

Annual Report Tuberculosis & Chest Service 2024



Department of Health
Hong Kong Special Administrative Region

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I. Preface

I. Preface

Tuberculosis (TB) is a preventable and largely curable disease, yet it continues to impose a major public health burden across many countries. In 2024, the World Health Organization (WHO) estimated that approximately 10.7 million people fell ill with TB, corresponding to a global incidence of 131 cases per 100 000 populations.¹ TB affects individuals of all ages and sexes: adult men accounted for 54% of incident cases and adult women for 35%, with the remaining cases occurring in children aged 0 - 14 years. The distribution of disease is highly concentrated, with five countries – India (25%), Indonesia (10%), the Philippines (6.8%), China (6.5%) and Pakistan (6.3%) – together contributing to more than half of the global TB burden. In 2024, for the first time since the onset of the COVID-19 pandemic, both the estimated number of people who fell ill with TB and the global TB incidence rate declined, thereby reversing the upward trend observed between 2020 and 2023. However, the net reduction in TB incidence from 2015 to 2024 was only 12.3%, which falls substantially short of the interim milestone of a 50% reduction by 2025 set under the WHO End TB Strategy.

The global burden of drug-resistant TB (DR-TB) has shown a gradual decline over the past decade, but it remains a critical public health concern. Since 2015, the estimated annual number of people developing multidrug-resistant or rifampicin-resistant TB (MDR/RR-TB) has been decreasing, reaching approximately 390 000 cases in 2024, with an estimated 150 000 deaths attributed to MDR/RR-TB in the same year. Over this period, the estimated proportion of new TB cases with MDR/RR-TB fell from 4.7% in 2015 to 3.2% in 2024, while the proportion among previously treated cases declined from 19% to 16%. Despite these favorable trends, MDR/RR-TB continues to pose a major challenge to global health, owing to persistent gaps in detection, treatment coverage and treatment outcomes.

With the introduction of comprehensive tuberculosis (TB) control measures, including passive case detection, rapid diagnostic testing, and prompt initiation of effective anti-TB therapy under the directly observed treatment (DOT) framework within an accessible outpatient setting, Hong Kong has achieved a remarkable reduction in TB burden. The TB notification rate declined from a historical peak of 697.2 per 100 000 population in 1952 to 42.5 per 100 000 in 2024. Over the past decade, TB has remained outside the top ten causes of death, accounting for no more than 0.4% of all registered deaths annually. Nonetheless, the rate of decline has slowed in recent years, with the crude TB notification rate decreasing by 3.85% per year between 2015 and 2024. The ageing population and the disproportionately higher incidence of TB among seniors aged 60 or above, particularly elderly men, may represent key contributing factors. In addition, the coexistence of TB and diabetes mellitus has posed an emerging challenge to local TB elimination efforts, as observed in

I. Preface

other developed settings. While HIV infection remains a major risk factor for TB disease globally, the prevalence of HIV co-infection among TB patients in Hong Kong has remained low, below 1% in 2024. Routine screening for diabetes mellitus and HIV infection is systematically implemented for all TB patients attending chest clinics across the territory.

The rates of MDR/RR-TB in Hong Kong remained low in 2024, at less than 1% of all culture-confirmed TB cases, with no case of extensively drug-resistant TB (XDR-TB) reported. The treatment success rate of MDR/RR-TB was notably high at about 80%. In the same year, WHO issued a rapid communication titled ‘Key updates to the treatment of drug-resistant TB’, supplementing its 2022 DR-TB treatment guidelines.² The incorporation of novel and repurposed medicines like bedaquiline (B), pretomanid (Pa), linezolid (L) and delamanid (D) has incrementally enhanced treatment outcomes for MDR/RR-TB. WHO now endorses the BPaLM* regimen as a shorter, efficacious option for patients with or without additional fluoroquinolones resistance, subject to specified eligibility criteria. Shorter 9-month all-oral regimens (e.g., BLMZ, BLLfxCZ and BDLLfxZ)[†] are also recommended over traditional longer regimens (>18 months) for MDR/RR-TB cases without fluoroquinolone resistance, thereby improving adherence and treatment success rates. For Hong Kong, we initiated use of the Pretomanid-containing BPaLM regimen for MDR/RR-TB patients in late 2024, with accumulating local data expected to inform future evaluations.

There has been growing emphasis on TB preventive treatment (TPT) for TB infection (TBI). In 2024, the WHO released updated guideline on TPT,^{3,4} underscoring its pivotal role in advancing the End TB Strategy objectives. This second edition supersedes prior WHO guidance on the programmatic management of TPT. Its primary aims include integrating the latest evidence into recommendations, particularly for TPT among contacts exposed to MDR/RR-TB, and refining protocols for systematic screening and testing for TBI. In Hong Kong, standard TPT regimens comprise 6 to 9 months of Isoniazid, a 12-doses weekly rifapentine plus isoniazid combination under direct supervision and 4-month rifampicin. Among smear-positive household contacts in 2024, with TPT initiated after TBI detected, the overall completion rate was over 80%.

* BPaLM stands for Bedaquiline-pretomanid-linezolid-moxifloxacin.

† BLMZ stands for Bedaquiline-linezolid-moxifloxacin-pyrazinamide, BLLfxCZ stands for Bedaquiline-linezolid-levofloxacin-clofazimine-pyrazinamide, BDLLfxZ stands for Bedaquiline-delamanid-linezolid-levofloxacin-pyrazinamide.

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In recent years, public health interventions to prevent TB transmission in the community have been enhanced. These include strengthened enforcement of medical surveillance and examination notices, as well as isolation orders, pursuant to the existing legal framework. Ongoing liaison with other departments and stakeholders ensures the implementation of requisite control measures. To optimize the clinical and public health responses to drug-resistant TB, bi-weekly conjoint case conferences are convened between the TB and Chest Service (TB&CS), the TB and Chest Unit of the Grantham Hospital and the Respiratory Medical Unit of Kowloon Hospital.

BCG vaccination remains the sole available tuberculosis (TB) vaccine with proven efficacy against TB meningitis and miliary TB in children. Hong Kong's neonatal BCG immunisation programme, initiated in 1952, routinely administers the vaccine at birth, achieving coverage exceeding 99% in 2024. Furthermore, Hong Kong's comprehensive TB case surveillance and reporting system facilitates systematic data collection, analysis, and dissemination to monitor the local epidemic. Regular reporting of findings to the World Health Organization ensures alignment with global TB control initiatives.

In addition to its core responsibilities, TB&CS oversees investigations of suspected TB outbreaks in institutional settings, screening of TB contacts from air flights, and enforcement of mandatory TB notification. We also regularly publish summary data on TB cases in educational institutions via its website to elevate public awareness and emphasize the importance of early detection and treatment, particularly in school environments. Furthermore, our Service actively collaborates with local and overseas health authorities and academics on studies and research aimed at enhancing TB prevention and control, including joint reviews of international guidelines against local conditions, as well as regular academic exchanges with health authorities in Chinese Mainland.

TB&CS conducts regular health promotion activities in chest clinics and community settings. To commemorate the World TB Day on 24 March, TB&CS collaborated with the Hong Kong Tuberculosis, Chest and Heart Diseases Association on a series of targeted activities. Activities include launching a dedicated webpage on the Centre for Health Protection's website and an Announcement for Public Interest (API) programme on television and radio to disseminate key TB prevention messages. Additional efforts included a live RTHK radio interview on Healthpedia, alongside articles in local newspaper health columns and online platforms.

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Through these comprehensive initiatives, TB&CS reaffirms its unwavering commitment—united with healthcare professionals, the public, and all stakeholders—to eradicate this ancient endemic scourge. Only through our collective resolve can we accelerate TB elimination and secure a healthier future for our community.

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II. Tuberculosis & Chest Service

II. Tuberculosis and Chest Service

Approximately 80% of notified TB cases are managed in the Government TB&CS. In 2024, a total of 50 798 persons (including 8 633 new patients) attended chest clinics and the total attendance was 469 573. The corresponding figures in 2023 were 52 547 and 468 068. The diagnoses among new patients included active pulmonary TB (19.3%), active TB of other forms (7.3%), inactive TB (2.2%), special screening examination for respiratory tuberculosis and tuberculosis preventive treatment (29.3%), bronchitis not specified as acute or chronic (2.4%), acute respiratory infection and pneumonia (5.3%), malignant neoplasm of trachea and bronchus (0.2%) and other respiratory symptoms or diseases (15.9%). A total of 725 chest hospital admissions were arranged.

For the Pneumoconiosis Clinic (the Clinic), it continued to provide a full range of outpatient services to patients with suspected or confirmed pneumoconiosis and mesothelioma. Apart from supporting the operation of Pneumoconiosis Medical Board (the Board) in assessment aspect under the Pneumoconiosis and Mesothelioma (Compensation) Ordinance (the Ordinance), the Clinic also provides services addressing the patients' diversified needs in terms of treatment, prevention and rehabilitation. In 2024, 123 cases with suspected pneumoconiosis or mesothelioma were examined by the Board under the Ordinance, and 90 new patients (79 cases of silicosis, 3 cases of asbestos-related lung disease, 8 cases of mesothelioma) were confirmed by the Board. Up to the end of 2024, a total of 5 654 patients had been confirmed by the Board as having pneumoconiosis and/or mesothelioma under the Ordinance with the date of diagnosis on or after 1 January 1981.

III. Tuberculosis in Hong Kong

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Appendix 1 TB Notification & Death Rate of Tuberculosis (All Forms) from 1947 to 2024

Year	TB Notifications			Notification Rate ⁽³⁾	Number of Death ⁽⁴⁾	Death Rate ⁽⁵⁾	Ratio ⁽⁶⁾	(Death / Notifications) x 100%
	Number	Vietnamese refugees ⁽¹⁾	Chinese immigrants ⁽²⁾					
1947	4 855	-	-	277.4	1 861	106.3	2.6	38.3
1948	6 279	-	-	348.8	1 961	108.9	3.2	31.2
1949	7 510	-	-	404.4	2 611	140.6	2.9	34.8
1950	9 067	-	-	405.3	3 263	145.9	2.8	36.0
1951	13 886	-	-	689.0	4 190	207.9	3.3	30.2
1952	14 821	-	-	697.2	3 573	168.1	4.2	24.1
1953	11 900	-	-	530.7	2 939	131.1	4.1	24.7
1954	12 508	-	-	528.9	2 876	121.6	4.4	23.0
1955	14 148	-	-	568.1	2 810	112.8	5.0	19.9
1956	12 155	-	-	464.9	2 629	100.6	4.6	21.6
1957	13 665	-	-	499.4	2 675	97.8	5.1	19.6
1958	13 485	-	-	472.5	2 302	80.7	5.9	17.1
1959	14 302	-	-	482.0	2 178	73.4	6.6	15.2
1960	12 425	-	-	405.5	2 085	68.0	6.0	16.8
1961	12 584	-	-	397.2	1 907	60.2	6.6	15.2
1962	14 263	-	-	431.5	1 881	56.9	7.6	13.2
1963	13 031	-	-	380.9	1 762	51.5	7.4	13.5
1964	12 557	-	-	358.3	1 441	41.1	8.7	11.5
1965	9 927	-	-	275.9	1 278	35.5	7.8	12.9
1966	11 427	-	-	314.8	1 515	41.7	7.5	13.3
1967	15 253	-	-	409.7	1 493	40.1	10.2	9.8
1968	9 792	-	-	257.5	1 483	39.0	6.6	15.2
1969	11 072	-	-	286.5	1 470	38.0	7.5	13.3
1970	10 077	-	-	254.5	1 436	36.3	7.0	14.3
1971	9 028	-	-	223.2	1 250	30.9	7.2	13.9
1972	8 420	-	-	204.2	1 312	31.8	6.4	15.6
1973	8 152	-	-	192.2	1 154	27.2	7.1	14.2
1974	8 320	-	-	190.0	974	22.2	8.5	11.7
1975	8 192	-	-	183.6	646	14.5	12.7	7.9
1976	7 928	-	-	175.5	568	12.6	14.0	7.2
1977	7 191	-	-	156.9	532	11.6	13.5	7.4
1978	6 623	-	-	141.9	420	9.0	15.8	6.3
1979	7 907	(498)	-	160.4	523	10.6	15.1	6.6
1980	8 065	(712)	-	159.3	551	10.9	14.6	6.8
1981	7 729	(254)	-	149.1	489	9.4	15.8	6.3
1982	7 527	(112)	-	143.0	454	8.6	16.6	6.0
1983	7 301	(73)	-	136.6	446	8.3	16.4	6.1
1984	7 843	(69)	-	145.3	420	7.8	18.7	5.4
1985	7 545	(59)	580	138.3	409	7.5	18.5	5.4
1986	7 432	(46)	544	134.5	407	7.4	18.3	5.5
1987	7 269	(41)	495	130.3	405	7.3	18.0	5.6
1988	7 021	(121)	433	124.8	388	6.9	18.1	5.5
1989	6 704	(226)	387	117.9	403	7.1	16.6	6.0
1990	6 510	(288)	341	114.1	382	6.7	17.0	5.9
1991	6 283	(281)	293	109.2	409	7.1	15.4	6.5
1992	6 534	(309)	264	112.6	410	7.1	15.9	6.3
1993	6 537	(264)	89	110.8	396	6.7	16.5	6.1
1994	6 319	(230)	87	104.7	409	6.8	15.5	6.5
1995	6 212	(175)	102	100.9	418	6.8	14.9	6.7
1996	6 501	(88)	162	101.0	292	4.5	22.3	4.5
1997	7 072	(34)	156	109.0	252	3.9	28.1	3.6
1998	7 673	(7)	169	117.3	270	4.1	28.4	3.5
1999	7 512	(5)	166	113.7	312	4.7	24.1	4.2
2000	7 578	(7)	152	113.7	299	4.5	25.3	4.0
2001	7 262	(0)	192	108.2	311	4.6	23.4	4.3

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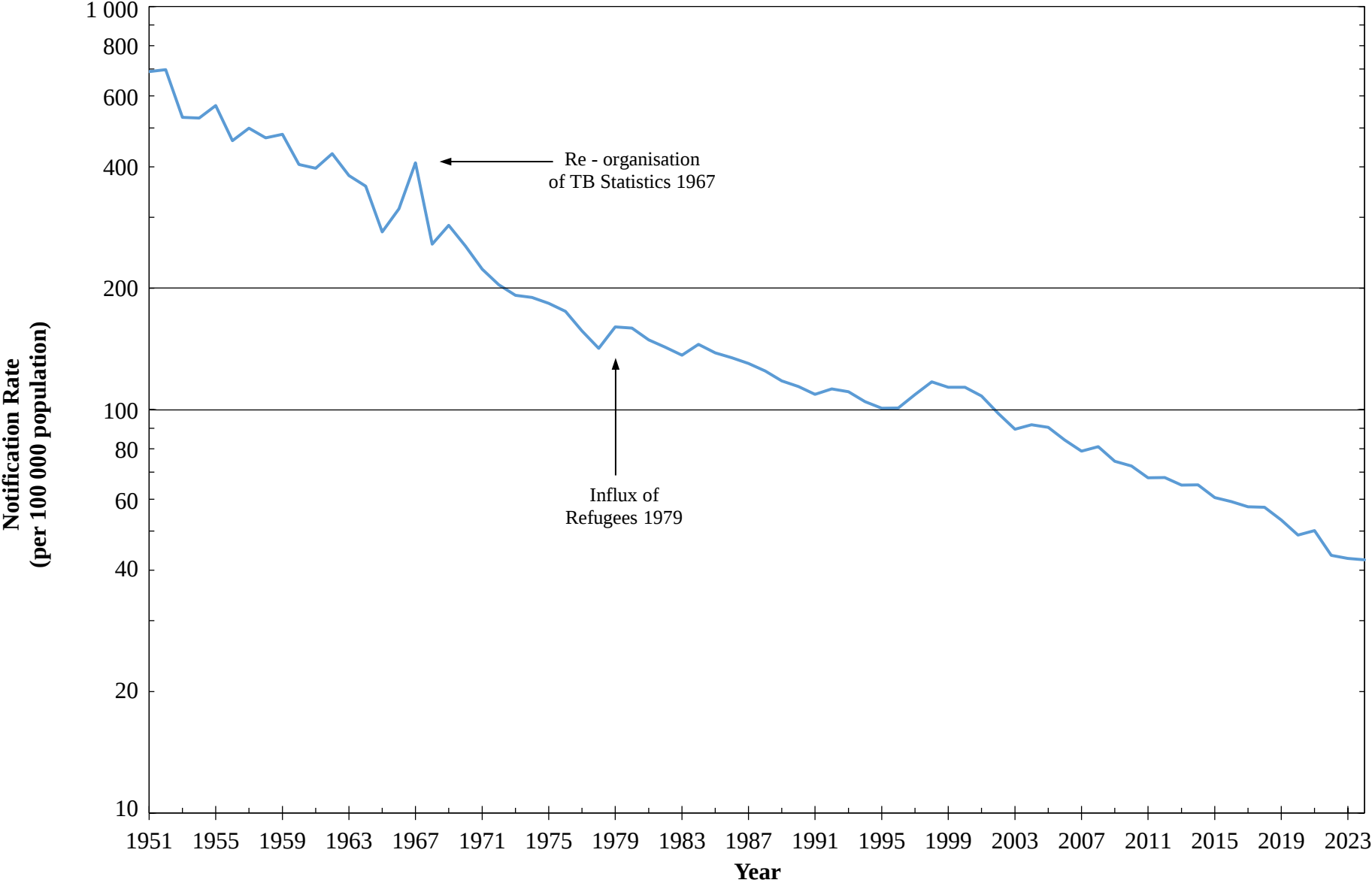
Appendix 1 TB Notification & Death Rate of Tuberculosis (All Forms) from 1947 to 2024---cont'd

Year	TB Notifications			Notification Rate ⁽³⁾	Number of Death ⁽⁴⁾	Death Rate ⁽⁵⁾	Ratio ⁽⁶⁾	(Death / Notifications) x 100%
	Number	Vietnamese refugees ⁽¹⁾	Chinese immigrants ⁽²⁾					
2002	6 602	(0)	186	97.9	267	4.0	24.7	4.0
2003	6 024	(0)	177	89.5	275	4.1	21.9	4.6
2004	6 226	(0)	110	91.8	286	4.2	21.8	4.6
2005	6 160	(0)	77	90.4	271	4.0	22.7	4.4
2006	5 766	(0)	58	84.1	294	4.3	19.6	5.1
2007	5 463	(0)	56	79.0	231	3.3	23.7	4.2
2008	5 635	(0)	67	81.0	229	3.3	24.6	4.1
2009	5 193	(0)	68	74.5	204	2.9	25.5	3.9
2010	5 093	(0)	80	72.5	191	2.7	26.7	3.8
2011	4 794	(0)	81	67.8	187	2.6	25.6	3.9
2012	4 858	(0)	100	67.9	199	2.8	24.4	4.1
2013	4 664	(0)	92	65.0	178	2.5	26.2	3.8
2014	4 705	(0)	85	65.1	187	2.6	25.2	4.0
2015	4 418	(0)	82	60.6	169	2.3	26.1	3.8
2016	4 346	(0)	67	59.2	160	2.2	27.2	3.7
2017	4 250	(0)	78	57.5	184	2.5	23.1	4.3
2018	4 268	(0)	92	57.3	190	2.5	22.5	4.5
2019	4 003	(0)	110	53.3	205	2.7	19.5	5.1
2020	3 656	(0)	83	48.9	200	2.7	18.3	5.5
2021	3 716	(0)	84	50.1	169	2.3	22.0	4.5
2022	3 200	(0)	47	43.6	183	2.5	17.5	5.7
2023	3 228	(0)	59	42.8	173	2.3	18.7	5.4
2024	3 194	(0)	56	42.5	171	2.3	18.7	5.4

