extensive disease	0	-	0	-
Interrupted treatment	1	-	0	-
Drug resistance	4	-	0	-
Poor response	0	-	0	-
Others	1	-	0	-
Among those died - causes of death:				
TB-related cause	7	7.1	0	0.0
Not TB-related	45	45.9	10	9.9
Unknown	30	30.6	8	7.9
Among those transferred, new sources of care:				
GP	1	4.2	0	0.0
Chest Clinic	0	0.0	0	0.0
Hospital	0	0.0	0	0.0
Outside HK	23	95.8	4	100.0
Not recorded	0	0.0	0	0.0
Among those defaulted				
Never found	21	75.0	3	60.0
Retreated after default	4	14.3	0	0.0
Treatment stopped by doctor	3	10.7	2	40.0
Not recorded	0	0.0	0	0.0

Annex 1 (e) - Treatment defaulters - 01

Ever seen at chest clinics	N	%
Yes	124	98.4
No	2	1.6
Total	126	100.0

Age group

0 to 19	4	3.2
Female	2	
Male	2	
20 to 39	53	42.1
Female	30	
Male	23	
40 to 59	39	31.0
Female	8	
Male	31	
60+	30	23.8
Female	6	
Male	24	
Total	126	100.0
Female	46	36.5
Male	80	63.5

Marital status

Single	38	30.2
Married	70	55.6
Separated	1	0.8
Divorce	10	7.9
Widowed	2	1.6
Not recorded	5	4.0
Total	126	100.0

Smoking status

Never	42	33.3
Ex-smoker	32	25.4
Current smoker	42	33.3
Not recorded	10	7.9
Total	126	100.0

Institution-related

Yes	6	4.8
No	113	89.7
Not recorded	7	5.6
Total	126	100.0

Institution

Client	3	-
Staff	1	-

Institution type

Old age home	2	-
School	3	-
Hospital	0	-
Handicapped	0	-
Prison	2	-
Others	0	-

Annex 1 (e) - Treatment defaulters - 02

Living situation	N	%
Street-sleeper	0	0.0
Cubicle bed space	1	0.8
Institution	2	1.6
Work quarter	1	0.8
Alone (not above)	29	23.0
With friends	2	1.6
With family	86	68.3
Not recorded	5	4.0

Residential status		
Permanent resident	102	81.0
Chinese immigrant	4	3.2
Imported worker	12	9.5
Tourist - 2 way permit Chinese	0	0.0
Other tourist	2	1.6
Vietnamese	1	0.8
Illegal immigrants	2	1.6
Not recorded	3	2.4
Total	126	100.0

Place of birth		
Hong Kong	49	38.9
Mainland China	46	36.5
Others	26	20.6
Not recorded	5	4.0
Total	126	100.0

Ethnicity		
Chinese	97	77.0
Other Asian	16	12.7
Caucasian	1	0.8
Others	5	4.0
Not recorded	7	5.6
Total	126	100.0

Employment status		
Full-time	41	32.5
Part-time	12	9.5
Retired	23	18.3
Unemployed	33	26.2
Housewife	11	8.7
Student	2	1.6
Not recorded	4	3.2
Total	126	100.0

Occupation		
Blue collar	38	30.2
White collar	5	4.0
Medical	0	0.0
Nursing	0	0.0
Paramedical	0	0.0
Supporting health staff	1	0.8
Not applicable	72	57.1
Not recorded	10	7.9
Total	126	100.0

Annex 1 (e) - Treatment defaulters - 03

First presentation	N	%
Private doctor	15	11.9
Private hospital	0	0.0
GOPC	4	3.2
Chest Clinic	22	17.5
Other DH Clinic	4	3.2
HA Clinic	6	4.8
HA Hospital	70	55.6
Mainland	4	3.2
Overseas	0	0.0
Not recorded	1	0.8
Total	126	100.0

Symptomatic on presentation

Y	106	84.1
N	19	15.1
Not recorded	1	0.8
Total	126	100.0

Chest symptoms	73	-
Systemic symptoms	20	-
Other site-specific symptoms	22	-

Reason for presentation

Symptom	101	80.2
Contact screening	3	2.4
Pre-employment	3	2.4
Pre-emigration	1	0.8
Other body check	9	7.1
Incidental to other illness	6	4.8
Others	1	0.8
Not recorded	2	1.6
Total	126	100.0

Contact with TB patients

Yes	8	6.3
No	117	92.9
Not recorded	1	0.8
Total	126	100.0

Contact type

Household	5	-
Work	0	-
Casual	0	-

Time of contact

Within 2 year	3	-
Over 2 year	3	-

Annex 1 (e) - Treatment defaulters - 04

Previous chemoprophylaxis	N	%
Yes	0	-

Reason for chemoprophylaxis

Contact	0	-
Silicosis	0	-
HIV	0	-
Old scar on CXR	0	-
Others	0	-

Disease Classification

Pulmonary TB only	93	73.8
Extrapulmonary TB only	18	14.3
Both	15	11.9
Total	126	100.0

Case category

New case	108	85.7
Relapse	10	7.9
Treatment after default	8	6.3
Failure of previous treatment	0	0.0
Total	126	100.0

Disease characteristics (pulmonary cases)

Pretreatment smear +ve	33	30.6
Pretreatment culture +ve	68	63.0
Extent = 1	62	57.4
Extent=1 & cavity=N	*58*	*53.7*
Extent=1 & cavity=Y	*4*	3.7
Extent = 2	23	21.3
Extent=2 & cavity=N	*16*	*14.8*
Extent=2 & cavity=Y	*7*	*6.5*
Extent=3	16	14.8
Extent=3 & cavity=N	*4*	*3.7*
Extent=3 & cavity=Y	*12*	*11.1*
Extent=not specified	7	6.5
Extent=ns & cavity=N	*7*	*6.5*
Extent=ns & cavity=Y	*0*	*0.0*
Cavity=N	77	71.3
Cavity=Y	23	21.3

6-month short course treatment

Yes	4	3.2
2HRZE+4HR	4	3.2
2HRZS+4HR	0	0.0

Other standard regimen based on HRZES

Yes	52	41.3

Among those defaulted

Never found	84	66.7
Retreated after default	11	8.7
Treatment stopped by doctor	21	16.7
Not recorded	10	7.9

