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Tuberculosis in Canada

2005

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Tuberculosis in Canada

2005

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Executive Summary

In 2005, 1,643 cases (5.1 per 100,000) of new active and relapsed tuberculosis (TB) were reported to the Canadian Tuberculosis Reporting System (CTBRS). The highest rate, 149.9 per 100,000 population, was reported from Nunavut. The TB incidence rate was lowest in Prince Edward Island and Nova Scotia with both provinces reporting an incidence rate of 0.7 per 100,000. British Columbia, Ontario and Quebec made up 76% of Canada's population and accounted for 71% of the total reported cases.

Individuals between the ages of 15 and 44 years of age made up the largest number of reported cases with the age groups 25-34 and 35-44 each representing 17% of the total number of cases. The age-specific rates of 7.5 and 9.5 per 100,000 for those in the older age groups of 65 to 74 years and greater than 74 years, respectively, remain the highest rates for all age groups.

In 2005, TB among foreign-born individuals accounted for 64% of all reported cases. Canadian-born non-Aboriginal and Canadian-born Aboriginal cases made up 13% and 19%, respectively. Birthplace was unknown for 3% of cases.

Pulmonary TB, defined as TB of the lungs and conducting airways, was the most frequently reported main diagnostic site, representing 58% of all reported cases in 2005. TB of the peripheral lymph nodes accounted for 15% of all cases and was the second most commonly reported diagnostic site.

Of the 1,643 cases in 2005, 1,218 cases were reported to be culture positive, of which 1,152 had TB drug resistance information reported. Of these, 1,025 (89%) had no resistance to first-line anti-TB drugs, 9% percent were monoresistant and the remaining 2% showed patterns of resistance to two or more drugs. The most common type of monoresistance was to isoniazid (INH) accounting for 57% of all reported resistance. Multidrug-resistant TB (defined as resistance to at least isoniazid and rifampin) accounted for 2% of all reported drug resistance. No cases of extensively-resistant (XDR) TB were reported in 2005.

For 1,613 TB cases initially reported in 2004, 1,475 cases had treatment outcomes reported to the CTBRS. A total of 1,184(80%) cases with known outcomes were reported as being cured (culture-negative) or treatment completed.

The vast majority of individuals placed on TB drug therapy in Canada received treatment as per the Canadian Tuberculosis Standards[1]. Eighty-eight percent of these cases received three or more anti-TB drugs.

The total number of reported cases of TB in Canada has shown a general decrease over the past decade. However, this decrease is mostly a reflection of a decreasing number of cases in the Canadian-born non-Aboriginal population. The number of cases in the Canadian-born Aboriginal and foreign-born populations has shown a minimal decrease. Generally, the TB incidence rate has been slowly declining among Canadian-born non-Aboriginal and foreign-born populations, (the latter due to a significant increase in the total foreign-born population in Canada). However, no significant TB incidence rate change has occurred in the Canadian-born Aboriginal population. While the overall incidence rate has shown a slow but steady decline over most of the decade, it has stabilized at 5.0-5.1 per 100,000 population between 2003 and 2005.

[1] Long R, Ellis E, editors, *Canadian Tuberculosis Standards*, 6th ed. Ottawa: Public Health Agency of Canada and the Canadian Lung Association/Canadian Thoracic Society; 2007.

Introduction

The *2005 Tuberculosis in Canada* annual report is a publication of Tuberculosis Prevention and Control (TBPC), Public Health Agency of Canada (PHAC). Reports of new active and relapsed tuberculosis cases come to TBPC through the Canadian Tuberculosis Reporting System (CTBRS) from the ten provinces and three territories.

TBPC stores and maintains surveillance reports on tuberculosis (TB) in Canada from the early 1920s. In 1994, responsibility for the CTBRS was transferred from Statistics Canada to Health Canada. In September 2004, TBPC became part of the PHAC and assumed responsibility for the annual reporting.

The report contains the overall TB case counts and incidence rates as well as data on selected demographic and clinical characteristics. The report describes information on the following for TB cases:

- province/territory
- sex
- age
- birthplace
- new and relapsed[2] cases
- main diagnostic site
- bacterial status
- method of detection
- immigration status
- HIV status
- patterns of drug resistance
- treatment outcomes
- drug regimens

Appendices to the report include data tables (*Appendix I*), technical notes on the methods (*Appendix II*), population estimates for 2005 (*Appendix III*) and the World Health Organization (WHO) estimated incidence of TB in the 22 high burden countries, 2005 (*Appendix IV*). Further appendices include the WHO TB epidemiological regions and the member countries (*Appendix V*), the WHO reporting form for 2005 cases *(Appendix VI*), Canadian case and treatment outcome reporting forms (*Appendix VII*) and the members of the Canadian Tuberculosis Committee (*Appendix VIII*).

These annual reports have undergone and will continue to undergo revisions in format and content from year to year. The goal is to continue to adapt and improve this publication in response to changes in the epidemiology and clinical management of TB. Comments on the content and/or format of this document are always welcome.

[2] As of 2008, the CTBRS classifies all cases as new or re-treatment cases; see *Canadian Tuberculosis Standards*, 6th ed., Appendix C for complete definitions.

Results

Section I – 2005 Case Reporting

National Trends

Following a peak in the epidemic in the early 1940s, the reported incidence of TB has declined (Figure 1). Over the past two decades the number of reported cases and the corresponding incidence rate has generally continued to decrease (Figure 2; Table A), however the incidence rate had started to stabilize at approximately 5.0 per 100,000 population. In 2005, 1,643 cases of TB were reported to the CTBRS representing an incidence rate of 5.1 per 100,000 population. New active cases made up the majority of reported cases with a rate of 4.6 per 100,000 population; the rate of relapse was 0.3 per 100,000 population.

Table A

Incidence rate of tuberculosis in Canada, three-year moving average: 1995-2005

Year	Number of reported cases	Crude rate per 100,000	Three-year moving average
1995	1,964	6.7	—
1996	1,877	6.3	6.6
1997	1,995	6.7	6.3
1998	1,809	6.0	6.2
1999	1,820	6.0	5.9
2000	1,724	5.6	5.8
2001	1,771	5.7	5.5
2002	1,660	5.3	5.4
2003	1,629	5.1	5.2
2004	1,613	5.0	5.1
2005	1,643	5.1	—

Figure 1

Tuberculosis incidence and mortality rates – Canada: 1924–2005

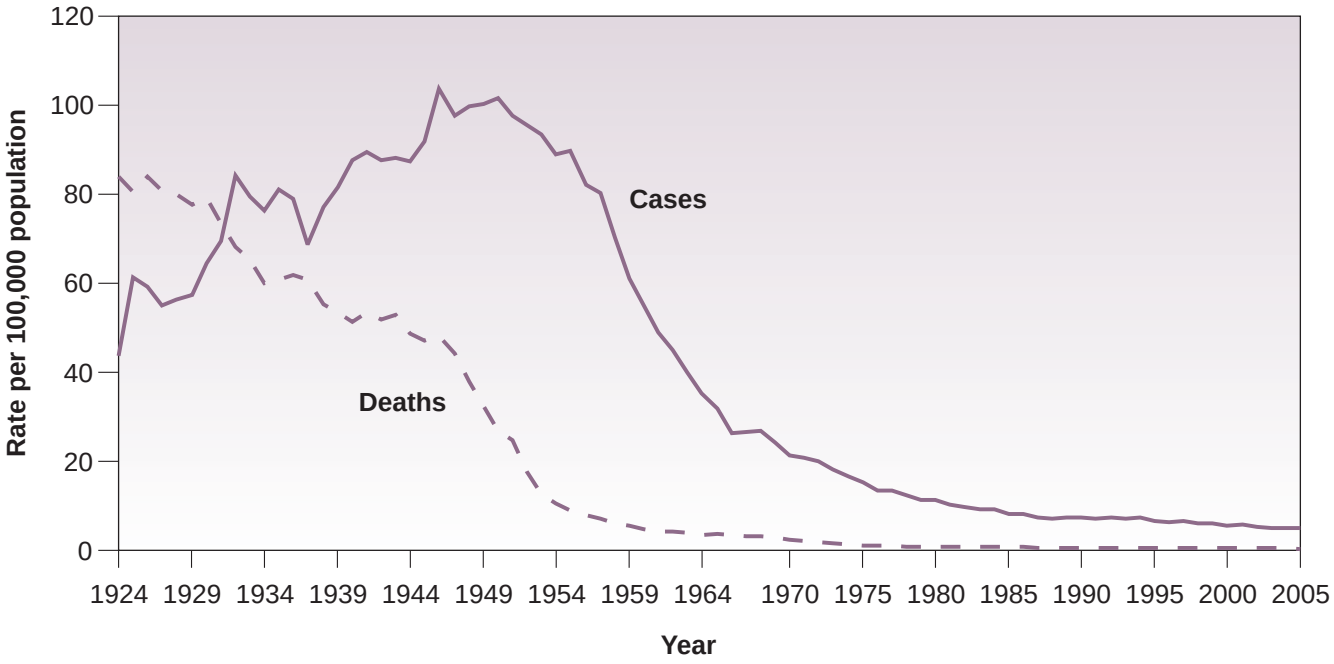


Figure 2

Tuberculosis cases and incidence rates – Canada: 1985–2005

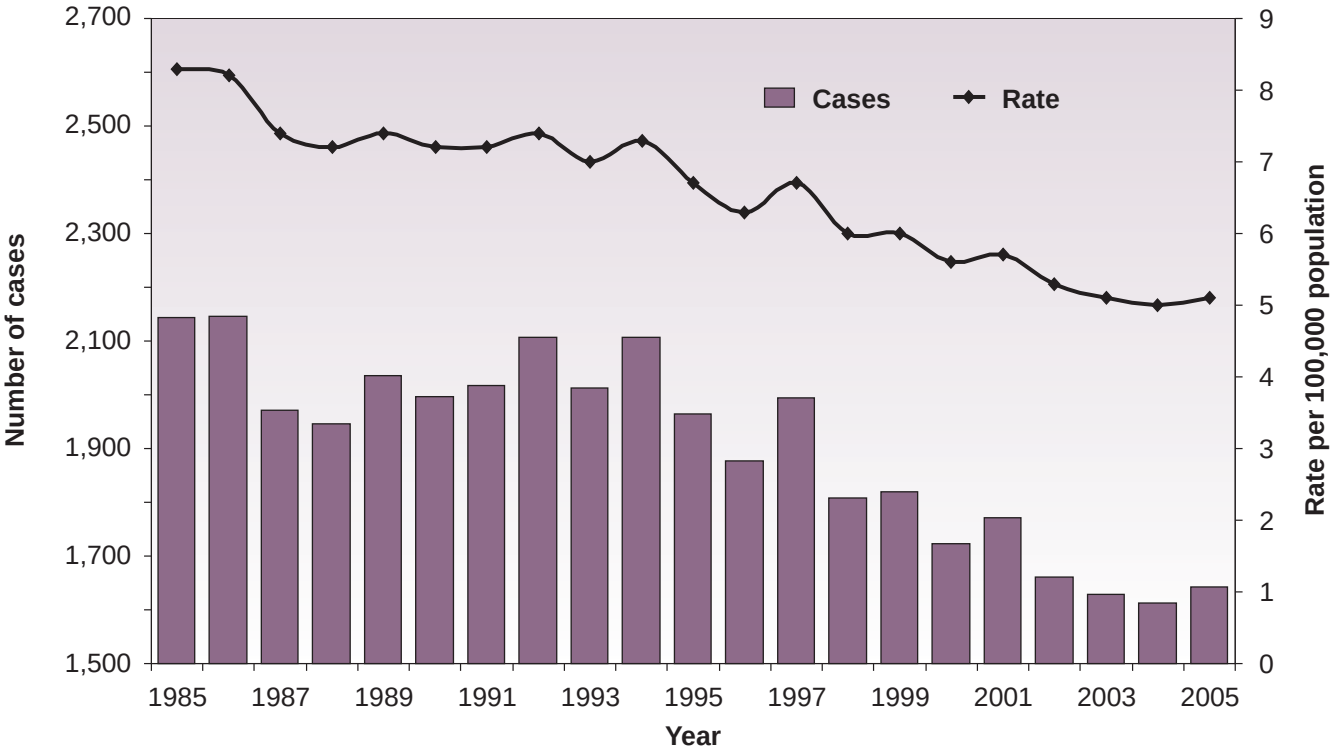


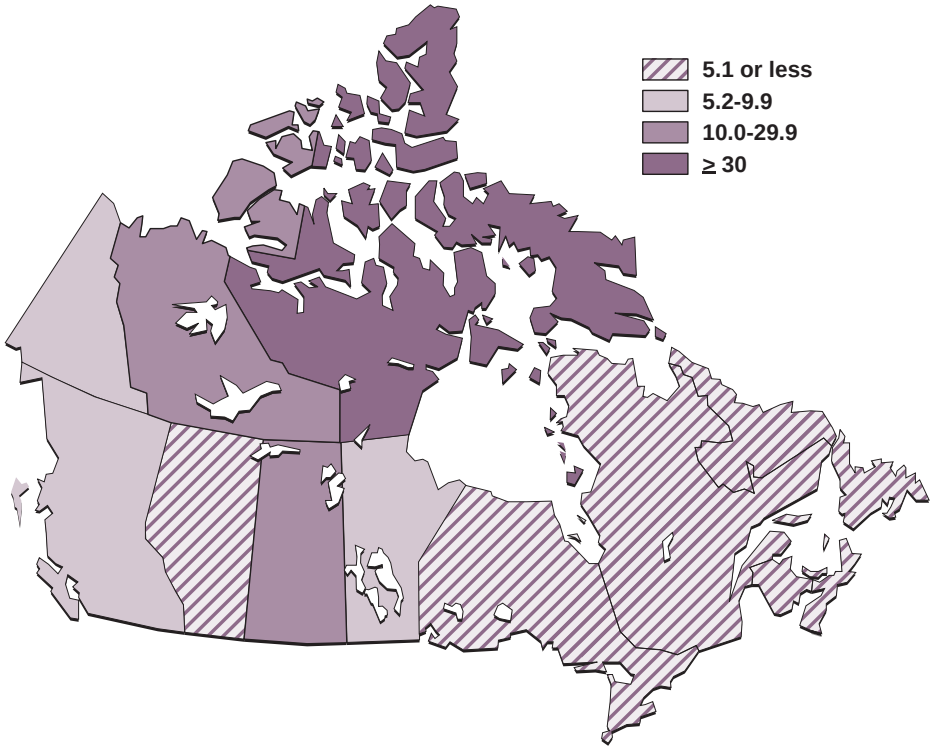
Table B

Ranked tuberculosis incidence in Canada – provinces/territories: 2005

Reporting province or territory	Abbreviation	Incidence rate per 100,000
Nunavut	Nvt.	149.9
Northwest Territories	N.W.T.	18.7
Saskatchewan	Sask.	14.0
Manitoba	Man.	9.7
Yukon	Y.T.	9.7
British Columbia	B.C.	6.2
Ontario	Ont.	5.1
Alberta	Alta.	4.5
Quebec	Que.	3.4
Newfoundland	N.L.	1.8
New Brunswick	N.B.	0.8
Nova Scotia	N.S.	0.7
Prince Edward Island	P.E.I.	0.7
CANADA		**5.1**

Figure 3

Tuberculosis incidence rate by province/territory as compared with national rate (5.1 per 100,000): 2005

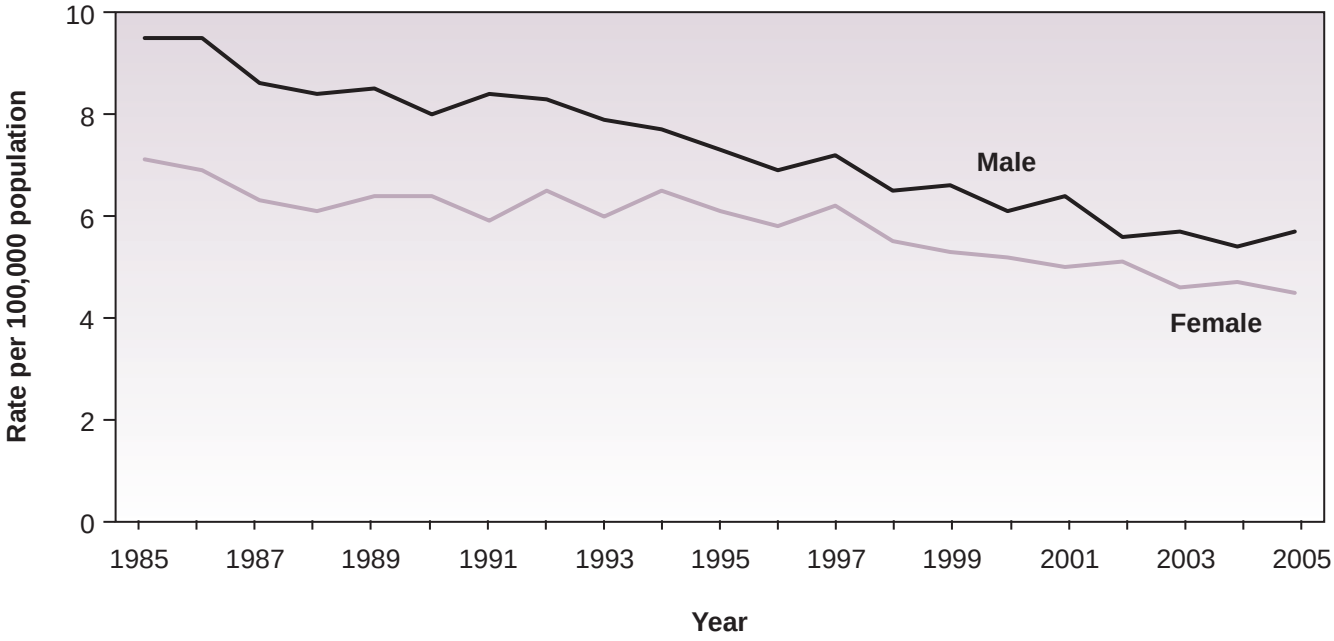


Sex and Age Group Distribution

Over the past two decades, incidence rates of TB in males and females have followed similar patterns of decline. While case reporting and incidence rates have always been higher in males, there has been a gradual decrease in the differential between males and females. However, in 2005, males continue to have a larger number of reported cases (909 cases, 5.7 per 100,000) when compared with females (734 cases, 4.5 per 100,000) (Figure 4; *Appendix I*, Tables 2B and 2C).