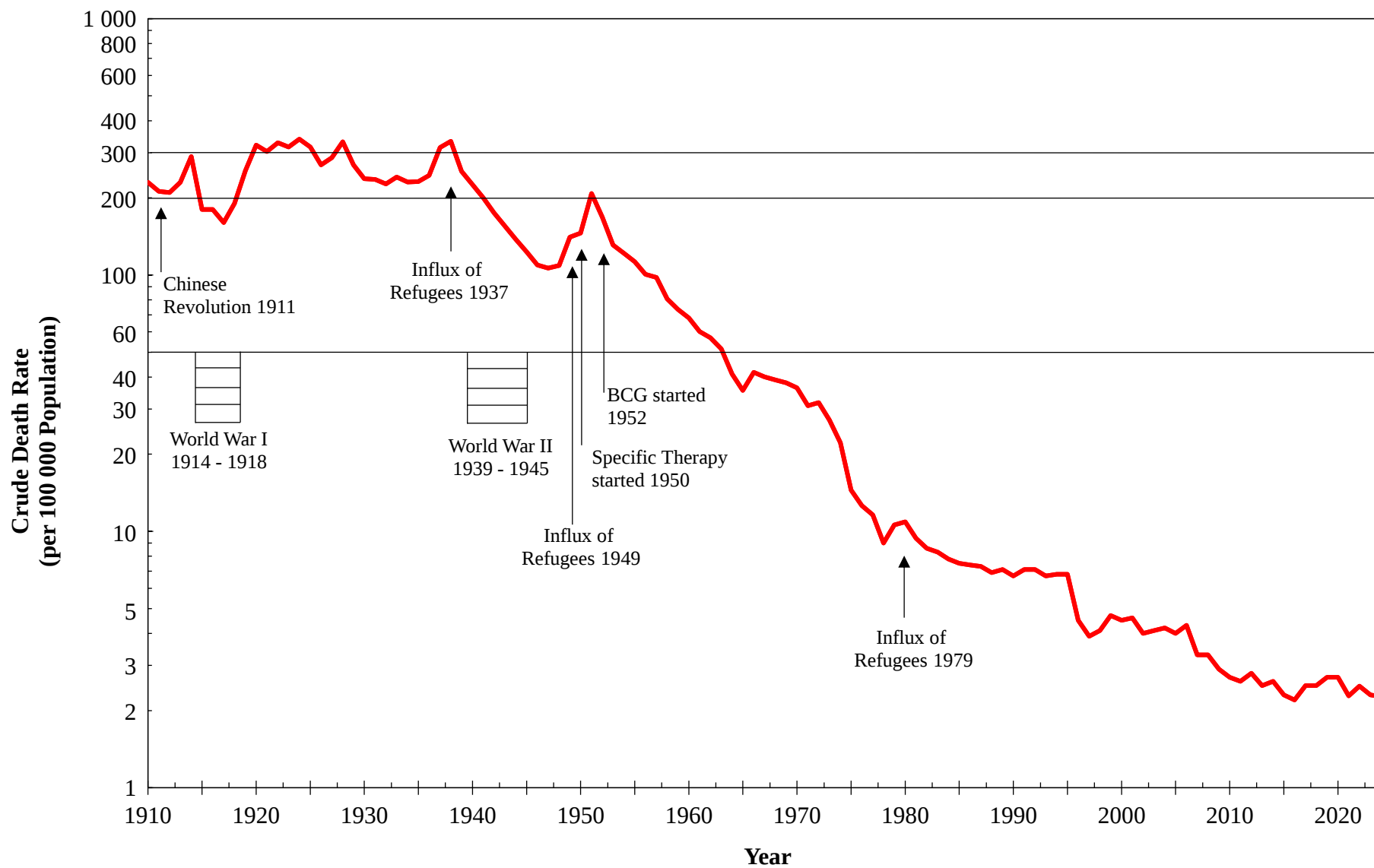
Notes:

- (1) Figures in brackets denote the number of Vietnamese refugees included.
- (2) Figures of Chinese immigrants denote the new arrivals from Mainland having resided in Hong Kong for less than 7 years.
- (3) Notification rate per 100 000 population.
- (4) Data source: Death Registry, Department of Health.
- (5) Death rate per 100 000 population.
- (6) Ratio of Tuberculosis notifications per death.

Appendix 2 TB Notification Rate (All Forms) from 1951 to 2024



Appendix 3 Crude Death Rate due to Tuberculosis (All forms) from 1910 to 2024



III. Tuberculosis in Hong Kong

Appendix 4(a) Tuberculosis (All Forms) Notification and Rate by Sex and Age 2024

Age group	TB notifications			Notification rate ⁽¹⁾		
	Male	Female	Total	Male	Female	Total
Under 1	0	0	0	0.00	1.10	0.53
1	0	0	0			
2	0	0	0			
3	0	0	0			
4	0	1	1			
5 - 9	2	0	2	1.48	0.00	0.76
10 - 14	5	3	8	3.22	2.07	2.67
15 - 19	15	16	31	10.05	11.50	10.75
20 - 24	17	26	43	11.03	16.85	13.94
25 - 29	32	44	76	16.42	20.41	18.51
30 - 34	37	83	120	16.32	29.40	23.58
35 - 39	54	64	118	23.20	19.33	20.93
40 - 44	61	77	138	25.53	21.21	22.92
45 - 49	88	82	170	38.19	24.78	30.29
50 - 54	93	82	175	37.80	23.84	29.66
55 - 59	137	77	214	54.43	23.84	37.24
60 - 64	219	98	317	73.05	28.29	49.06
65 - 69	283	109	392	99.72	36.22	67.04
70 - 74	322	95	417	151.82	41.25	94.26
75 - 79	236	73	309	169.42	48.15	106.22
80 - 84	199	58	257	261.84	70.99	162.97
85 & over	280	126	406	297.87	84.45	166.94
All age groups	2 080	1 114	3 194	60.86	27.13	42.45

Note:

(1) Notification rate per 100 000 population.

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Appendix 4(b) Pulmonary Tuberculosis Notification by Sex and Age 2024

Age group	Pulmonary TB ⁽¹⁾			Bacteriologically ⁽²⁾ Positive Pulmonary TB			Smear Positive Pulmonary TB		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
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	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0
5 - 9	0	0	0	0	0	0	0	0	0
10 - 14	4	3	7	1	3	4	0	2	2
15 - 19	14	14	28	8	10	18	3	7	10
20 - 24	17	19	36	9	11	20	3	5	8
25 - 29	28	33	61	17	24	41	9	13	22
30 - 34	29	55	84	16	44	60	6	20	26
35 - 39	38	42	80	28	28	56	12	11	23
40 - 44	46	50	96	31	38	69	20	14	34
45 - 49	76	54	130	43	41	84	22	20	42
50 - 54	77	55	132	58	33	91	27	15	42
55 - 59	118	47	165	81	26	107	35	11	46
60 - 64	187	57	244	130	41	171	69	13	82
65 - 69	247	77	324	177	44	221	64	12	76
70 - 74	275	66	341	202	47	249	76	11	87
75 - 79	207	55	262	161	36	197	45	10	55
80 - 84	169	39	208	127	31	158	38	4	42
85 & over	237	97	334	204	79	283	48	21	69
All age groups	1 769	763	2 532	1 293	536	1 829	477	189	666

Notes:

(1) Pulmonary TB with or without extrapulmonary TB.

(2) Either smear or culture positive.

III. Tuberculosis in Hong Kong

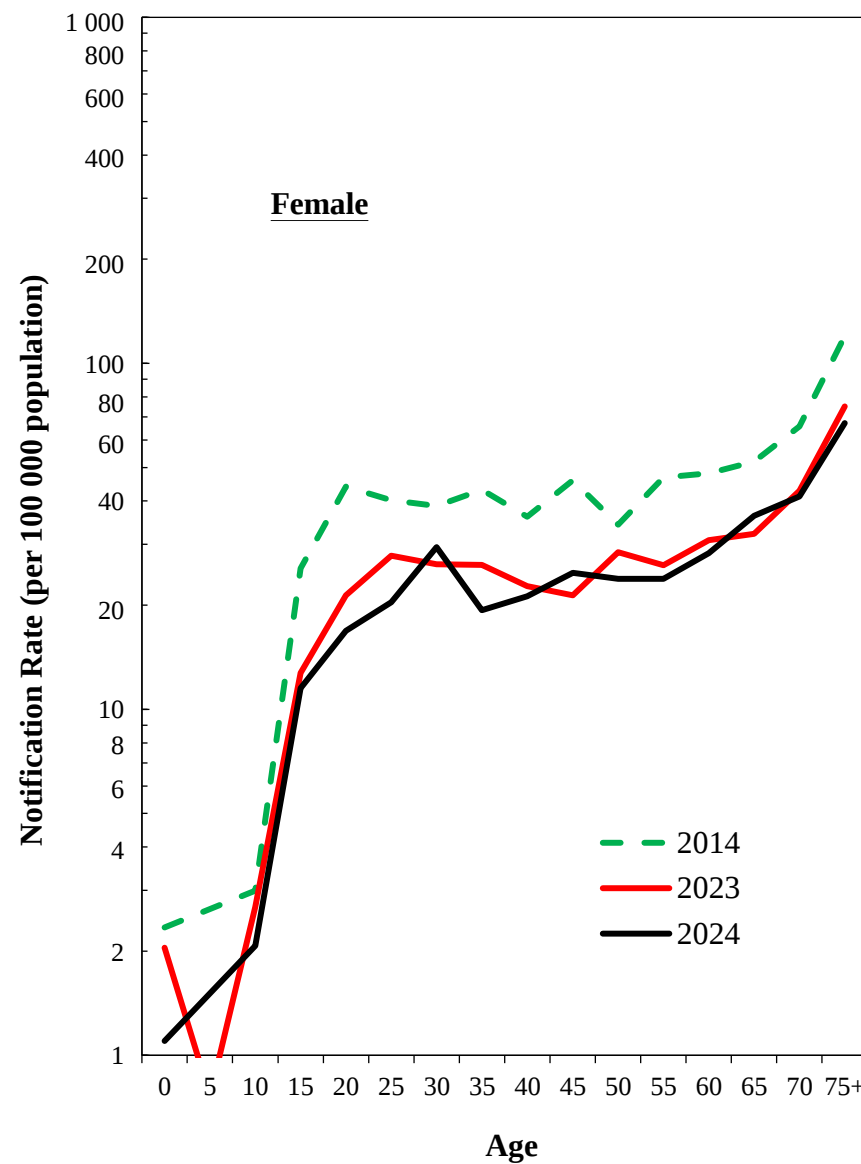
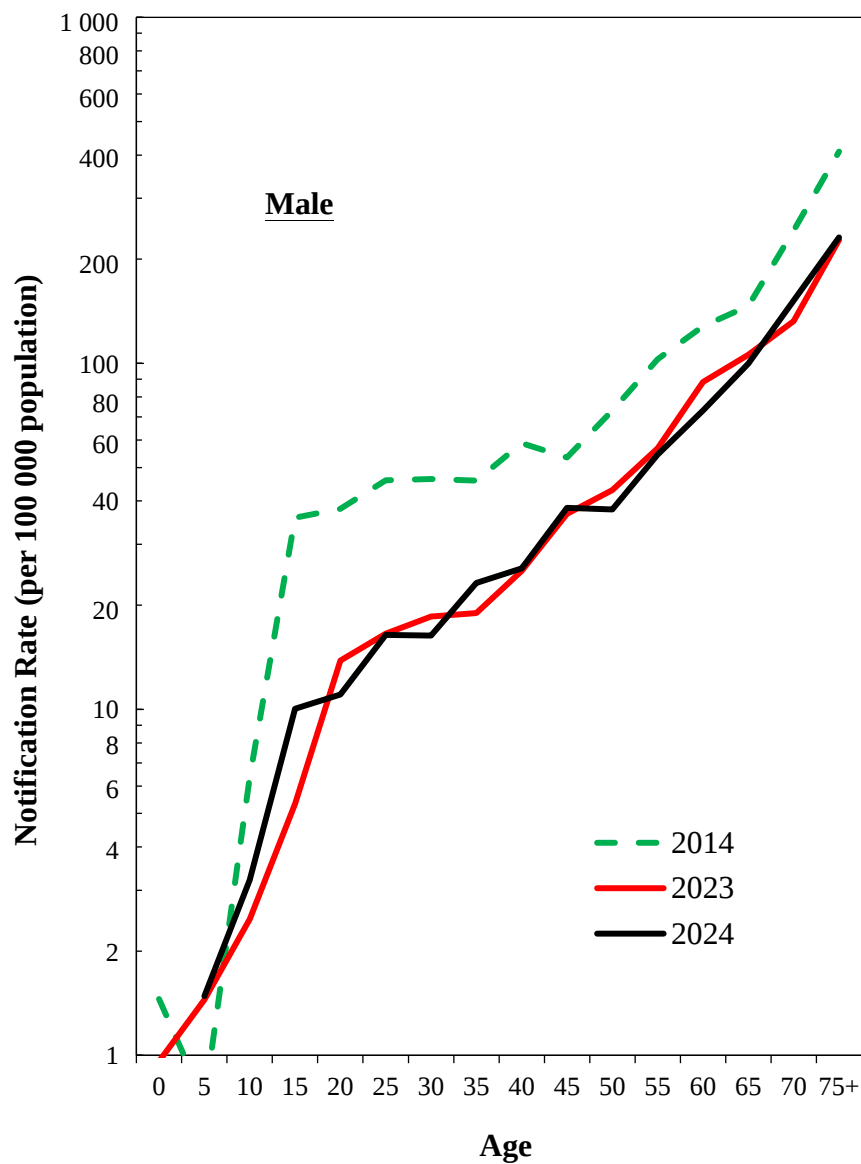
Appendix 4(c) Pulmonary Tuberculosis Notification Rate ⁽¹⁾ by Sex and Age 2024

Age group	Pulmonary TB ⁽²⁾			Bacteriologically ⁽³⁾ Positive Pulmonary TB			Smear Positive Pulmonary TB		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0 - 4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 - 9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10 - 14	2.6	2.1	2.3	0.6	2.1	1.3	0.0	1.4	0.7
15 - 19	9.4	10.1	9.7	5.4	7.2	6.2	2.0	5.0	3.5
20 - 24	11.0	12.3	11.7	5.8	7.1	6.5	2.0	3.2	2.6
25 - 29	14.4	15.3	14.9	8.7	11.1	10.0	4.6	6.0	5.4
30 - 34	12.8	19.5	16.5	7.1	15.6	11.8	2.7	7.1	5.1
35 - 39	16.3	12.7	14.2	12.0	8.5	9.9	5.2	3.3	4.1
40 - 44	19.3	13.8	16.0	13.0	10.5	11.5	8.4	3.9	5.7
45 - 49	33.0	16.3	23.2	18.7	12.4	15.0	9.6	6.0	7.5
50 - 54	31.3	16.0	22.4	23.6	9.6	15.4	11.0	4.4	7.1
55 - 59	46.9	14.6	28.7	32.2	8.1	18.6	13.9	3.4	8.0
60 - 64	62.4	16.5	37.8	43.4	11.8	26.5	23.0	3.8	12.7
65 - 69	87.0	25.6	55.4	62.4	14.6	37.8	22.6	4.0	13.0
70 - 74	129.7	28.7	77.1	95.2	20.4	56.3	35.8	4.8	19.7
75 - 79	148.6	36.3	90.1	115.6	23.8	67.7	32.3	6.6	18.9
80 - 84	222.4	47.7	131.9	167.1	37.9	100.2	50.0	4.9	26.6
85 & over	252.1	65.0	137.3	217.0	53.0	116.4	51.1	14.1	28.4
All age groups	51.8	18.6	33.7	37.8	13.1	24.3	14.0	4.6	8.9

Notes:

- (1) Notification rate per 100 000 population.
- (2) Pulmonary TB with or without extrapulmonary TB.
- (3) Either smear or culture positive.

Appendix 5 Tuberculosis Notification Rate by Sex and Age 2014, 2023 and 2024



Appendix 6 Notification of TB by TB Types, Sex and Age 2024 ⁽¹⁾

Age group	Pulmonary ⁽²⁾			Miliary			Meninges / CNS			Bones & Joints			Others ⁽³⁾		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
5 - 9	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0
10 - 14	4	2	6	0	0	0	0	0	0	0	0	0	1	1	2
15 - 19	12	11	23	0	1	1	0	1	1	0	0	0	3	3	6
20 - 24	16	17	33	0	0	0	0	1	1	0	1	1	1	7	8
25 - 29	23	22	45	0	1	1	0	0	0	1	1	2	8	22	30
30 - 34	17	44	61	2	2	4	0	4	4	2	1	3	16	34	50
35 - 39	24	34	58	2	2	4	2	1	3	1	2	3	26	29	55
40 - 44	34	42	76	1	2	3	1	3	4	3	1	4	22	32	54
45 - 49	65	45	110	0	0	0	2	1	3	3	3	6	22	35	57
50 - 54	61	44	105	1	0	1	1	0	1	1	7	8	32	32	64
55 - 59	100	40	140	4	0	4	1	0	1	3	3	6	31	35	66
60 - 64	162	50	212	3	2	5	1	0	1	3	6	9	53	42	95
65 - 69	211	66	277	2	1	3	1	1	2	5	3	8	70	40	110
70 - 74	241	57	298	5	2	7	0	0	0	5	4	9	76	33	109
75 - 79	175	49	224	1	2	3	1	3	4	2	2	4	61	19	80
80 - 84	140	30	170	1	4	5	0	1	1	0	4	4	59	22	81
85 & over	204	90	294	0	1	1	1	1	2	3	3	6	74	32	106
All age groups	1 489	643	2 132	22	20	42	11	17	28	34	41	75	555	419	974

Notes:

- (1) The total number of all age groups in this table add up to greater than the notification number of 3 194 as some cases may have multiple extrapulmonary sites.
- (2) Pulmonary TB only without co-existing Extrapulmonary TB.
- (3) Other types of TB include:

TB Laryngitis	30
TB Lymph node	279
TB Peritonitis, intestines, mesenteric, appendicitis	132
TB Pleuritis, pleural effusion	418
TB Skin	30
TB Urogenital system	40
Unspecified	45