Annex 1 (e) - Treatment defaulters - 05

Treatment supervision	N	%
Under DOT at chest clinic, hospital, CNS or other health staff (initial 2 months)		
>90%	42	33.3
>75%	15	11.9
>50%	12	9.5
>25%	13	10.3
≤25%	19	15.1
Not recorded	25	19.8
Under DOT at chest clinic, hospital, CNS or other health staff (subsequent 4 months)		
>90%	18	14.3
>75%	9	7.1
>50%	16	12.7
>25%	11	8.7
≤25%	25	19.8
Not recorded	47	37.3
Under supervision by relatives (initial 2 months)		
>90%	2	1.6
>75%	0	0.0
>50%	0	0.0
>25%	4	3.2
≤25%	58	46.0
Not recorded	62	49.2
Under supervision by relatives (subsequent 4 months)		
>90%	2	1.6
>75%	0	0.0
>50%	1	0.8
>25%	4	3.2
≤25%	43	34.1
Not recorded	76	60.3
Supplied for unsupervised treatment (initial 2 months)		
<5%	62	49.2
<10%	7	5.6
<15%	2	1.6
<25%	1	0.8
<50%	7	5.6
≥50%	3	2.4
Not recorded	44	34.9
Supplied for unsupervised treatment (subsequent 4 months)		
<5%	45	35.7
<10%	4	3.2
<15%	4	3.2
<25%	8	6.3
<50%	2	1.6
≥50%	5	4.0
Not recorded	58	46.0
Defaulted (initial 2 months)		
<5%	50	39.7
<10%	4	3.2
<15%	2	1.6
<25%	7	5.6
<50%	13	10.3
≥50%	19	15.1
Not recorded	31	24.6
Defaulted (subsequent 4 months)		
<5%	22	17.5
<10%	2	1.6
<15%	5	4.0
<25%	6	4.8
<50%	13	10.3
≥50%	32	25.4
Not recorded	46	36.5

Annex 1 (f) Sources completing Programme Forms

Sources completing Programme Forms	PFA	PFB1	PFB2	PFC	PFD
Chest Clinics	3651	4160	4167	4181	4142
Hospital Authority	633	6	6	3	3
Private Practitioners/ Private Hospitals	0	0	0	0	0
Correctional Services and Others	31	14	15	13	6
Not Recorded	878	1013	1005	996	1042
Total	5193	5193	5193	5193	5193

Breakdown for Hospital Authority:

Alice Ho Miu Ling Nethersole Hospital	0	1	2	2	2
Caritas Medical Centre	12	12	12	12	10
Castle Peak Hospital	4	3	1	2	1
Duchess of Kent Children Hospital	0	0	0	0	0
Fung Yiu King Hospital	0	0	0	0	0
Grantham Hospital	203	2	1	1	0
Haven of Hope Hospital	45	1	1	1	2
Kowloon Hospital	55	5	1	1	1
Kwong Wah Hospital	38	4	4	4	4
North District Hospital	82	7	7	6	6
Nam Long Hospital	0	0	0	0	0
Our Lady of Maryknoll Hospital	2	0	0	0	0
Pamela Youde Nethersole Eastern Hospital	0	0	0	0	0
Pok Oi Hospital	2	1	2	1	2
Prince of Wales Hospital	12	12	12	12	12
Princess Margaret Hospital	1	2	1	1	1
Queen Elizabeth Hospital	27	13	11	11	9
Queen Mary Hospital	37	0	0	0	0
Ruttonjee Hospital	174	1	1	1	1
Shatin Hospital	0	0	0	0	0
Tai Po Hospital	0	0	0	0	0
Tseung Kwan O Hosital	13	0	0	0	0
Tuen Mun Hospital	9	9	9	9	9
Tung Wah Eastern Hospital	0	0	0	0	0
Tung Wah Hospital	0	0	0	2	2
United Christian Hospital	68	10	9	9	8
Wong Tai Sin Hospital	34	1	2	1	1
Wong Chuk Hang Hospital	0	0	0	0	0
Yan Chai Hospital	6	6	6	6	6
Total	824	90	82	82	77

HKID/ Passport/ Birth certificate no.: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ Clinic/ Hospital no.: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Name: _ DOS: _ _/_ _/_ _ _ _

PFA - To be completed at around DOS (for TB patients) *[DOS = date of starting treatment (or, if patient defaulted>2 months before starting anti-TB treatment, put down the date of diagnosis)]*

Part (A) Basic information

TB notified: N / Y : Date: _ _ / _ _ / _ _ _ _ Sex: M / F Age: _ _ years Date of birth : _ _ / _ _ / _ _ _ _

Marital status: 1.single/ 2.married/ 3.separated/ 4.divorce/ 5.widowed Smoking status: 1.never/ 2.ex-smoker/ 3.current smokers

Institution-related: N / Y : 1.Client / 2.Staff Type: 1.Old age home/ 2.School/ 3. Hospital/ 4.Handicapped/ 5.Prison/ 6.Others

Name of institution: _____

Living situation: 1.street-sleeper/ 2.cubicle bed space/ 3.institution/ 4.work quarter/ 5.alone (but not 1. to 4.)/ 6.with friends/ 7.with family

Resident status: 1.PermanentResident/ 2.ChineseNewImmigrant(inHK<7yr)/ 3.ImportedWorker/ 4.Tourist-2wayPermitChinese/ 5.OtherTourist/ 6.Vietnamese/ 7.IllegalImmigrants

Place of birth: 1.Hong Kong / 2.Mainland/ 3.Others _____

Ethnicity: 1.Chinese/ 2.Other Asian/ 3.Caucasian/ 4.Other _____

Previous BCG history: N / Y / Unknown BCG scar: N / Y

Employment status (including self-employment) at DOS: 1.Full-time/ 2.Part-time/ 3.Retired/ 4.Unemployed/ 5.Housewife/ 6.Student

Occupation (current or last): 1.Blue collar/ 2.White collar/ 3.Medical/ 4.Nursing/ 5.Paramedical/ 6.Supporting health staff/ 7.Not applicable

Job title: _____

Part (B) Information on this episode of TB:

First presentation to: 1. Private doctor / 2.Private Hospital / 3.GOPC / 4.Chest Clinic / 5.Other DH Clinic / 6 .HA Clinic / 7. HA Hospital / 8. Mainland / 9.Overseas

Symptomatic on presentation: N / Y: 1.Chest symptoms / 2.Systemic Symptoms / 3.Other site-specific symptoms

Reason for presentation: 1. Symptom / 2.Contact Screening / 3. Pre-employment / 4.Pre-emigration/ 5.Other body check / 6. Incidental to other illness / 7. Others: _____

Contact with TB patients: N / Y: 1.Household / 2.Work / 3.Casual
1. within 2 year / 2. over 2 year

Previous chemoprophylaxis: N / Y : reason: 1. Contact / 2. Silicosis / 3. HIV / 4. Old scar on CXR / 5. Others _____

Drugs & duration: _____

Part (C) Case category (choose 1 item only):

1. New case (<1m previous Rx)
2. Relapse case.
3. Treatment after default.
4. Failure of previous treatment.

Date of last treatment (mm/yyyy): _ _ / _ _ _ _ Duration of last treatment: _ _ months

5. Others, specify: _____

Part (D) Disease classification: (please circle ≥1 item)

1. Pulmonary tuberculosis
   Extent of disease: 1minimal (total area< RUL)/ 2moderate (> RUL)/ 3advanced (> 1 lung) Cavity: N / Y

Extra-pulmonary tuberculosis:

2. Pleura
3. Lymph node
4. Meninges
5. Miliary
6. Abdomen
7. Bone and joint (other than spine)
8. Spine
9. Genito-urinary tract
10. Naso/oro-pharynx
11. Larynx
12. Pericardium
13. Skin
14. Other site(1), specify _____
15. Other site(2), specify _____
16. Other site(3), specify _____

Completed by: _____ (name) Tel: _____ Fax: _____

Institution: 1.Chest Clinic/ 2.Chest Hospital/ 3.General Hospital/ 4.Private Practice. ; Name (and ward) of institution: _____

(After completion, this form should be sent to Consultant Chest Physician i/c, Wanchai Chest Clinic, 99 Kennedy Road, Hong Kong. Fax: (852) 28346627)
(If patient is transferred, a copy of this completed form should also be sent to the new source of care for information.)