Figure 4

Tuberculosis incidence rate by sex – Canada: 1985-2005



Individuals between the ages of 15 and 44 years of age made up the largest number of reported cases with the age groups 25-34 and 35-44 each representing 17% of the total number of cases. The age-specific rates of 7.5 and 9.5 per 100,000 for those in the older age groups of 65 to 74 years and greater than 74 years, respectively, remain the highest rates for all age groups (Figure 5; *Appendix I*, Table 2A).

By age group and sex, the incidence rate of TB was similar in males and females for all age groups with the exception of those aged 65 and older. The incidence rate for males 65 years and older was approximately 3 times the rate for similarly aged females (Figure 6; *Appendix I*, Tables 5B and 5C).

Birthplace Distribution

Foreign-born cases continue to represent the greatest percentage of the overall case count when compared with Canadian-born non-Aboriginal and Canadian-born Aboriginal. In 2005, the percentages of foreign-born cases, Canadian-born Aboriginal cases and Canadian-born non-Aboriginal cases were 64%, 19% and 13%, respectively. Origin was unknown for 3% of the cases (Figure 7; *Appendix I*, Table 3).

The total number of reported cases of TB in Canada has shown a general decrease over the past decade. However, this decrease is mostly a reflection of a decreasing number of cases in the Canadian-born non-Aboriginal population. The number of cases in the Canadian-born Aboriginal and foreign-born populations has shown a minimal decrease (Figure 8; *Appendix I*, Table 3).

Figure 5

Tuberculosis incidence rate by age group – Canada: 2005

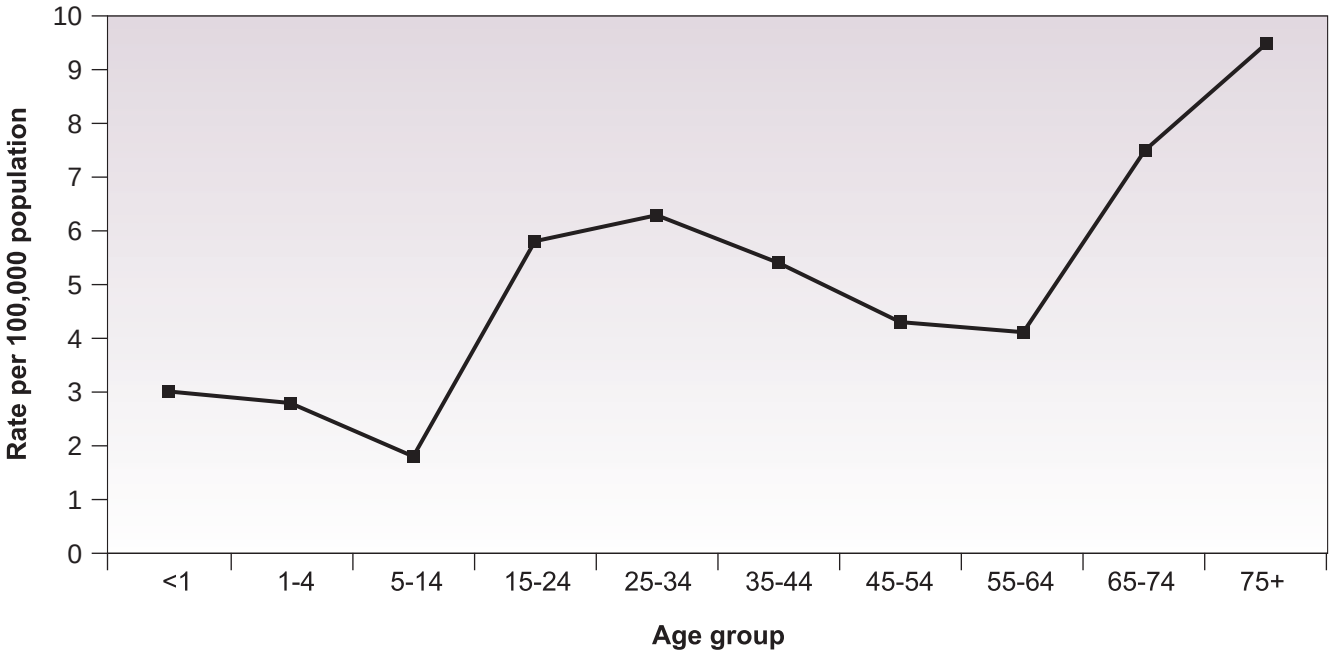


Figure 6

Tuberculosis incidence rate by age group and sex – Canada: 2005

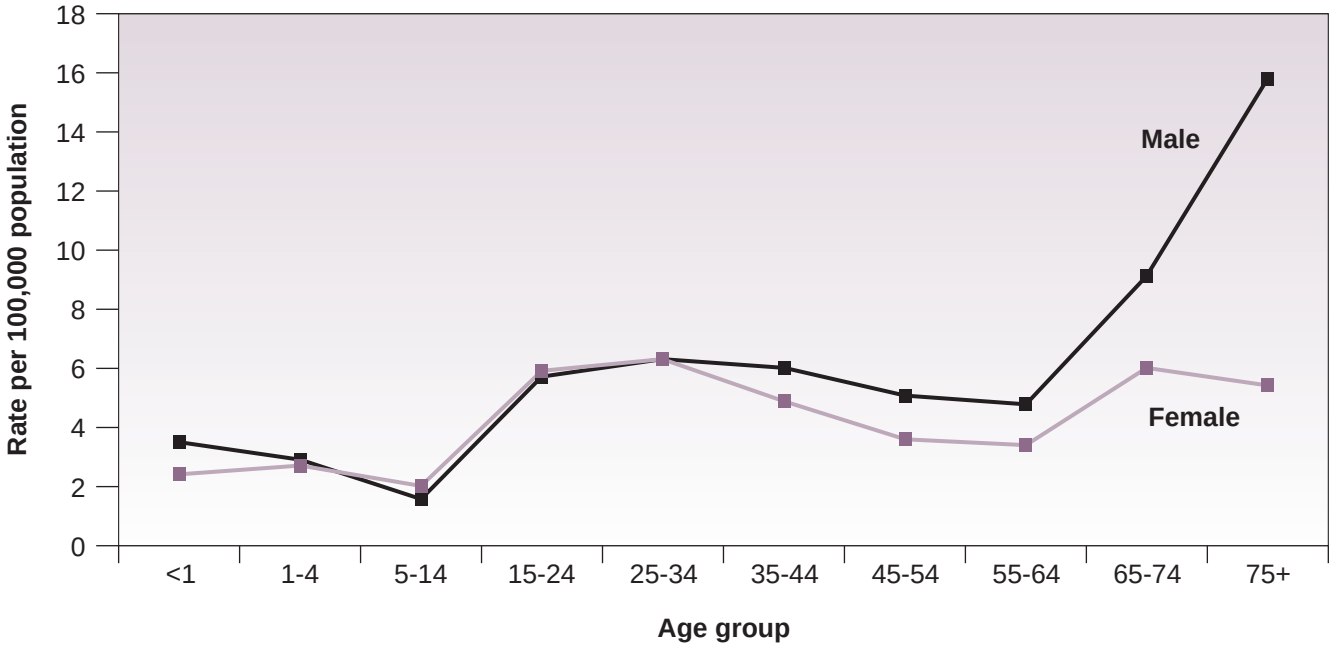
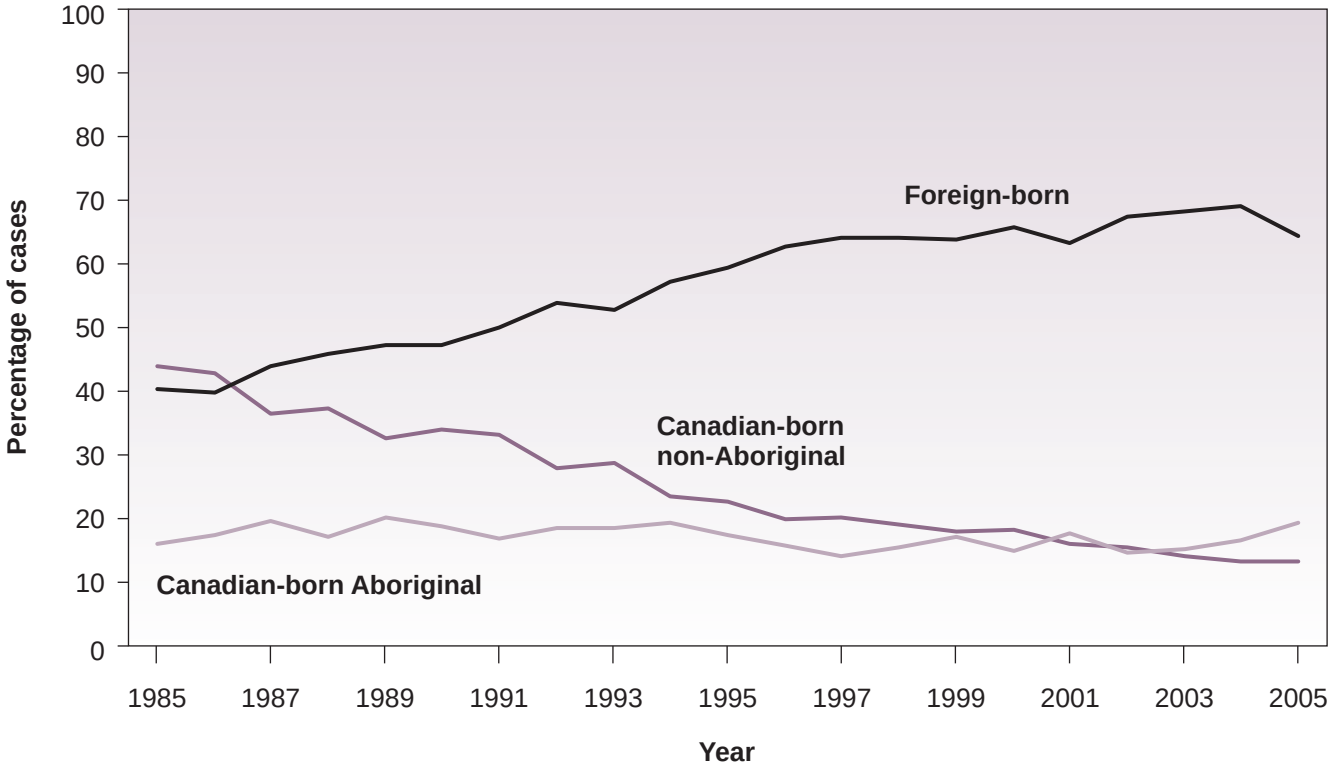


Figure 7

Percentage of tuberculosis cases by origin – Canada: 1985–2005



Generally, the TB incidence rate has been slowly declining among Canadian-born non-Aboriginal and foreign-born populations. The foreign-born rate of 15.4 per 100,000 in population in 2005 was the lowest such rate ever reported in Canada; however, no significant TB incidence rate change occurred in the Canadian-born Aboriginal population over the decade (Figure 9; *Appendix I*, Table 3).

While the overall incidence rate has shown a slow but steady decline over most of the decade, it stabilized at 5.0–5.1 per 100,000 population for 2003–2005.

The highest percentage of foreign-born cases (21%) were between the ages of 25 and 34, whereas 24% of the Canadian-born non-Aboriginal cases were 75 years of age or older. Twenty-two percent of the Canadian-born Aboriginal cases were between the ages of 15 to 24 (Figure 10; *Appendix I*, Table 8). For Canadian-born non-Aboriginal cases, the median age was 55 years whereas for the foreign-born the median age was 41 years. For the Canadian-born Aboriginal cases the median age was 29 years.

Foreign-born cases accounted for 64% of the total number of cases reported in Canada in 2005. Alberta, British Columbia and Ontario reported the highest percentage of foreign-born cases (80%, 76% and 85%, respectively). In Nova Scotia, 71% of the cases were foreign-born and in Quebec, foreign-born cases accounted for 59% of the reported cases for that province (Table 3).

Canadian-born Aboriginal cases accounted for 19% of all cases reported in Canada. In Saskatchewan and the North (which includes Northwest Territories, Nunavut and Yukon), Canadian-born Aboriginal peoples accounted for over 90% of reported cases. In Manitoba, Canadian-born Aboriginals made up 61% of the cases (Figure 11; Table C; *Appendix I*, Table 6).