III. Tuberculosis in Hong Kong

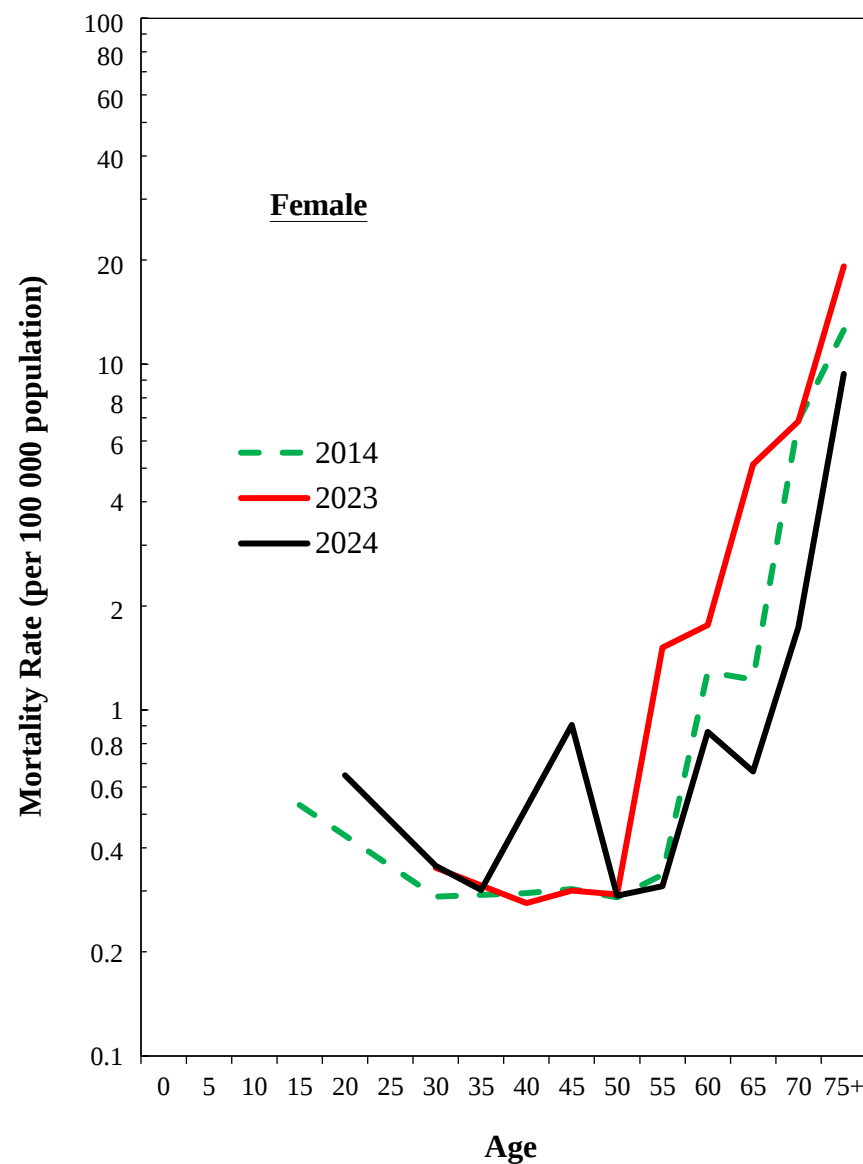
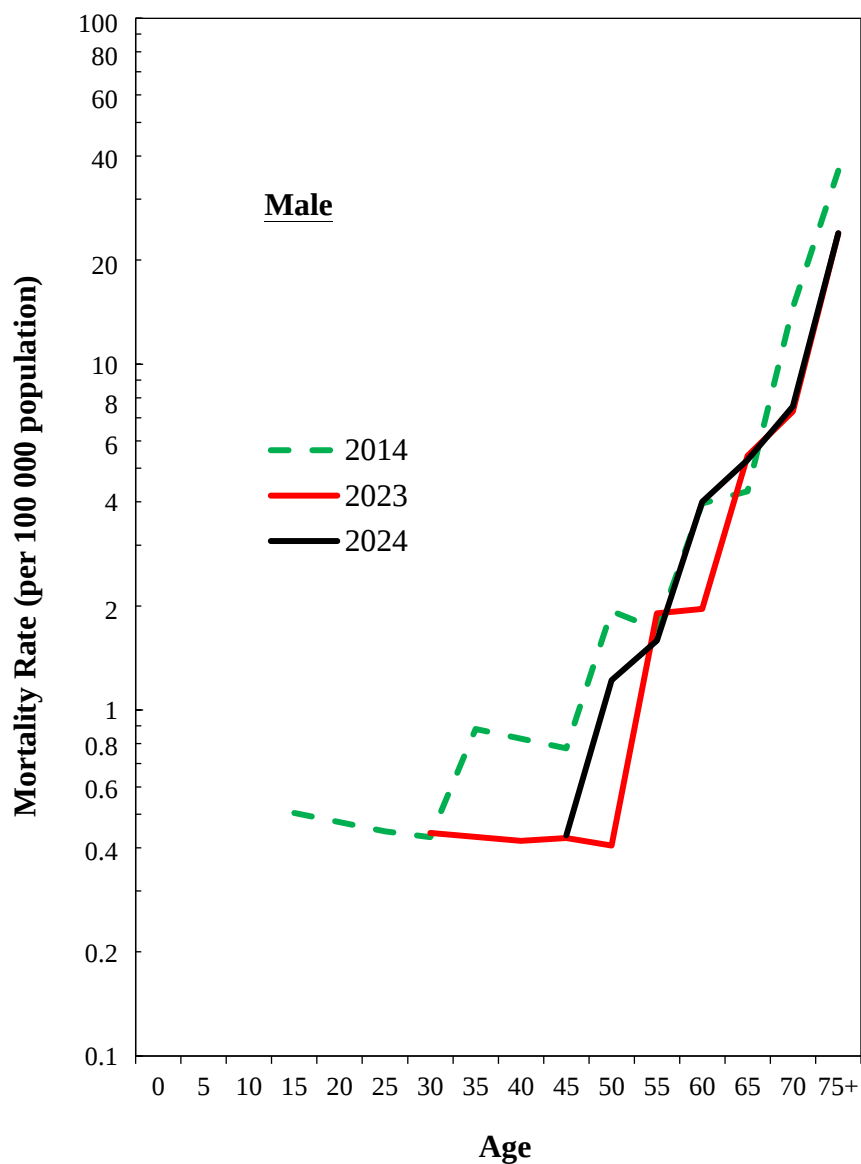
Appendix 7 Tuberculosis (All Forms) Deaths and Rate by Sex and Age 2024

Age group	Tuberculosis (all forms) death ⁽¹⁾			Death rate ⁽²⁾		
	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	0	1	1	0.00	0.65	0.32
25 - 29	0	0	0	0.00	0.00	0.00
30 - 34	0	1	1	0.00	0.35	0.20
35 - 39	0	1	1	0.00	0.30	0.18
40 - 44	0	0	0	0.00	0.00	0.00
45 - 49	1	3	4	0.43	0.91	0.71
50 - 54	3	1	4	1.22	0.29	0.68
55 - 59	4	1	5	1.59	0.31	0.87
60 - 64	12	3	15	4.00	0.87	2.32
65 - 69	15	2	17	5.29	0.66	2.91
70 - 74	16	4	20	7.54	1.74	4.52
75 - 79	13	6	19	9.33	3.96	6.53
80 - 84	21	3	24	27.63	3.67	15.22
85 & over	40	20	60	42.55	13.40	24.67
All age groups	125	46	171	3.66	1.12	2.27

Notes:

- (1) Data source: Death Registry, Department of Health.
(2) Death rate per 100 000 population.

Appendix 8 Tuberculosis Mortality Rate by Sex and Age 2014, 2023 and 2024



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Appendix 9 Tuberculosis Deaths by TB Types, Sex and Age 2024 ⁽¹⁾

Age group	Pulmonary			Miliary			Meninges			Bones & Joints			Others ⁽²⁾		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 - 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10 - 14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15 - 19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20 - 24	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
25 - 29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30 - 34	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
35 - 39	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
40 - 44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
45 - 49	1	2	3	0	1	1	0	0	0	0	0	0	0	0	0
50 - 54	2	1	3	0	0	0	1	0	1	0	0	0	0	0	0
55 - 59	3	1	4	1	0	1	0	0	0	0	0	0	0	0	0
60 - 64	9	2	11	1	0	1	1	1	2	0	0	0	1	0	1
65 - 69	13	1	14	0	1	1	1	0	1	0	0	0	1	0	1
70 - 74	14	2	16	1	2	3	1	0	1	0	0	0	0	0	0
75 - 79	11	4	15	1	0	1	0	0	0	0	1	1	1	1	2
80 - 84	17	1	18	2	1	3	1	0	1	0	0	0	1	1	2
85 & over	35	20	55	3	0	3	1	0	1	0	0	0	1	0	1
All age groups	105	34	139	9	7	16	6	2	8	0	1	1	5	2	7

Notes:

(1) Data source: Death Registry, Department of Health.

(2) The number of deaths in other types of TB include:

	Number
Tuberculosis of intestines, peritoneum and mesenteric glands	4
Tuberculosis of genitourinary system	2
Tuberculosis of other specified organs	1
Total	7

Appendix 10 Tuberculosis Mortality from 1950 to 2024

Year	% of TB Death		Infant mortality rate ⁽¹⁾ from TB	TB Deaths as % of Total Registered Deaths ⁽²⁾	Average age of TB Death ⁽²⁾
	Age under 5	Age under 1			
1950	38.34	9.81	5.3	17.7	24.0
1951	34.22	7.73	4.7	20.0	25.0
1952	34.28	7.05	3.5	18.4	25.0
1953	36.27	9.02	3.5	16.1	26.0
1954	31.26	8.17	2.8	14.9	29.0
1955	28.51	8.61	2.7	14.7	31.0
1956	25.22	7.34	2.0	13.6	32.0
1957	21.20	5.76	1.6	13.8	36.0
1958	19.64	7.04	1.5	11.2	36.5
1959	18.92	5.56	1.2	10.8	37.0
1960	10.55	2.21	0.4	10.9	43.0
1961	11.48	2.62	0.5	10.2	43.0
1962	5.74	1.44	0.2	9.3	46.0
1963	5.51	1.08	0.2	8.9	47.0
1964	4.09	0.90	0.1	8.0	48.0
1965	3.36	0.70	0.1	7.3	49.0
1966	2.71	0.73	0.1	8.1	53.0
1967	2.01	0.33	0.1	7.6	54.5
1968	1.15	0.20	0.0	7.7	56.5
1969	0.95	0.27	0.1	7.8	56.0
1970	0.63	0.00	0.0	6.9	57.5
1971	0.64	0.08	0.0	6.2	57.5
1972	0.30	0.15	0.0	6.2	59.0
1973	0.35	0.09	0.0	5.4	58.0
1974	0.82	0.21	0.0	4.4	58.5
1975	1.39	0.31	0.0	3.0	58.5
1976	0.70	0.00	0.0	2.4	59.5
1977	0.38	0.00	0.0	2.3	61.0
1978	0.48	0.24	0.0	1.8	61.0
1979	0.96	0.19	0.0	2.0	61.0
1980	0.73	0.18	0.0	2.1	62.0
1981	0.41	0.00	0.0	2.0	63.0
1982	0.22	0.00	0.0	1.8	63.0
1983	0.45	0.00	0.0	1.7	63.0
1984	0.24	0.24	0.0	1.6	64.5
1985	0.00	0.00	0.0	1.6	65.5
1986	0.00	0.00	0.0	1.6	68.0
1987	0.00	0.00	0.0	1.5	68.5
1988	0.52	0.26	0.0	1.4	69.0
1989	0.25	0.25	0.0	1.4	69.0
1990	0.52	0.52	0.0	1.3	69.0
1991	0.00	0.00	0.0	1.4	69.0
1992	0.00	0.00	0.0	1.3	68.0
1993	0.25	0.25	0.0	1.3	69.0
1994	0.00	0.00	0.0	1.4	71.0
1995	0.00	0.00	0.0	1.4	71.1
1996	0.00	0.00	0.0	0.9	70.6
1997	0.00	0.00	0.0	0.8	72.1
1998	0.37	0.00	0.0	0.8	72.6

Appendix 10 Tuberculosis Mortality from 1950 to 2024 ---cont'd

Year	% of TB Death		Infant mortality rate ⁽¹⁾ from TB	TB Deaths as % of Total Registered Deaths ⁽²⁾	Average age of TB Death ⁽²⁾
	Age under 5	Age under 1			
1999	0.00	0.00	0.0	0.9	72.9
2000	0.00	0.00	0.0	0.9	73.4
2001	0.00	0.00	0.0	0.9	74.3
2002	0.00	0.00	0.0	0.8	74.0
2003	0.36	0.00	0.0	0.8	72.3
2004	0.00	0.00	0.0	0.8	73.4
2005	0.00	0.00	0.0	0.7	74.3
2006	0.00	0.00	0.0	0.8	73.5
2007	0.00	0.00	0.0	0.6	74.2
2008	0.00	0.00	0.0	0.6	74.5
2009	0.00	0.00	0.0	0.5	73.7
2010	0.00	0.00	0.0	0.4	73.1
2011	0.00	0.00	0.0	0.4	77.3 ⁽³⁾
2012	0.00	0.00	0.0	0.5	75.9
2013	0.00	0.00	0.0	0.4	74.1
2014	0.00	0.00	0.0	0.4	76.0
2015	0.00	0.00	0.0	0.4	75.6
2016	0.00	0.00	0.0	0.3	77.2
2017	0.00	0.00	0.0	0.4	75.4
2018	0.53	0.53	0.0	0.4	74.6
2019	0.00	0.00	0.0	0.4	77.0
2020	0.00	0.00	0.0	0.4	76.8
2021	0.00	0.00	0.0	0.3	74.7
2022	0.00	0.00	0.0	0.3	75.8
2023	0.00	0.00	0.0	0.3	76.9
2024	0.00	0.00	0.0	0.3	76.9

Notes:

- (1) Infant mortality rate per 1 000 Registered Live Births.
- (2) Data source: Death Registry, Department of Health.
- (3) 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 in Hong Kong 2024

Rank	Causes of Death	Detailed list no. ICD 10 th Revision [^]	Number of Deaths		
			Male	Female	Total %
	All Causes		28 926	23 437	52 366 (3)
1	Malignant neoplasms	C00-C97	8 609	6 466	15 075
2	Pneumonia	J12-J18	6 111	5 284	11 395
3	Diseases of heart	I00-I09, I11, I13, I20-I51	3 730	2 864	6 594
4	Cerebrovascular diseases	I60-I69	1 520	1 391	2 911
5	External causes of morbidity and mortality @	V01-Y89	1 400	733	2 133
6	Nephritis, nephrotic syndrome and nephrosis	N00-N07, N17-N19, N25-N27	873	872	1 745
7	Dementia	F01-F03	512	852	1 364
8	Septicaemia	A40-A41	600	552	1 152
9	Chronic lower respiratory diseases	J40-J47	879	218	1 097
10	Coronavirus disease 2019 #	J40-J47	395	325	720
	Tuberculosis (including late effects of tuberculosis)		125	46	171
	All other causes	Residues of all causes	4 172	3 834	8 009 (3)

Notes:

% Figures in brackets denote number of death of unknown sex included.

For mortality statistics of 2023 and earlier, deaths due to coronavirus disease 2019 (COVID-19) were coded under the ICD-10 disease code J98.8 ("Other specified respiratory disorders"), which includes certain respiratory disorders other than COVID-19. For statistics from 2024 onwards, specific codes U07.1 ("COVID-19, virus identified") and U07.2 ("COVID-19, virus not identified") were adopted for deaths due to COVID-19, in line with WHO recommendations. The table only includes registered deaths where COVID-19 was identified as the underlying cause of death, irrespective of the coding practice.

[^] 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.

@ 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 of death.

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Appendix 12(a) Sources of Tuberculosis Notification from 2014 to 2024

Clinic / Hospital	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
East Kowloon Chest Clinic	83	105	83	83	83	76	49	60	55	53	49
Kowloon Chest Clinic	127	95	98	98	94	65	74	60	58	59	63
Sai Ying Pun Chest Clinic	70	69	59	61	72	40	47	43	27	35	29
Shaukiwan Chest Clinic	66	72	56	45	67	42	37	33	35	26	32
Shaukiwan Pneumoconiosis	9	0	5	7	2	0	0	0	7	5	4
Shek Kip Mei Chest Clinic	80	89	83	70	66	44	38	32	49	46	2
South Kwai Chung Chest Clinic	127	103	98	99	106	69	79	70	87	60	46
Tai Po Chest Clinic	64	54	63	60	44	35	31	30	23	22	24
Wanchai Chest Clinic	95	89	83	88	71	56	47	53	58	41	40
Yan Oi Chest Clinic	104	105	109	100	75	84	69	70	63	42	29
Yaumatei Chest Clinic	101	92	82	81	91	72	54	42	60	70	73
Yuen Chau Kok Chest Clinic	98	80	80	81	73	75	55	67	59	42	37
Yung Fung Shee Chest Clinic	92	87	75	73	66	46	60	55	43	56	26
Cheung Chau Chest Clinic	0	0	2	1	0	0	0	0	0	0	0
Sai Kung Chest Clinic	2	3	1	2	1	6	1	0	2	2	1
Sheung Shui Chest Clinic	33	22	30	29	31	18	18	13	12	17	26
Tung Chung Chest Clinic	11	9	21	12	17	19	6	7	7	7	9
Yuen Long Chest Clinic	51	67	53	59	48	36	34	35	33	42	27
Sub-total	1 213	1 141	1 081	1 049	1 007	783	699	670	678	625	517
Grantham Hospital	140	166	148	128	113	109	113	88	69	75	70
Haven of Hope Hospital	95	96	86	68	69	66	52	57	53	53	59
Kowloon Hospital	74	105	111	111	108	104	104	91	60	83	76
Ruttonjee Hospital	140	109	122	117	113	123	101	77	64	53	73
Wong Tai Sin Hospital	69	62	47	49	63	39	27	39	18	34	16
Other Govt. Institutions ⁽¹⁾	61	49	53	58	80	70	70	97	65	66	101
Other HA Hospitals	2 578	2 370	2 343	2 309	2 357	2 319	2 200	2 246	1 909	2 007	2 060
Private Practitioners	129	122	146	141	139	173	131	153	125	89	97
Private Hospitals	206	198	209	220	219	217	159	198	159	143	125
Total	4 705	4 418	4 346	4 250	4 268	4 003	3 656	3 716	3 200	3 228	3 194
% of cases from Chest Clinics among the total	25.8	25.8	24.9	24.7	23.6	19.6	19.1	18.0	21.2	19.4	16.2
% from Chest Hospitals ⁽²⁾	11.0	12.2	11.8	11.1	10.9	11.0	10.9	9.5	8.3	9.2	9.2
% from Other Govt. Institutions & HA Hospitals	56.1	54.8	55.1	55.7	57.1	59.7	62.1	63.1	61.7	64.2	67.7
% from Private Sector	7.1	7.2	8.2	8.5	8.4	9.7	7.9	9.4	8.9	7.2	7.0

Notes:

- (1) Data sources are from Outpatient Clinics, Public Mortuaries and Prison Hospitals.
- (2) Chest Hospitals include Kowloon Hospital, Wong Tai Sin Hospital, Ruttonjee Hospital, Grantham Hospital and Haven of Hope Hospital.

Appendix 12(b) Breakdown of Tuberculosis Notification from HA Hospitals (other than Chest Hospital) 2024

Name of Hospital	Number of TB Notification
Alice Ho Miu Ling Nethersole Hospital	60
Bradbury Hospice	1
Caritas Medical Centre	149
Hong Kong Buddhist Hospital	8
Hong Kong Children's Hospital	1
Kwong Wah Hospital	158
North District Hospital	106
North Lantau Hospital	19
Our Lady of Maryknoll Hospital	7
Pamela Youde Nethersole Eastern Hospital	114
Pok Oi Hospital	81
Prince of Wales Hospital	210
Princess Margaret Hospital	206
Queen Elizabeth Hospital	214
Queen Mary Hospital	98
Shatin Hospital	11
Tai Po Hospital	3
Tin Shui Wai Hospital	34
Tseung Kwan O Hospital	86
Tuen Mun Hospital	185
Tung Wah Eastern Hospital	5
Tung Wah Group of Hospitals - Fung Yiu King Hospital	3
Tung Wah Hospital	8
United Christian Hospital	201
Yan Chai Hospital	92
Total	2 060

Appendix 13 Tuberculosis Notification and Notification Rate by District Council Districts 2024

District Council Districts ⁽¹⁾	Notification	Notification Rate ⁽²⁾
<u>Hong Kong Island</u>	466	39.56
Central & Western	83	35.75
Wanchai	53	32.28
Eastern	194	37.37
Southern	136	51.83
<u>Kowloon</u>	1 151	51.35
Kowloon City	161	38.46
Kwun Tong	328	49.07
Sham Shui Po	244	55.49
Wong Tai Sin	211	51.39
Yau Tsim Mong	207	68.07
<u>NT (East)</u>	777	37.42
Islands	76	38.42
North	165	48.16
Sai Kung/Tseung Kwan O	161	32.13
Shatin	281	39.93
Tai Po	94	28.39
<u>NT (West)</u>	780	38.47
Kwai Tsing	272	54.33
Tsuen Wan	74	23.87
Tuen Mun	199	36.85
Yuen Long	235	34.72
Unknown	20	-
All Districts	3 194	42.45

Notes:

(1) Population source: Census and Statistics Department.

(2) Notification rate per 100 000 population.