HKID/ Passport/ Birth certificate no.: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ Clinic/ Hospital no.: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Name: _ DOS: _ _/_ _/_ _ _ _

PFB1 – To be completed at 6 month from DOS (for TB patients)

Part (E) Mode of TB diagnosis: 1. Bacteriological/ 2.Histological/ 3.Clinical-radiological/ 4.Clinical only (choose 1 item, priority from left to right)

Bacteriological examination for MTB: P (positive), N (negative) , U (not done), NTM (Non-tuberculous Mycobacteria)

	Sputum			**Other type of specimen:** 1.gastric aspirate/ 2.pleural fluid/ 3.bronchial washing/ 4.urine/ 5.biopsy or others, specify: _____		
	Pre-treatment	2 months	3 months	Pre-treatment	2 months	3 months
Smear	P / N / U	P / N / U	P / N / U	P / N / U	P / N / U	P / N / U
Culture	P / N / U / NTM	P / N / U / NTM	P / N / U / NTM	P / N / U / NTM	P / N / U / NTM	P / N / U / NTM

- Histological result from (site) _____: 1 Typical (with caseation) / 2.Granulomatous inflammation / 3.other
  Ziehl-Neelzen staining: P / N / U
- **If pre-treatment culture is positive for MTB, is the ST favourable? (i.e., sensitive to HRES)**: N / Y / U (ST not done)

If unfavourable ST, please mark S (sensitive) or R (resistant) for all ST done:

Isoniazid (H)	: S / R	Pyrazinamide	: S / R	Cycloserine	: S / R
Rifampicin (R)	: S / R	Ofloxacin	: S / R	Other (1) _____	: S / R
Ethambutol (E)	: S / R	Ethionamide	: S / R	Other (2) _____	: S / R
Streptomycin (S)	: S / R	Kanamycin	: S / R		

Part (F) Risk factors for TB: N / Y (If Y, please circle whichever applicable)

1. Diabetes mellitus
2. Lung cancer
3. Other malignancies
4. On cytotoxic drugs
5. On steroid
6. Chronic renal failure
7. HIV
8. Silicosis
9. Alcoholism
10. Drug abuser
11. Gastrectomy
12. General debilitation (e.g., due to old age, immobility, stroke, etc.)
13. Other(1), specify_____
14. Other(2), specify_____
15. Other(3), specify_____

Part (G) Factors affecting treatment choices: N / Y (If Y, please circle whichever applicable)

1. Hepatitis-B carrier
2. Chronic active hepatitis
3. Impaired renal function
4. Chronic renal failure (require dialysis, etc.)
5. Impaired vision
6. Impaired hearing
7. Known drug reaction
8. Known drug resistance
9. Gout
10. Idiopathic thrombocytopenic purpura
11. Other(1), specify_____
12. Other(2), specify_____
13. Other(3), specify_____

Part (H) Other co-morbidities: N / Y : 1. _____ 2. _____ 3. _____

Part (I) Treatment regimen:

6-month short course treatment: N / Y: 1. [2HRZE+4HR] / 2. [2HRZS+4HR]

If neither of the above 2 regimens, please complete the following two questions:

Other standard regimens based on HRZES (at least HRZ in initial and HR in continuation phase): N / Y

Drugs that have been used (for at least over 1 month): 1 Isoniazid (H) / 2 Rifampicin (R) / 3 Ethambutol (E) / 4 Streptomycin (S) / 5 Pyrazinamide (Z) / 6 Ofloxacin / 7 Levofloxacin / 8 Ethionamide / 9 Prothionamide / 10 Kanamycin / 11 Cycloserine / 12 PAS /

12 Other(1) _____ / 13 Other(2) _____ / 14 Other (3) _____

Completed by: _____ (name) Tel: _____ Fax: _____

Institution: 1.Chest Clinic/ 2.Chest Hospital/ 3.General Hospital/ 4.Private Practice. ; Name (and ward) of institution: _____

(After completion, this form should be sent to Consultant Chest Physician i/c, Wanchai Chest Clinic, 99 Kennedy Road, Hong Kong. Fax: (852) 28346627)
(If patient is transferred, a copy of this completed form should also be sent to the new source of care for information.)

HKID/ Passport/ Birth certificate no.: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ Clinic/ Hospital no.: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Name: _ DOS: _ _/_ _/_ _ _ _

PFB2 – To be completed at 6 month from DOS (for TB patients)

Part (J) Treatment side effects: N / Y (If Y, please circle)

1.GI upset/ 2.skin rash/ 3.visual/ 4.transient rise of liver enzyme/ 5. hepatitis/ 6.vestibular/ 7.arthropathy/ 8.fever-chill/ 9.dizziness/ 10.thrombocytopenia/ 11.leucopenia/ 12.flush face/ 13.other(1) _____ / 14.other(2) _____ /15.other(3) _____

Treatment temporarily withheld for side effects: N / Y

Desensitisation or drug trial required: N / Y

Change in dosage or frequency required: N / Y

Change of drugs required: N / Y

Part (K) Treatment Supervision:

Proportion of doses:	Initial 2 month	Subsequent 4 months (up to 6 month from DOS)
Under DOT at chest clinic, hospital, CNS or other health staff	>90% >75% >50% >25% ≤25%	>90% >75% >50% >25% ≤25%
Under supervison by relatives	>90% >75% >50% >25% ≤25%	>90% >75% >50% >25% ≤25%
Supplied for unsupervised treatment	<5% <10% <15% < 25% <50% ≥50%	<5% <10% <15% < 25% <50% ≥50%
Defaulted	<5% <10% <15% < 25% <50% ≥50%	<5% <10% <15% < 25% <50% ≥50%

Part (L) Outcome at 6 months (please √, circle and/ or fill in the spaces provided as appropriate)

(1) Cured/ treatment completed □ Date treatment stopped (mm/yyyy): ____/_____

Status at completion:

- Bacteriological conversion □
- Radiological improvement □
- Other clinical improvement □
- No available evidence of response □

(2) Treatment incomplete □

- Still on treatment, reason: 1.retreatment/ 2.extrapulm./ 3.extensive/ 4.interrupted treatment/ 5.drug resistance/ 6.poor response/ 7.others, specify: _____
- Died □ Cause: 1.TB-related/ 2.Not TB-related/ 3.Unknown Date of death (mm/yyyy): ____/_____

(3) Transferred □ to: 1.GP/ 2.Chest Clinic/ 3.Hospital/ 4.Outside HK Details: _____

Last treatment date (mm/yyyy): ____/_____

(4) Defaulted (defaulted treatment for a continuous period > 2m) □

- Never found □ Last visit date (mm/yyyy): ____/_____
- Retreated after default □ Date treatment re-started (mm/yyyy): ____/_____
- Treatment stopped by doctor □ Last treatment date (mm/yyyy): ____/_____

(5) Failure (persistent positive bacteriology and treatment stopped) □

(6) Wrong/ revised diagnosis □ Last treatment date (mm/yyyy): ____/_____

- New diagnosis: _____

(7) Others □ , specify: _____

Completed by: _____ (name) Tel: _____ Fax: _____

Institution: 1.Chest Clinic/ 2.Chest Hospital/ 3.General Hospital/ 4.Private Practice; Name (and ward) of institution: _____

(After completion, this form should be sent to Consultant Chest Physician i/c, Wanchai Chest Clinic, 99 Kennedy Road, Hong Kong. Fax: (852) 28346627)

(If patient is transferred, a copy of this completed form should also be sent to the new source of care for information.)