Figure 8

Number of tuberculosis cases by origin – Canada: 1995–2005

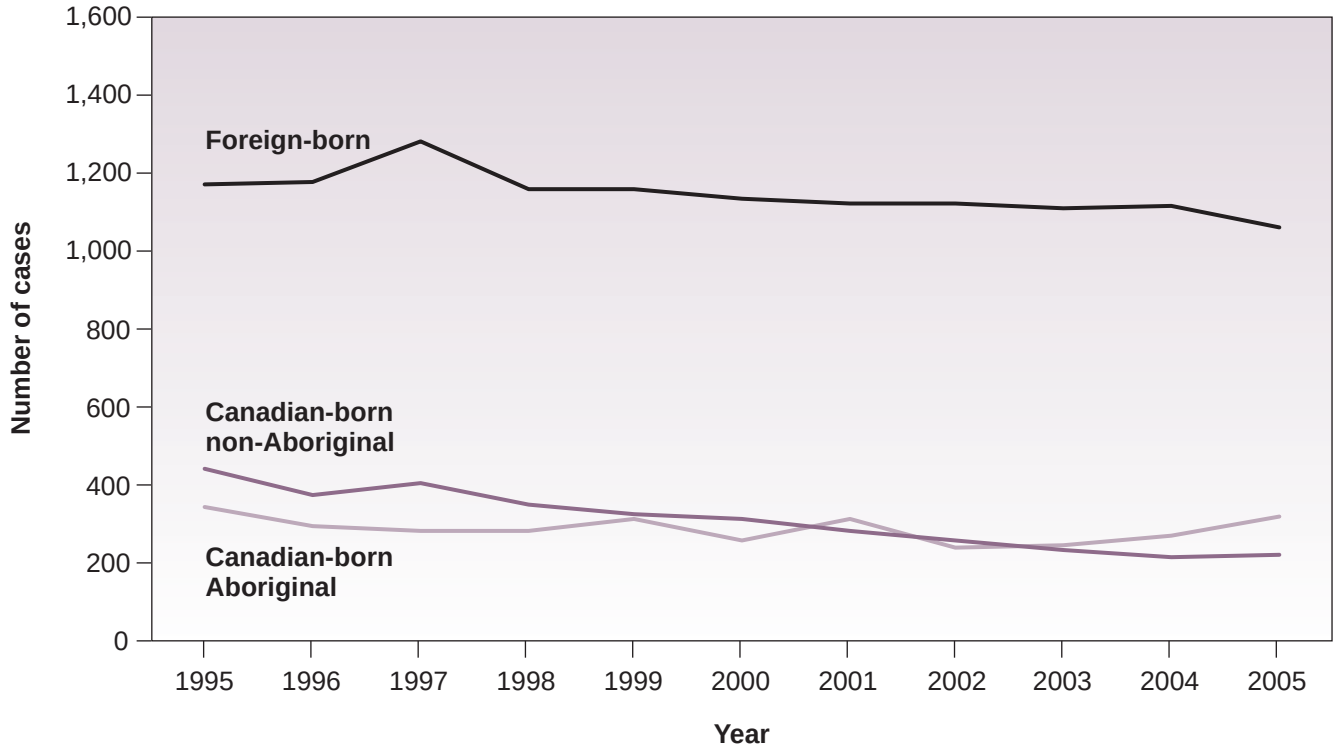


Figure 9

Tuberculosis incidence rate by origin – Canada: 1995–2005

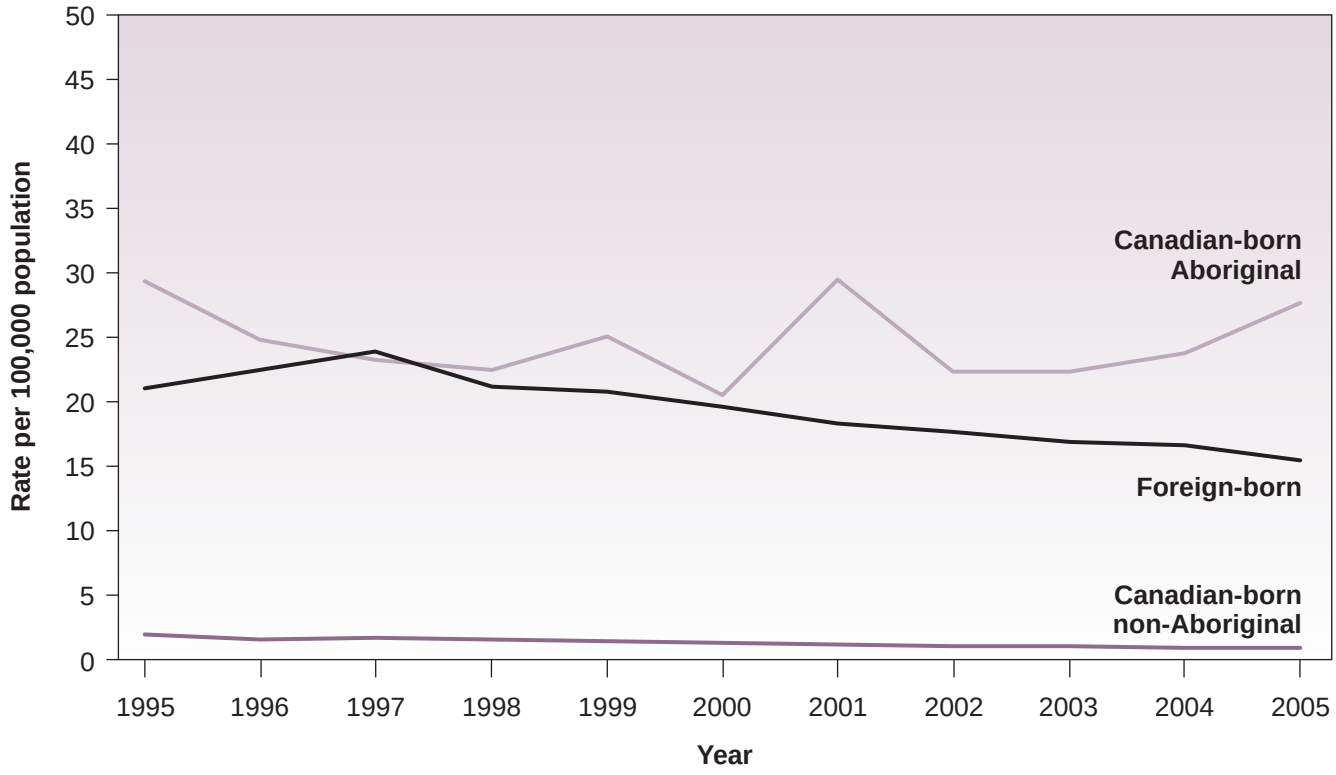


Figure 10

Proportion of tuberculosis cases by age group and origin – Canada: 2005

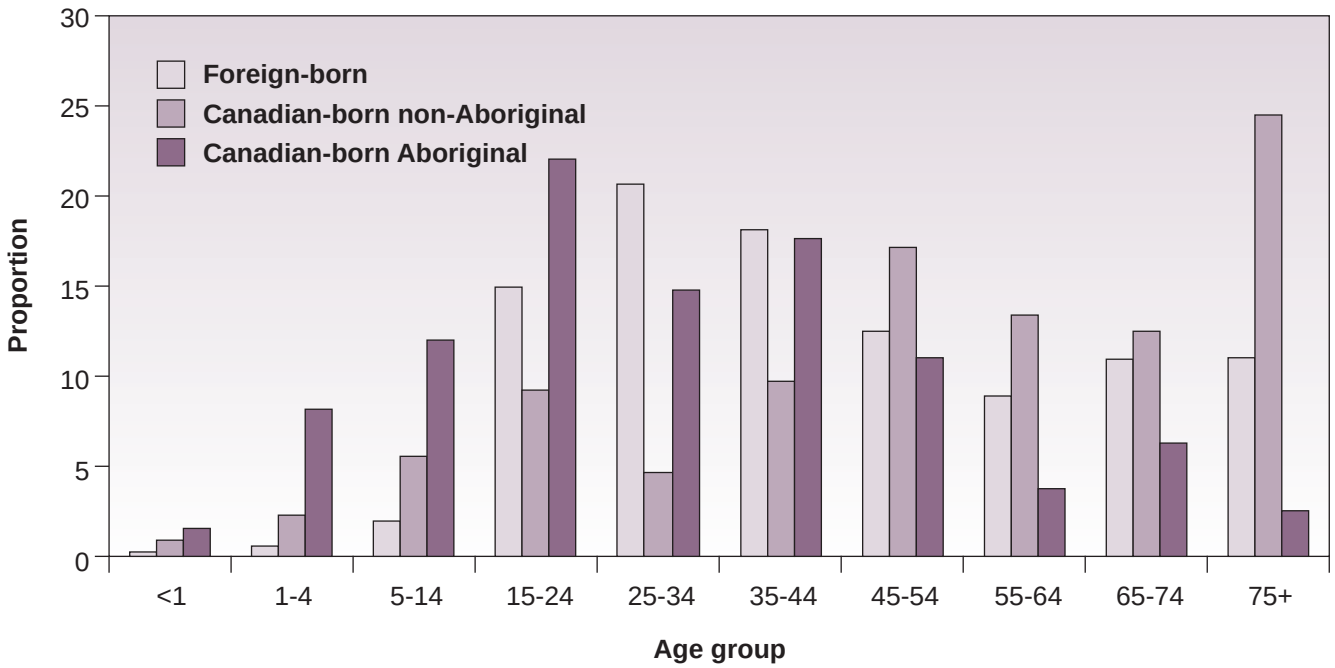
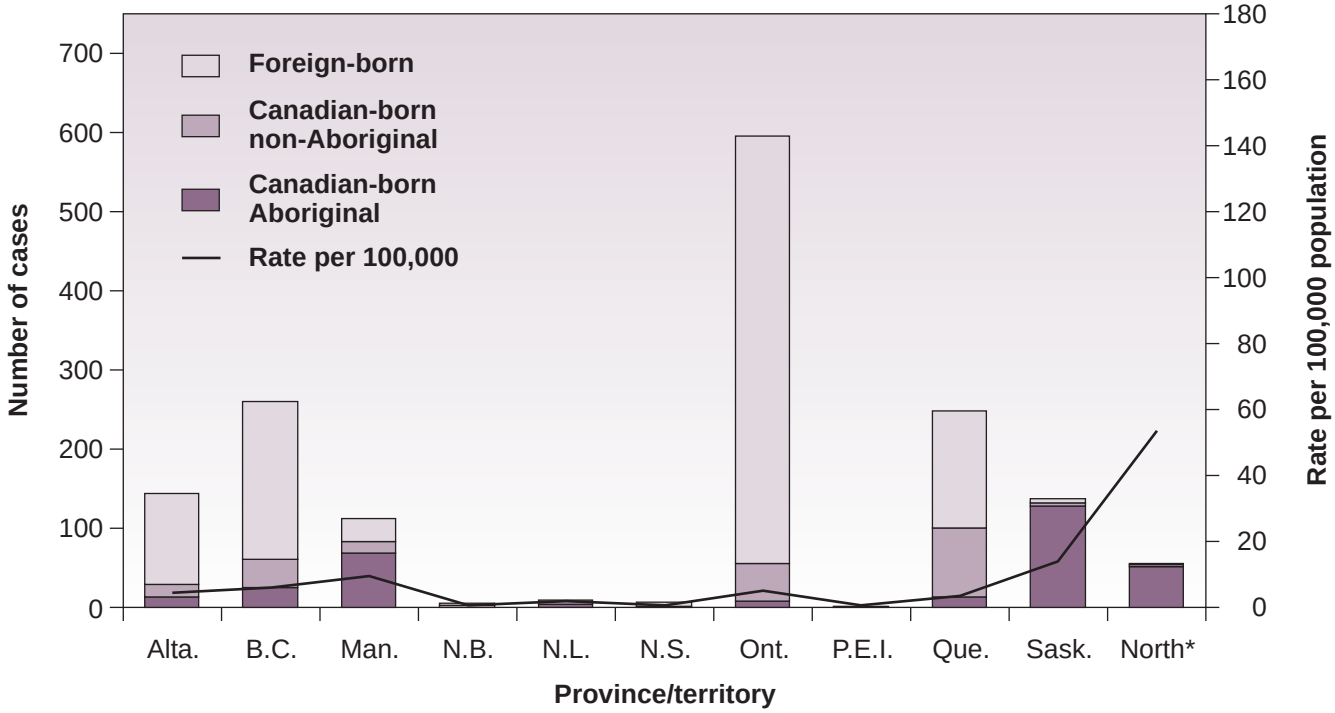


Figure 11

Origin of TB cases and overall incidence rate – provinces/territories: 2005



*Includes Northwest Territories, Nunavut and Yukon Territory.

Table C

Percentage of tuberculosis cases in Canada by origin – provinces/territories: 2005

Reporting province or territory	Canadian-born non-Aboriginal	Canadian-born Aboriginal	Foreign-born	Unknown birthplace
Alberta	10.3	9.6	80.1	0.0
British Columbia	13.5	9.8	75.6	1.1
Manitoba	12.3	61.4	26.3	0.0
New Brunswick	50.0	0.0	33.3	16.7
Newfoundland and Labrador	55.6	44.4	0.0	0.0
Nova Scotia	28.6	0.0	71.4	0.0
North*	5.4	92.9	1.8	0.0
Ontario	7.5	1.2	84.8	6.5
Prince Edward Island	100.0	0.0	0.0	0.0
Quebec	34.1	5.5	58.8	1.6
Saskatchewan	2.9	92.8	4.3	0.0
CANADA	**13.3**	**19.3**	**64.4**	**3.0**

Note: Totals may not always equal 100 due to rounding.

*North includes Northwest Territories, Nunavut and Yukon

When analyzed according to the STOP-TB Partnership/WHO TB epidemiological regions, the highest number of foreign-born cases originated in the Western Pacific Region (389 cases; 24.6 per 100,000). However, the highest incidence rate (49.8 per 100,000 population) was among individuals from the Africa-High HIV-Prevalence Region, (AFR-High). Table D shows the foreign-born TB incidence rate in Canada by WHO region of birth compared with the WHO estimated TB incidence rate for that region. Figure 12 shows the percentage of foreign-born TB by region, reported in Canada between 1995 and 2005.

Table D

Comparison of the reported foreign-born tuberculosis incidence rate in Canada by STOP-TB Partnership/WHO TB epidemiological regions of birth (per 100,000 population) with WHO estimated tuberculosis incidence rate in the respective region

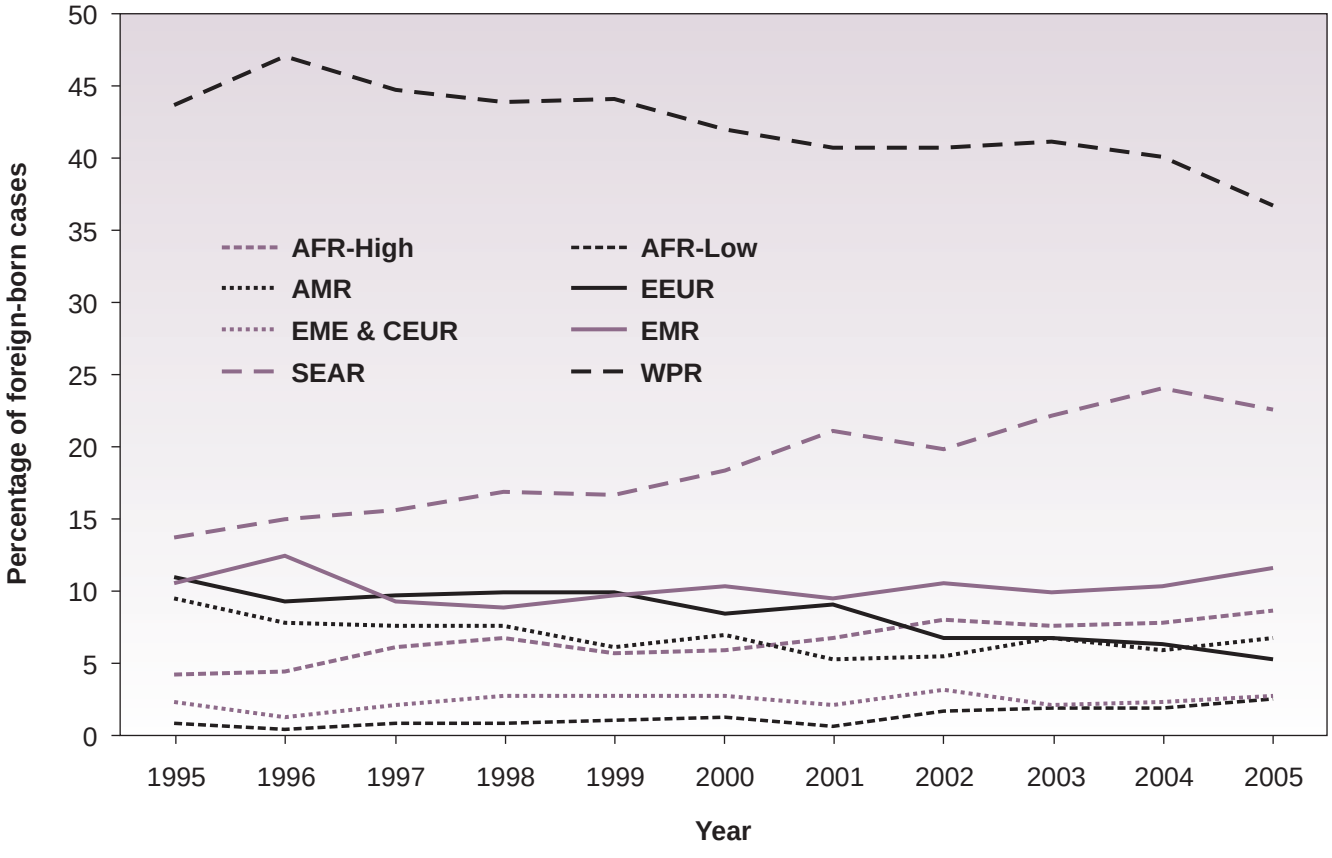
WHO regions*	Reported rate in Canada, 2005	WHO estimate TB incidence rate in regions, 2005**
Africa, High HIV Prevalence, (AFR High)	49.8	391
Africa, Low HIV Prevalence, (AFR Low)	27.6	210
American Region (AMR) – Latin American Countries (LAC)	9.4	60
Eastern Europe (EEUR)	9.1	96
Eastern Mediterranean (EMR)	19.1	104
Established Market Economies (EME) and Central Europe (CEUR)	2.1	13
South-East Asia (SEAR)	36.8	181
Western Pacific (WPR)	24.6	118
Overall	**15.4**	**136**

* Source: The Stop TB Partnership and World Health Organization. *Global Plan to Stop TB 2006–2015*. Geneva, World Health Organization, 2006 (WHO/HTM/STB/2006.35).

** Source: *Global tuberculosis control: surveillance, planning, financing, WHO report 2007*. Geneva, World Health Organization (WHO/HTM/TB/2007.376).

Figure 12

Percentage of foreign-born tuberculosis cases by STOP-TB Partnership/WHO TB epidemiological regions – Canada: 1995–2005



Diagnostic Details

Pulmonary tuberculosis, which includes tuberculosis of the lungs and conducting airways (see Technical Annex for complete definition), was the most frequently reported diagnostic site, accounting for 58% of reported cases in 2005 (*Appendix I*, Table 4), followed by tuberculosis of the peripheral lymph nodes which accounted for 15% of the reported cases. Ten percent of the cases were classified as "other", which includes: tuberculosis of the intestines, peritoneum and mesenteric glands, bones and joints, genitourinary system, skin, eye, ear, thyroid, adrenal, and spleen.

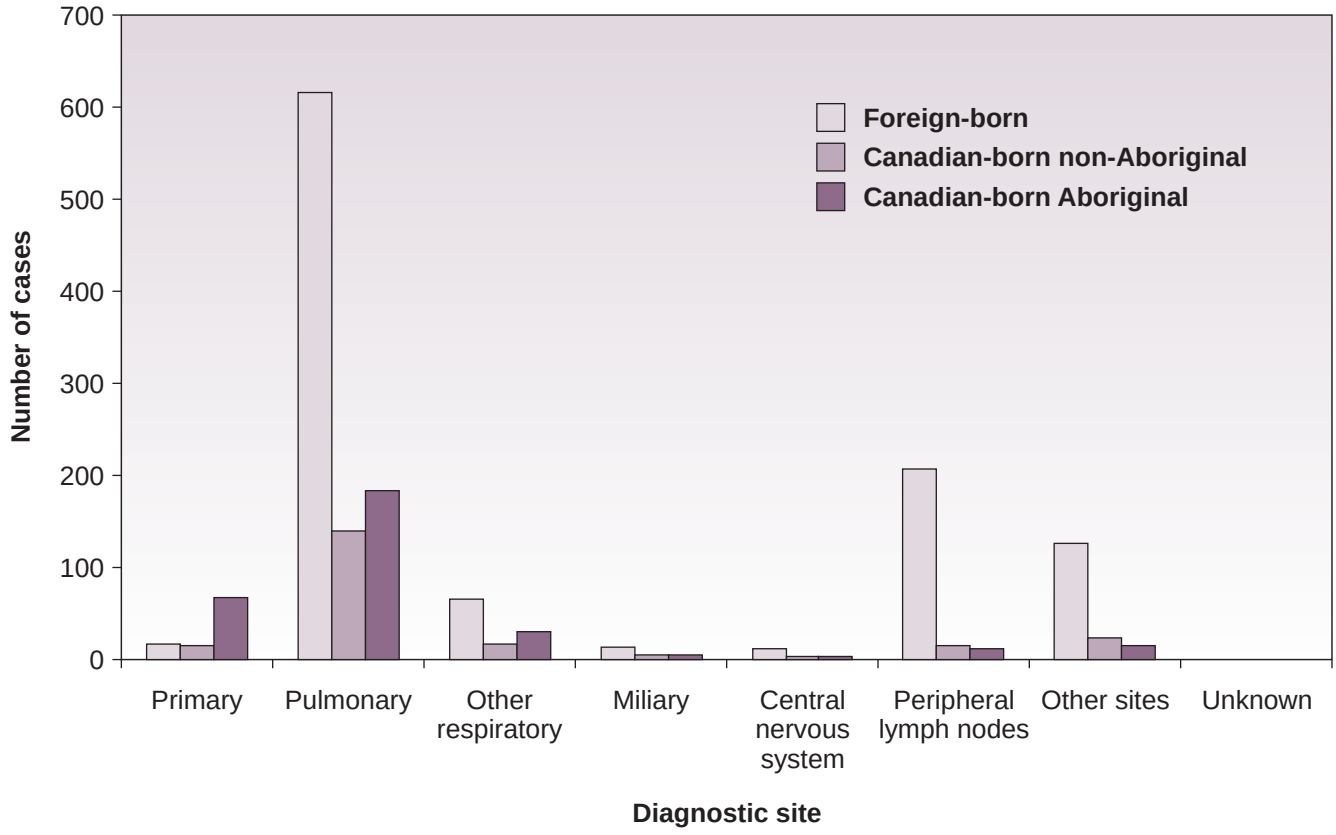
Of the 218 Canadian-born non-Aboriginal cases, 64% were diagnosed with pulmonary TB whereas this percentage was lower for both Canadian-born Aboriginal cases (58%) and foreign-born cases (58%). Twenty-percent of the foreign-born cases were diagnosed with TB of the peripheral lymph nodes compared with 3% of the Canadian-born Aboriginal cases and 7% of the Canadian-born non-Aboriginal cases (*Appendix I*, Table 10).