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Appendix 14 Establishment and Strength of Tuberculosis and Chest Service ⁽¹⁾

Post	Establishment	Strength
Consultant Chest Physician i/c	1	1
Consultant Chest Physician	1	1
Senior Medical & Health Officer	7	6
Medical & Health Officer	23	15
Senior Nursing Officer	1	1
Nursing Officer	15	7
Registered Nurse	75	78
Enrolled Nurse	74	67
Senior Dispenser	9	8
Dispenser	9	9
Executive Officer I	1	1
Statistical Officer II	3	3
Personal Secretary I	1	0
Clerical Officer	16	14
Assistant Clerical Officer	20	21
Clerical Assistant	57	46
Office Assistant	7	3
Workman II	43	37
Senior Radiographer	3	2
Radiographer I	11	10
Radiographer II	25	19
Darkroom Technician (DT)	4	0

Note:

(1) Establishment and Strength as at 1.12.2024

Appendix 15 Total Attendance at Chest Clinics from 2014 to 2024

Clinic/Hospital	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
East Kowloon Chest Clinic	52 449	52 874	54 391	53 160	51 934	44 511	29 457	38 235	29 540	38 207	41 828
Kowloon Chest Clinic	52 423	45 953	45 938	46 887	41 671	39 824	27 042	32 512	25 695	32 034	37 749
Sai Ying Pun Chest Clinic	33 274	36 301	36 622	32 200	33 069	32 981	22 060	24 494	18 579	21 706	21 849
Shaukiwan Chest Clinic	44 417	45 789	42 426	37 176	41 212	36 847	22 732	28 912	22 299	29 201	29 671
Shaukiwan Pneumoconiosis	5 433	4 920	4 806	4 840	4 620	4 415	3 766	3 625	3 350	3 666	3 700
Shek Kip Mei Chest Clinic ⁽¹⁾	51 852	48 142	47 816	47 374	42 544	35 852	26 910	33 024	18 227	28 222	1 454
South Kwai Chung Chest Clinic	73 740	78 403	73 985	67 149	65 577	64 475	47 908	57 156	46 058	51 543	49 490
Tai Po Chest Clinic	32 443	30 988	33 357	32 126	31 641	28 758	17 824	29 430	21 736	27 843	25 420
Wanchai Chest Clinic	49 276	43 900	45 326	42 857	39 552	33 359	24 457	33 697	26 641	25 149	25 191
Yan Oi Chest Clinic	60 278	60 770	61 780	64 016	67 621	67 664	44 535	53 510	42 335	42 448	43 860
Yaumatei Chest Clinic	60 937	57 835	58 938	55 234	50 246	52 632	37 475	51 400	40 027	44 320	58 668
Yuen Chau Kok Chest Clinic	60 396	51 136	56 538	63 228	58 485	53 972	40 180	48 115	36 788	42 583	47 118
Yung Fung Shee Chest Clinic	67 274	65 603	73 857	72 019	70 214	64 832	48 578	57 327	48 031	49 964	46 693
Castle Peak Hospital	126	38	-	-	-	-	-	-	-	-	-
(ceased operation from 1 April 2015)											
Cheung Chau Chest Clinic	1 273	1 562	1 139	1 781	1 415	1 317	1 046	944	602	571	1 069
Sai Kung Chest Clinic	1 371	1 513	1 385	1 248	1 383	1 304	1 255	932	558	660	606
Sheung Shui Chest Clinic	16 827	15 361	14 113	15 539	13 506	12 853	11 488	10 235	7 780	9 173	11 879
Tung Chung Chest Clinic	4 091	4 166	5 554	5 484	4 467	5 247	2 609	3 647	2 606	2 499	3 465
Yuen Long Chest Clinic	27 377	26 361	26 427	26 369	26 911	26 097	18 243	18 456	17 299	17 860	19 230
Hei Ling Chau ATC	162	127	117	130	121	82	43	41	64	57	85
Lai Chi Kok Reception Centre	250	278	234	245	242	192	113	48	42	99	132
Shek Pik Prison	184	199	189	159	152	113	110	72	74	53	146
Stanley Prison	443	360	367	282	234	208	138	118	132	210	270
Total	696 296	672 579	685 305	669 503	646 817	607 535	427 969	525 930	408 463	468 068	469 573

- (1) A temporary suspension of all services provided at Shek Kip Mei Chest Clinic from 27 January 2024 until the completion of the construction works of Shek Kip Mei Community Health Centre Building at the original site.

III. Tuberculosis in Hong Kong

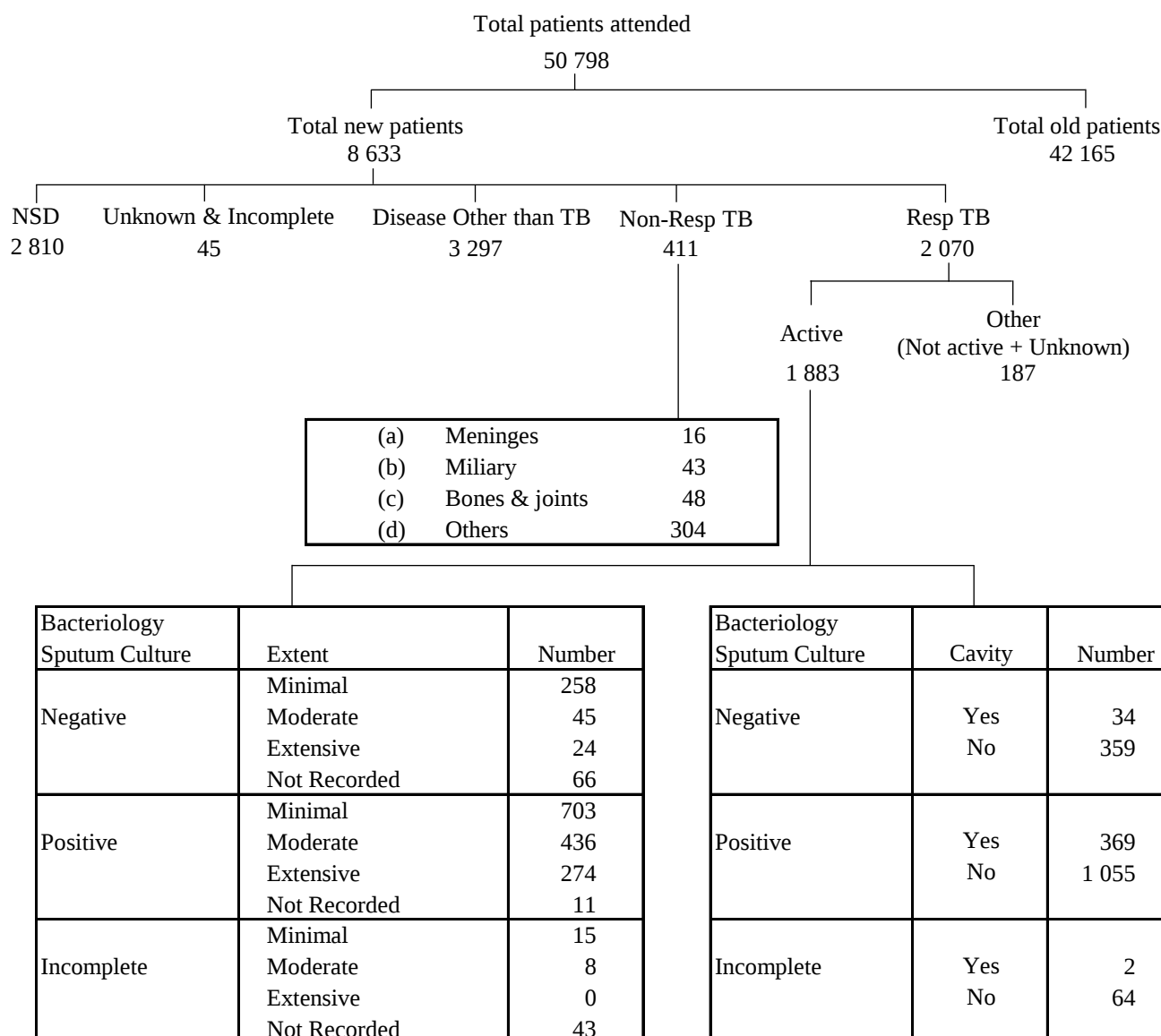
Appendix 16 Number of Doctor Sessions, Cases Seen by Doctor and Patient/Doctor Session 2024

Clinic/Institution	Doctor Sessions ⁽¹⁾	Cases Seen by Doctor	Cases/Doctor Session
<u>Full Time Clinics</u>			
East Kowloon	524	8 744	17
Kowloon	494	7 387	15
Sai Ying Pun	494	5 921	12
Shaukeiwan	494	7 259	15
Pneumoconiosis	493	3 700	8
Shek Kip Mei ⁽²⁾	38	187	5
South Kwai Chung	760	12 149	16
Tai Po	483	4 915	10
Wanchai	494	6 320	13
Yan Oi	736	12 838	17
Yaumatei	643	10 485	16
Yuen Chau Kok	570	10 996	19
Yung Fung Shee	579	9 435	16
Sub-total	6 802	100 336	15
<u>Part Time Clinics</u>			
Cheung Chau	24	193	8
Sai Kung	51	366	7
Sheung Shui	269	2 965	11
Tung Chung	152	1 024	7
Yuen Long	405	4 678	12
Sub-total	901	9 226	10
<u>Institutions of Correctional Services Department</u>			
Hei Ling Chau	12	85	7
Lai Chi Kok Reception Center	27	132	5
Shek Pik	12	146	12
Stanley Prison	26	270	10
Sub-total	77	633	8
All Clinic/Institution	7 780	110 195	14

Note:

- (1) Doctor Sessions: One doctor for a half-day session.
- (2) A temporary suspension of all services provided at Shek Kip Mei Chest Clinic from 27 January 2024 until the completion of the construction works of Shek Kip Mei Community Health Centre Building at the original site.

Appendix 17 Diagnosis and Characteristics of Patients Attending Chest Clinics 2024



A total of 50 798 patients attended, comprising 42 165 old cases and 8 633 new cases. Among new cases, 2 070 had respiratory TB with 1 883 being active, 411 had non-respiratory TB, 3 297 had diseases other than TB, 45 had unknown and incomplete diagnoses, and 2 810 had NSD (no specific diagnosis). Of the 411 new cases with non-respiratory TB, 16 had TB affecting meninges, 43 had miliary TB, 48 had TB affecting bones and joints, and 304 had TB affecting other sites.

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Appendix 18(a) Classification of Diseases of First Attenders in 2024 according to International Classification of Diseases Code

ICD 10	Classification	Number of Patients
A15.7, A16.7	Primary Tuberculosis Infection	1
A15.0-15.3, A16.0-16.2, J65	Pulmonary Tuberculosis	1 663
A15.4-15.6, A15.8-15.9, A16.3-16.5, A16.8-16.9	Other Respiratory Tuberculosis	219
A17.0-17.1, A17.8, A17.9	Tuberculosis of Nervous System	16
A18.3	Tuberculosis of Intestines	80
A18.0, M49.0	Tuberculosis of Bones & Joints	48
A18.1	Tuberculosis of Genito-urinary System	17
A18.2, A18.4-18.8	Tuberculosis of Other Organs	207
A19.0-19.2, A19.8-19.9	Miliary Tuberculosis	43
B90.0-90.2, B90.8-90.9	Late effects of Tuberculosis	187
Z11.1, Z11.7, Z22.7, Z29.2, Z86.15, R76.1	Special Screening Examination for Respiratory Tuberculosis, Testing for Latent Tuberculosis Infection, Chemoprophylaxis	2 531
C45.0-C45.2, C45.7, C45.9, J61, J62, J62.0, J62.8, J64	Pneumoconiosis / Silicosis / Asbestosis / Mesothelioma	60
C30-39, C34.0-34.3, C34.8-34.9, C78.0, C78.2	Malignant Neoplasm of Respiratory System	19
D14.0-14.4	Benign Neoplasm of Respiratory System	0
A31.0-A31.1, A31.8-A31.9	Infection due to other mycobacterium	50
J00-06, J02.0, J02.8-02.9, J03.0, J03.9, J04.0-04.2, J05.0-05.1, J06.0-06.9	Acute Respiratory Infection	158
J30-39, J30.0-30.4, J39.8-39.9	Other Diseases of Upper Resp Tract	22
J12-18, J12.9, J15.0-15.2, J15.5-15.9, J16-18.9, J22, J69.0	Pneumonia	297
J09, J10.0-10.1, J10.8, J11.0-11.1, J11.8	Influenza	1
J40, J41.0-41.1, J41.8, J42	Bronchitis, (not specified as acute or chronic) & chronic bronchitis	208
J43, J43.0-43.2, J43.8-43.9	Emphysema	1
J45, J45.0-45.1, J45.8-45.9, J46	Asthma	5
J47	Bronchiectasis	79
J44, J44.0-44.1, J44.8-44.9	Chronic obstructive pulmonary disease	5
J86, J90	Pyothorax (Empyema), Pleurisy	17
J93, J93.0-93.1, J93.8-93.9	Pneumothorax	0
J63, J95, J96, J98, J99, M05.1, M31.3, M32.1, M33.0-M33.2, M34.8	Other Diseases of Respiratory System	3
R04-09	Symptoms and signs involving the circulatory and respiratory systems	1 127
Z00.0, Z01.6, Z02, Z02.1-02.2, Z02.6-02.9, Z71.1	N.S.D.	365
	Diseases Other than TB & Resp System not classified above	1 204
Total		8 633

Appendix 18(b) Characteristics of Active Respiratory Tuberculosis in First Attenders at Chest Clinics from 2022 to 2024

Extent of diseases on Chest X-ray [#]	2022		2023		2024	
	Number	%	Number	%	Number	%
1. Minimal	919	50.8	862	46.8	976	51.8
2. Moderate	473	26.2	494	26.8	489	26.0
3. Extensive	272	15.0	323	17.5	298	15.8
4. Not Recorded	144	8.0	164	8.9	120	6.4
Total	1 808	100.0	1 843	100.0	1 883	100.0
Number of first attenders	7 811		8 656		8 633	
Percentage of active respiratory TB	23.1		21.3		21.8	

Notes:

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

Sputum Result in 2024	Number	%
Smear +	514	27.3
Smear - Culture +	923	49.0
Smear - Culture -	382	20.3
Incomplete	64	3.4
Total	1 883	100.0

Appendix 19(a1) Rate of Drug-resistant Tuberculosis

Among cases registered during the period January to December 2024 (Data from PHLC)

Age Group	Category @	% monoresistance to				% resistance to *			MDR-TB %	Total % resistance #	Total no. of cases analysed
		E	R	H	Z ^	1 drug	2 drugs	≥ 3 drugs			
0 - 19	New cases	0.00	0.00	0.00	0.00	0.00	0.00	3.57	3.57	3.57	28
	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	0.00	0.00	0.00	0.00	0.00	3.45	3.45	3.45	29
20 - 39	New cases	0.41	0.00	4.53	0.00	4.94	1.65	1.23	2.06	7.82	243
	Previously treated cases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3
	Overall	0.41	0.00	4.47	0.00	4.88	1.63	1.22	2.03	7.72	246
40 - 59	New cases	0.22	0.65	4.56	0.45	5.86	1.08	0.22	0.87	7.16	461
	Previously treated cases	0.00	0.00	9.09	0.00	9.09	0.00	0.00	0.00	9.09	22
	Overall	0.21	0.62	4.76	0.43	6.00	1.04	0.21	0.83	7.25	483
60 up	New cases	0.32	0.06	4.58	0.60	5.55	0.45	0.06	0.19	6.07	1 549
	Previously treated cases	0.00	0.76	7.58	0.00	8.33	1.52	1.52	2.27	11.36	132
	Overall	0.30	0.12	4.82	0.55	5.77	0.54	0.18	0.36	6.48	1 681
All	New cases	0.31	0.18	4.52	0.50	5.48	0.70	0.26	0.57	6.44	2 281
	Previously treated cases	0.00	0.63	7.59	0.00	8.23	1.27	1.27	1.90	10.76	158
	Overall	0.29	0.21	4.72	0.47	5.66	0.74	0.33	0.66	6.72	2 439

Notes:

E = ethambutol; R = rifampicin; H = isoniazid; Z = pyrazinamide

* % resistant to one, two or more than two of the four drugs E, R, H and Z

Total % resistance: resistant to at least one of the four drugs E, R, H and Z

@ New cases: for cases with no / unknown past history of anti-tuberculosis treatment

Previously treated cases: for cases with past history of anti-tuberculosis treatment

Overall: for all cases

^ Susceptibility result for Z is not available in 78 cases due to unavailability of phenotypic confirmatory test. Among them, 74 are sensitive to H, R and E.

III. Tuberculosis in Hong Kong

Appendix 19(a2) Rate of Drug-resistant Tuberculosis

Among cases registered during the period January to December 2024

(Data from PHLC)

	New case		Previously treated cases		Combined	
	N	%	N	%	N	%
Total Number of strains tested ^	2 281	100	158	100	2 439	100
Susceptible to HREZ *	2 057 (68)	90.18	134 (6)	84.81	2 191 (74)	89.83
Any resistance	147	6.44	17	10.76	164	6.72
H	127	5.57	16	10.13	143	5.86
R	18	0.79	4	2.53	22	0.90
E	15	0.66	3	1.90	18	0.74
Z	22	1.00	2	1.32	24	1.02
Monoresistance	125	5.48	13	8.23	138	5.66
H	103	4.52	12	7.59	115	4.72
R	4	0.18	1	0.63	5	0.21
E	7	0.31	0	0.00	7	0.29
Z	11	0.50	0	0.00	11	0.47
Multidrug resistance	13	0.57	3	1.90	16	0.66
H+R	7	0.31	1	0.63	8	0.33
H+R+E	2	0.09	0	0.00	2	0.08
H+R+Z	1	0.04	0	0.00	1	0.04
H+R+E+Z	3	0.13	2	1.27	5	0.21
Other patterns	9	0.39	1	0.63	10	0.41
H+E	1	0.04	1	0.63	2	0.08
H+Z	7	0.31	0	0.00	7	0.29
H+E+Z	0	0.00	0	0.00	0	0.00
R+E	1	0.04	0	0.00	1	0.04
R+Z	0	0.00	0	0.00	0	0.00
R+E+Z	0	0.00	0	0.00	0	0.00
E+Z	0	0.00	0	0.00	0	0.00
Number of drugs resistant to:						
0 drug	2 057	90.18	134	84.81	2 191	89.83
1 drug	125	5.48	13	8.23	138	5.66
2 drugs	16	0.70	2	1.27	18	0.74
3 drugs	3	0.13	0	0.00	3	0.12
4 drugs	3	0.13	2	1.27	5	0.21

^ Susceptibility result for Z is not available in 78 cases due to unavailability of phenotypic confirmatory test, of which 71 are new cases and 7 are previously treated cases.

* Due to unavailability of phenotypic confirmatory test for Z, the number of cases with MTB susceptible to H, R and E (but unknown for Z) are shown in brackets.