HKID/ Passport/ Birth certificate no.: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ Clinic/ Hospital no.: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Name: _ DOS: _ _/_ _/_ _ _ _

PFC – To be completed at 12 month from DOS (for TB patients)

Part (M) Bacteriological examination for MTB: P (positive), N (negative) , U (not done), NTM (Non-tuberculous Mycobacteria)

	Sputum		**Other type of specimen:** 1.gastric aspirate/ 2.pleural fluid/ 3.bronchial washing/ 4.urine/ 5.biopsy or others, specify: _____	
	5-6 months	7-12 months	5-6 months	7-12 months
Smear	P / N / U	P / N / U	P / N / U	P / N / U
Culture	P / N / U / NTM	P / N / U / NTM	P / N / U / NTM	P / N / U / NTM

Part (N) Outcome at 12 months (please √, circle and/ or fill in the spaces provided as appropriate)

(1) Cured/ treatment completed □ Date treatment completed (mm/yyyy): ____/_____

(a) Status at completion:

- Bacteriological conversion □
- Radiological improvement □
- Other clinical improvement □
- No available evidence of response □

(b) After treatment completed:

No relapse □

Loss to follow-up □ Last visit date (mm/yyyy): ____/_____

Died □ Cause: 1.TB-related/ 2.Not TB-related/ 3.Unknown Date of death (mm/yyyy): ____/_____

Relapse □ Date relapse (mm/yyyy): ____/_____

- 1.Bacteriological / 2.Histological / 3.Clinical-radiological (choose 1 item, priority from left to right)

(2) Treatment incomplete (including death while on treatment) □

- Still on treatment, reason: 1.retreatment/ 2.extrapulm./ 3.extensive/ 4.interrupted treatment/ 5.drug resistance/ 6.poor response/ 7.others, specify: _____
- Died □ Cause: 1.TB-related/ 2.Not TB-related/ 3.Unknown Date of death (mm/yyyy): ____/_____

(3) Transferred □ to: 1.GP/ 2..Chest Clinic/ 3.Hospital/ 4.Outside HK Details: _____

Last treatment date (mm/yyyy): ____/_____

(4) Defaulted (defaulted treatment for a continuous period > 2m) □

- Never found □ Last visit date (mm/yyyy): ____/_____
- Retreated after default □ Date treatment re-started (mm/yyyy): ____/_____
- Treatment stopped by doctor □ Last treatment date (mm/yyyy): ____/_____

(5) Failure (persistent positive bacteriology and treatment stopped) □

(6) Wrong/ revised diagnosis □ Last treatment date (mm/yyyy): ____/_____

- New diagnosis: _____

(7) Others □ , specify: _____

Completed by: _____ (name) Tel: _____ Fax: _____

Institution: 1.Chest Clinic/ 2.Chest Hospital/ 3.General Hospital/ 4.Private Practice; Name (and ward) of institution: _____

(After completion, this form should be sent to Consultant Chest Physician i/c, Wanchai Chest Clinic, 99 Kennedy Road, Hong Kong. Fax: (852) 28346627)

(If patient is transferred, a copy of this completed form should also be sent to the new source of care for information.)

HKID/ Passport/ Birth certificate no.: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ Clinic/ Hospital no.: _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

Name: _ DOS: _ _/_ _/_ _ _ _

PFD – To be completed at 24 month from DOS (for TB patients)

Part (O) Outcome at 24 months (please √, circle and/ or fill in the spaces provided as appropriate)

(1) Cured/ treatment completed □ Date treatment completed (mm/yyyy): ____/_____

(a) Status at completion:

- Bacteriological conversion □
- Radiological improvement □
- Other clinical improvement □
- No available evidence of response □

(b) After treatment completed:

No relapse □

Loss to follow-up □ Last visit date (mm/yyyy): ____/_____

Died □ Cause: 1.TB-related/ 2.Not TB-related/ 3.Unknown Date of death (mm/yyyy): ____/_____

Relapse □ Date relapse (mm/yyyy): ____/_____

- 1.Bacteriological / 2.Histological / 3.Clinical-radiological / 4.Clinical only (choose 1 item, priority from left to right)

(2) Treatment incomplete (including death while on treatment) □

- Still on treatment, reason: 1.retreatment/ 2.extrapulm./ 3.extensive/ 4.interrupted treatment/ 5.drug resistance/ 6.poor response/ 7.others, specify: _____
- Died □ Cause: 1.TB-related/ 2.Not TB-related/ 3.Unknown Date of death (mm/yyyy): ____/_____

(3) Transferred □ to: 1.GP/ 2.Chest Clinic/ 3.Hospital/ 4.Outside HK Details: _____

Last treatment date (mm/yyyy): ____/_____

(4) Defaulted (defaulted treatment for a continuous period > 2m) □

- Never found □ Last visit date (mm/yyyy): ____/_____
- Retreated after default □ Date treatment re-started (mm/yyyy): ____/_____
- Treatment stopped by doctor □ Last treatment date (mm/yyyy): ____/_____

(5) Failure (persistent positive bacteriology and treatment stopped) □

(6) Wrong/ revised diagnosis □ Last treatment date (mm/yyyy): ____/_____

- New diagnosis: _____

(7) Others □, specify: _____

Completed by: _____ (name) Tel: _____ Fax: _____

Institution: 1.Chest Clinic/ 2.Chest Hospital/ 3.General Hospital/ 4.Private Practice; Name (and ward) of institution: _____

(After completion, this form should be sent to Consultant Chest Physician i/c, Wanchai Chest Clinic, 99 Kennedy Road, Hong Kong. Fax: (852) 28346627)

(If patient is transferred, a copy of this completed form should also be sent to the new source of care for information.)