There were a total of 106 cases of primary TB. Sixty-four percent of these cases were reported in the Canadian-born Aboriginal population and represented 21% of the total number of Aboriginal cases.

TB of the central nervous system (CNS) was rare, accounting for only 21 (1%) of all reported cases. Similarly, miliary/disseminated TB was infrequently diagnosed, representing 24 (2%) of the reported cases (Figure 13; *Appendix I*, Table 10).

Figure 13

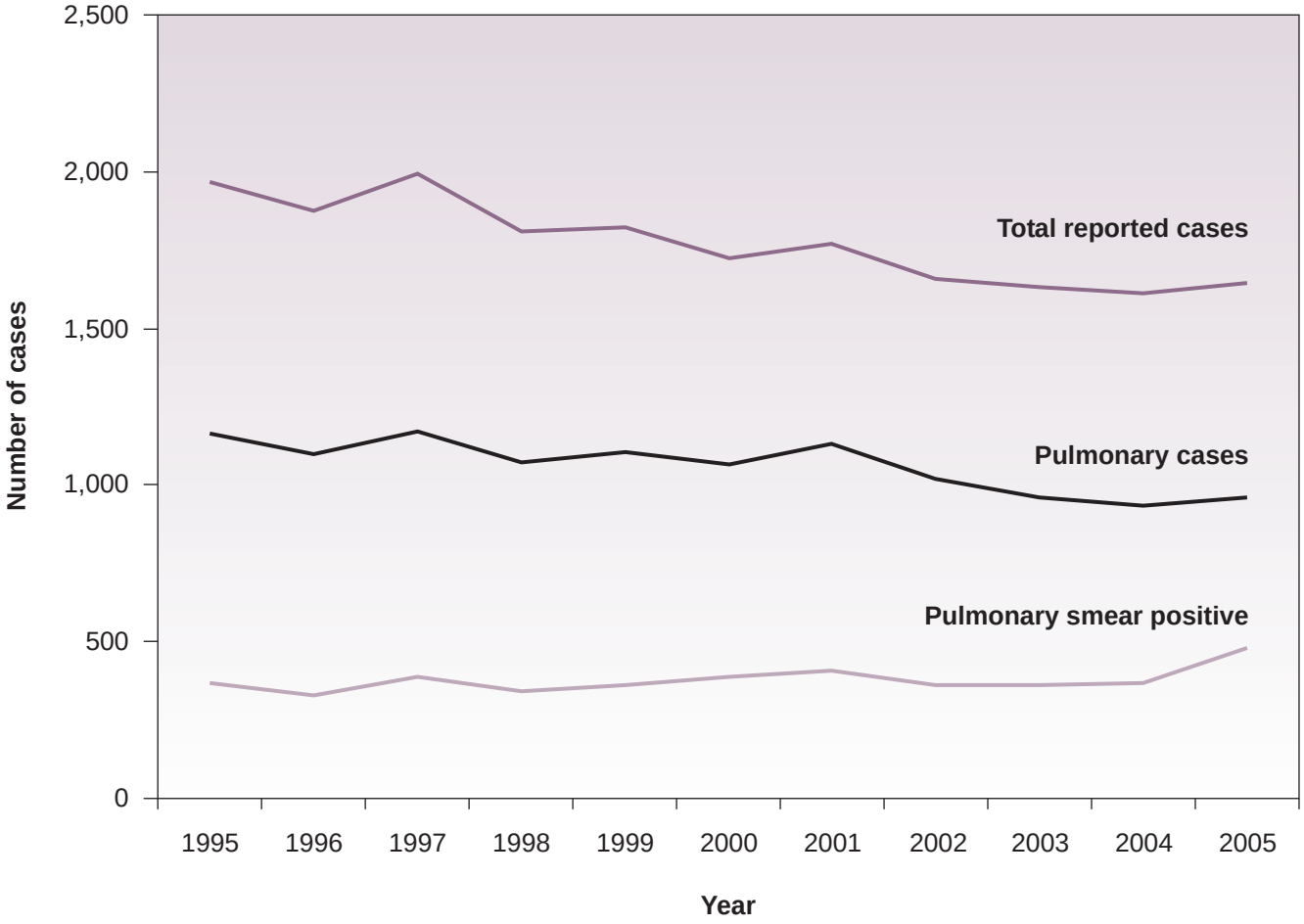
Tuberculosis cases by main diagnostic site and origin – Canada: 2005



Of the 960 cases of pulmonary TB reported, smear status was available for 829 cases. Of these, 58% (480 cases) were smear-positive (sputum was obtained from direct collection, through bronchoscopy or gastric aspirate). A smear-positive diagnosis denotes the most infectious form of pulmonary TB. Figure 14 shows the relationship between the total number of cases reported, the number of cases that were pulmonary and of those, the number that were pulmonary and smear-positive for the years 1995 to 2005.

Figure 14

Pulmonary sputum smear positive tuberculosis cases – Canada: 1995-2005



Case detection

The majority of cases (77%) were diagnosed when the patient presented with symptoms to a medical professional (*Appendix I*, Table 17). The percentage of all cases identified through contact tracing was low, (< 8.0%); however, 27% of cases in the Aboriginal population were identified by this method.

Deaths

Including the data available with the outcome reports, of the 1,613 cases diagnosed in 2004, 139 (9%) were reported to have died before or during treatment. Of the 139 deaths TB was reported as the underlying cause of death for 27 cases (19%). TB contributed to death, but was not the underlying cause for 56 cases (40%). Cause of death was not reported for 11 cases (*Appendix I*, Tables 21 and 22).

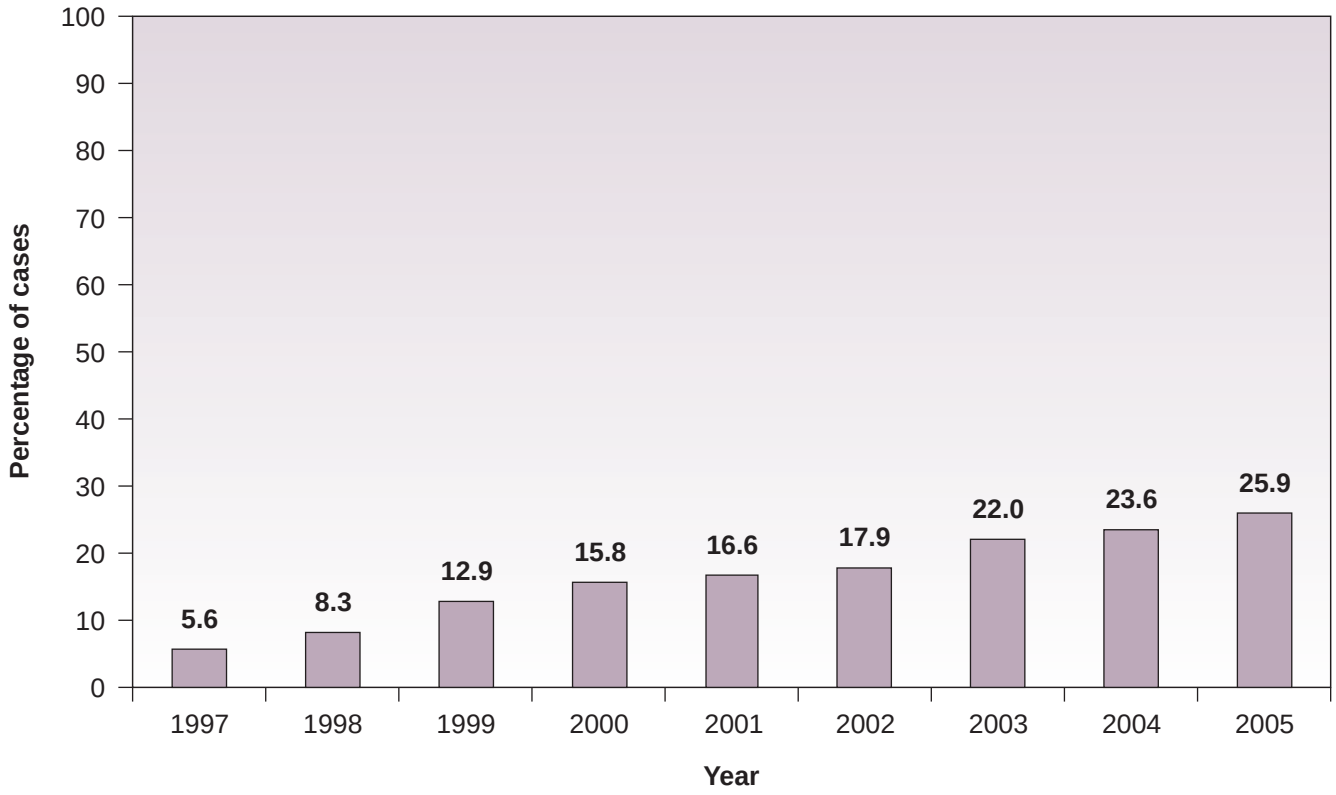
Of the 1,643 new and relapsed cases diagnosed in 2005, 98 were reported to have died in 2005. Of these, TB was reported as the underlying cause of death for 19 cases (19%). TB contributed to death, but was not the underlying cause for 45 cases (46%). Cause of death was not reported for three cases (*Appendix I*, Tables 21 and 22).

HIV Status

HIV status was reported for 426 cases (26%) (Figure 15; *Appendix I, Table 23*). Of these, 59 (14%) were HIV-positive.

Figure 15

Percentage of tuberculosis cases for which HIV status was reported – Canada: 1997-2005



Patterns of drug resistance

Of the 1,643 cases reported in 2005, 1,218 cases were culture positive. Of these, resistance information was available for 1,152 cases. Eighty-nine percent of the cases showed no resistance to first-line anti-TB drugs (isoniazid, rifampin, ethambutol or pyrazinamide[3]), 9% percent were resistant to one drug and the remaining 2% showed patterns of resistance to two or more drugs prescribed.

For the 127 cases that were resistant to at least one drug, 77% were monoresistant. Eighteen percent of resistant cases were multidrug-resistant (MDR) which is defined as resistance to at least isoniazid and rifampin. The remaining 5% of the resistant cases were poly-resistant.

[3] As of 2005, streptomycin was considered a second-line TB antibiotic in Canada, even though it may be used for initial treatment.

Resistance to only isoniazid accounted for 57% of all reported resistant cases. No extensively-resistant (XDR) TB cases were reported in 2005.[4]

Foreign-born cases accounted for 83% of the 127 resistant cases and 96% of the MDR-TB cases. Twelve percent of the resistant cases were in the Canadian-born non-Aboriginal cases and four percent were in the Canadian-born Aboriginal cases. (*Appendix I, Table 15*).

For additional information on drug resistance, please refer to *Tuberculosis: Drug resistance in Canada, 2005* (www.phac-aspc.gc.ca/publicat/tbdrc05/index.html) which reported drug susceptibility results for *Mycobacterium* isolates tested in 2005.

[4] Extensively drug-resistant (XDR) TB is resistant to at least isoniazid and rifampin from among the first-line anti-TB drugs, plus resistance to any fluoroquinolone and to at least one of three injectable second-line drugs (capreomycin, kanamycin and amikacin). For additional information on drug resistance, please refer to Tuberculosis: Drug resistance in Canada, 2005 (www.phacaspc.gc.ca/publicat/tbdrc05/index.html) which reported drug susceptibility results for *Mycobacterium* isolates tested in 2005.

Section II – 2004 Treatment Outcomes

National Trends

Treatment outcome data for new active and relapsed cases reported in the previous year are submitted to TBPC using a separate reporting form (*Appendix VII* – Reporting forms). For the 1,613 cases reported in 2004, 1,475 cases had treatment outcomes reported to the CTBRS. For the outcomes that were reported, the majority of cases (80%) were reported as cured or as treatment completed without culture at the end of treatment (1,184 cases). Of the remaining cases for which treatment outcome was known, 139 (9%) died prior to completing treatment.

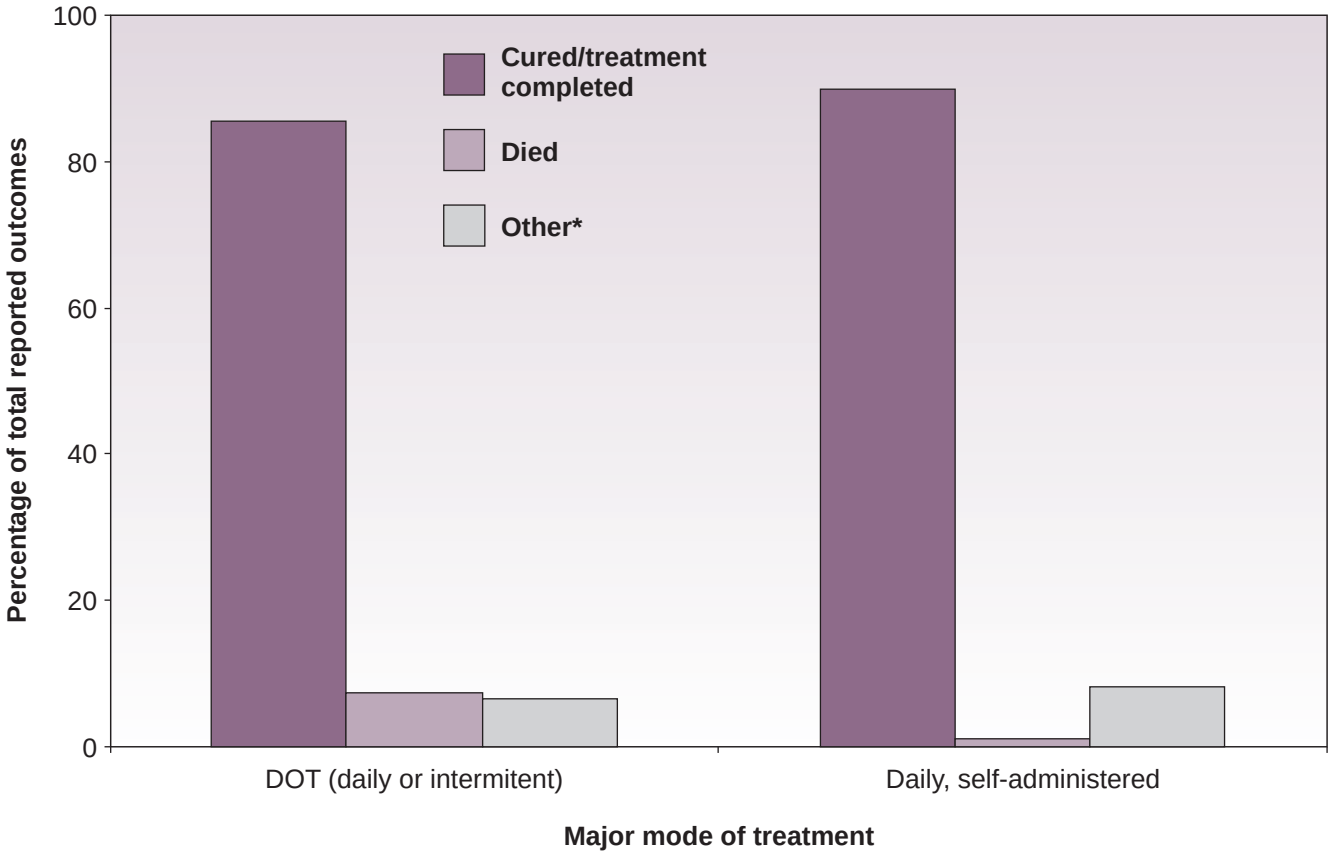
The majority of individuals were reported to have received treatment as per the *Canadian Tuberculosis Standards, 6th edition*[5]. Drug regimen reporting was complete for 694 cases. Eighty-four percent of these cases received three or more anti-TB drugs (*Appendix I*, Table 25).

For 972 patients for whom mode of treatment was reported, 52% were on Directly Observed Therapy (DOT). An additional 43% self-administered their medications. Eighty-five percent of those patients on DOT and 90% who self-administered were reported to have been successfully treated (Figure 16).

[5] Long R, Ellis E, editors, *Canadian Tuberculosis Standards*, 6th ed. Ottawa: Public Health Agency of Canada and the Canadian Lung Association/Canadian Thoracic Society; 2007.

Figure 16

Treatment outcome status of tuberculosis cases by major mode of treatment – 2004



* Other: absconded, transferred, treatment ongoing, unknown

Section III – Measuring progress towards national targets

In 1997, the National Consensus Conference on Tuberculosis recommended that the Canadian goal of TB prevention and control should be to reduce the annual number of TB cases (new and relapsed) by five percent annually. The overall average rate of change of such cases from 1995 to 2005 was 2.6% (see Table E).