Appendix 19(b1) Trend of anti-TB drug resistance from 2005 to 2024 ⁽¹⁾⁽²⁾

New case

(Percentage)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 ⁽⁵⁾
Ethambutol	0.54	0.35	0.12	0.45	0.26	0.25	0.33	0.70	0.54	0.65	0.54	0.50	0.73	0.52	0.44	0.52	0.47	0.35	0.65	0.66
Rifampicin	0.83	0.86	0.46	0.64	0.90	0.78	0.88	0.95	1.03	0.85	0.92	0.78	0.89	1.12	0.70	0.60	0.78	0.93	0.65	0.79
Isoniazid	4.16	4.13	3.79	4.33	4.19	4.86	4.18	4.66	4.39	5.33	4.90	5.80	6.17	5.20	5.23	5.12	5.33	5.52	5.57	5.57
Streptomycin ⁽³⁾	6.72	6.00	7.47	6.89	8.04	7.61	7.32	9.48	8.22	9.36	9.30	8.91	9.11	8.03	7.71	7.41	7.55	8.17	8.06	-
Pyrazinamide ⁽³⁾	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.83	1.00
MDR-TB	0.51	0.55	0.31	0.30	0.67	0.70	0.63	0.74	0.70	0.68	0.54	0.50	0.63	0.73	0.63	0.48	0.58	0.75	0.35	0.57
Total % resistance ⁽⁴⁾	9.33	8.64	9.32	9.41	10.59	9.88	10.08	11.67	10.72	12.47	11.98	11.43	12.28	11.03	10.46	10.37	10.62	11.14	9.50	6.44

Previously treated cases

(Percentage)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 ⁽⁵⁾
Ethambutol	3.92	1.61	0.90	2.65	0.47	2.56	0.00	1.70	0.99	4.73	2.50	2.27	1.69	1.42	1.68	0.57	0.00	0.74	2.82	1.90
Rifampicin	3.64	2.90	2.10	3.53	1.73	4.47	2.84	4.08	2.22	5.09	3.13	4.17	3.37	4.25	2.23	1.14	2.60	3.68	4.93	2.53
Isoniazid	8.68	10.00	9.31	10.00	6.45	9.58	6.38	10.54	6.17	12.73	13.75	12.88	9.55	12.74	15.64	6.25	7.14	15.44	13.38	10.13
Streptomycin ⁽³⁾	10.08	9.35	11.11	9.12	8.49	13.42	10.28	13.95	10.62	13.09	15.63	13.64	12.92	9.91	15.64	6.82	10.39	14.71	8.05	-
Pyrazinamide ⁽³⁾	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.82	1.32
MDR-TB	2.52	2.90	2.10	2.94	1.57	4.15	2.13	3.74	1.98	4.00	3.13	3.41	3.37	4.25	2.23	0.57	1.95	2.21	4.93	1.90
Total % resistance ⁽⁴⁾	14.29	13.55	15.32	15.59	12.26	17.25	12.06	18.71	13.58	20.73	21.25	19.32	15.73	16.98	22.91	11.93	13.64	22.79	14.79	10.76

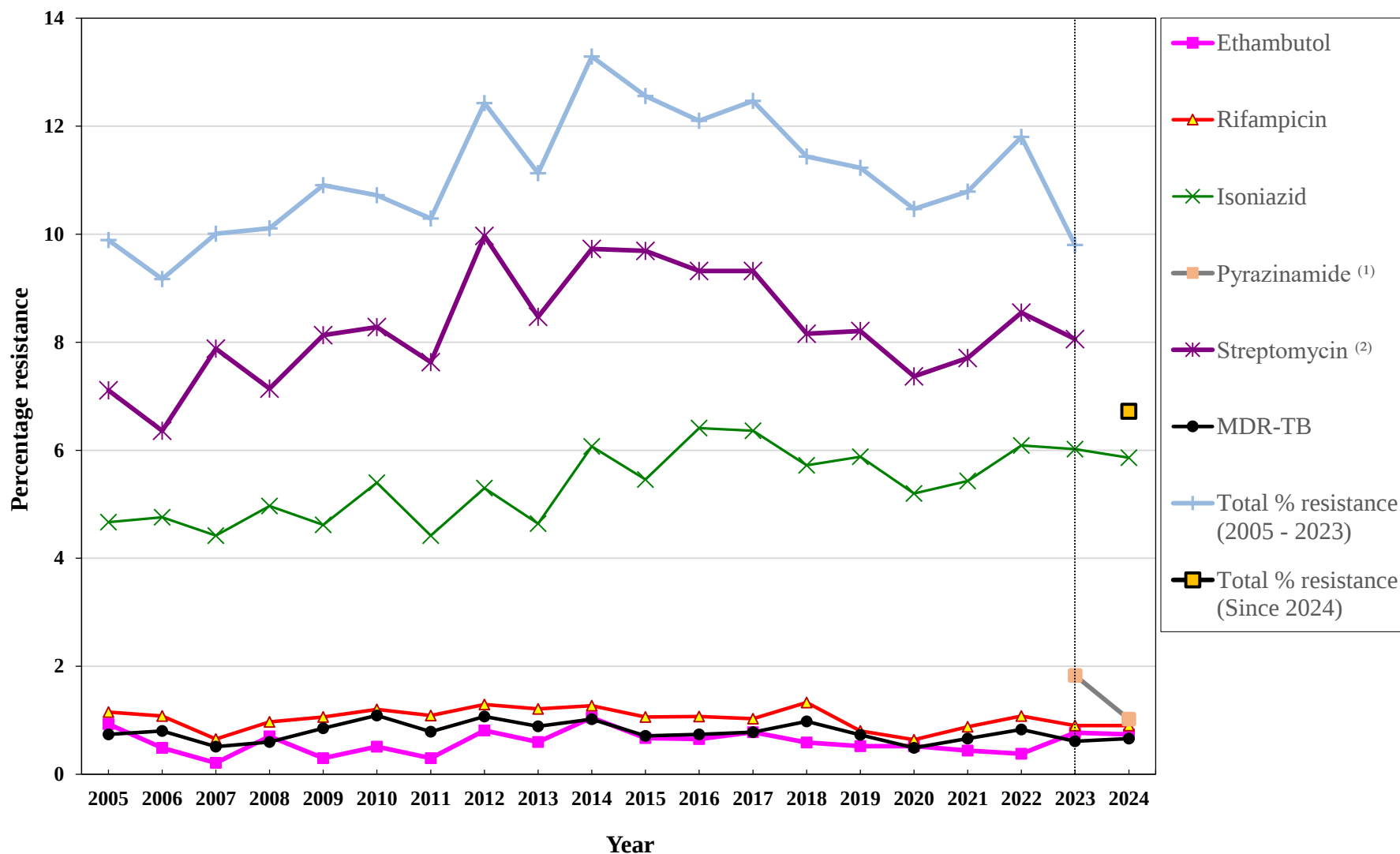
Overall

(Percentage)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 ⁽⁵⁾
Ethambutol	0.93	0.49	0.21	0.70	0.30	0.51	0.30	0.81	0.60	1.05	0.67	0.65	0.78	0.59	0.52	0.52	0.44	0.38	0.77	0.74
Rifampicin	1.15	1.08	0.65	0.97	1.06	1.20	1.09	1.29	1.21	1.27	1.06	1.07	1.03	1.33	0.80	0.64	0.88	1.08	0.90	0.90
Isoniazid	4.67	4.76	4.42	4.97	4.62	5.40	4.42	5.30	4.64	6.07	5.46	6.41	6.36	5.72	5.88	5.20	5.43	6.09	6.02	5.86
Streptomycin ⁽³⁾	7.11	6.36	7.88	7.14	8.13	8.28	7.63	9.97	8.47	9.73	9.69	9.32	9.32	8.16	8.21	7.37	7.71	8.55	8.06	-
Pyrazinamide ⁽³⁾	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.83	1.02
MDR-TB	0.74	0.80	0.51	0.60	0.85	1.09	0.79	1.07	0.89	1.02	0.71	0.74	0.78	0.98	0.73	0.49	0.66	0.83	0.61	0.66
Total % resistance ⁽⁴⁾	9.89	9.17	10.01	10.11	10.91	10.72	10.29	12.43	11.13	13.29	12.56	12.10	12.47	11.44	11.23	10.47	10.79	11.80	9.80	6.72

Note:

- (1) 2005 - 2015: Data from Programme Record Forms; 2016 - 2024: Data from Public Health Laboratory Centre
- (2) Since mid-August 2023, methodology for MTB drug susceptibility testing (DST) adopted by PHLC has been changed from phenotypic by MGIT to genotypic by WGS
- (3) Since mid-August 2023, reporting of DST to first line drugs has also been updated, from E/H/R/S to E/H/R/Z (i.e. S has been replaced by Z while the other three drugs remain the same). The total no. of cases analysed for S and Z are 1 365 and 1 093 respectively.
- (4) "Total % resistance" is resistant to at least one of the 4 drugs E, R, H and "S till mid August 2023" / "Z since mid August 2023".
- (5) Susceptibility result for Z is not available in 78 cases due to unavailability of phenotypic confirmatory test. Among them, 71 are new cases and 74 are sensitive to H, R and E.

Appendix 19(b2) Trend of Overall anti-TB drug resistance from 2005 to 2024



Remarks:

- (1) DST to Pyrazinamide since mid-August 2023
- (2) DST to Streptomycin till mid-August 2023

Appendix 19(c) MDR-TB and XDR-TB from 2011 to 2020

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., patients died, or no effective second-line drugs are available for treatment), it is defined as the year of reporting MDR-TB. Since 2014, MDR-TB cases have been counted according to the year of TB notification.

Figure 1: MDR-TB and XDR-TB by Sex and Year

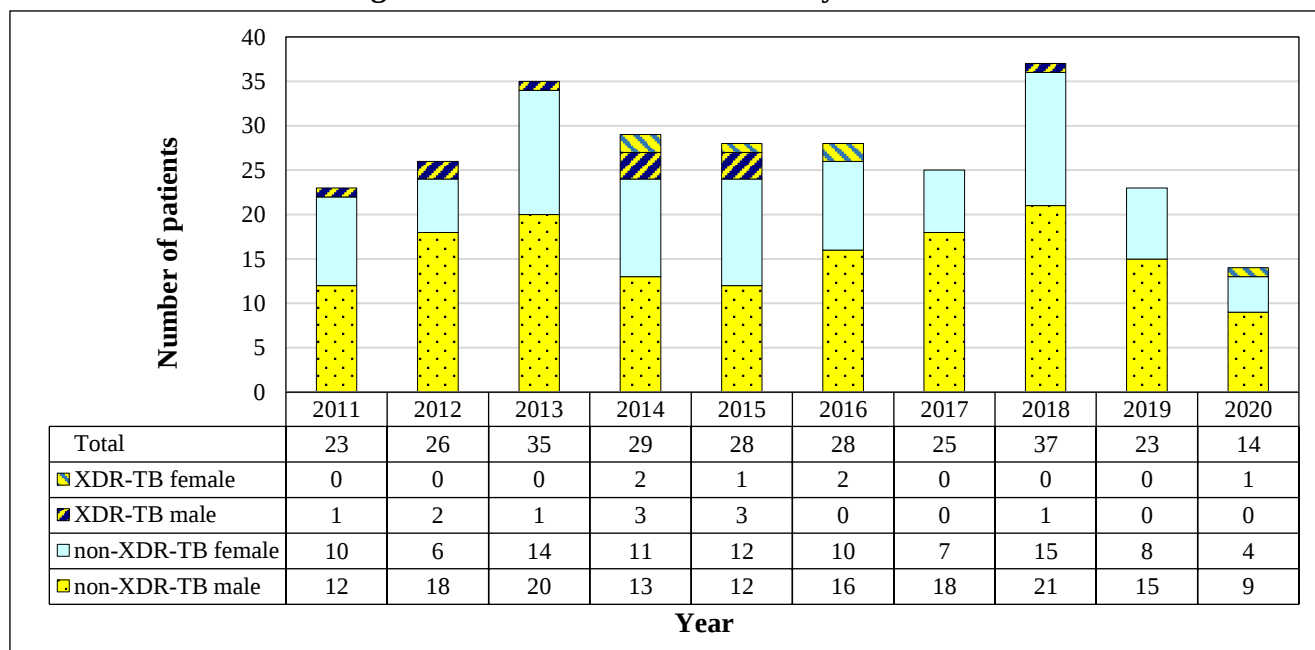
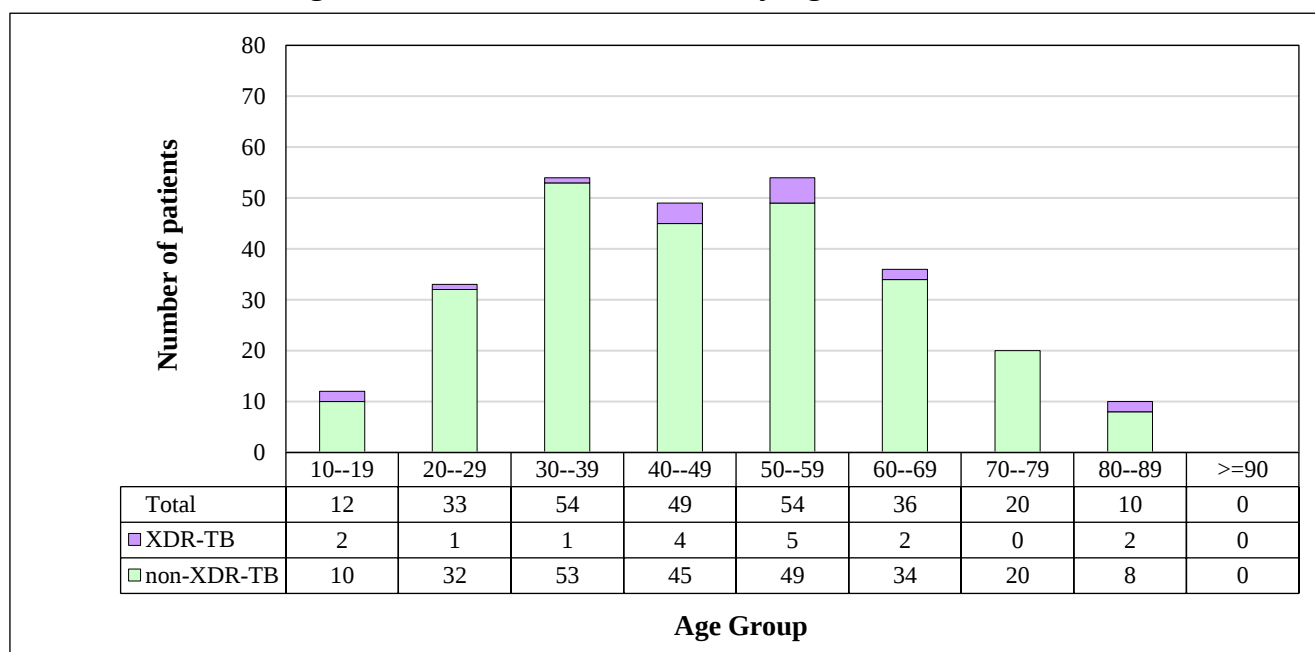


Figure 2: MDR-TB and XDR-TB by Age from 2011 to 2020



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]
non-XDR-TB = MDR-TB excluding XDR-TB cases.

Appendix 19(d) Revised Definition of Extensively Drug-resistant Tuberculosis since 2021 ⁽¹⁾

WHO proposed a new definition for pre-XDR-TB and the revised definition for XDR-TB from 2021 onwards. For reporting purposes, MDR-TB and RR-TB are often grouped together as MDR/RR-TB. This includes patients with isolates that are resistant to rifampicin only and those that fulfil the definition of MDR-TB.

Definition of pre-XDR-TB and updated definition of XDR-TB

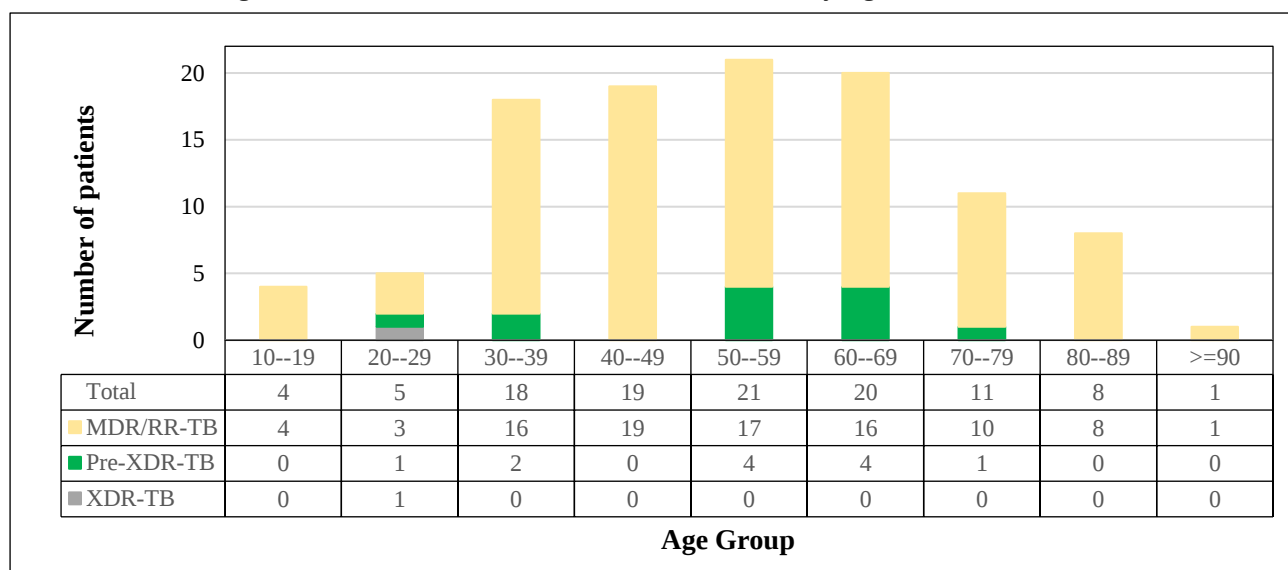
Pre-XDR-TB: TB caused by *Mycobacterium tuberculosis* strains that fulfill the definition of MDR/RR-TB and that are also resistant to any fluoroquinolone ⁽²⁾.

XDR-TB: TB caused by *Mycobacterium tuberculosis* strains that fulfill the definition of MDR/RR-TB and that are also resistant to any fluoroquinolone ⁽²⁾ and at least one additional Group A drug ⁽³⁾.

Figure 3: MDR/RR-TB, Pre-XDR-TB and XDR-TB by Sex and Year from 2021 to 2024

Year	MDR/RR-TB		Pre-XDR-TB		XDR-TB		Total
	Female	Male	Female	Male	Female	Male	
2021	9	19	1	2	0	0	31
2022	6	22	0	2	0	0	30
2023	5	17	0	3	0	1	26
2024	5	11	1	3	0	0	20

Figure 4: MDR/RR-TB, Pre-XDR-TB and XDR-TB by Age from 2021 to 2024



Notes:

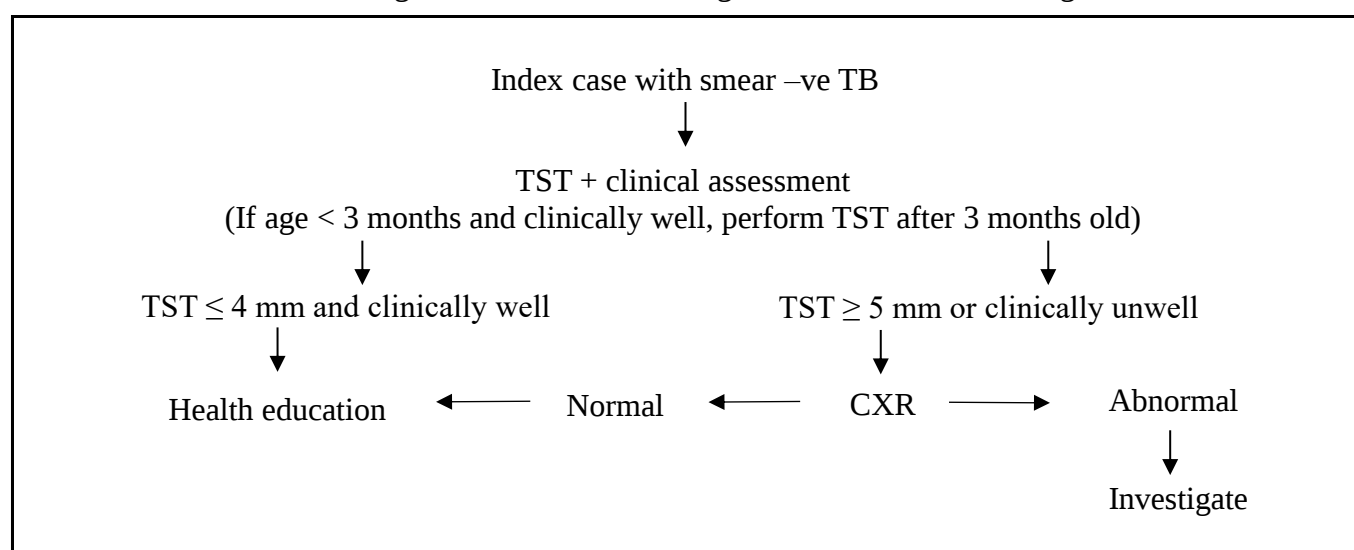
- (1) Reference: Meeting report of the WHO expert consultation on the definition of extensively drug-resistant tuberculosis 27-29 October 2020.
- (2) The fluoroquinolones include levofloxacin and moxifloxacin.
- (3) Group A drugs are currently levofloxacin or moxifloxacin, bedaquiline and linezolid; therefore, XDR-TB is MDR/RR-TB that is resistant to a fluoroquinolone and either bedaquiline or linezolid (or both). The Group A drugs may change in the future.