Annex 2 (a)

TB Among Chinese New Immigrants

Number of all notified TB cases and TB cases who are Chinese new immigrants (with years of arrival in Hong Kong)

	Years of arrival	2008	2009	2010	2011	2012
Notified TB cases who are Chinese New Immigrants (with years of arrival in Hong Kong)	≤1 year	9	16	13	14	24
	≤2 year	8	11	13	18	15
	≤3 year	17	10	17	10	15
	≤4 year	6	10	12	8	19
	≤5 year	14	10	11	10	7
	≤6 year	6	7	5	11	6
	≤7 year	7	4	9	10	15
	Total	67	68	80	81	100
Overall notified TB cases		5635	5193	5093	4794	4858

The above table shows the number of all notified TB cases in Hong Kong from 2008 to 2012 and the number of TB cases among the Chinese new immigrants (staying in Hong Kong less than 7 years) according to the number of years they have arrived in Hong Kong. The numbers are in general higher in the first one to two years of arrival. This phenomenon has also been observed in the immigrants of some other countries. The exact reason is unknown although some postulate that the stress experienced by the new immigrants upon arrival may be a factor.

In Annex 2 (b), the tables show the number of notified TB cases among the Chinese new immigrants by age and sex, and the estimated rates. In Annex 2 (c), the table shows the number of all notified TB cases in Hong Kong by age and sex, and the rates.

As shown from Annex 2 (c), the rates of TB among males are in general higher than that among females, and higher in the older age groups. The overall rates (per 100,000) from 2008 to 2012 are 81.0, 74.5, 72.5, 67.8 and 67.9 respectively.

From Annex 2 (b), the overall estimated rates (per 100,000) among the new immigrants from 2008 to 2012 are 20.8, 20.9, 25.5, 25.4 and 31.4 respectively. The rates are lower than those of the general Hong Kong population. Although Mainland China has been classified by the World Health Organization as among one of the high TB burden countries in the world, the new immigrants coming to Hong Kong are likely to be a “selected” group. Their demographics and health condition may be quite different from and not representative of the whole population in China. For example, they may be younger, more ‘fit’, or with better socioeconomic condition. Hence, the rate of TB among this group may be lower.

Annex 2 (b)

TB Notification and Estimated Rates Among Chinese New Immigrants By Age & Sex (2008-2012)

Notified TB cases who are Chinese new immigrants (coming to HK < 7 years), by age and sex

	2008	2008	2008	2009	2009	2009	2010	2010	2010	2011	2011	2011	2012	2012	2012
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-19	2	1	3	3	5	8	8	9	17	3	4	7	4	4	8
20-39	6	36	42	7	32	39	13	29	42	3	37	40	19	50	69
40-59	9	12	21	6	11	17	2	13	15	14	10	24	10	10	20
60+	1	0	1	3	1	4	2	4	6	5	5	10	1	2	3
Total	18	49	67	19	49	68	25	55	80	25	56	81	34	66	100

Estimated rate of TB (per 100,000) among Chinese new immigrants (coming to HK < 7 years)

	2008	2008	2008	2009	2009	2009	2010	2010	2010	2011	2011	2011	2012	2012	2012
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-19	3.3	1.7	2.6	5.1	9.0	7.0	14.3	17.1	15.6	5.4	7.8	6.6	7.9	8.5	8.2
20-39	28.4	26.8	27.0	32.6	23.1	24.4	58.4	22.0	27.2	12.4	28.0	25.6	70.1	39.9	45.2
40-59	64.3	44.3	51.1	40.3	37.8	38.6	13.0	43.5	33.2	80.5	29.9	47.2	45.1	25.1	32.2
60+	47.2	0.0	13.3	146.3	21.7	60.0	101.3	103.6	102.8	240.0	136.4	173.9	38.6	48.2	44.5
Total	18.5	21.8	20.8	19.6	21.5	20.9	26.1	25.2	25.5	25.3	25.4	25.4	33.2	30.5	31.4

Annex 2 (c)

TB Notification and Rates (All Cases) By Age & Sex (2008-2012)

All TB cases by age and sex

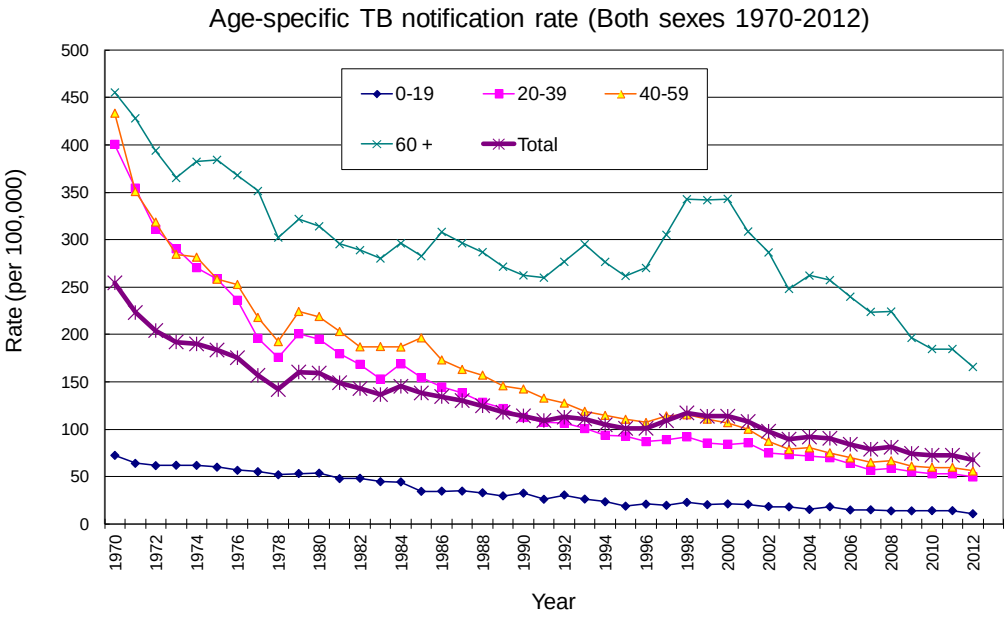
	2008	2008	2008	2009	2009	2009	2010	2010	2010	2011	2011	2011	2012	2012	2012
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-19	82	102	184	92	87	179	94	85	179	94	63	157	74	59	133
20-39	563	673	1236	489	663	1152	496	615	1111	445	605	1050	458	593	1051
40-59	1027	529	1556	936	502	1438	900	514	1414	842	468	1310	828	511	1339
60+	1956	703	2659	1734	690	2424	1740	649	2389	1711	566	2277	1726	609	2335
Total	3628	2007	5635	3251	1942	5193	3230	1863	5093	3092	1702	4794	3086	1772	4858