Table E

Average rate of change in the number of cases and in incidence rate for new and relapsed TB cases in Canada: 1995–2005

Reporting year	Number of reported cases	Rates	Rate of change (%)	
			Case	Rate
1995	1,964	6.7		
1996	1,877	6.3	↓ 4.4	↓ 5.4
1997	1,995	6.7	↑ 6.3	↑ 5.3
1998	1,809	6.0	↓ 9.3	↓ 10.1
1999	1,820	6.0	↑ 0.6	↑ 0.2
2000	1,724	5.6	↓ 5.3	↓ 6.2
2001	1,771	5.7	↑ 2.8	↑ 1.7
2002	1,660	5.3	↓ 6.3	↓ 7.2
2003	1,629	5.1	↓ 1.9	↓ 3.0
2004	1,613	5.0	↓ 1.0	↓ 1.9
2005	1,643	5.1	↑ 1.8	↑ 1.4
		Average rate of change	**↓ 1.7**	**↓ 2.6**

In 2006, the Canadian Tuberculosis Committee[6] (CTC) reviewed this national goal in view of the targets set in the *Global Plan to Stop TB 2006–2015*[7] to reduce the global burden of TB disease in 2015 by 50% relative to 1990 levels. The CTC recommended a target Canadian TB (new and relapsed) incidence rate of 3.6 per 100,000 population (or less) by 2015. This represents one-half of the disease burden in Canada as compared to the 1990 incidence rate. Achieving this goal will require a three percent annual reduction in the incidence rate between 2005 and 2015.

[6] For information on the membership and terms of reference for the Canadian Tuberculosis Committee please see http://www.phac-aspc.gc.ca/tbpc-latb/ctc-ccla/index.html.

[7] Stop TB Partnership and World Health Organization. *Global Plan to Stop TB 2006–2015*. Geneva, World Health Organization, 2006 (WHO/HTM/STB/2006.35).

The *Canadian Tuberculosis Standards*, 6th edition has set program performance standards for the ideal anti-TB drug regimen and its delivery. These standards require that at a minimum treatment:

- convert sputum cultures to negative after 4 months of treatment;
- achieve re-treatment rates of less than 3% within 2 years following cessation of treatment;
- achieve acquired drug resistance rates of 0%;
- be cost-effective (since DOT is the optimal mode of drug delivery, intermittent regimens of 120 doses [9 months] or 95 doses [6 months] are recommended);
- be tolerated by the patient (< 5% of patients will discontinue or modify therapy because of adverse effects); and
- achieve at least a 90% cure (negative sputum culture at the end of treatment) or treatment completion (treatment completed but no sputum culture at the end of treatment) rate within 12 months of starting treatment for patients who did not die or transfer out during treatment.

The CTBRS contains data that can approximate measuring progress towards achieving some of these standards for the entire cohort of TB cases reported in Canada. In 2004, excluding 139 patients who died and another 15 patients who were reported to have transferred out of regions during treatment, there were 1,184 patients who were deemed cured or completed treatment representing 81% of cases. There were 138 cases for which an outcome result was not reported.

Between 2000 and 2005 there were 766 relapsed cases representing 8% of all the cases reported during that period. Of these relapsed cases, 335 (44%) were known to have been previously diagnosed in Canada. The date of previous diagnosis date was reported for 277 (83%) cases and 44 (16%) were diagnosed within 2 years of the previous episode. The rate of relapse within two years of cessation of treatment, for cases previously diagnosed in Canada was therefore extremely low, averaging less than one percent of all reported cases for the last five years of reporting (2000–2005).

SECTION IV – INTERNATIONAL REPORTING

PHAC provides data to the WHO on an annual basis. This reporting focuses only on pulmonary smear-positive cases and the treatment outcome of these cases by major mode of treatment (e.g., DOTS or non-DOTS). The WHO global targets for TB include 70% detection of all pulmonary smear-positive cases and of these cases an 85% cure or treatment completion rate. Table F provides the reported treatment outcome data for laboratory-confirmed pulmonary cases in Canada between 1998 and 2004, inclusive. Laboratory-confirmed cases include smear-positive cases plus any cases confirmed by additional laboratory methods.

Table F

Treatment outcome of laboratory confirmed pulmonary cases, Canada: 1998-2004[8]

	1998		1999		2000		2001		2002		2003		2004	
Treatement outcome	DOTS	*Non-DOTS*	**DOTS**	***Non-DOTS***	**DOTS**	***Non-DOTS***	**DOTS**	***Non-DOTS***	**DOTS**	***Non-DOTS***	**DOTS**	***Non-DOTS***	**DOTS**	***Non-DOTS***
Total cohort registered for treatment	185	*245*	222	*164*	234	*150*	264	*194*	206	*141*	202	*168*	251	*168*
Cured	68	*72*	76	*70*	107	*72*	78	*57*	84	*9*	55	*13*	46	*15*
Completed	89	*99*	127	*55*	85	*53*	140	*98*	99	*107*	123	*127*	159	*134*
Cured or completed treatment (% of total)	**157 (85%)**	***171 (70%)***	**203 (91%)**	***125 (76%)***	**192 (82%)**	***125 (83%)***	**218 (83%)**	***155 (80%)***	**183 (89%)**	***116 (82%)***	**178 (88%)**	***140 (83%)***	**205 (82%)**	***149 (89%)***
Died	8	*28*	6	*24*	22	*10*	26	*23*	11	*13*	17	*17*	27	*8*
Failed	0	*0*	0	*0*	2	*0*	0	*0*	0	*0*	0	*0*	0	*0*
Defaulted	1	*3*	5	*3*	6	*3*	9	*5*	4	*6*	3	*3*	3	*2*
Transferred	2	*20*	2	*5*	1	*8*	3	*10*	2	*4*	2	*5*	5	*3*
Treatment ongoing	3	*2*	4	*3*	8	*2*	3	*1*	1	*0*	0	*1*	7	*2*
Unknown	14	*21*	2	*4*	3	*2*	5	*0*	5	*2*	2	*2*	4	*4*

[8] Numbers may differ from *Global Tuberculosis Control, WHO Report 2007* (which reports 2005 case data and 2004 treatment outcome data) due to late reporting of cases to the Public Health Agency of Canada.

Conclusion

The total number of reported cases of TB in Canada has shown a general decrease over the past two decades. However, this decrease is mostly a reflection of a decreasing number of cases in the Canadian-born non-Aboriginal population. The number of cases in the Canadian-born Aboriginal and foreign-born populations has shown a minimal decrease. Generally, the TB incidence rate has been slowly declining among Canadian-born non-Aboriginal and foreign-born populations. However, no significant TB incidence rate change has occurred in the Canadian-born Aboriginal population. The relatively high rate in the Aboriginal population continues to be a major concern, especially with the upward shift in the past two years.

Determining the Canadian incidence rate of TB-HIV co-infection from this surveillance system is not yet possible. HIV status was reported for only 26% of cases, of which 14% were HIV sero-positive. Moreover, this percentage is likely biased towards HIV testing in those with known risk factors for HIV infection. In the unlikely event that these were the only co-infected cases, the overall co-infection rate was 4%. The most recent report by the WHO has estimated HIV prevalence in incident TB cases in Canada in 2006 to be 6.2%.[9] There are a number of important personal and public health reasons for screening for HIV in patients with TB and their contacts, as well as screening and prevention of TB in patients with HIV.[10] Screening for HIV in TB cases and reporting of the results are essential activities for prevention and control of future TB cases in Canada.

Drug resistance has not yet emerged as a significant problem in Canada. Cases of MDR-TB represent less than 2% of the reported cases of drug resistance in this reporting system. As of May, 2008, four XDR-TB cases have been reported in Canada – one each in 1997, 2003, 2006 and 2008.

For the treatment outcome data received, the majority of TB cases were reported as cured or completed treatment. Analysis on the treatment outcome status of laboratory-confirmed pulmonary cases indicated that 82% of DOTS and 89% of non-DOTS, (total 84%) were cured or had completed treatment which was very close to the WHO international target of 85%.

In keeping with the targets set in the *Global Plan to Stop TB 2006-2015*[11] to reduce the global burden of TB disease by 50%, the Canadian tuberculosis incidence rate would have to be reduced to 3.6 per 100,000 by 2015. Achieving this incidence rate will require an average per annum decrease in the number of reported cases of 3% between 2005 and 2015. This will require a concerted effort on behalf of all working on TB prevention and control in Canada.

As the epidemiology of TB in Canada and the world evolves, the CTBRS and the annual report, *Tuberculosis in Canada*, will continue to undergo improvements in the quality and nature of the data reported.

[9] Global tuberculosis control: surveillance, planning, financing, WHO report 2008. Geneva, World Health Organization (WHO/HTM/TB/2008.393).

[10] Long R, Ellis E, editors, *Canadian Tuberculosis Standards*, 6th ed., Appendix G: Recommendations for the screening and prevention of tuberculosis in patients with human immunodeficiency virus (HIV) and the screening for HIV in tuberculosis patients and their contacts. Ottawa: Public Health Agency of Canada and the Canadian Lung Association/Canadian Thoracic Society; 2007.

[11] Stop TB Partnership and World Health Organization. *Global Plan to Stop TB 2006–2015*. Geneva, World Health Organization, 2006 (WHO/HTM/STB/2006.35).

Appendices

Appendix I – Data tables: 2005

Appendix II – Technical notes

Appendix III – Population estimates: 2005

Appendix IV – WHO estimated incidence of TB, 22 high burden countries: 2005

Appendix V – STOP TB Partnership/ WHO TB epidemiological regions and member countries

Appendix VI – WHO reporting form for 2005 cases

Appendix VII – Canada – Case and treatment outcome reporting forms

Appendix VIII – The Canadian Tuberculosis Committee – 2008

Appendix I
Data Tables: 2005

Table 1A

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 – Canada and provinces/territories: 1995–2005

Year of diagnosis		CANADA	Province/territory												
			N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
1995	Cases	**1,964**	11	1	13	8	380	800	108	155	126	308	2	52	–
	Rate	**6.7**	1.9	0.7	1.4	1.1	5.3	7.3	9.6	15.3	4.6	8.2	6.6	78.3	–
1996	Cases	**1,877**	24	3	15	15	332	780	97	113	140	316	6	36	–
	Rate	**6.3**	4.3	2.2	1.6	2.0	4.6	7.0	8.6	11.1	5.0	8.2	19.1	53.4	–
1997	Cases	**1,995**	15	5	7	7	360	780	96	121	166	405	2	31	–
	Rate	**6.7**	2.7	3.7	0.8	0.9	4.9	6.9	8.4	11.9	5.9	10.3	6.3	45.9	–
1998	Cases	**1,809**	8	2	18	9	289	742	116	98	158	329	2	38	–
	Rate	**6.0**	1.5	1.5	1.9	1.2	4.0	6.5	10.2	9.6	5.4	8.3	6.4	56.6	–
1999	Cases	**1,820**	12	2	15	15	314	698	132	116	149	328	1	23	15
	Rate	**6.0**	2.2	1.5	1.6	2.0	4.3	6.1	11.6	11.4	5.0	8.2	3.2	56.6	55.9
2000	Cases	**1,724**	10	2	3	10	318	700	98	104	133	286	3	10	47
	Rate	**5.6**	1.9	1.5	0.3	1.3	4.3	6.0	8.5	10.3	4.4	7.1	9.9	24.7	170.9
2001	Cases	**1,771**	19	3	8	10	259	699	115	114	116	380	0	8	40
	Rate	**5.7**	3.6	2.2	0.9	1.3	3.5	5.9	10.0	11.4	3.8	9.3	–	19.6	142.2
2002	Cases	**1,660**	9	1	9	11	282	716	98	89	128	286	0	4	27
	Rate	**5.3**	1.7	0.7	1.0	1.5	3.8	5.9	8.5	8.9	4.1	6.9	–	9.6	93.9
2003	Cases	**1,629**	7	3	6	12	255	693	127	91	110	305	1	12	7
	Rate	**5.1**	1.4	2.2	0.6	1.6	3.4	5.7	10.9	9.1	3.5	7.3	3.3	28.4	24.0
2004	Cases	**1,613**	7	1	8	10	219	700	144	70	109	299	4	10	32
	Rate	**5.0**	1.4	0.7	0.9	1.3	2.9	5.6	12.3	7.0	3.4	7.1	13.0	23.4	108.0
2005	Cases	**1,643**	9	1	7	6	255	644	114	139	146	266	3	8	45
	Rate	**5.1**	1.8	0.7	0.7	0.8	3.4	5.1	9.7	14.0	4.5	6.2	9.7	18.7	149.9

Table 1B

Reported new active tuberculosis cases and incidence rate per 100,000 – Canada and provinces/territories: 1995-2005

Year of diagnosis		CANADA	Province/territory												
			N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
1995	Cases	**1,712**	9	1	10	7	348	644	96	143	116	290	2	46	-
	Rate	**5.9**	1.6	0.7	1.1	0.9	4.8	6.1	8.5	14.1	4.2	7.7	6.6	69.3	-
1996	Cases	**1,663**	21	3	11	9	294	681	84	109	129	287	4	31	-
	Rate	**5.6**	3.8	2.2	1.2	1.2	4.1	6.2	7.4	10.7	4.6	7.4	12.7	46.0	-
1997	Cases	**1,765**	13	4	5	6	323	682	86	110	150	360	2	24	-
	Rate	**5.9**	2.4	2.9	0.5	0.8	4.4	6.1	7.6	10.8	5.3	9.1	6.3	35.5	-
1998	Cases	**1,606**	7	2	16	7	262	631	104	91	146	306	2	32	-
	Rate	**5.4**	1.3	1.5	1.7	0.9	3.6	5.7	9.1	8.9	5.0	7.7	6.4	47.6	-
1999	Cases	**1,623**	11	2	12	13	278	596	123	110	141	304	1	17	15
	Rate	**5.3**	2.1	1.5	1.3	1.7	3.8	5.2	10.8	10.8	4.8	7.6	3.2	41.8	55.9
2000	Cases	**1,540**	10	2	3	8	297	599	88	100	120	264	2	7	40
	Rate	**5.0**	1.9	1.5	0.3	1.1	4.0	5.1	7.7	9.9	4.0	6.5	6.6	17.3	145.5
2001	Cases	**1,574**	17	2	5	10	233	610	108	104	106	337	-	8	34
	Rate	**5.1**	3.3	1.5	0.5	1.3	3.1	5.1	9.4	10.4	3.4	8.2	-	19.6	120.9
2002	Cases	**1,481**	6	1	7	10	252	631	92	83	121	252	-	4	22
	Rate	**4.7**	1.2	0.7	0.7	1.3	3.4	5.2	8.0	8.3	3.9	6.2	-	9.6	76.6
2003	Cases	**1,470**	4	1	5	11	240	613	118	82	104	275	1	9	7
	Rate	**4.6**	0.6	0.7	0.5	1.5	3.2	5.0	10.2	8.2	3.3	6.6	3.3	21.3	24.0
2004	Cases	**1,468**	4	1	8	9	204	633	132	63	100	277	4	9	24
	Rate	**4.6**	0.8	0.7	0.9	1.2	2.7	5.1	11.3	6.3	3.1	6.6	13.0	21.0	81.0
2005	Cases	**1,493**	8	1	7	6	223	587	105	127	131	248	3	8	39
	Rate	**4.6**	1.6	0.7	0.7	0.8	2.9	4.7	8.9	12.8	4.0	5.8	9.7	18.7	129.9

NB: Cases for which activity status is unknown are included in the total (Table 1A).

Table 1C

Reported relapsed tuberculosis cases and incidence rate per 100,000 – Canada and provinces/territories: 1995-2005

Year of diagnosis		CANADA	Province/territory												
			N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
1995	Cases	**193**	2	–	3	1	28	101	12	12	10	18	–	6	–
	Rate	**0.7**	0.4	–	0.3	0.1	0.4	0.9	1.1	1.2	0.4	0.5	–	9.0	–
1996	Cases	**177**	3	–	3	5	36	71	9	4	11	29	1	5	–
	Rate	**0.6**	0.5	–	0.3	0.7	0.5	0.6	0.8	0.4	0.4	0.7	3.2	7.4	–
1997	Cases	**197**	2	1	2	1	34	70	10	11	16	43	–	7	–
	Rate	**0.7**	0.4	0.7	0.2	0.1	0.5	0.7	0.9	1.1	0.6	1.1	–	10.4	–
1998	Cases	**153**	1	–	2	2	22	66	12	7	12	23	–	6	–
	Rate	**0.5**	0.2	–	0.2	0.3	0.3	0.6	1.1	0.7	0.4	0.6	–	8.9	–
1999	Cases	**158**	1	–	2	1	33	69	9	6	8	23	–	6	–
	Rate	**0.5**	0.2	–	0.2	0.1	0.5	0.6	0.8	0.6	0.3	0.6	–	14.8	–
2000	Cases	**147**	–	–	–	1	18	70	10	4	13	21	1	3	6
	Rate	**0.5**	–	–	–	0.1	0.2	0.6	0.9	0.4	0.4	0.5	3.3	7.4	21.8
2001	Cases	**151**	2	1	3	–	16	59	5	10	10	39	–	–	6
	Rate	**0.5**	0.4	0.7	0.3	–	0.2	0.5	0.4	1.0	0.4	1.0	–	–	21.3
2002	Cases	**137**	3	–	2	1	19	56	6	6	7	32	–	–	5
	Rate	**0.4**	0.6	–	0.2	0.1	0.3	0.5	0.5	0.6	0.2	0.8	–	–	17.4
2003	Cases	**105**	3	1	1	1	15	35	9	9	6	22	–	3	–
	Rate	**0.3**	0.6	0.7	0.1	0.1	0.2	0.3	0.8	0.9	0.2	0.5	–	7.1	–
2004	Cases	**120**	3	–	–	1	15	42	12	7	9	22	–	1	8
	Rate	**0.4**	0.6	–	–	0.1	0.2	0.3	1.0	0.7	0.3	0.5	–	2.3	27.0
2005	Cases	**106**	1	–	–	–	12	33	9	12	15	18	–	–	6
	Rate	**0.3**	0.2	–	–	–	0.2	0.3	0.8	1.2	0.5	0.4	–	–	20.0

Note: Cases of which activity status is unknown are included in the total (Table 1A).