Appendix 20(a) Scheme for Investigation of Close Contacts (Household) in the Tuberculosis & Chest Service, Department of Health (Last updated 2023)

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 5 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 < 65 years old *	Chest X-ray and tuberculin skin test / IGRA, with treatment of latent TB infection if appropriate
Index case is smear-positive and the close contact aged 65 years or more	Chest X-ray

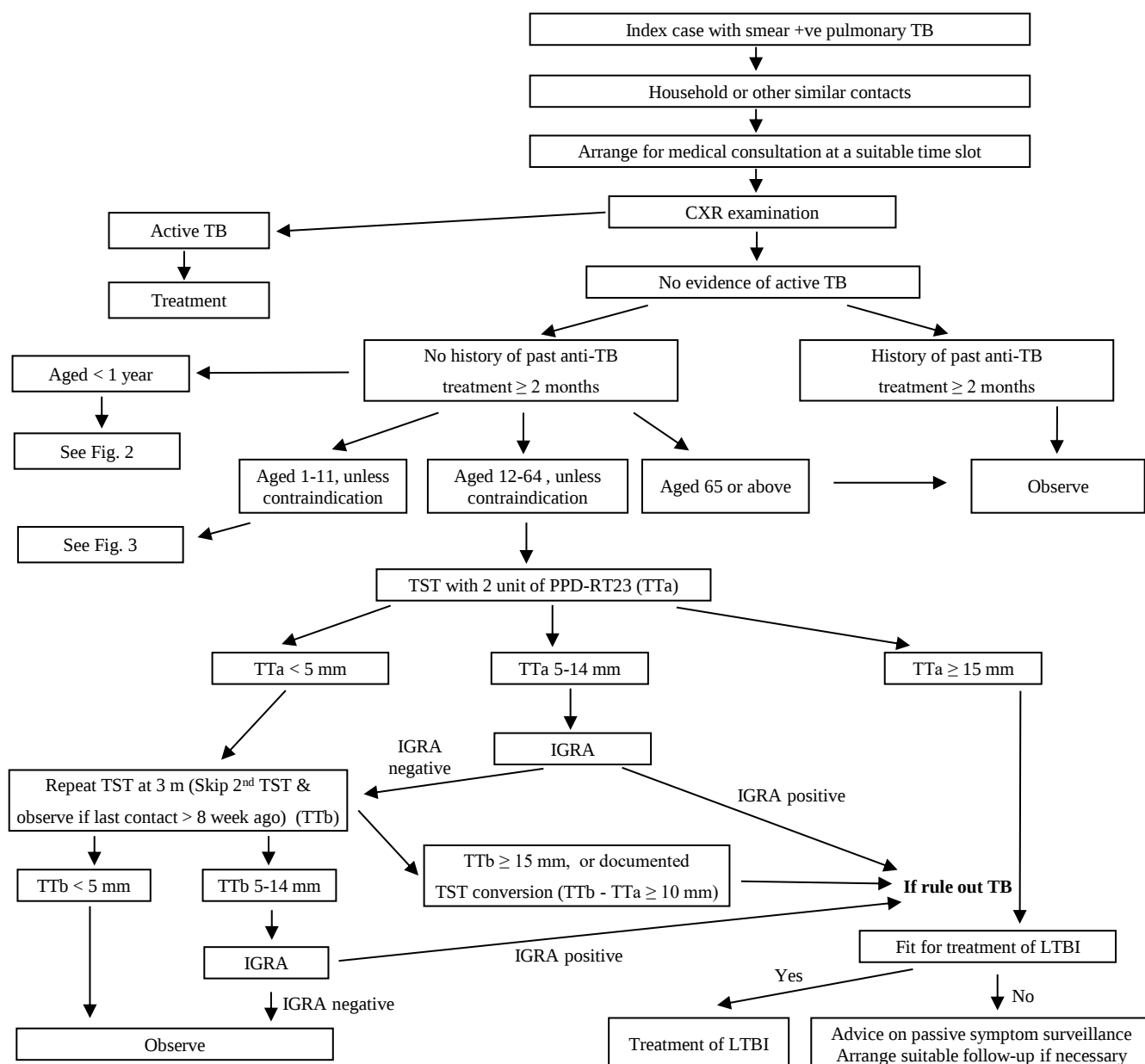
* For close contacts with risk factors for adverse effects from latent TB infection treatment, (e.g. alcoholic, underlying chronic liver disease, etc.), the decision to screen should be made on a case-by-case basis especially for the aged 35 - 64 group.

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



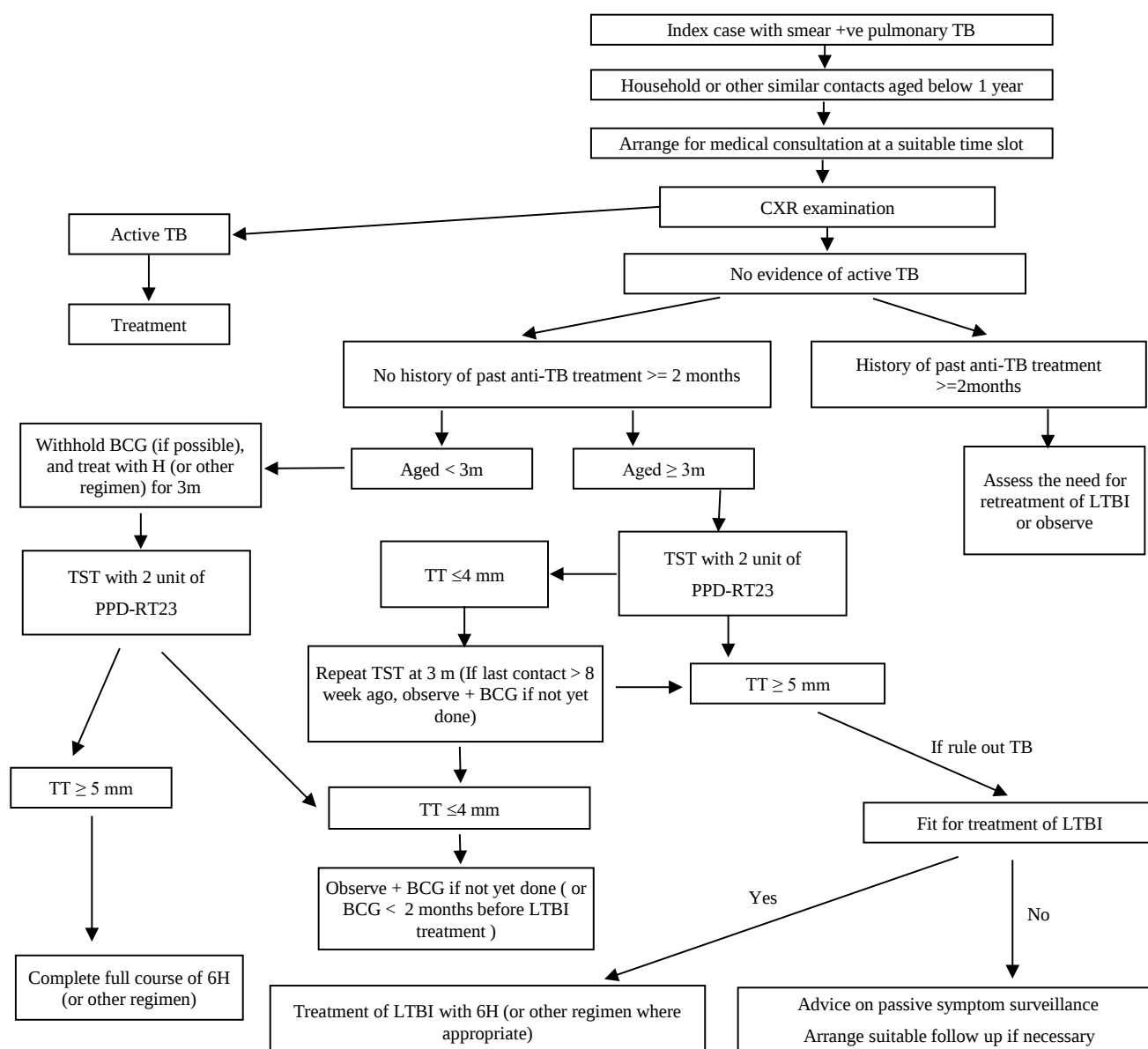
If the index case has smear-negative TB and the close contact case is aged below five, the contact case is first evaluated by tuberculin skin test alongside clinical assessment. If the contact case is aged below 3 months and clinically well, the tuberculin test can be postponed until the contact case is 3 months old. If the contact case is clinically well and the tuberculin skin test result is 4 mm or less, health education is all that is required. If the contact case is clinically unwell or the tuberculin skin test result is 5 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 20(b) Figure 1: General schema for targeted screening of household contacts of smear-positive pulmonary TB patients (Last updated 2023)



Targeted screening for active TB and latent TB infection is regularly offered to subjects exposed to smear-positive pulmonary TB patients in the same household or other similar scenarios. Medical consultation is arranged at a suitable time slot, when chest X-ray examination will first be done to exclude active TB for which treatment will be given. Contacts with no evidence of active TB but a history of past anti-TB treatment will be observed, whereas those with no history of past anti-TB treatment will be managed according to their age group. For contacts aged below 1, please refer to Figure 2. For contacts aged 1 to 11, please refer to Figure 3. For contacts aged 12 to 64, tuberculin skin test (TST) is routinely offered, unless there are contraindications. For those aged 65 or above, just observe. TST is done using 2 units of PPD-RT23. If the induration measured after 48 to 72 hours is no more than 14 mm, repeat TST 3 months later, unless the contact has had no further contact with the index case for more than 8 weeks. If the test response of either the first or the second TST is at least 15 mm, or if the difference between the two test responses is at least 10 mm, consider treatment of latent TB infection (LTBI). If either TST result is borderline (i.e. 5-14mm), test for IGRA will be arranged. Proceed to second TST or observe after first or second negative IGRA respectively. Consider treatment of LTBI if IGRA is positive. If treatment of latent TB infection is indicated but the contact case is medically not fit, provide advice on passive symptom surveillance and arrange suitable follow-up if necessary.

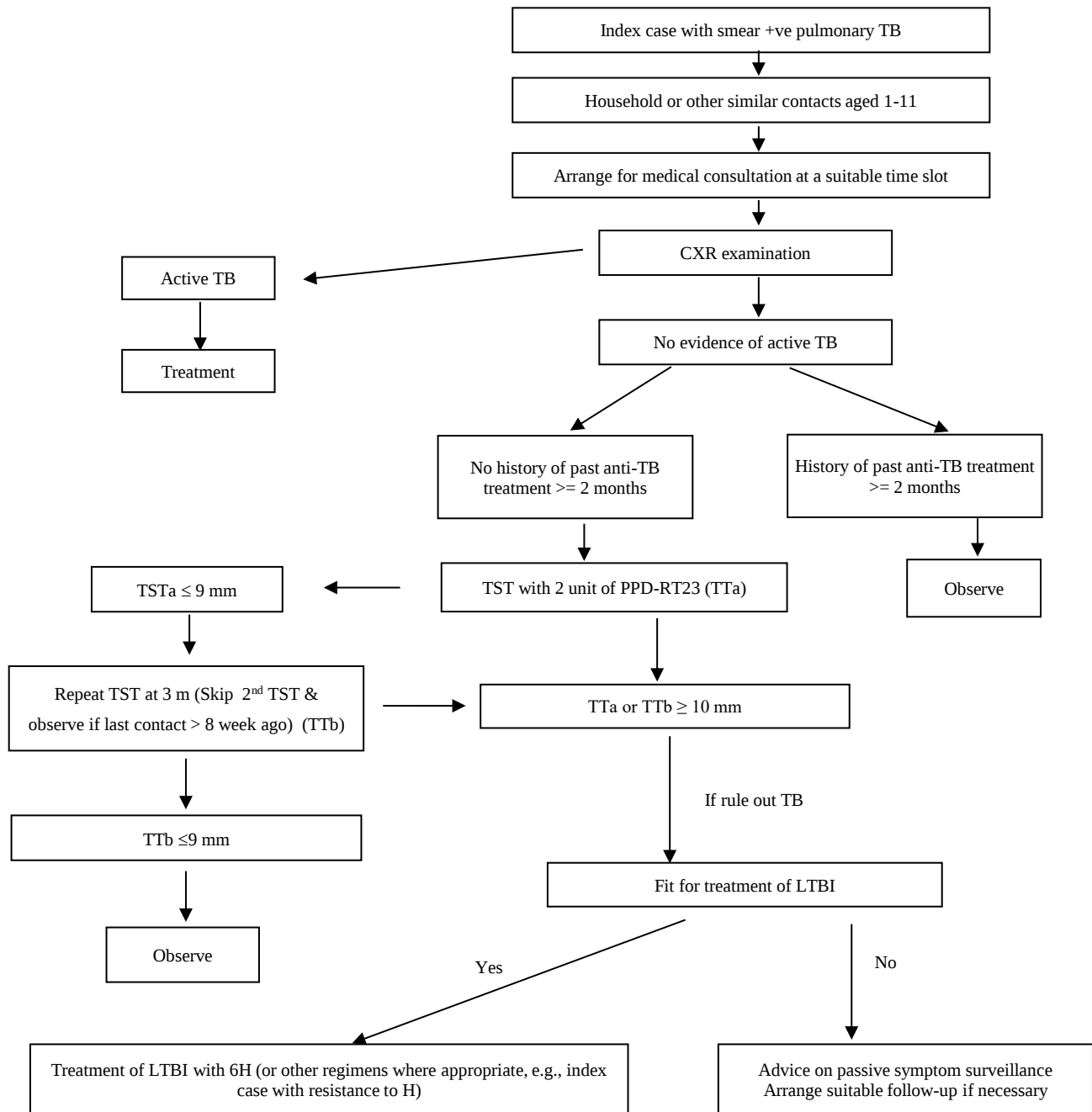
Appendix 20(b) Figure 2: Targeted screening of household contacts aged below one year



Targeted screening for active TB and latent TB infection is regularly offered to subjects aged below 1 year and exposed to smear-positive pulmonary TB patients in the same household or other similar scenarios. Medical consultation is arranged at a suitable time slot, when chest X-ray examination will first be done to exclude active TB for which treatment will be given. For contacts with no evidence of active TB but a history of past anti-TB treatment, the need for retreatment of latent TB infection versus observation will be assessed. For those with neither active TB nor a history of past anti-TB treatment, further management is stratified by their age group. For contacts aged below 3 months, withhold BCG if possible, and treat with isoniazid daily (or other regimens) for 3 months. This is followed by tuberculin skin test (TST) using 2 units of PPD-RT23. If the test response is at least 5 mm, complete a full course of 6-month isoniazid preventive treatment (or other regimens). If the test response is no more than 4 mm, observe and give BCG if it has not yet been given or given less than 2 months before starting treatment for latent TB infection.

For contacts aged 3 months or above, TST is done using 2 units of PPD-RT23. If the test response is no more than 4 mm, repeat TST 3 months later, unless the contact has had no further contact with the index case for more than 8 weeks. If the test response of either the first or second TST is at least 5 mm, consider treatment of latent TB infection with daily isoniazid for 6 months (or other regimens where appropriate). If treatment of latent TB infection is indicated but the contact case is medically not fit, provide advice on passive symptom surveillance and arrange suitable follow-up if judged necessary. If the test response of the second TST (or the single TST done more than 8 weeks ago after last contact) is no more than 4 mm, observe and give BCG if it has not yet been given.

Appendix 20(b) Figure 3: Targeted screening of household contacts aged between 1 to 11



For contacts aged 1 to 11, tuberculin skin test (TST) cut-off is set at 10mm.

Appendix 20(c) Examination of Contacts in the Chest Clinics 2024

Particulars	Smear Positive Index Case	Smear Negative Index Case	Total
Number of patients (new & old) listed	689	2 225	2 914
Number of contacts listed	1 392	4 948	6 340
Number of contacts exam	1 285	4 362	5 647
Non-respondents	107	586	693
<u>Result of contact examined</u>			
(a) NSD	1 182 (91.98%)	4 094 (93.86%)	5 276 (93.43%)
(b) Disease other than TB	56 (4.36%)	205 (4.70%)	261 (4.62%)
(c) Inactive respiratory TB	24 (1.87%)	27 (0.62%)	51 (0.90%)
(d) Active respiratory TB			
A (radiologically)	6 (0.47%)	5 (0.11%)	11 (0.19%)
B (bacteriologically)	3 (0.23%)	3 (0.07%)	6 (0.11%)
C (incomplete)	0 (0.00%)	5 (0.11%)	5 (0.09%)
(e) Non-respiratory TB	5 (0.39%)	3 (0.07%)	8 (0.14%)
(f) Result not yet known	9 (0.70%)	20 (0.46%)	29 (0.51%)
Total of (a) to (f)	1 285 (100.00%)	4 362 (100.00%)	5 647 (100.00%)

Appendix 21(a) Scheme for BCG Administration in Hong Kong 2024

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 has been stopped since September 2000

III. Tuberculosis in Hong Kong

Appendix 21(b) BCG Vaccinations at Birth 2024

Institution		No. of Live-births	BCG Vaccination	% Vaccinated
Hospital under HA Management	P.Y. Nethersole East	1 629	1 612	99.0
	Queen Mary	2 420	2 372	98.0
Private Hospital	Canossa	249	245	98.4
	Gleneagles H.K.	782	770	98.5
	H.K. Adventist	25	23	92.0
	H.K. Sanatorium	2 464	2 434	98.8
	Matilda International	608	575	94.6
	St. Paul's	810	801	98.9
Total (Hong Kong Island)		8 987	8 832	98.3
Hospital under HA Management	Kwong Wah	3 197	3 179	99.4
	Queen Elizabeth	3 413	3 409	99.9
	United Christian	1 807	1 795	99.3
	H.K. Children's ⁽²⁾	-	58	-
Private Hospital	H.K. Baptist	1 182	1 168	98.8
	St. Teresa's	2 144	2 102	98.0
Total (Kowloon)		11 743	11 711	99.7
Hospital under HA Management	Prince of Wales	4 426	4 432	100.1 ⁽¹⁾
	Princess Margaret	2 466	2 423	98.3
	Tuen Mun	3 088	3 082	99.8
Private Hospital	T.W. Adventist	603	598	99.2
	Union	4 214	4 150	98.5
	CUHK Medical Centre	1 190	1 168	98.2
Total (New Territories)		15 987	15 853	99.2
Maternal and Child Health Centres and Private Clinics		-	89	-
Grand Total		36 717	36 485	99.4

Notes:

- (1) Including vaccinations of live births transferred from other maternity institutions and vaccinations of live births at the end of 2023
- (2) No. of live-births is not available since no maternity service in HKCH.

Appendix 22 Tuberculosis and Chest Beds in Public Services 2024

Hospital		Number of TB and Chest Beds
Hospital Authority	Grantham Hospital	120
	Kowloon Hospital	116
	Ruttonjee Hospital	85
	Haven of Hope Hospital	135
	Wong Tai Sin Hospital	93
	Total (Hospital Authority)	549
Custody	Stanley Prison Hospital	20
Grand Total (2024)		569
Grand Total (2023)		533
Grand Total (2022)		539

Appendix 23 Annual Admissions to Chest Hospitals from Government Chest Clinics from 2015 to 2024

Year	Total admissions
2015	2 631
2016	2 579
2017	2 459
2018	2 255
2019	1 981
2020	1 009
2021	919
2022	495
2023	635
2024	725

Admissions by Clinic	Total Admissions in 2024
East Kowloon	80
Kowloon	48
Sai Ying Pun	64
Shaukeiwan	59
Shaukeiwan Pneumoconiosis	30
Shek Kip Mei	0
South Kwai Chung	144
Tai Po	7
Wanchai	50
Yan Oi	50
Yaumatei	52
Yuen Chau Kok	89
Yung Fung Shee	29
Cheung Chau	0
NT Chest Clinic ⁽¹⁾	23
Total	725

Note:

(1) NT Chest Clinic includes Sai Kung, Sheung Shui, Tung Chung and Yuen Long Chest Clinic.