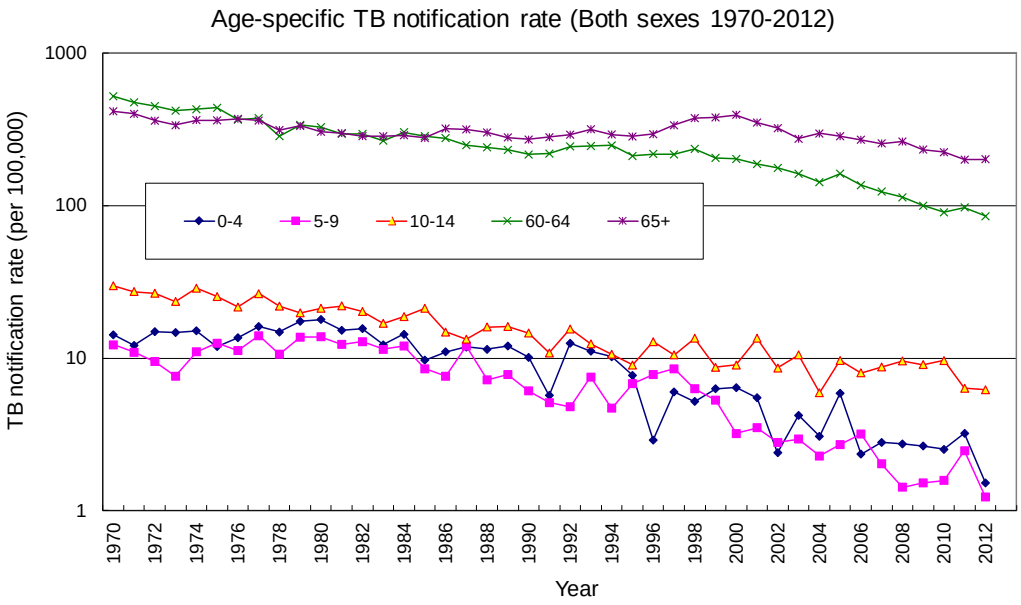
Rate of TB (all notified cases) (per 100,000)

	2008	2008	2008	2009	2009	2009	2010	2010	2010	2011	2011	2011	2012	2012	2012
Age group	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-19	11.8	15.7	13.7	13.6	13.7	13.7	14.3	13.8	14.1	14.6	10.4	12.6	11.6	9.9	10.8
20-39	61.1	56.6	58.5	53.3	55.6	54.6	54.4	51.9	53.0	48.8	51.0	50.0	50.1	49.3	49.7
40-59	91.8	43.4	66.6	83.5	40.6	61.0	81.1	41.0	59.9	76.2	36.8	55.2	74.8	39.6	55.9
60+	348.2	113.4	225.0	297.4	107.2	197.6	282.5	95.8	184.7	266.0	80.0	168.5	257.8	82.4	165.7
Total	110.0	54.5	80.8	98.6	52.4	74.1	98.0	49.9	72.5	93.6	45.2	67.8	92.7	46.3	67.9

Annex 3

Trend of age-specific TB notification rates (1970-2012)





- All the age-specific TB notification rates, particularly those of the younger age groups, show a generally declining trend.
- TB cases can develop from progressive primary infection, exogenous re-infection, or endogenous reactivation. The trend of progressive primary infection is best reflected by the trends of the younger age groups, in particular that of the 0-4 age group. On the other hand, endogenous reactivation is better reflected by the trends of the older age groups, which generally show slower rates of decline than those of the younger age groups.
- The transient increase in rates for the age group 60+ during the period 1997 to 2000 (top graph) is likely due to strengthened surveillance measures targeting at bacteriologically positive and death cases through laboratory data and data from death certificates.

Annex 4(a)

TB-HIV Registry

A total of 20 cases with TB-HIV co-infection were reported to the TB-HIV Registry in 2012. The cumulative number of cases reported to the TB-HIV Registry from all sources as in 2012 was 540 (Table 1)**.** .

The number of TB as primary AIDS-defining illness in the Hong Kong HIV/AIDS reporting system for the years 1996-2012 is shown in Table 2. Out of a total of 86 AIDS cases newly diagnosed in 2012, 15 (17.4%) had TB as a primary AIDS-defining illness, compared to 39 (45.0%) for *Pneumocystis jiroveci* pneumonia. The percentage, as well as the absolute number, of TB as the most common primary AIDS-defining illness in Hong Kong in 2012 decreased compared to 2010 and 2011. It is not certain whether this represents a true decrease in the number of TB as primary AIDS-defining illness or due to fluctuation. Further monitoring is required.

Table 3 shows the distribution of ADI criteria among 354 cases reported from chest clinics and SPP for the years 1996-2012 with TB as the primary AIDS-defining illness. In Hong Kong, both pulmonary TB with a CD_4 count below 200/μL and extra-pulmonary TB are included in the AIDS case definition. Relatively more patients have pulmonary TB with a low CD_4 count as primary AIDS-defining illness compared to extra-pulmonary TB.

The pre-treatment drug sensitivity pattern among culture-positive (sputum or other specimens) TB-HIV cases for the years 1996-2012 is shown in Table 4. Of the 16 cases with a positive sputum or other specimen culture and sensitivity tests performed reported to TB-HIV Registry in 2012, 13 (81.2%) had disease due to *Mycobacterium tuberculosis* with favourable sensitivity pattern. One (6.3%) had bacillary resistance to streptomycin and another (6.3%) had bacillary resistance to rifampicin. One patient (6.3%), which was a relapsed case, had MDRTB. Among all the 369 cases reported to TB-HIV Registry with a positive sputum or other specimen culture between 1996 and 2012, 5 (1.4%) had MDRTB. This figure is slightly higher than the MDRTB rate of around 1% in general population. There is no XDR-TB cases detected among the reported TB-HIV cases. DH will continue to monitor prevalence of drug resistance in the context of HIV.

Table 5 shows the characteristics of 20 patients reported from chest clinics and SPP in 2012. The characteristics of these patients are similar to those of the 2011 cohort, namely, there are greater proportions of young males and non-Chinese Asians among TB-HIV co-infected patients as compared to non-HIV infected TB patients. CD_4 count was generally low at time of TB diagnosis. Extra-pulmonary involvement is common, with nearly half of patients having TB involving one or more extra-pulmonary sites.

Annex 4(b)

Table 1. Total number of TB-HIV cases reported to TB-HIV Registry (1996-2012)*

Year	Number of TB-HIV cases**
1996	22
1997	19
1998	22
1999	25
2000	24
2001	34
2002	22
2003	28
2004	35
2005	42
2006	50
2007	56
2008	50
2009	38
2010	25
2011	28
2012	20
Total	540

* Including cases reported from all sources (chest clinics, SPP, HA hospitals and private centres).
** Some of the figures in the table for the previous years have been updated after (1) taking out some mismatched cases and cases with a revised diagnosis (2) adding some cases which were previously unreported.

Table 2. TB as primary ADI in Hong Kong HIV/AIDS reporting system, all sources (1996-2012)*

Year	Number of cases with TB as primary AIDS-defining illness	Total number of reported AIDS cases	% of reported AIDS cases with TB as primary AIDS-defining illness
Pre-1996	21	175	12.00%
1996	21	70	30.00%
1997	17	64	26.56%
1998	18	63	28.57%
1999	13	61	21.31%
2000	19	67	28.36%
2001	17	60	28.33%
2002	9	53	16.98%
2003	15	56	26.79%
2004	13	49	26.53%
2005	25	64	39.06%**
2006	26	73	35.62%
2007	32	79	40.51%**
2008	31	96	32.29%
2009	24	76	31.58%
2010	20	79	25.30%
2011	22	82	27.00%
2012	15	86	17.40%
Total	358	1353	26.50%

* An expanded case definition was adopted in 1995 to include pulmonary TB cases with a CD4 count less than 200/μL.
** TB overtook *Pneumocystis jiroveci* pneumonia as the most common AIDS-defining illness in 2005 and 2007.