Table 2A

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by age group – Canada: 1995-2005

Year of diagnosis		TOTAL	Age group										
			< 1	1 – 4	5 – 14	15 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 – 74	75 +	Age unknown
1995	Cases	**1,964**	28	66	87	229	335	322	206	216	252	223	-
	Rate	**6.7**	7.3	4.1	2.2	5.7	7.0	6.6	5.7	8.6	12.2	15.5	-
1996	Cases	**1,877**	14	66	63	216	361	305	191	195	251	215	-
	Rate	**6.3**	3.7	4.2	1.6	5.4	7.6	6.1	5.0	7.7	12.0	14.4	-
1997	Cases	**1,995**	8	50	57	222	391	291	216	232	250	278	-
	Rate	**6.7**	2.2	3.2	1.4	5.5	8.4	5.7	5.5	9.0	11.9	18.0	-
1998	Cases	**1,809**	20	60	72	187	314	307	184	174	235	256	-
	Rate	**6.0**	5.8	3.9	1.8	4.6	7.0	5.9	4.5	6.6	11.0	16.0	-
1999	Cases	**1,820**	32	55	61	204	339	254	193	173	244	265	-
	Rate	**6.0**	9.4	3.7	1.5	5.0	7.7	4.8	4.6	6.3	11.4	16.1	-
2000	Cases	**1,724**	17	50	44	207	316	279	208	160	204	239	-
	Rate	**5.6**	5.0	3.4	1.1	5.0	7.3	5.3	4.8	5.7	9.5	14.0	-
2001	Cases	**1,771**	11	33	70	180	322	289	208	184	219	255	-
	Rate	**5.7**	3.3	2.3	1.7	4.3	7.5	5.5	4.6	6.3	10.1	14.5	-
2002	Cases	**1,660**	10	42	45	210	312	263	201	161	199	217	-
	Rate	**5.3**	3.1	3.0	1.1	4.9	7.2	5.0	4.4	5.2	9.1	11.9	-
2003	Cases	**1,629**	7	34	41	198	332	277	206	153	178	203	-
	Rate	**5.1**	2.1	2.5	1.0	4.6	7.6	5.3	4.4	4.7	8.1	10.8	-
2004	Cases	**1,613**	6	33	45	198	324	272	198	167	177	193	-
	Rate	**5.0**	1.8	2.4	1.1	4.5	7.4	5.3	4.1	4.9	8.0	10.0	-
2005	Cases	**1,643**	10	38	72	254	279	278	212	144	168	188	-
	Rate	**5.1**	3.0	2.8	1.8	5.8	6.3	5.4	4.3	4.1	7.5	9.5	-

Table 2B

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by age group – males – Canada: 1995-2005

Year of diagnosis		TOTAL	Age group										
			< 1	1 – 4	5 – 14	15 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 – 74	75 +	Age unknown
1995	Cases	**1,065**	9	31	41	111	174	199	121	124	146	109	-
	Rate	**7.3**	4.6	3.8	2.0	5.4	7.2	8.2	6.7	10.0	15.5	20.3	-
1996	Cases	**1,013**	9	30	35	107	186	162	104	106	143	131	-
	Rate	**6.9**	4.6	3.7	1.7	5.2	7.8	6.5	5.5	8.5	14.9	23.6	-
1997	Cases	**1,062**	6	27	25	94	195	161	118	131	141	164	-
	Rate	**7.2**	3.3	3.4	1.2	4.6	8.3	6.3	6.0	10.3	14.5	28.4	-
1998	Cases	**966**	16	31	38	78	162	164	100	105	125	147	-
	Rate	**6.5**	9.1	4.0	1.8	3.7	7.1	6.3	4.9	8.0	12.6	24.6	-
1999	Cases	**999**	20	28	24	99	176	141	117	96	144	154	-
	Rate	**6.6**	11.5	3.7	1.1	4.7	7.9	5.4	5.6	7.1	14.4	24.9	-
2000	Cases	**924**	10	27	24	97	168	149	117	88	101	143	-
	Rate	**6.1**	5.8	3.6	1.1	4.5	7.7	5.6	5.4	6.3	10.0	22.3	-
2001	Cases	**984**	6	15	45	92	153	168	124	111	127	143	-
	Rate	**6.4**	3.5	2.1	2.1	4.2	7.0	6.3	5.6	7.7	12.5	21.5	-
2002	Cases	**863**	5	18	15	95	167	142	105	90	116	110	-
	Rate	**5.6**	3.0	2.5	0.7	4.3	7.6	5.4	4.6	5.9	11.3	15.9	-
2003	Cases	**894**	3	21	14	102	162	161	127	86	105	113	-
	Rate	**5.7**	1.8	3.0	0.7	4.6	7.3	6.1	5.4	5.4	10.1	15.7	-
2004	Cases	**848**	5	22	23	85	146	147	104	99	110	107	-
	Rate	**5.4**	2.9	3.1	1.1	3.8	6.6	5.7	4.4	5.9	10.4	14.4	-
2005	Cases	**909**	6	20	33	128	142	154	124	83	97	122	-
	Rate	**5.7**	3.5	2.9	1.6	5.7	6.3	6.0	5.1	4.8	9.1	15.8	-

Table 2C

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by age group – females – Canada: 1995-2005

Year of diagnosis		TOTAL	Age group										
			< 1	1 – 4	5 – 14	15 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 – 74	75 +	Age unknown
1995	Cases	**899**	19	35	46	118	161	123	85	92	106	114	-
	Rate	**6.1**	10.2	4.5	2.4	6.1	6.8	5.0	4.7	7.3	9.4	12.6	-
1996	Cases	**864**	5	36	28	109	175	143	87	89	108	84	-
	Rate	**5.8**	2.7	4.7	1.4	5.6	7.5	5.7	4.6	6.9	9.6	9.0	-
1997	Cases	**933**	2	23	32	128	196	130	98	101	109	114	-
	Rate	**6.2**	1.2	3.0	1.6	6.5	8.5	5.1	5.0	7.7	9.6	11.8	-
1998	Cases	**843**	4	29	34	109	152	143	84	69	110	109	-
	Rate	**5.5**	2.4	3.9	1.7	5.5	6.8	5.5	4.1	5.1	9.7	10.9	-
1999	Cases	**821**	12	27	37	105	163	113	76	77	100	111	-
	Rate	**5.3**	7.3	3.7	1.9	5.2	7.5	4.3	3.6	5.6	8.8	10.7	-
2000	Cases	**800**	7	23	20	110	148	130	91	72	103	96	-
	Rate	**5.2**	4.2	3.2	1.0	5.4	6.9	4.9	4.2	5.1	9.1	9.0	-
2001	Cases	**786**	5	18	25	88	169	121	84	73	91	112	-
	Rate	**5.0**	3.1	2.6	1.3	4.3	7.9	4.6	3.7	4.9	8.0	10.2	-
2002	Cases	**797**	5	24	30	115	145	121	96	71	83	107	-
	Rate	**5.1**	3.1	3.5	1.5	5.5	6.8	4.6	4.2	4.5	7.2	9.5	-
2003	Cases	**735**	4	13	27	96	170	116	79	67	73	90	-
	Rate	**4.6**	2.5	1.9	1.4	4.6	7.9	4.5	3.3	4.1	6.3	7.8	-
2004	Cases	**765**	1	11	22	113	178	125	94	68	67	86	-
	Rate	**4.7**	0.6	1.6	1.1	5.3	8.2	4.9	3.9	4.0	5.8	7.3	-
2005	Cases	**734**	4	18	39	126	137	124	88	61	71	66	-
	Rate	**4.5**	2.4	2.7	2.0	5.9	6.3	4.9	3.6	3.4	6.0	5.4	-

Table 3

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by birthplace – Canada: 1995-2005

Birthplace			Year of diagnosis										
			1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Canadian-born	Aboriginal												
	North American Indian	Cases	263	218	232	205	255	174	213	173	206	206	219
		Rate	–	–	–	–	–	–	29.9	23.8	27.8	27.2	28.4
	Status (registered) Indian	Cases	263	218	212	191	247	167	199	165	204	202	213
		Rate	42.9	34.6	32.8	29.0	36.6	24.2	28.3	23.0	27.9	26.4	27.4
	Non-status Indian	Cases	–	–	20	14	8	7	14	8	2	4	6
		Rate	–	–	–	–	–	–	–	–	–	–	–
	Inuit	Cases	25	26	18	35	28	56	53	33	11	41	63
		Rate	43.1	45.5	30.9	58.7	45.9	91.5	111.4	67.8	22.1	80.4	120.7
	Metis	Cases	56	51	32	39	31	29	49	35	30	21	35
		Rate	–	–	–	–	–	–	16.0	11.3	9.5	6.6	10.8
	Total Aboriginal	**Cases**	**344**	**295**	**282**	**279**	**314**	**259**	**315**	**241**	**247**	**268**	**317**
		Rate	**29.4**	**24.8**	**23.2**	**22.5**	**25.1**	**20.5**	**29.5**	**22.2**	**22.3**	**23.8**	**27.6**
	Non-Aboriginal	Cases	443	374	403	347	326	314	282	259	231	214	218
		Rate	1.9	1.6	1.7	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.9
	Total Canadian-born	**Cases**	**787**	**669**	**685**	**626**	**640**	**573**	**597**	**500**	**478**	**482**	**535**
		Rate	**3.2**	**2.7**	**2.8**	**2.5**	**2.6**	**2.2**	**2.4**	**2.0**	**1.9**	**1.9**	**2.1**
Foreign-born	Africa, High HIV Prevalence (AFR-High)	Cases	50	54	79	79	66	66	77	90	85	87	94
		Rate	–	–	–	–	–	–	48.8	53.5	48.1	48.1	49.8
	Africa, Low HIV Prevalence (AFR-Low)	Cases	10	5	12	9	12	14	8	19	22	21	26
		Rate	–	–	–	–	–	–	11.3	24.5	26.0	23.7	27.6
	American Region - Latin American and Caribbean Countries (AMR)	Cases	112	92	99	87	70	80	60	62	75	65	71
		Rate	–	–	–	–	–	–	8.8	8.8	10.3	8.7	9.4

...cont'd

Table 3 *Cont'd*

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by birthplace – Canada: 1995-2005

Birthplace			Year of diagnosis										
			1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Foreign-born *(cont'd)*	Established Market Economies and Central Europe (EME-CEUR)	Cases	129	109	124	115	115	97	101	76	76	71	56
		Rate	–	–	–	–	–	–	3.8	2.8	2.9	2.7	2.1
	Eastern Europe (EEUR)	Cases	27	15	28	33	32	30	23	36	23	26	29
		Rate	–	–	–	–	–	–	9.0	13.2	7.9	8.6	9.1
	Eastern Mediterranean (EMR)	Cases	121	147	119	104	113	117	107	119	110	115	123
		Rate	–	–	–	–	–	–	22.7	22.8	19.2	19.0	19.1
	South-East Asia (SEAR)	Cases	160	177	200	197	193	208	237	222	245	267	239
		Rate	–	–	–	–	–	–	47.6	41.0	41.8	43.3	36.8
	Western Pacific Region (WPR)	Cases	511	553	573	508	513	477	456	456	457	448	389
		Rate	–	–	–	–	–	–	34.7	32.8	31.1	29.4	24.6
	Unknown	Cases	48	26	46	28	47	44	53	39	17	15	31
		Rate	–	–	–	–	–	–	–	–	–	–	–
	Total foreign-born	**Cases**	**1,168**	**1,178**	**1,280**	**1,160**	**1,161**	**1,133**	**1,122**	**1,119**	**1,110**	**1,115**	**1,058**
		Rate	**21.0**	**22.5**	**23.9**	**21.2**	**20.8**	**19.6**	**18.3**	**17.6**	**16.9**	**16.6**	**15.4**
Unknown		Cases	9	30	30	23	19	18	52	41	41	16	50
		Rate	–	–	–	–	–	–	–	–	–	–	–
TOTAL		**Cases**	**1,964**	**1,877**	**1,995**	**1,809**	**1,820**	**1,724**	**1,771**	**1,660**	**1,629**	**1,613**	**1,643**
		Rate	**6.7**	**6.3**	**6.7**	**6.0**	**6.0**	**5.6**	**5.7**	**5.3**	**5.1**	**5.0**	**5.1**

Table 4

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by main diagnostic site – Canada: 1995-2005

Main diagnostic site			Year of diagnosis										
			1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Respiratory	Primary*	Cases	164	120	131	130	154	99	120	88	79	94	106
		Rate	0.6	0.4	0.4	0.4	0.5	0.3	0.4	0.3	0.2	0.3	0.3
	Pulmonary**	Cases	1,167	1,097	1,171	1,071	1,105	1,068	1,132	1,019	962	935	960
		Rate	4.0	3.7	3.9	3.6	3.6	3.5	3.6	3.2	3.0	2.9	3.0
	Other respiratory†	Cases	71	69	75	63	62	64	52	57	64	98	117
		Rate	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4
Nonrespiratory	Miliary	Cases	32	40	50	30	25	26	15	17	20	30	24
		Rate	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
	Meninges and CNS	Cases	21	18	25	24	15	16	17	18	25	19	21
		Rate	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
	Peripheral lymph node	Cases	254	241	268	276	244	258	235	242	249	251	247
		Rate	0.9	0.8	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8
	Other‡	Cases	228	270	259	189	189	163	180	194	193	185	168
		Rate	0.8	0.9	0.9	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.5
Unknown		Cases	27	22	16	26	26	30	20	25	37	1	0
		Rate	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0

* Primary includes primary respiratory tuberculosis and tuberculous pluerisy in primary progressive tuberculosis, (ICD-9 codes 010.0-010.9; ICD-10 A15.7 and A16.7).

** Pulmonary includes tuberculosis of the lungs and conducting airways which includes tuberculous fibrosis of the lung, tuberculous bronchiectasis, tuberculous pneumonia, tuberculous pneumothorax, isolated tracheal or bronchial tuberculosis and tuberculous laryngitis; (ICD-9 codes 011-011.9, 012.2, 012.3; ICD-10 codes A15.0-A15.3, A15.5, A15.9, A16.0-A16.2, A16.4, A16.9).

† Other Respiratory includes tuberculous pleurisy (non-primary); tuberculosis of: intrathoracic lymph nodes, mediastinum, nasopharynx, nose (septum), and sinus (any nasal) (ICD-9 codes: 012.0, 012.1 and 012.8; ICD-10 codes: A15.4, A15.6, A15.8, A16.3, A16.5, A16.8).

‡ Other includes tuberculosis of intestines, peritoneum and mesenteric glands, bones and joints, genitourinary system, skin, eye, ear, thyroid, adrenal and spleen.

Table 5A

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by age group – Canada and provinces/territories: 2005

Age group		CANADA	Province/territory												
			N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
<1	Cases	**10**	0	0	0	0	3	0	0	5	1	1	0	0	0
	Rate	**3.0**	0.0	0.0	0.0	0.0	4.0	0.0	0.0	42.3	2.4	2.5	0.0	0.0	0.0
1 – 4	Cases	**38**	0	0	0	0	4	9	4	16	1	1	0	1	2
	Rate	**2.8**	0.0	0.0	0.0	0.0	1.3	1.7	7.2	33.7	0.6	0.6	0.0	38.0	71.1
5 – 14	Cases	**72**	1	0	0	1	7	20	7	27	2	2	1	0	4
	Rate	**1.8**	1.8	0.0	0.0	1.2	0.8	1.2	4.4	20.1	0.5	0.4	24.2	0.0	58.9
15 – 24	Cases	**254**	0	0	1	0	43	88	27	33	22	26	0	0	14
	Rate	**5.8**	0.0	0.0	0.8	0.0	4.5	5.2	16.1	21.9	4.5	4.5	0.0	0.0	249.4
25 – 34	Cases	**279**	1	1	3	0	35	128	16	18	22	45	0	0	10
	Rate	**6.3**	1.6	5.9	2.5	0.0	3.4	7.4	10.3	14.8	4.4	7.9	0.0	0.0	195.6
35 – 44	Cases	**278**	1	0	0	2	34	122	22	20	26	42	0	0	9
	Rate	**5.4**	1.2	0.0	0.0	1.7	2.9	5.9	12.9	14.8	5.0	6.3	0.0	0.0	230.2
45 – 54	Cases	**212**	2	0	0	0	33	77	15	8	17	54	1	2	3
	Rate	**4.3**	2.3	0.0	0.0	0.0	2.7	4.2	8.9	5.6	3.5	8.1	17.5	35.5	111.9
55 – 64	Cases	**144**	2	0	1	0	30	57	7	6	16	22	1	0	2
	Rate	**4.1**	3.1	0.0	0.9	0.0	3.3	4.3	5.8	6.1	5.2	4.5	28.8	0.0	127.8
65 – 74	Cases	**168**	1	0	1	1	29	66	9	6	22	29	0	3	1
	Rate	**7.5**	2.6	0.0	1.4	1.8	5.1	7.7	11.7	8.6	11.9	9.5	0.0	230.4	161.6
75 +	Cases	**188**	1	0	1	2	37	77	7	0	17	44	0	2	0
	Rate	**9.5**	3.4	0.0	1.6	4.0	7.8	10.2	8.6	0.0	10.8	15.6	0.0	296.7	0.0
TOTAL	**Cases**	**1,643**	**9**	**1**	**7**	**6**	**255**	**644**	**114**	**139**	**146**	**266**	**3**	**8**	**45**
	Rate	**5.1**	**1.8**	**0.7**	**0.7**	**0.8**	**3.4**	**5.1**	**9.7**	**14.0**	**4.5**	**6.2**	**9.7**	**18.7**	**149.9**