Appendix 24 HIV Surveillance Among TB Patients:

Provider-initiated HIV Antibody Testing Among TB Patients in Government Chest Clinics from 2005 to 2024

Year	HIV positive		HIV negative		HIV results unknown or not done		Total	
	Number	%	Number	%	Number	%	Number	%
2005	35	0.7 %	4 174	80.5 %	973	18.8 %	5 182	100 %
2006	33	0.7 %	4 478	90.4 %	445	9.0 %	4 956	100 %
2007	41	0.9 %	4 034	87.8 %	517	11.3 %	4 592	100 %
2008	48	1.0 %	4 073	88.8 %	464	10.1 %	4 585	100 %
2009	40	0.9 %	3 953	88.1 %	496	11.0 %	4 489	100 %
2010	28	0.7 %	3 805	89.5 %	418	9.8 %	4 251	100 %
2011	33	0.8 %	3 623	89.7 %	381	9.4 %	4 037	100 %
2012	22	0.5 %	3 685	90.7 %	357	8.8 %	4 064	100 %
2013	24	0.6 %	3 512	87.6 %	473	11.8 %	4 009	100 %
2014	23	0.6 %	3 322	87.5 %	450	11.9 %	3 795	100 %
2015	24	0.7 %	3 266	90.4 %	322	8.9 %	3 612	100 %
2016	28	0.8 %	3 244	91.3 %	283	8.0 %	3 555	100 %
2017	31	0.9 %	3 225	93.0 %	211	6.1 %	3 467	100 %
2018	23	0.6 %	3 336	93.1 %	225	6.3 %	3 584	100 %
2019	33	1.0 %	3 067	93.1 %	194	5.9 %	3 294	100 %
2020	15	0.5 %	2 798	92.9 %	198	6.6 %	3 011	100 %
2021	29	0.9 %	2 906	92.5 %	205	6.5 %	3 140	100 %
2022	13	0.5 %	2 487	95.1 %	114	4.4 %	2 614	100 %
2023	19	0.7 %	2 527	96.1 %	84	3.2 %	2 630	100 %
2024	15	0.6 %	2 605	98.0 %	39	1.5 %	2 659	100 %

NB:

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

Appendix 25 Number of ‘Confirmed’ cases of TB in Health Care Staff Notified to Labour Department from 2002 to 2024

Year	Number
2002	29
2003	30
2004	42
2005	30
2006	18
2007	16
2008	25
2009	18
2010	11
2011	17
2012	15
2013	7
2014	7
2015	9
2016	6
2017	9
2018	4
2019	5
2020	3
2021	11
2022	2
2023	6
2024	3

‘Confirmed’ Cases of TB in Health Care Staff Notified to Labour Department (2024) by Age and Job Title

Age group	Doctor	Nurse	Other Allied Health Professional	Other Supporting Staff	Total
20 - 24					
25 - 29					
30 - 34					
35 - 39					
40 - 44					
45 - 49		1			1
50 - 54		1		1	2
55 - 59					
60 - 64					
65 - 69					
70 - 74					
Total	0	2	0	1	3

Appendix 26 Treatment outcomes of Cohorts of TB Patients

Treatment outcomes for TB cases registered in 2023 calendar year (number of patients) ⁽¹⁾

	Number of cases registered in 2023 ⁽²⁾		Cured or treatment completed		Treatment failed		Died ⁽³⁾		Lost to follow-up (defaulted)		Not evaluated ⁽⁴⁾	
All new and relapse cases (bacteriologically confirmed or clinically diagnosed, pulmonary or extrapulmonary)	3 204	100.00%	2 458	76.72%	0	0.00%	589	18.38%	70	2.18%	87	2.72%
HIV-positive TB cases, all types	19	100.00%	16	84.21%	0	0.00%	1	5.26%	2	10.53%	0	0.00%

Treatment outcomes for TB cases started on second-line TB treatment in 2022 calendar year (number of patients) ⁽¹⁾

	Number of cases started on second-line TB treatment in 2022		Cured or treatment completed		Treatment failed		Died		Lost to follow-up (defaulted)		Not evaluated ⁽⁴⁾	
All confirmed RR-TB / MDR-TB cases ⁽⁵⁾	27	100.00%	20	74.07%	0	0.00%	4	14.81%	0	0.00%	3	11.11%
All confirmed XDR-TB cases	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

Notes:

- (1) Treatment outcomes as evaluated in March 2025.
- (2) Exclude all rifampicin-resistant (i.e. rifampicin-resistant alone, MDR, Pre-XDR & XDR) cases on second-line treatment
- (3) Death (TB-related or non-TB related cause of death) before starting treatment or during the course of treatment.
- (4) “Not evaluated” includes “transferred out”, “still on treatment” and any other registered cases where the treatment outcomes have not been evaluated.
- (5) Excluding all confirmed XDR-TB cases. (i.e. Treatment outcomes of XDR-TB cases are illustrated separately in the row below)

IV. Pneumoconiosis

**Appendix 1 New Cases of Suspected Pneumoconiosis/Mesothelioma attending the
Pneumoconiosis Clinic in Hong Kong from 1956 to 2024**

Year	New Cases Undergoing Assessment						Cumulative Total of patients Confirmed by the Board		
	Government Workers	Non- government Workers	Total number of Workers	Number of Diseases confirmed by the Board #					Cumulative Total of Workers
				(b)	(e)	(f)			
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	-	-	-	1 017	-	-
1978	12	207	219	-	-	-	1 236	-	-
1979	2	210	212	-	-	-	1 448	-	-
1980	12	532	544 (a)	-	-	-	1 992	386 (a)	-
1981	8	608	616	-	-	-	2 608	1 332	162
1982	4	511	515	-	-	-	3 123	1 434	634
1983	2	292	294	-	-	-	3 417	1 469	945
1984	1	231	232	-	-	-	3 649	1 477	1 140
1985	1	179	180	-	-	-	3 829	1 479	1 322
1986	3	176	179	(3)	-	(188)	4 008	1 485	1 513
1987	4	166	170	(2)	-	(164)	4 178	1 485	1 679
1988	6	172	178	(4)	-	(194)	4 356	1 488	1 877
1989	-	156	156	(1)	-	(145)	4 512	1 488	2 023
1990	2	147	149	(1)	-	(118)	4 661	1 489	2 142
1991	-	171	171	(1)	-	(8)	4 832	1 489	2 151
1992	2	171	173	(3)	-	(186)	5 005	1 490	2 340
1993	2	247	249	(4)	-	(148)	5 254	1 492	2 492
1994	-	327	327	(7)	-	(271)	5 581	1 493	2 770
1995	9	245	254	(9)	-	(221)	5 835	1 494	3 000
1996	4	193	197	(9)	-	(110)	6 032	1 494	3 119
1997	4	154	158	(7)	-	(116)	6 190	1 494	3 242
1998	2	197	199	(5)	-	(104)	6 389	1 494	3 351
1999	-	291	291	(15)	-	(139)	6 680	1 494	3 505
2000	3	235	238	(11)	-	(103)	6 918	1 494	3 619
2001	6	230	236	(9)	-	(123)	7 154	1 494	3 751
2002	3	212	215	(9)	-	(108)	7 369	1 494	3 868
2003	3	142	145	(6)	-	(74)	7 514	1 494	3 948
2004	3	138	141	(4)	-	(69)	7 655	1 494	4 021
2005	-	134	134	(2)	-	(68)	7 789	1 494	4 091
2006	-	278	278	(7)	-	(109)	8 067	1 494	4 207
2007	-	120	120	(2)	-	(67)	8 187	1 494	4 276
2008	3	118	121	(5)	(1)	(65)	8 308	1 494	4 347
2009	-	167	167	(5)	(15)	(86)	8 475	1 494	4 453
2010	-	152	152	(1)	(12)	(61)	8 627	1 494	4 527

**Appendix 1 New Cases of Suspected Pneumoconiosis/Mesothelioma attending the
Pneumoconiosis Clinic in Hong Kong from 1956 to 2024---cont'd**

Year	New Cases Undergoing Assessment						Cumulative Total of patients Confirmed by the Board		
	Government Workers	Non- government Workers	Total number of Workers	Number of Diseases confirmed by the Board #					Cumulative Total of Workers
				(b)	(e)	(f)	R1	R2	
2011	-	130	130	(9)	(13)	(63)	8 757	1 494	4 612
2012	-	122	122	(3)	(12)	(44)	8 879	1 494	4 671
2013	-	156	156	(2)	(17)*	(51)	9 035	1 494	4 740 *
2014	3	138	141	(2)	(14)	(68)	9 176	1 494	4 824
2015	4	153	157	(0)	(13)	(56)	9 333	1 494	4 893
2016	2	144	146	(4)	(7)	(43)	9 479	1 494	4 947
2017	6	132	138	(2)	(16)	(54)	9 617	1 494	5 019
2018	1	125	126	(2)	(10)	(59)	9 743	1 494	5 090
2019	2	151	153	(7)**	(10)**	(52)	9 896	1 494	5 158 **
2020	2	191	193	(12)	(12)	(88)	10 089	1 494	5 270
2021	1	123	124	(7)**	(20)**	(67)	10 213	1 494	5 363 **
2022	2	141	143	(3)	(21)	(79)	10 356	1 494	5 466
2023	-	156	156	(3)	(17)	(78)	10 512	1 494	5 564
2024	1	122	123 (c)	(3)	(8)	(79)	10 635	1 494 (d)	5 654

Notes:

- (a) The Pneumoconiosis Compensation Scheme was initiated in 1980, before that reporting was voluntary.
- (b) The figures in this column denote the number of cases of asbestos-related lung disease confirmed by the Board.
- (c) Up to the moment that this report is being compiled, 82 of these 123 assessment cases in 2024 had been confirmed to be pneumoconiosis (Silicosis or Asbestosis) by the Pneumoconiosis Medical Board. And the following tables (Appendix 2 to Appendix 8) are compiled based on these 82 cases.
- (d) Under Revised Ordinance 1993 : 584 out of 1494 pneumoconiotics had joined the pneumoconiosis ex-gratia scheme up to the year 2024. 13 living pneumoconiotics were each receiving a monthly ex-gratia payment of \$8,120.00 in 2024.
- (e) The figures in this column denote the number of cases of Mesothelioma confirmed by the Board.
- (f) The figures in this column denote the number of cases of Silicosis confirmed by the Board.
- R1 Patients having pneumoconiosis with the date of diagnosis before 1 January 1981 who were alive as at 31 December 1980 are eligible for a government funded ex-gratia compensation scheme.
- R2 Patients having pneumoconiosis with the date of diagnosis on or after 1 January 1981 are eligible for a levy funded compensation scheme under the Pneumoconiosis (Compensation) Ordinance (the Ordinance). The Ordinance was amended to cover for mesothelioma as well in 2008.
- # Patients may have more than one disease.
- * 1 patient is confirmed with a second disease in that year.
- ** 1 patient is confirmed with both Asbestosis and Mesothelioma.

Appendix 2 Age Distribution of Pneumoconiosis Patients confirmed in 2024

Age	0	%
<25	0	0
25 - 29	0	0
30 - 34	0	0
35 - 39	0	0
40 - 44	0	0
45 - 49	0	0
50 - 54	2	2
55 - 59	3	4
60 - 64	16	20
65 - 69	26	31
70 - 74	19	23
75+	16	20
Total	82	100

Appendix 3 Occupation Distribution of Pneumoconiosis Patients confirmed in 2024

Type of Occupation	Number of Cases	%
Construction	55	67
Construction / Quarry	6	7
Others	21	26
Total	82	100

Appendix 4 Pneumoconiosis Patients confirmed in 2024 by Duration of Exposure to Dust

Duration	Number of Cases	%
< 5 years	0	0
5 - 9	0	0
10 - 14	2	2
15 - 19	6	7
20 - 24	5	6
25 - 29	9	11
30 +	60	74
Unknown / Uncertain	0	0
Total	82	100

Appendix 5 Pneumoconiosis Patients confirmed in 2024 by Degree of Incapacity

Degree of Incapacity (%)	No. of New Cases Compensated under Compensation Ordinance
5	23
10	22
15	11
20	11
25	1
30	3
35	1
40	4
45	0
50	1
55	0
60	1
65	0
70	0
75	0
80	0
85	1
90	0
95	0
100	1
(Not Applicable *)	2
Total	82

Note:

* Assessment by Board after Death

Appendix 6 Pneumoconiosis Patients confirmed in 2024 Classified by Radiological Appearance

Type of Opacity	Profusion			Sub-Total
	1	2	3	
<u>Small opacities</u>				
<u>Rounded</u>				
p (up to 1.5 mm diameter)	67	4	0	71
q (1.5 to 3.0 mm diameter)	5	1	0	6
r (3.0 to 10.0 mm diameter)	0	0	0	0
<u>Irregular</u>				
s (fine irregular or linear)	3	0	0	3
t (medium irregular)	0	0	0	0
u (coarse irregular)	0	0	0	0
Sub-total	75	5	0	80
<u>Combined opacities</u>	-	-	-	0
<u>Not Available</u>	-	-	-	2
Total				82

15 out of 82 patients have large opacities as follows:

<u>Large opacities</u>		
A	(Single opacity 1 - 5 cm or multiple opacities > 1 cm each but sum of diameter < 5 cm)	11
B	(Single or multiple opacities with combined area < the equivalent of right upper zone)	2
C	(Single or multiple opacities with combined area > the equivalent of right upper zone)	2
Total		15

Appendix 7 History of Tuberculosis (TB) among Patients with Pneumoconiosis confirmed in 2024

History of TB		Number of Cases	%
History of TB	Bacteriological Positive	14	17
	Bacteriological Negative	2	2
	Not Available	4	5
No History of TB		62	76
Total		82	100

Appendix 8 Pneumoconiosis Patients confirmed in 2024 by Other Particulars

Characteristics		Number of Cases	%
Smoking	Smoker / Ex-smoker	69	84
	Non-smoker	13	16
	Unknown	0	0
	Total	82	100
Still exposed to dust when seen by the Pneumoconiosis Clinic	Yes	25	30
	No	57	70
	Unknown	0	0
	Total	82	100
General Condition	Good	77	94
	Fair	3	4
	Poor	0	0
	Died	2	2
	Total	82	100

ADDENDUM A brief history of compensation for Pneumoconiosis and malignant mesothelioma in Hong Kong

The Pneumoconiosis (Compensation) Ordinance (the Ordinance) was first introduced in 1980 for compensation of workers who acquired pneumoconiosis as a result of occupational exposure to silica and asbestos dusts with the date of diagnosis on or after 1 January 1981. This compensation scheme is funded by a levy which is imposed in respect of construction and quarry operations in Hong Kong. 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. On the other hand, eligible patients having pneumoconiosis with the date of diagnosis before the enactment of this ordinance who were alive as at 31 December 1980 are eligible for a government funded ex-gratia compensation scheme. The Ordinance was amended in 1993 to replace the lump sum payment with monthly payment payable to patients until their death. 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 joined the revised scheme in 1993 or afterwards, irrespective of whether there was additional degree of incapacity over previous lump-sum compensation. The 1996 amendment also allowed the Pneumoconiosis Medical Board (the Board) to take other tests (FEV1 and adjusted DLCO) into consideration in adjusting the degree of incapacity (as determined by FVC) 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 patients when it 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 findings, the new set of reference values has been adopted for compensation assessment since 2009.

V. Other findings

Annex 1(a) TB Notifications and Rate (All Cases) by Sex and Age from 2020 - 2024

All TB cases by Sex and Age

Age group	2020			2021			2022			2023			2024		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0 - 19	34	37	71	40	27	67	22	32	54	15	25	40	22	20	42
20 - 39	263	394	657	209	370	579	162	286	448	142	259	401	140	217	357
40 - 59	499	398	897	544	456	1 000	400	333	733	401	336	737	379	318	697
≥ 60	1 486	545	2 031	1 528	542	2 070	1 452	513	1 965	1 488	562	2 050	1 539	559	2 098
All age groups	2 282	1 374	3 656	2 321	1 395	3 716	2 036	1 164	3 200	2 046	1 182	3 228	2 080	1 114	3 194

Notification rate of all TB cases (per 100 000 population)

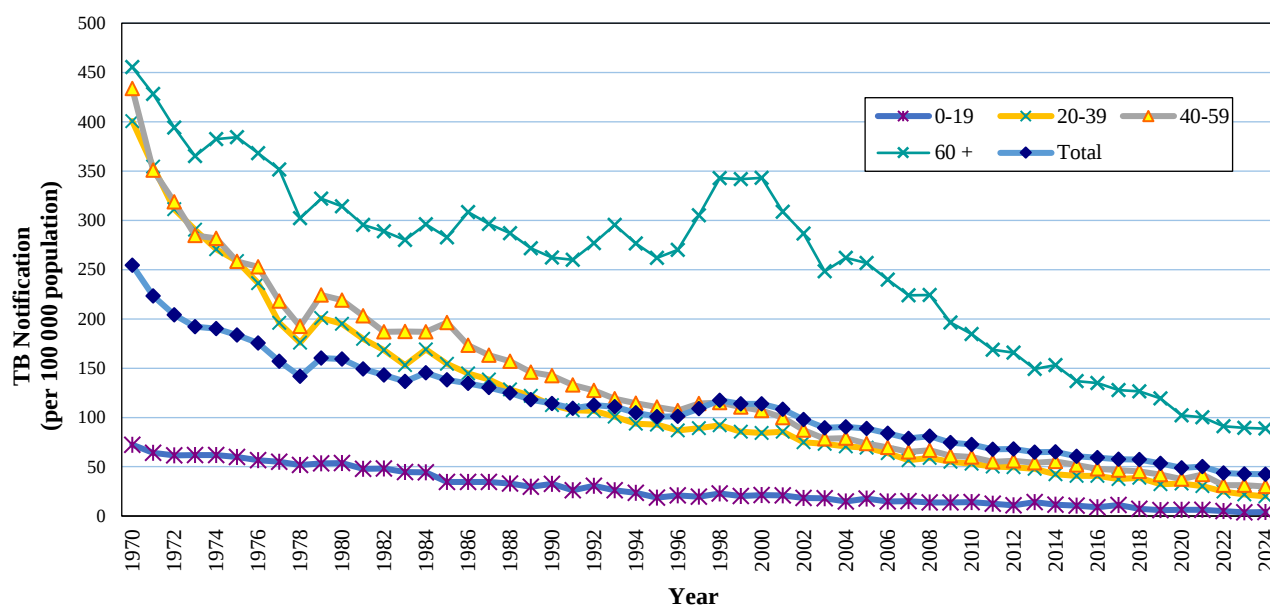
Age group	2020			2021			2022			2023			2024		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
0 - 19	6.0	6.9	6.4	7.3	5.2	6.2	4.1	6.3	5.2	2.7	4.8	3.7	4.1	4.0	4.0
20 - 39	30.0	35.2	32.9	24.8	35.0	30.5	19.9	28.6	24.7	17.3	25.8	21.9	17.3	22.1	19.9
40 - 59	48.7	29.1	37.5	54.0	33.3	42.1	40.7	24.7	31.4	40.8	24.6	31.4	39.2	23.4	29.9
≥ 60	156.9	52.4	102.2	155.5	50.1	100.2	142.2	45.2	91.1	138.3	46.4	89.6	139.3	44.4	88.7
All age groups	66.8	33.8	48.9	68.6	34.6	50.1	60.7	29.2	43.6	59.6	28.8	42.8	60.9	27.1	42.5

As shown above, the rates of TB among males are in general higher than that among females, and higher in the older age groups.

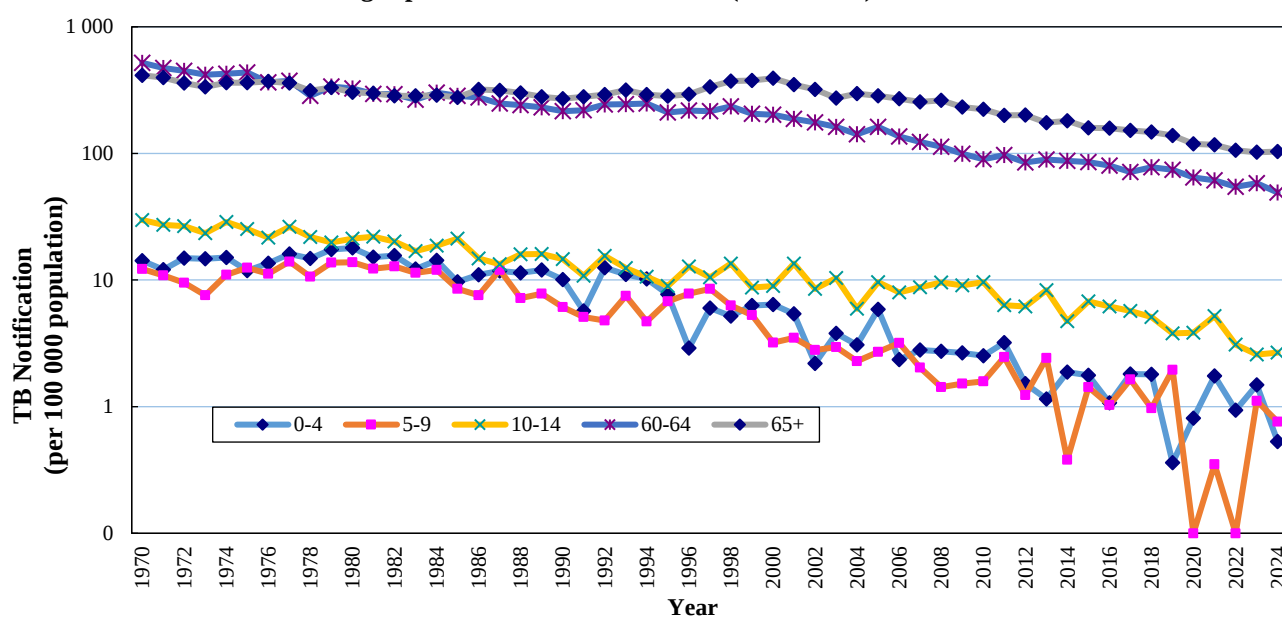
The overall rates (per 100 000 population) from 2020 to 2024 are 48.9, 50.1, 43.6, 42.8 and 42.5 respectively.