Annex 4(c)

Table 3. Criteria for TB as AIDS-defining illness among 354 cases reported from chest clinics and SPP (1996-2012)*

Year	TB as AIDS-defining illness				Total
	Yes		No	Information not available	
	Extra-pulmonary	Pulmonary and TB cervical lymph node with CD4 < 200 µL			
1996	1	7	1	0	9
1997	2	3	2	0	7
1998	6	3	3	0	12
1999	7	6	3	0	16
2000	3	4	5	0	12
2001	4	6	7	0	17
2002	4	9	2	0	15
2003	1	10	5	0	16
2004	5	7	11	0	23
2005	8	14	7	0	29
2006	9	19	7	0	35
2007	10	17	8	2	37
2008	14	13	6	0	33
2009	9	3	6	5	23
2010	4	10	5	3	22
2011	6	8	8	6	28
2012	4	9	5	2	20
Total	97	148	91	18	354

* Some of the figures in the table for the previous years have been updated. Of all the cases reported to the TB-HIV Registry from 1996 to 2012, 354 cases were seen at chest clinics and/or SPP. The table is compiled basing on data of these 354 cases.

Table 4. Pre-treatment drug sensitivity pattern among culture positive (sputum and/or other specimens) TB-HIV cases from TB-HIV Registry (1996-2012)*

Year	Susceptible to SHRE	Any resistance** (non-MDR/XDR)	MDR	XDR	Total number of culture positive cases
1996	7	1	0	0	8
1997	5	1	0	0	6
1998	13	1	0	0	14
1999	16	4	1	0	21
2000	13	2	0	0	15
2001	23	5	0	0	28
2002	11	3	1	0	15
2003	18	3***	0 (+1)***	0	21
2004	20	6	0	0	26
2005	29	5	0	0	34
2006	32	3	0	0	35
2007	30	7	1	0	38
2008	30	3	0	0	33
2009	22	7	0	0	29
2010	12	2	0	0	14
2011	12	4	0	0	16
2012	13	2	1	0	16
Total	306	59	4 (+1)***	0	369

* Of all the cases reported to the TB-HIV Registry from 1996 to 2012, 369 had a positive culture (sputum or other specimens). The table is compiled basing on data of these 369 cases.
** Any pattern of drug resistance except MDR (i.e. resistant to at least both H and R) and XDR (i.e resistance to any fluoroquinolones, and at least one of the injectable drugs, in addition to MDR).
*** One of these patients had extremely poor treatment adherence, developed acquired resistance during anti-TB treatment and became MDR-TB.

Annex 4(d)

Table 5: Characteristics of 20 TB-HIV cases reported from chest clinics and SPP in 2012

Age distribution	Number	Proportion
0 to 19	0	0.00%
20 to 39	7	35.00%
40 to 59	6	30.00%
60+	7	35.00%
Sex distribution		
Male	17	85.00%
Female	3	15.00%
Ethnicity		
Chinese	15	75.00%
Asians, non-Chinese	4	20.00%
African	1	5.00%
Others	0	0.00%
Case category		
New case	18	90.00%
Relapse	2	10.00%
Treatment after default	0	0.00%
Failure of previous treatment	0	0.00%
Others	0	0.00%
TB as primary AIDS defining illness*		
Yes	13	72.20%
No	5	27.80%
CD4 count at time of co-infection (median, IQR)**	192.0 (88.5-285.5)/µL	
Anti-retroviral therapy at time of co-infection		
Yes	3	15.00%
No	15	75.00%
Unknown	2	10.00%
Presence of extra-pulmonary TB		
Yes	9	45.00%
No	11	55.00%
Extent of Respiratory TB***		
Minimal	8	50.00%
Moderate	4	25.00%
Extensive	4	25.00%
Sputum bacteriological status (pre-treatment)		
Smear + culture +	6	30.00%
Smear - culture +	9	45.00%
Smear + culture -	1	5.00%
Smear - culture -	4	20.00%
Incomplete	0	0.00%
Drug resistance pattern (pre-treatment)****		
Susceptible to SHRE	13	81.20%
Resistant to streptomycin	1	6.30%
Resistant to isoniazid	0	0.00%
Resistant to rifampicin	1	6.30%
MDR	1	6.30%
XDR	0	0.00%

* Information on TB as primary AIDS-defining illness unknown in 2 patients.
** Information on CD4 count unknown in 3 patients.
*** 16 out of the 20 cases had lung parenchymal lesion on CXR.
**** 17 out of the 20 cases had a positive sputum or other specimen culture; one case with positive culture did not have sensitivity test performed.

Annex 5

HBsAg Seroprevalence Survey Among TB Patients Seen at Chest Clinics (2012)

In a sample survey conducted by the TB & Chest Service of the Department of Health in 2012 (2-month period from 1.3.2012 to 31.5.2012), the overall HBsAg seropositive rate among TB patients seen at chest clinics was 8.78%.

Sex/Age group	HBsAg status			HBsAg seropositive rate (%)*	Total
	Positive	Negative	Unknown		
Male					
0-19	0	16	3	0.00	19
20-39	9	105	3	7.89	117
40-59	25	173	1	12.63	199
≥60	25	280	11	8.20	316
Female					
0-19	0	9	4	0.00	13
20-39	12	126	6	8.70	144
40-59	7	106	3	6.19	116
≥60	8	79	7	9.20	94
Total	86	894	38	8.78	1018

* *HBsAg seropositivity rate = number of HBsAg positive patients/ (number of HBsAg positive patients + number of HBsAg negative patients)*

HBsAg Seroprevalence Survey 2011-2012

Sex/Age group	HBsAg seropositive rate (%)	
	2011	2012
Male		
0-19	0.00	0.00
20-39	9.82	7.89
40-59	15.98	12.63
≥60	10.54	8.20
Female		
0-19	0.00	0.00
20-39	4.93	8.70
40-59	13.59	6.19
≥60	7.21	9.20
Total	10.33	8.78

Annex 6

Crude and Standardised Death Rate and Notification Rate 1981 - 2012
(per 100,000 population)

Year	Crude Death Rate	Standardised Death Rate *	Crude Notification Rate	Standardised Notification Rate *
1981	9.4	9.4	149.1	149.1
1982	8.6	8.4	140.3	142.1
1983	8.3	7.2	136.6	135.2
1984	7.8	7.9	145.3	142.7
1985	7.5	6.9	138.3	134.6
1986	7.4	6.6	134.5	134.6
1987	7.3	6.3	130.3	124.2
1988	6.9	5.8	124.8	122.1
1989	7.1	5.9	117.9	111.4
1990	6.7	5.7	114.1	107.7
1991	7.1	5.6	109.2	100.5
1992	7.1	5.5	112.6	107.9
1993	6.7	5.1	110.8	100.2
1994	6.8	5.0	104.7	88.9
1995	6.8	4.8	100.9	88.9
1996	4.5	3.1	101.0	88.7
1997	3.9	2.6	109.0	93.1
1998	4.1	2.8	117.3	98.6
1999	4.7	3.1	113.7	93.9
2000	4.5	2.8	113.7	93.4
2001	4.6	2.8	108.2	88.6
2002	4.0	2.4	97.9	78.9
2003	4.1	2.5	89.5	72.3
2004	4.2	2.4	91.8	71.1
2005	4.0	2.2	90.4	70.5
2006	4.3	2.4	84.1	63.3
2007	3.3	1.8	79.0	58.5
2008	3.3	1.7	81.0	59.3
2009	2.9	1.5	74.5	54.1
2010	2.7	1.4	72.5	52.0
2011	2.6	1.3	67.8	48.4
2012	2.8	1.4	67.9	47.2

* Age and sex-standardisation, using the mid-1981 population as the standard population.