Table 5B

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by age group – males – Canada and provinces/territories: 2005

Age group		CANADA	Province/territory												
			N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
<1	Cases	**6**	0	0	0	0	2	0	0	3	1	0	0	0	0
	Rate	**3.5**	0.0	0.0	0.0	0.0	5.2	0.0	0.0	49.7	4.7	0.0	0.0	0.0	0.0
1 – 4	Cases	**20**	0	0	0	0	2	4	2	7	1	1	0	1	2
	Rate	**2.9**	0.0	0.0	0.0	0.0	1.3	1.4	7.0	28.6	1.2	1.2	0.0	79.7	137.5
5 – 14	Cases	**33**	0	0	0	0	2	9	2	14	0	2	0	0	4
	Rate	**1.6**	0.0	0.0	0.0	0.0	0.4	1.1	2.4	20.3	0.0	0.8	0.0	0.0	114.4
15 – 24	Cases	**128**	0	0	0	0	19	42	20	20	9	13	0	0	5
	Rate	**5.7**	0.0	0.0	0.0	0.0	3.8	4.8	23.2	25.6	3.6	4.3	0.0	0.0	175.6
25 – 34	Cases	**142**	1	0	1	0	20	66	11	9	8	20	0	0	6
	Rate	**6.3**	3.2	0.0	1.7	0.0	3.8	7.6	13.9	14.7	3.1	7.0	0.0	0.0	234.1
35 – 44	Cases	**154**	0	0	0	1	22	65	10	12	12	25	0	0	7
	Rate	**6.0**	0.0	0.0	0.0	1.7	3.7	6.3	11.5	17.8	4.5	7.5	0.0	0.0	339.0
45 – 54	Cases	**124**	1	0	0	0	21	47	10	4	6	32	1	1	1
	Rate	**5.1**	2.4	0.0	0.0	0.0	3.5	5.1	11.8	5.5	2.4	9.7	34.6	34.4	66.6
55 – 64	Cases	**83**	1	0	1	0	16	37	3	2	9	12	1	0	1
	Rate	**4.8**	3.1	0.0	1.8	0.0	3.6	5.7	5.0	4.1	5.8	5.0	51.9	0.0	133.3
65 – 74	Cases	**97**	1	0	1	1	18	36	5	3	13	16	0	2	1
	Rate	**9.1**	5.4	0.0	3.0	3.9	6.8	8.8	13.6	9.0	14.5	10.7	0.0	286.5	292.4
75 +	Cases	**122**	1	0	1	1	23	48	3	0	12	31	0	2	0
	Rate	**15.8**	8.5	0.0	4.2	5.3	13.1	16.1	9.6	0.0	18.8	26.8	0.0	598.8	0.0
TOTAL	**Cases**	**909**	**5**	**0**	**4**	**3**	**145**	**354**	**66**	**74**	**71**	**152**	**2**	**6**	**27**
	Rate	**5.7**	**2.0**	**0.0**	**0.9**	**0.8**	**3.9**	**5.7**	**11.3**	**15.0**	**4.3**	**7.2**	**12.8**	**27.2**	**174.0**

Table 5C

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by age group – females – Canada and provinces/territories: 2005

Age group		CANADA	Province/territory												
			N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
<1	Cases	**4**	0	0	0	0	1	0	0	2	0	1	0	0	0
	Rate	**2.4**	0.0	0.0	0.0	0.0	2.7	0.0	0.0	34.5	0.0	5.1	0.0	0.0	0.0
1 – 4	Cases	**18**	0	0	0	0	2	5	2	9	0	0	0	0	0
	Rate	**2.7**	0.0	0.0	0.0	0.0	1.4	1.9	7.3	39.1	0.0	0.0	0.0	0.0	0.0
5 – 14	Cases	**39**	1	0	0	1	5	11	5	13	2	0	1	0	0
	Rate	**2.0**	3.6	0.0	0.0	2.4	1.2	1.4	6.4	19.8	1.0	0.0	47.9	0.0	0.0
15 – 24	Cases	**126**	0	0	1	0	24	46	7	13	13	13	0	0	9
	Rate	**5.9**	0.0	0.0	1.6	0.0	5.1	5.5	8.5	17.8	5.5	4.6	0.0	0.0	325.5
25 – 34	Cases	**137**	0	1	2	0	15	62	5	9	14	25	0	0	4
	Rate	**6.3**	0.0	11.4	3.3	0.0	3.0	7.1	6.6	15.0	5.8	8.8	0.0	0.0	156.9
35 – 44	Cases	**124**	1	0	0	1	12	57	12	8	14	17	0	0	2
	Rate	**4.9**	2.4	0.0	0.0	1.7	2.1	5.5	14.3	11.9	5.5	5.0	0.0	0.0	108.4
45 – 54	Cases	**88**	1	0	0	0	12	30	5	4	11	22	0	1	2
	Rate	**3.6**	2.3	0.0	0.0	0.0	2.0	3.2	5.9	5.6	4.5	6.5	0.0	36.7	169.3
55 – 64	Cases	**61**	1	0	0	0	14	20	4	4	7	10	0	0	1
	Rate	**3.4**	3.0	0.0	0.0	0.0	3.0	3.0	6.5	8.1	4.6	4.1	0.0	0.0	122.7
65 – 74	Cases	**71**	0	0	0	0	11	30	4	3	9	13	0	1	0
	Rate	**6.0**	0.0	0.0	0.0	0.0	3.6	6.7	9.9	8.3	9.5	8.4	0.0	165.6	0.0
75 +	Cases	**66**	0	0	0	1	14	29	4	0	5	13	0	0	0
	Rate	**5.4**	0.0	0.0	0.0	3.2	4.6	6.3	7.9	0.0	5.3	7.8	0.0	0.0	0.0
TOTAL	**Cases**	**734**	**4**	**1**	**3**	**3**	**110**	**290**	**48**	**65**	**75**	**114**	**1**	**2**	**18**
	Rate	**4.5**	**1.5**	**1.4**	**0.6**	**0.8**	**2.9**	**4.6**	**8.1**	**13.1**	**4.6**	**5.3**	**6.5**	**9.7**	**124.2**

Table 6

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by birthplace – Canada and provinces/territories: 2005

Birthplace			CANADA	Province/territory										
				N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	North
Canadian-born	Aboriginal													
	North American Indian	Cases	**219**	0	0	0	0	3	7	69	97	11	26	6
		Rate	**28.4**	0.0	0.0	0.0	0.0	4.0	4.1	62.9	94.6	10.3	18.4	29.1
	Status (registered) Indian	Cases	**213**	0	0	0	0	0	7	69	97	10	24	6
		Rate	**27.4**	0.0	0.0	0.0	0.0	0.0	4.0	54.7	77.7	9.9	19.3	23.5
	Non-status Indian	Cases	**6**	0	0	0	0	3	0	0	0	1	2	0
		Rate												
	Inuit	Cases	**63**	4	0	0	0	11	1	0	0	1	0	46
		Rate	**120.7**	78.9	0.0	0.0	0.0	102.1	56.8	0.0	0.0	81.8	0.0	147.9
	Metis	Cases	**35**	0	0	0	0	0	0	1	32	2	0	0
		Rate	**10.8**	0.0	0.0	0.0	0.0	0.0	0.0	1.6	65.7	2.7	0.0	0.0
	Total Aboriginal	**Cases**	**317**	**4**	**0**	**0**	**0**	**14**	**8**	**70**	**129**	**14**	**26**	**52**
		Rate	**27.6**	**18.7**	**0.0**	**0.0**	**0.0**	**13.6**	**3.5**	**40.5**	**85.1**	**7.7**	**13.6**	**91.9**
	Non-Aboriginal	Cases	**218**	5	1	2	3	87	48	14	4	15	36	3
		Rate	**0.9**	1.0	0.8	0.2	0.4	1.3	0.6	1.7	0.5	0.6	1.3	7.5
	Total Canadian-born	**Cases**	**535**	**9**	**1**	**2**	**3**	**101**	**56**	**84**	**133**	**29**	**62**	**55**
		Rate	**2.1**	**1.8**	**0.8**	**0.2**	**0.4**	**1.5**	**0.6**	**8.3**	**14.3**	**1.1**	**2.1**	**57.1**
Foreign-born	Africa, High HIV Prevalence (AFR-High)	Cases	**94**	0	0	0	1	14	54	7	1	11	5	1
		Rate	**49.8**	0.0	0.0	0.0	103.4	52.8	55.1	126.8	34.6	48.9	16.6	386.1
	Africa, Low HIV Prevalence (AFR-Low)	Cases	**26**	0	0	0	0	13	4	2	0	4	3	0
		Rate	**27.6**	0.0	0.0	0.0	0.0	26.3	11.9	115.8	0.0	94.5	91.6	0.0
	American Region - Latin American and Caribbean Countries (AMR)	Cases	**71**	0	0	0	0	36	30	0	0	2	3	0
		Rate	**9.4**	0.0	0.0	0.0	0.0	21.9	6.3	0.0	0.0	5.0	6.4	0.0

…cont'd

Table 6 *Cont'd*

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by birthplace – Canada and provinces/territories: 2005

Birthplace			CANADA	Province/territory										
				N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	North
Foreign-born *(cont'd)*	Established Market Economies and Central Europe (EME-CEUR)	Cases	**56**	0	0	0	0	8	32	0	1	6	9	0
		Rate	**2.1**	0.0	0.0	0.0	0.0	2.4	2.2	0.0	3.4	2.6	1.9	0.0
	Eastern Europe (EEUR)	Cases	**29**	0	0	0	0	7	16	0	1	2	3	0
		Rate	**9.1**	0.0	0.0	0.0	0.0	11.6	8.4	0.0	31.0	9.4	9.8	0.0
	Eastern Mediterranean (EMR)	Cases	**123**	0	0	1	0	22	63	4	0	21	12	0
		Rate	**19.1**	0.0	0.0	13.5	0.0	15.1	16.4	64.0	0.0	53.7	23.0	0.0
	South-East Asia (SEAR)	Cases	**239**	0	0	3	0	15	147	3	0	16	55	0
		Rate	**36.8**	0.0	0.0	131.5	0.0	33.1	35.4	34.8	0.0	39.7	41.4	0.0
	Western Pacific Region (WPR)	Cases	**389**	0	0	1	1	33	174	14	3	55	108	0
		Rate	**24.6**	0.0	0.0	16.6	31.6	28.9	22.8	33.7	25.3	38.0	21.9	0.0
	Unknown	Cases	**31**	0	0	0	0	2	26	0	0	0	3	0
		Rate												
	Total foreign-born	**Cases**	**1,058**	**0**	**0**	**5**	**2**	**150**	**546**	**30**	**6**	**117**	**201**	**1**
		Rate	**15.4**	**0.0**	**0.0**	**8.8**	**6.4**	**16.0**	**14.4**	**18.3**	**10.2**	**21.5**	**16.0**	**13.4**
Unknown		Cases	**50**	0	0	0	1	4	42	0	0	0	3	0
		Rate												
TOTAL		**Cases**	**1,643**	**9**	**1**	**7**	**6**	**255**	**644**	**114**	**139**	**146**	**266**	**56**
		Rate	**5.1**	**1.8**	**0.7**	**0.7**	**0.8**	**3.4**	**5.1**	**9.7**	**14.0**	**4.5**	**6.2**	**54.0**

Note: Rates with small case numbers may be unstable.

Table 7

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by main diagnostic site – Canada and provinces/territories: 2005

Main diagnostic site			CANADA	Province/territory												
				N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
Respiratory	Primary*	Cases	**106**	2	0	0	1	0	33	9	51	3	2	1	1	3
		Rate	**0.3**	0.4	0.0	0.0	0.1	0.0	0.3	0.8	5.2	0.1	0.0	3.2	2.3	10.0
	Pulmonary**	Cases	**960**	5	1	5	4	171	360	73	59	78	165	1	6	32
		Rate	**3.0**	1.0	0.7	0.5	0.5	2.3	2.9	6.2	6.0	2.4	3.9	3.2	14.0	106.6
	Other respiratory†	Cases	**117**	0	0	1	0	20	33	11	13	11	20	1	0	7
		Rate	**0.4**	0.0	0.0	0.1	0.0	0.3	0.3	0.9	1.3	0.3	0.5	3.2	0.0	23.3
Non-respiratory	Miliary	Cases	**24**	1	0	0	0	5	13	2	0	3	0	0	0	0
		Rate	**0.1**	0.2	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.0	0.0	0.0
	Meninges and CNS	Cases	**21**	0	0	0	0	2	8	0	3	1	6	0	0	1
		Rate	**0.1**	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.1	0.0	0.0	3.3
	Peripheral lymph node	Cases	**247**	0	0	0	1	31	137	8	5	26	37	0	1	1
		Rate	**0.8**	0.0	0.0	0.0	0.1	0.4	1.1	0.7	0.5	0.8	0.9	0.0	2.3	3.3
	Other‡	Cases	**168**	1	0	1	0	26	60	11	8	24	36	0	0	1
		Rate	**0.5**	0.2	0.0	0.1	0.0	0.3	0.5	0.9	0.8	0.7	0.8	0.0	0.0	3.3
Unknown		Cases	**0**	0	0	0	0	0	0	0	0	0	0	0	0	0
		Rate	**0.0**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL		**Cases**	**1,643**	**9**	**1**	**7**	**6**	**255**	**644**	**114**	**139**	**146**	**266**	**3**	**8**	**45**
		Rate	**5.1**	**1.8**	**0.7**	**0.7**	**0.8**	**3.4**	**5.1**	**9.7**	**14.0**	**4.5**	**6.2**	**9.7**	**18.7**	**149.9**

* Primary includes primary respiratory tuberculosis and tuberculous pluerisy in primary progressive tuberculosis, (ICD-9 codes 010.0-010.9; ICD-10 A15.7 and A16.7).

** Pulmonary includes tuberculosis of the lungs and conducting airways which includes tuberculous fibrosis of the lung, tuberculous bronchiectasis, tuberculous pneumonia, tuberculous pneumothorax, isolated tracheal or bronchial tuberculosis and tuberculous laryngitis; (ICD-9 codes 011-011.9, 012.2, 012.3; ICD-10 codes A15.0-A15.3, A15.5, A15.9, A16.0-A16.2, A16.4, A16.9).

† Other Respiratory includes tuberculous pleurisy (non-primary); tuberculosis of: intrathoracic lymph nodes, mediastinum, nasopharynx, nose (septum), and sinus (any nasal) (ICD-9 codes: 012.0, 012.1 and 012.8; ICD-10 codes: A15.4, A15.6, A15.8, A16.3, A16.5, A16.8).

‡ Other includes tuberculosis of intestines, peritoneum and mesenteric glands, bones and joints, genitourinary system, skin, eye, ear, thyroid, adrenal and spleen.

Table 8

Reported new active and relapsed tuberculosis cases by birthplace, sex and age group – Canada: 2005

Birthplace			TOTAL	Age group									
				< 1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75 +
Canadian-born	Aboriginal												
	North American Indian	Male	**119**	1	10	9	29	15	19	19	4	9	4
		Female	**100**	2	9	13	19	15	20	8	6	6	2
		Total	**219**	3	19	22	48	30	39	27	10	15	6
	Status (registered) Indian	Male	**114**	1	10	9	29	15	18	17	3	9	3
		Female	**99**	2	9	13	19	15	20	8	6	6	1
		Total	**213**	3	19	22	48	30	38	25	9	15	4
	Non-status Indian	Male	**5**	0	0	0	0	0	1	2	1	0	1
		Female	**1**	0	0	0	0	0	0	0	0	0	1
		Total	**6**	0	0	0	0	0	1	2	1	0	2
	Metis	Male	**24**	2	2	7	5	3	3	0	0	1	1
		Female	**11**	0	2	3	1	2	1	1	0	0	1
		Total	**35**	2	4	10	6	5	4	1	0	1	2
	Inuit	Male	**32**	0	2	5	5	7	7	2	1	3	0
		Female	**31**	0	1	1	11	5	6	5	1	1	0
		Total	**63**	0	3	6	16	12	13	7	2	4	0
	Total Aboriginal	**Male**	**175**	**3**	**14**	**21**	**39**	**25**	**29**	**21**	**5**	**13**	**5**
		Female	**142**	**2**	**12**	**17**	**31**	**22**	**27**	**14**	**7**	**7**	**3**
		Total	**317**	**5**	**26**	**38**	**70**	**47**	**56**	**35**	**12**	**20**	**8**
	Non-Aboriginal	Male	**143**	2	4	6	10	6	15	25	20	21	34
		Female	**75**	0	1	6	11	4	6	12	10	6	19
		Total	**218**	2	5	12	21	10	21	37	30	27	53
	Total Canadian-born	**Male**	**318**	**5**	**18**	**27**	**49**	**31**	**44**	**46**	**25**	**34**	**39**
		Female	**217**	**2**	**13**	**23**	**42**	**26**	**33**	**26**	**17**	**13**	**22**
		Total	**535**	**7**	**31**	**50**	**91**	**57**	**77**	**72**	**42**	**47**	**61**

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Table 8 *Cont'd*

Reported new active and relapsed tuberculosis cases by birthplace, sex and age group – Canada: 2005