Annex 1(b) Trend of age-specific TB Notification Rate from 1970 to 2024

Trend of Age-specific TB Notification Rate (All Gender) from 1970 to 2024



Trend of Age-specific TB Notification Rate (All Gender) from 1970 to 2024



- All the age-specific TB notification rates, particularly those of the younger age groups, show a generally declining trend.
- TB 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 2 TB-HIV Registry

Table 1 shows the annual number of cases reported to TB-HIV registry from all sources (1996 – 2024). A total of 15 cases with TB-HIV co-infection were reported to the TB-HIV Registry in 2024. Out of these 15 cases, 14 (93.3%) had TB as a primary AIDS-defining illness (Table 2).

The drug susceptibility pattern among culture-positive (sputum or other specimens) TB-HIV cases for the years 1996 to 2024 is shown in Table 3. Thirteen (86.7%) out of fifteen patients reported to the TB-HIV Registry in 2024 had a positive sputum and/or other specimen culture. One case had disease due to *Mycobacterium tuberculosis* resistant to isoniazid. All other cases showed full sensitive to first-line anti-tuberculosis drugs. There was no RR/MDR/XDR-TB-HIV co-infected case detected in year 2024. Among 600 notifications to TB-HIV Registry with a positive sputum or other specimen culture between 1996 and 2024, 10 (1.7%) of them had MDR-TB. DH will continue to monitor prevalence of drug resistance in the context of HIV.

Table 4 shows the characteristics of 15 patients seen at chest clinics and/or Special Preventive Programme (SPP) in 2024. Majority of them were Chinese men. All of them were new TB cases, except for one relapse case. Two-third of them were found to have tuberculosis disease at the same episode of diagnosing HIV infection and few exiting PLHIV defaulted HIV follow up and ART treatment at the time they were co-infected with tuberculosis, so nearly all TB-HIV co-infected patients in 2024 were not receiving anti-retroviral therapy at the time of TB-HIV co-infection. The median CD4 count was 81.0/ μ L at time of TB diagnosis. Extra-pulmonary involvement (irrespective of lung involvement) is found in more than three quarter of the patients.

Annex 2 TB-HIV Registry --- cont'd

Table 1: Annual number of TB-HIV cases reported to TB-HIV Registry, all sources from 1996 to 2024 ⁽¹⁾

Year	Number of TB-HIV cases ⁽²⁾
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
2013	21
2014	25
2015	24
2016	36
2017	31
2018	29
2019	39
2020	18
2021	30
2022	15
2023	20
2024	15

Notes:

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

Annex 2 TB-HIV Registry --- cont'd

Table 2: TB as primary AIDS-defining illness reported to chest clinics and/or SPP from 1996 to 2024 ⁽¹⁾

Year	TB as primary AIDS-defining illness				Total	
	Yes			No		Information not available
	Extra-pulmonary	Pulmonary and TB cervical lymph node with CD4 < 200 µL	Subtotal			
1996	1	7	8	1	0	9
1997	2	3	5	2	0	7
1998	6	3	9	3	0	12
1999	7	6	13	3	0	16
2000	3	4	7	5	0	12
2001	4	6	10	7	0	17
2002	4	9	13	2	0	15
2003	1	10	11	5	0	16
2004	5	7	12	11	0	23
2005	8	14	22	7	0	29
2006	9	19	28	7	0	35
2007	10	17	27	8	2	37
2008	14	13	27	6	0	33
2009	9	3	12	6	5	23
2010	4	10	14	5	3	22
2011	6	8	14	8	6	28
2012	4	9	13	5	2	20
2013	7	10	17	1	3	21
2014	7	8	15	9	1	25
2015	7	5	12	8	4	24
2016	8	8	16	17	3	36
2017	8	6	14	12	5	31
2018	5	8	13	11	5	29
2019	13	7	20	19	0	39
2020	3	5	8	9	1	18
2021	10	11	21	7	2	30
2022	4	4	8	6	1	15
2023	7	7	14	6	0	20
2024	10	4	14	1	0	15

Note:

(1) Some of the figures in the table for the previous years have been updated.

Annex 2 TB-HIV Registry --- cont'd

Table 3: Drug susceptibility pattern among culture positive (sputum and/or other specimens) TB-HIV cases from TB-HIV Registry, all sources from 1996 to 2024

Year	Susceptible to HRES/HREZ ⁽²⁾	Any resistance (non-MDR/XDR)	MDR	XDR	Drug susceptibility unknown	Total number of culture positive cases ⁽³⁾
1996	7	1	0	0	0	8
1997	5	1	0	0	0	6
1998	13	1	0	0	0	14
1999	16	4	1	0	0	21
2000	13	2	0	0	0	15
2001	23	5	0	0	0	28
2002	11	3	1	0	0	15
2003	18	2	1	0	0	21
2004	20	6	0	0	0	26
2005	29	5	0	0	0	34
2006	32	3	0	0	0	35
2007	30	7	1	0	0	38
2008	30	3	0	0	0	33
2009	22	7	0	0	0	29
2010	12	2	0	0	0	14
2011	12	4	0	0	0	16
2012	13	2	1	0	0	16
2013	13	5	0	0	0	18
2014	11	7	0	0	1	19
2015	14	1	2	0	2	19
2016	27	3	2 ⁽¹⁾	0	0	32
2017	19	2	0 ⁽¹⁾	0	0	21
2018	16	2	0	0	0	18
2019	27	1	0	0	0	28
2020	11	0	0	0	0	11
2021	21	1	0	0	0	22
2022	8	3	0	0	0	11
2023	15 ⁽²⁾	3	1	0	0	19
2024	12	1	0	0	0	13
Total	500	87	10	0	3	600

Note:

- (1) Excluding one case with clinical specimen cultured negative but rpo B mutation detected.
- (2) Routine drug susceptibility test (DST) for first line anti-TB drugs was changed from HRES to HREZ since mid-August 2023. (i.e. DST to streptomycin has been replaced by DST to pyrazinamide)
- (3) Repeated notifications for same cases in different year(s) (e.g. due to treatment after default, relapse, etc) are not excluded

Annex 2 TB-HIV Registry --- cont'd

Table 4: Characteristics of 15 TB-HIV cases reported from chest clinics and SPP in 2024

	Number	Proportion
Age distribution		
0 to 19	0	0.0%
20 to 39	3	20.0%
40 to 59	10	66.7%
60+	2	13.3%
Sex distribution		
Male	11	73.3%
Female	4	26.7%
Ethnicity		
Chinese	11	73.3%
Asians, non-Chinese	3	20.0%
African	1	6.7%
Others	0	0.0%
Case category		
New case	14	93.3%
Relapse	1	6.7%
Treatment after default	0	0.0%
Failure of previous treatment	0	0.0%
Others	0	0.0%
Unknown	0	0.0%
TB as a primary AIDS-defining illness		
Yes	14	93.3%
No	1	6.7%
CD4 count at time of co-infection (median, IQR)	81.0 (44.0-111.0)/uL	
Anti-retroviral therapy at time of co-infection		
Yes	1	6.7%
No	14	93.3%
Presence of extra-pulmonary TB (irrespective of lung involvement)		
Yes	12	80.0%
No	3	20.0%
Extent of Respiratory TB N = 11 ⁽¹⁾		
Minimal	3	27.3%
Moderate	3	27.3%
Extensive	5	45.5%
Sputum bacteriological status (pre-treatment) N = 13 ⁽¹⁾		
Smear + culture +	2	15.4%
Smear - culture +	7	53.8%
Smear + culture -	0	0.0%
Smear - culture -	4	30.8%
Drug resistance pattern (pre-treatment) (based on sputum and/or other specimen culture) N = 13 ⁽¹⁾		
Susceptible to HREZ	12	92.3%
Resistant to rifampicin alone	0	0.0%
Resistant to isoniazid alone	1	7.7%
MDR	0	0.0%
XDR	0	0.0%

Note:

(1) N = number of cases available for analysis, N =15 if not specified

Annex 3 Crude and Standardised Death Rate and Notification Rate from 2001 to 2024 ⁽¹⁾

Year	Crude Death Rate	Standardised Death Rate ⁽²⁾	Crude Notification Rate	Standardised Notification Rate ⁽²⁾
2001	4.6	4.6	108.2	108.2
2002	4.0	3.8	97.9	96.5
2003	4.1	3.8	89.5	87.1
2004	4.2	4.3	91.8	87.6
2005	4.0	3.4	90.4	85.2
2006	4.3	3.6	84.1	77.9
2007	3.3	2.6	79.0	71.5
2008	3.3	2.5	81.0	72.1
2009	2.9	2.3	74.5	65.6
2010	2.7	2.0	72.5	63.3
2011	2.6	1.8	67.8	57.8
2012	2.8	1.9	67.9	57.8
2013	2.5	1.7	64.9	54.8
2014	2.6	1.7	65.0	53.5
2015	2.3	1.4	60.5	49.5
2016	2.2	1.2	59.2	48.2
2017	2.5	1.5	57.5	46.4
2018	2.5	1.5	57.3	45.2
2019	2.7	1.5	53.3	41.0
2020	2.7	1.4	48.9	38.0
2021	2.3	1.4	50.1	38.7
2022	2.5	1.4	43.6	32.2
2023	2.3	1.3	42.8	30.5
2024	2.3	1.2	42.5	29.5

Notes:

(1) Death rate and notification rate per 100 000 population.

(2) Age and sex-standardisation, using the mid-2001 population as the standard population.

V. Other findings

Annex 4 HBsAg Seroprevalence Survey Among TB Patients Seen at Chest Clinics 2024

In a sample survey conducted by the TB & Chest Service of the Department of Health in 2024 (3-month period from 1.3.2024 to 31.5.2024), the overall HBsAg seropositive rate among TB patients seen at chest clinics was 7.63%.

Sex / Age Group	HBsAg status			HBsAg seropositive rate (%) ⁽¹⁾	Total
	Positive	Negative	Unknown		
Male					
0 - 19	0	4	0	0.00	4
20 - 39	3	33	0	8.33	36
40 - 59	7	86	1	7.53	94
≥ 60	28	279	6	9.12	313
Female					
0 - 19	0	6	0	0.00	6
20 - 39	1	44	1	2.22	46
40 - 59	5	80	0	5.88	85
≥ 60	9	110	3	7.56	122
Total	53	642	11	7.63	706

HBsAg Seroprevalence Survey 2023 - 2024

Sex / Age Group	HBsAg seropositive rate (%)	
	2023	2024
Male		
0 - 19	0.00	0.00
20 - 39	0.00	8.33
40 - 59	11.11	7.53
≥ 60	8.57	9.12
Female		
0 - 19	0.00	0.00
20 - 39	3.33	2.22
40 - 59	5.75	5.88
≥ 60	7.69	7.56
Total	7.42	7.63

Note:

(1)
$$\text{HBsAg seropositivity rate} = \frac{\text{No. of HBsAg positive patients}}{(\text{No. of HBsAg positive patients} + \text{No. of HBsAg negative patients})}$$

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.:			
☐ Lung		☐ Meninges		Sputum (please ✓ and attach laboratory report if available)				Other specimens (specify and ✓ below):	
☐ 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)

[Part 1: To be completed by DOCTOR requesting TB denotification]

To: Statistics Unit, Wanchai Chest Clinic, 99 Kennedy Road, Hong Kong (Fax: 2572 8921)

Denotification of Previously Notified TB Case

Clinic/ Hospital:		Clinic Hospital number:	
Name of patient:		HKID/ passport number:	
Date notified:		Smear:	Positive / Negative / Unknown
Revised diagnosis or other remarks:		Culture:	Negative / M tuberculosis / Non-tuberculous mycobacteria / Unknown / Others _____
Denotification requested by (Name and signature of doctor):		Tel:	Date:
		Fax:	

+++++

[Part 2: To be completed by Statistics Unit of TB&CS]

From: Statistics Unit of TB&CS

To: DOCTOR who sent in this request for denotification (Fax no.)

It is confirmed that the above TB denotification request has been received by the Statistics Unit of TB & Chest Service at Wanchai Chest Clinic.

Date:

Chop or signature:

+++++

[Part 3: To be completed by Statistics Unit of TB&CS]

From: Statistics Unit of TB&CS

To: _____ Chest Clinic (AE Chest Clinic) (Fax no.:)

Please note the above request for denotification for further necessary actions.

+++++

[Part 4: To be completed by AE Chest Clinic]

We have taken note of the above request for denotification. We have the following comments:

- ☐ No comments
- ☐ Agree with the request for denotification
- ☐ Please ignore the request for denotification, reason:

Signature and name of Chest Clinic doctor:		Chest Clinic:	Date:
--	--	---------------	-------

Notes for using the Form “TBdenotification/1403” for requesting denotification of a case previously notified as TB

1. If a doctor wants to request for denotification of a previously notified TB case, he fills in Part 1 and fax the form to Wanchai Chest Clinic (Fax: 2572 8921; Attention: Statistics Unit of TB&CS).
2. Upon receiving the request for denotification, Statistics Unit of TB&CS fills in Part 2 and fax back to the doctor for acknowledgment of receiving the request.
3. The Statistics Unit of TB&CS then fills in Part 3, and fax the form to the NO of the relevant Chest Clinic (the AE Chest Clinic) which has been handling this case as AE case, for further necessary actions.
4. The health nurse of AE Chest Clinic, upon receiving the fax, will take note of the denotification for further necessary actions. For example, if there is no evidence to suggest otherwise, the AE Chest Clinic will treat the case now as not a TB case, and discontinue the public health actions which would then become unnecessary. Alternatively, if the AE Chest Clinic, with the input of the doctor i/c of the case (when necessary), is of the opinion that the case should not be denotified, it will continue to carry out the necessary public health actions and inform Statistics Unit of TB&CS to ignore the request for denotification. Thus, the doctor i/c of the AE Chest Clinic fills in Part 4 and tick the appropriate item, and fax the form back to Statistics Unit of TB&CS. If the AE chest clinic does not have any additional information on whether to support or refute the denotification (e.g., patient is not being followed up at chest clinic), the doctor i/c of the AE Chest Clinic may tick the item “No comments”.
5. Upon receiving the fax return back from the AE Chest Clinic, the Statistics Unit will act accordingly, e.g., denotify the case or ignore the denotification request.
6. For cases denotified by chest clinic doctors, there is no need to fill in Part 3 and Part 4.

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.

GUM LABEL of patient	DOS: _ _ / _ _ / _ _ _ _
	(for chest clinic use only) AE no.: _____ Cat.: _____ Tx no.: _____ DOA: _ _ / _ _ / _ _ _ _

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) Information on this episode of TB:

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

Part (B) 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

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

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

Extra-pulmonary tuberculosis:

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

Part (D) Risk Factors/co-morbidities N/Y (If Y, please circle whichever applicable)

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

Part (E) Starting regimen (choose 1 item only): *[Starting regimen = the regimen that the attending physician uses at initiation of anti-TB treatment]*

1. Standard regimen, defined as HRZ ±E or S (irrespective of dosing frequency)
 2. Non-standard regimen, defined as regimens other than HRZ ±E or S
- Reason for using non-standard regimen: 1. Known or suspected drug resistance / 2. Known drug intolerance / 3. Potential drug-drug interaction / 4. Known medical conditions affecting choice of regimen (e.g. liver disease, poor vision, etc), specify _____ / 5. Others, specify (e.g. old age): _____

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:

1. *for chest clinics: General Office, Tung Chung Chest Clinic, 1/F, Tung Chung Health Centre, Block 1, 6 Fu Tung Street, Tung Chung, Lantau Island. Fax: (852)2109 2240.*
2. *for Correctional Services Department: Statistics Unit, Tuberculosis and Chest Service Headquarters, 1/F, Wanchai Polyclinic, 99 Kennedy Road, Hong Kong. Fax: (852)2572 8921.]*

GUM LABEL of patient	DOS: _/_/_/____
	(for chest clinic use only) AE no.: _____ Cat.: _____ Tx no.: _____ DOA: _/_/_/____

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

Part (F) Mode of TB diagnosis: (Choose 1 item, priority from left to right)

- 1a. Bacteriological (based on positive smear and/or culture) 1b. Bacteriological (based on molecular test result) /
 2. Histological / 3. Clinical-radiological / 4. Clinical only

Bacteriological examination for MTB:

	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
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
PCR	P / N / U			P / N / U
rpoB mutation (if PCR positive)	P / N / U			P / N / U

- Abbreviations P (= positive), N (= negative) , U = (not done), NTM (= Non-tuberculous Mycobacteria)
- If pre-treatment culture is positive for MTB, is the ST favourable? (i.e., sensitive to HR):** N / Y / U (ST not done)

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:

- for chest clinics: General Office, Tung Chung Chest Clinic, 1/F, Tung Chung Health Centre, Block 1, 6 Fu Tung Street, Tung Chung, Lantau Island. Fax: (852)2109 2240.
- for Correctional Services Department: Statistics Unit, Tuberculosis and Chest Service Headquarters, 1/F, Wanchai Polyclinic, 99 Kennedy Road, Hong Kong. Fax: (852)2572 8921.]

GUM LABEL of patient	DOS: _/_/_/____
	(for chest clinic use only) AE no.: _____ Cat.: _____ Tx no.: _____ DOA: _/_/_/____

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

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

(1) Cured/ treatment completed ☐ Date treatment completed (dd/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 (dd/mm/yyyy): ____/____/____
- Died ☐ Cause: ₁. TB-related / ₂. Not TB-related / ₃. Unknown Date of death (dd/mm/yyyy): ____/____/____
- Relapse ☐ Date of relapse (dd/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. non-standard regimen / ₈. DM or on immunosuppressives etc / ₉. others, specify: _____
- Died ☐ Cause: ₁. TB-related / ₂. Not TB-related / ₃. Unknown Date of death (dd/mm/yyyy): ____/____/____

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

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

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

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

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

(6) Wrong / revised diagnosis ☐ Last treatment date (dd/mm/yyyy): ____/____/____

- New diagnosis: _____

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:

1. for chest clinics: General Office, Tung Chung Chest Clinic, 1/F, Tung Chung Health Centre, Block 1, 6 Fu Tung Street, Tung Chung, Lantau Island. Fax: (852)2109 2240.
2. for Correctional Services Department: Statistics Unit, Tuberculosis and Chest Service Headquarters, 1/F, Wanchai Polyclinic, 99 Kennedy Road, Hong Kong. Fax: (852)2572 8921.]

GUM LABEL of patient	DOS: _ _ / _ _ / _ _ _ _
	(for chest clinic use only) AE no.: _____ Cat.: _____ Tx no.: _____ DOA: _ _ / _ _ / _ _ _ _

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

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

- (1) Cured/ treatment completed ☐ Date treatment completed (dd/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 (dd/mm/yyyy): ____/____/____
 - Died ☐ Cause: ₁. TB-related / ₂. Not TB-related / ₃. Unknown Date of death (dd/mm/yyyy): ____/____/____
 - Relapse ☐ Date of relapse (dd/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. non-standard regimen / ₈. DM or on immunosuppressives etc / ₉. others, specify: _____
 - Died ☐ Cause: ₁. TB-related / ₂. Not TB-related / ₃. Unknown Date of death (dd/mm/yyyy): ____/____/____
- (3) Transferred ☐ to: ₁. GP / ₂. Chest Clinic / ₃. Hospital / ₄. Outside HK Details: _____
Last treatment date (dd/mm/yyyy): ____/____/____
- (4) Defaulted (defaulted treatment for a continuous period > 2m) ☐
- Never found ☐ Last visit date (dd/mm/yyyy): ____/____/____
 - Retreated after default ☐ Treatment re-started date (dd/mm/yyyy): ____/____/____
 - Treatment stopped by doctor ☐ Last treatment date (dd/mm/yyyy): ____/____/____
- (5) Failure (persistent positive bacteriology and treatment stopped) ☐
- (6) Wrong / revised diagnosis ☐ Last treatment date (dd/mm/yyyy): ____/____/____
- New diagnosis: _____

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:

1. for chest clinics: General Office, Tung Chung Chest Clinic, 1/F, Tung Chung Health Centre, Block 1, 6 Fu Tung Street, Tung Chung, Lantau Island. Fax: (852)2109 2240.
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