NB. The rates have been updated based on the updated population figures from the

Part 4

SUPPLEMENT

Part 4 – Supplement: Contents

Supplement

FORM 1

PREVENTION AND CONTROL OF DISEASE ORDINANCE

(Cap. 599)

TUBERCULOSIS NOTIFICATION

Particulars of Infected Person

Name in English:	Name in Chinese:	Age / Sex:	I.D. Card / Passport No.:
Residential Address:			Telephone No.: (Home) : (Mobile) : Patient : Family member : (Office / school / others):
Name and address of workplace / school / other institution:			
Job title / Class attended :			
Hospital / Clinic sent to (if any):			Hospital No.:

Site of TB (please ✓ all applicable)		Sputum (please ✓ and attach laboratory report if available)				Other specimens (specify and ✓ below):	
☐ Lung	☐ Meninges						
☐ Pleura	☐ Bone & Joint						
☐ Lymph node	☐ Urinary system		Smear	Culture	PCR test	Smear	Culture
☐ Miliary	☐ Genital system	Positive					
☐ Other(s) (please specify):		Negative					
		Unknown					
		Not done					

Duration of stay in Hong Kong: _____ Years

History of past treatment for TB
(delete whichever not applicable): Yes / No

If yes, YEAR first receiving treatment: _____

Disposal (please ✓ in front boxes and specify):

☐ Treatment started on: _____ (Date: dd/mm/yyyy)

☐ On observation

☐ Referred to _____ Hospital / Clinic / Private Practitioner

☐ Died on: _____ (Date: dd/mm/yyyy)

(Please DELETE whichever is not applicable)

I will arrange for examination of contacts myself. / Please arrange for examination of contacts.

Further Remarks:

Notified under the Prevention and Control of Disease Regulation by

Dr. _____ of _____Hospital / Clinic / Private Practice
(Full Name in BLOCK Letters)

_____ Ward / Unit / Specialty on _____ / _____ / _____ (Date: dd/mm/yyyy)

Telephone No.: _____ Fax No.: _____ _____
(Signature)

To: Statistics Unit, Wanchai Chest Clinic
99 Kennedy Road, Hong Kong
(Fax: 28346627)

Date:

Denotification of previously notified TB cases

Clinic:

Name:

ID number: Clinic number:

Date notified:

Revised Diagnosis:

Smear: positive / negative / unknown

Culture: negative / M. tuberculosis / atypical mycobacteria / unknown

Denotification request by: _____

To Statistics Unit: Please confirm receiving TB de-notification form of the following patient:

Name: _____ Clinic no.: _____

HKID no.: _____ Chest Clinic: _____

It is confirmed that the TB de-notification form of the above named has been received by the Statistics Unit, TB&CS.

Chop or signature: _____ Date: _____

(Form TBCS/DE/0405)

OCCUPATIONAL SAFETY AND HEALTH ORDINANCE
NOTIFICATION OF OCCUPATIONAL DISEASES

To : Commissioner for Labour

PARTICULARS OF PATIENT

Name: _____ HKID/Passport no.: _____

Male/Female* Date of birth: ___ /___ /____ Occupation: _____

Home address: _____

_____

Telephone no. (Home) _____ (Office) _____ (Pager/Mobile) _____

Name and address of employer: _____

_____ Telephone no. (Employer) _____

Workplace address (if different from employer's address): _____

_____

For Internal use:

Code: ____

Code: ____

Code: ____

Code: ____

NOTIFIABLE OCCUPATIONAL DISEASES (*Please put a tick in* □)

□1	Radiation Illness	□18	Lead Poisoning	□35	Chrome Ulceration
□2	Heat Cataract	□19	Manganese Poisoning	□36	Urinary Tract Cancer
□3	Compressed Air Illness	□20	Phosphorus Poisoning	□37	Peripheral Polyneuropathy
□4	Cramp of Hand or Forearm	□21	Arsenic Poisoning	□38	Localised Papillomatous or Keratotic New Skin Growth
□5	Beat Hand	□22	Mercury Poisoning	□39	Occupational Vitiligo
□6	Beat Knee	□23	Carbon Bisulphide Poisoning	□40	Occupational Dermatitis
□7	Beat Elbow	□24	Benzene Poisoning	□41	Chemical Induced Upper Respiratory Tract Inflammation
□8	Tenosynovitis of Hand or Forearm	□25	Poisoning by Nitro-, Amino-, or Chloro- Derivatives of Benzene	□42	Nasal or Paranasal Sinus Cancer
□9	Anthrax	□26	Dinitrophenol Poisoning	□43	Byssinosis
□10	Glanders	□27	Poisoning by Halogen Derivatives of Hydrocarbons	□44	Occupational Asthma
□11	Leptospirosis	□28	Diethylene Dioxide Poisoning	□45	Silicosis
□12	Extrinsic Allergic Alveolitis	□29	Chlorinated Naphthalene Poisoning	□46	Asbestos-Related Diseases
□13	Brucellosis	□30	Poisoning by Oxides of Nitrogen	□47	Occupational Deafness
□14	Tuberculosis in health care workers	□31	Beryllium Poisoning	□48	Carpal Tunnel Syndrome
□15	Parenterally Contracted Viral Hepatitis in health care workers	□32	Cadmium Poisoning	□49	Legionnaires' Disease
□16	Streptococcus suis Infection	□33	Dystrophy of the Cornea	□50	Severe Acute Respiratory Syndrome
□17	Avian Chlamydiosis	□34	Skin Cancer	□51	Avian Influenza A

Diagnosis: Confirm/Suspect* Date of onset of illness: _____ / _____ / _____

Follow-up of patient: Treated/Referred to hospital/Others(specify)*: _____

Other relevant information: _____

Name of notifying medical practitioner: _____

Address of notifying medical practitioner: _____

_____

Telephone no. of notifying medical practitioner: _____

Fax no. of notifying medical practitioner: _____

Date: _____ Signature: _____

**Delete whichever is inapplicable*

*Please return this form by **fax (no. 25812049)** or by **mail** to Occupational Health Service, Labour Department, 15/F Harbour Building, 38 Pier Road, Central, Hong Kong.*

For details of Notifiable Occupational Diseases and their related occupations, please refer to Schedule 2 of the Occupational Safety & Health Ordinance and to the Labour Department publication "Guidance Notes on the Diagnosis of Notifiable Occupational Diseases". Enquiry telephone no. : 2852 4041.

LD483 (Rev. 8.2.2005)