Birthplace			TOTAL	Age group									
				< 1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75 +
Foreign-born	Africa, High HIV Prevalence (AFR-High)	Male	**51**	1	1	2	13	17	8	7	1	0	1
		Female	**43**	1	0	3	9	17	7	4	2	0	0
		Total	**94**	0	1	5	22	34	15	11	3	0	1
	Africa, Low HIV Prevalence (AFR-Low)	Male	**13**	0	0	0	3	5	5	0	0	0	0
		Female	**13**	0	0	1	3	3	4	1	0	1	0
		Total	**26**	0	0	1	6	8	9	1	0	1	0
	American Region – Latin American and Caribbean Countries (AMR)	Male	**37**	0	0	0	3	5	11	8	5	3	2
		Female	**34**	0	2	3	11	6	5	1	4	2	0
		Total	**71**	0	2	3	14	11	16	9	9	5	2
	Established Market Economies and Central Europe (EME-CEUR)	Male	**35**	0	0	0	1	5	3	4	9	4	9
		Female	**21**	0	1	0	1	1	0	0	2	7	9
		Total	**56**	0	1	0	2	6	3	4	11	11	18
	Eastern Europe (EEUR)	Male	**10**	0	0	0	1	3	4	1	0	1	0
		Female	**19**	0	0	1	4	5	1	2	1	0	5
		Total	**29**	0	0	1	5	8	5	3	1	1	5
	Eastern Mediterranean (EMR)	Male	**61**	0	1	3	14	14	12	3	4	3	7
		Female	**62**	0	0	5	15	11	12	9	5	4	1
		Total	**123**	0	1	8	29	25	24	12	9	7	8
	South-East Asia (SEAR)	Male	**136**	0	0	1	12	38	16	18	18	18	15
		Female	**103**	0	0	0	15	29	17	9	9	18	6
		Total	**239**	0	0	1	27	67	33	27	27	36	21
	Western Pacific Region (WPR)	Male	**212**	0	0	0	29	23	40	33	17	31	39
		Female	**177**	1	0	2	21	36	38	31	14	19	15
		Total	**389**	0	0	2	50	59	78	64	31	50	54

…cont'd

Table 8 *Cont'd*

Reported new active and relapsed tuberculosis cases by birthplace, sex and age group – Canada: 2005

Birthplace			TOTAL	Age group									
				< 1	1–4	5–14	15–24	25–34	35–44	45–54	55–64	65–74	75 +
Foreign-born *(cont'd)*	Unknown	Male	**13**	0	0	0	1	0	5	0	1	1	5
		Female	**18**	0	1	0	2	1	4	1	2	4	3
		Total	**31**	0	1	0	3	1	9	1	3	5	8
	Total foreign-born	**Male**	**568**	**1**	**2**	**6**	**77**	**110**	**104**	**74**	**55**	**61**	**78**
		Female	**490**	**2**	**4**	**15**	**81**	**109**	**88**	**58**	**39**	**55**	**39**
		Total	**1,058**	**3**	**6**	**21**	**158**	**219**	**192**	**132**	**94**	**116**	**117**
Unknown		Male	**23**	0	0	0	2	1	6	4	3	2	5
		Female	**27**	0	1	1	3	2	3	4	5	3	5
		Total	**50**	0	1	1	5	3	9	8	8	5	10
TOTAL		**Male**	**909**	**6**	**20**	**33**	**128**	**142**	**154**	**124**	**83**	**97**	**122**
		Female	**734**	**4**	**18**	**39**	**126**	**137**	**124**	**88**	**61**	**71**	**66**
		Total	**1,643**	**10**	**38**	**72**	**254**	**279**	**278**	**212**	**144**	**168**	**188**

Table 9

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by age group and main diagnostic site – Canada: 2005

Age group		TOTAL	Main diagnostic site							
			Respiratory			Nonrespiratory				Unknown
			Primary	Pulmonary	Other respiratory	Miliary	CNS	Lymph	Other	
< 1	Cases	**10**	5	4	0	0	1	0	0	0
	Rate	**3.0**	1.5	1.2	0.0	0.0	0.3	0.0	0.0	0.0
1 – 4	Cases	**38**	26	10	0	1	0	1	0	0
	Rate	**2.8**	1.9	0.7	0.0	0.1	0.0	0.1	0.0	0.0
5 – 14	Cases	**72**	41	15	3	1	0	8	4	0
	Rate	**1.8**	1.0	0.4	0.1	0.0	0.0	0.2	0.1	0.0
15 – 24	Cases	**254**	12	156	23	1	3	40	19	0
	Rate	**5.8**	0.3	3.5	0.5	0.0	0.1	0.9	0.4	0.0
25 – 34	Cases	**279**	7	155	19	2	3	66	27	0
	Rate	**6.3**	0.2	3.5	0.4	0.0	0.1	1.5	0.6	0.0
35 – 44	Cases	**278**	3	158	20	8	1	60	28	0
	Rate	**5.4**	0.1	3.1	0.4	0.2	0.0	1.2	0.5	0.0
45 – 54	Cases	**212**	5	127	17	3	5	33	22	0
	Rate	**4.3**	0.1	2.6	0.3	0.1	0.1	0.7	0.4	0.0
55 – 64	Cases	**144**	3	82	17	0	4	17	21	0
	Rate	**4.1**	0.1	2.3	0.5	0.0	0.1	0.5	0.6	0.0
65 – 74	Cases	**168**	3	118	6	4	3	11	23	0
	Rate	**7.5**	0.1	5.3	0.3	0.2	0.1	0.5	1.0	0.0
75 +	Cases	**188**	1	135	12	4	1	11	24	0
	Rate	**9.5**	0.1	6.8	0.6	0.2	0.1	0.6	1.2	0.0
Unknown	Cases	**0**	0	0	0	0	0	0	0	0
	Rate	**0.0**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	**Cases**	**1,643**	**106**	**960**	**117**	**24**	**21**	**247**	**168**	**0**
	Rate	**5.1**	**0.3**	**3.0**	**0.4**	**0.1**	**0.1**	**0.8**	**0.5**	**0.0**

Table 10

Reported new active and relapsed tuberculosis cases by birthplace and main diagnostic site – Canada: 2005

Birthplace		TOTAL	Main diagnostic site							
			Respiratory			Nonrespiratory				Unknown
			Primary*	Pulmonary**	Other respiratory†	Miliary	CNS	Lymph	Other‡	
Canadian-born	Aboriginal									
	North American Indian	**219**	46	126	19	4	1	11	12	0
	Status (registered) Indian	**213**	46	120	19	4	1	11	12	0
	Non-status Indian	**6**	0	6	0	0	0	0	0	0
	Metis	**35**	16	11	4	0	2	0	2	0
	Inuit	**63**	6	46	8	1	1	0	1	0
	Total Aboriginal	**317**	**68**	**183**	**31**	**5**	**4**	**11**	**15**	-
	Non-Aboriginal	**218**	15	139	17	5	3	15	24	0
	Total Canadian-born	**535**	**83**	**322**	**48**	**10**	**7**	**26**	**39**	-
Foreign-born	Africa, High HIV Prevalence (AFR-High)	**94**	2	57	9	0	1	15	10	0
	Africa, Low HIV Prevalence (AFR-Low)	**26**	0	14	2	2	1	3	4	0
	American Region - Latin American and Caribbean Countries (AMR)	**71**	1	41	6	2	0	15	6	0
	Established Market Economies and Central Europe (EME-CEUR)	**56**	2	35	5	0	0	5	9	0
	Eastern Europe (EEUR)	**29**	2	22	0	0	0	2	3	0
	Eastern Mediterranean (EMR)	**123**	4	64	5	1	1	27	21	0

...cont'd

Table 10 *Cont'd*

Reported new active and relapsed tuberculosis cases by birthplace and main diagnostic site – Canada: 2005

Birthplace		TOTAL	Main diagnostic site							
			Respiratory			Nonrespiratory				Unknown
			Primary*	Pulmonary**	Other respiratory†	Miliary	CNS	Lymph	Other‡	
Foreign-born *(cont'd)*	South-East Asia (SEAR)	**239**	1	129	21	4	2	54	28	0
	Western Pacific Region (WPR)	**389**	5	235	16	4	7	80	42	0
	Unknown	**31**	0	19	2	0	0	6	4	0
	Total foreign-born	**1,058**	**17**	**616**	**66**	**13**	**12**	**207**	**127**	-
Unknown		**50**	6	22	3	1	2	14	2	0
TOTAL		**1,643**	**106**	**960**	**117**	**24**	**21**	**247**	**168**	**0**

* Primary includes primary respiratory tuberculosis and tuberculous pluerisy in primary progressive tuberculosis, (ICD-9 codes 010.0-010.9; ICD-10 A15.7 and A16.7).

** Pulmonary includes tuberculosis of the lungs and conducting airways which includes tuberculous fibrosis of the lung, tuberculous bronchiectasis, tuberculous pneumonia, tuberculous pneumothorax, isolated tracheal or bronchial tuberculosis and tuberculous laryngitis; (ICD-9 codes 011-011.9, 012.2, 012.3; ICD-10 codes A15.0-A15.3, A15.5, A15.9, A16.0-A16.2, A16.4, A16.9).

† Other Respiratory includes tuberculous pleurisy (non-primary); tuberculosis of: intrathoracic lymph nodes, mediastinum, nasopharynx, nose (septum), and sinus (any nasal) (ICD-9 codes: 012.0, 012.1 and 012.8; ICD-10 codes: A15.4, A15.6, A15.8, A16.3, A16.5, A16.8).

‡ Other includes tuberculosis of intestines, peritoneum and mesenteric glands, bones and joints, genitourinary system, skin, eye, ear, thyroid, adrenal and spleen.

Table 11

Reported new active and relapsed tuberculosis cases by birthplace and activity status – Canada: 2005

Birthplace		TOTAL	Activity status		
			New active cases	Relapsed cases	Unknown status
Canadian-born	Aboriginal				
	North American Indian	**219**	198	20	1
	Status (registered) Indian	**213**	192	20	1
	Non-status Indian	**6**	6	0	0
	Metis	**35**	31	4	0
	Inuit	**63**	54	9	0
	Total Aboriginal	**317**	**283**	**33**	**1**
	Non-Aboriginal	**218**	202	7	9
	Total Canadian-born	**535**	**485**	**40**	**10**
Foreign-born	Africa, High HIV Prevalence (AFR-High)	**94**	87	4	3
	Africa, Low HIV Prevalence (AFR-Low)	**26**	25	1	0
	American Region - Latin American and Caribbean Countries (AMR)	**71**	65	3	3
	Established Market Economies and Central Europe (EME-CEUR)	**56**	51	2	3
	Eastern Europe (EEUR)	**29**	25	3	1
	Eastern Mediterranean (EMR)	**123**	113	7	3
	South-East Asia (SEAR)	**239**	221	14	4
	Western Pacific Region (WPR)	**389**	356	27	6
	Unknown	**31**	26	1	4
	Total foreign-born	**1,058**	**969**	**62**	**27**
Unknown		**50**	39	4	7
TOTAL		**1,643**	**1,493**	**106**	**44**

Table 12

Reported new active and relapsed tuberculosis cases by bacterial status – Canada and provinces/territories: 2005

Bacterial status	CANADA	Province/territory												
		N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
1. Culture positive														
a. Microscopy positive	**594**	3	1	4	4	99	210	41	45	54	121	1	1	10
b. Microscopy negative	**537**	2	0	0	2	77	205	46	27	69	78	1	5	25
c. Microscopy unknown	**87**	0	0	0	0	48	30	0	0	2	7	0	0	0
Total	**1,218**	**5**	**1**	**4**	**6**	**224**	**445**	**87**	**72**	**125**	**206**	**2**	**6**	**35**
2. Culture negative														
a. Microscopy positive	**19**	1	0	0	0	1	10	1	1	1	3	0	1	0
b. Microscopy negative	**125**	2	0	2	0	12	42	6	14	0	38	0	1	8
c. Microscopy unknown	**2**	0	0	0	0	0	1	0	1	0	0	0	0	0
Total	**146**	**3**	**0**	**2**	**0**	**13**	**53**	**7**	**16**	**1**	**41**	**0**	**2**	**8**
3. Culture unknown														
a. Microscopy positive	**23**	1	0	0	0	6	9	5	1	1	0	0	0	0
b. Microscopy negative	**15**	0	0	1	0	3	9	2	0	0	0	0	0	0
c. Microscopy unknown	**241**	0	0	0	0	9	128	13	50	19	19	1	0	2
Total	**279**	**1**	**0**	**1**	**0**	**18**	**146**	**20**	**51**	**20**	**19**	**1**	**0**	**2**
TOTAL	**1,643**	**9**	**1**	**7**	**6**	**255**	**644**	**114**	**139**	**146**	**266**	**3**	**8**	**45**

Table 13

Reported new active and relapsed tuberculosis cases by bacterial status and birthplace – Canada: 2005

Bacterial status	TOTAL	Birthplace			
		Canadian-born Aboriginal	Canadian-born non-Aboriginal	Foreign-born	Unknown birthplace
1. Culture positive					
a. Microscopy positive	**594**	108	85	384	17
b. Microscopy negative	**537**	110	45	373	9
c. Microscopy unknown	**87**	0	30	53	4
Total	**1,218**	**218**	**160**	**810**	**30**
2. Culture negative					
a. Microscopy positive	**19**	3	4	12	0
b. Microscopy negative	**125**	32	14	77	2
c. Microscopy unknown	**2**	1	0	1	0
Total	**146**	**36**	**18**	**90**	**2**
3. Culture unknown					
a. Microscopy positive	**23**	2	9	10	2
b. Microscopy negative	**15**	1	2	12	0
c. Microscopy unknown	**241**	60	29	136	16
Total	**279**	**63**	**40**	**158**	**18**
TOTAL	**1,643**	**317**	**218**	**1,058**	**50**

Table 14

Reported new active and relapsed tuberculosis cases by bacterial status and main diagnostic site – Canada: 2005

Bacterial status	TOTAL	Main diagnostic site							
		Respiratory			Nonrespiratory				Unknown
		Primary	Pulmonary	Other respiratory	Miliary	CNS	Lymph	Other	
1. Culture positive									
a. Microscopy positive	**594**	13	487	9	7	2	47	29	0
b. Microscopy negative	**537**	15	303	53	4	6	100	56	0
c. Microscopy unknown	**87**	3	32	5	5	2	17	23	0
Total	**1,218**	**31**	**822**	**67**	**16**	**10**	**164**	**108**	**0**
2. Culture negative									
a. Microscopy positive	**19**	1	6	1	0	0	10	1	0
b. Microscopy negative	**125**	8	49	23	0	5	24	16	0
c. Microscopy unknown	**2**	1	0	0	0	0	1	0	0
Total	**146**	**10**	**55**	**24**	**0**	**5**	**35**	**17**	**0**
3. Culture unknown									
a. Microscopy positive	**23**	1	13	1	2	0	3	3	0
b. Microscopy negative	**15**	2	4	4	0	0	4	1	0
c. Microscopy unknown	**241**	62	66	21	6	6	41	39	0
Total	**279**	**65**	**83**	**26**	**8**	**6**	**48**	**43**	**0**
TOTAL	**1,643**	**106**	**960**	**117**	**24**	**21**	**247**	**168**	**0**

Table 15

Pattern of reported drug resistance to first-line anti-tuberculosis drugs at time of reporting by birthplace – Canada: 2005

Drug pattern	TOTAL	Origin			
		Canadian-born		Foreign-born	Unknown
		Aboriginal	Non-Aboriginal		
Total positive culture	**1,218**	**218**	**160**	**810**	**30**
Resistance pattern unknown	**66**	1	7	52	6
No resistance	**1,025**	212	138	652	23
Resistance to one or more drugs	**127**	**5**	**15**	**106**	**1**
Monoresistance					
INH	**73**	2	6	64	1
EMB	**5**	1	1	3	0
RMP	**3**	0	1	2	0
PZA	**17**	2	6	9	0
Total monoresistance	**98**	**5**	**14**	**78**	**1**
Multi-drug resistance (MDR-TB)					
INH & RMP	**7**	0	1	6	0
INH & RMP & EMB	**6**	0	0	6	0
INH & RMP & PZA	**3**	0	0	3	0
INH & EMB & RMP & PZA	**7**	0	0	7	0
Total MDR-TB	**23**	**0**	**1**	**22**	**0**
Other patterns					
INH & SM	**4**	0	0	4	0
INH & EMB	**2**	0	0	2	0
Total other patterns	**6**	**0**	**0**	**6**	**0**

Table 16

Reported new active and relapsed tuberculosis cases by method of detection – Canada and provinces/territories: 2005

Case finding	CANADA	Province/territory												
		N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
Immigration	**65**	0	0	0	0	0	46	1	1	6	11	0	0	0
Symptoms/incidental findings	**1,267**	7	1	6	5	181	505	87	85	134	228	2	4	22
Contact investigation	**128**	2	0	1	0	11	30	12	37	2	7	1	2	23
Post-mortem	**14**	0	0	0	0	4	2	1	0	0	7	0	0	0
Screening	**61**	0	0	0	0	7	24	1	16	3	8	0	2	0
Other	**69**	0	0	0	0	33	18	12	0	1	5	0	0	0
Unknown	**39**	0	0	0	1	19	19	0	0	0	0	0	0	0
TOTAL	**1,643**	**9**	**1**	**7**	**6**	**255**	**644**	**114**	**139**	**146**	**266**	**3**	**8**	**45**

Table 17

Reported new active and relapsed tuberculosis cases by method of detection and birthplace – Canada: 2005

Case finding	TOTAL	Birthplace						
		Canadian-born					Foreign-born	Unknown birthplace
		Status (registered) Indian	Non-status Indian	Metis	Inuit	Non-Aboriginal		
Immigration	**65**	0	0	0	0	0	65	0
Symptoms/incidental findings	**1,267**	150	6	19	33	163	866	30
Post-mortem	**14**	2	0	0	0	4	4	4
Contact-investigation	**128**	43	0	14	29	15	25	2
Screening	**61**	16	0	2	0	8	35	0
Other	**69**	2	0	0	1	15	49	2
Unknown	**39**	0	0	0	0	13	14	12
TOTAL	**1,643**	**213**	**6**	**35**	**63**	**218**	**1,058**	**50**

Table 18

Reported new active and relapsed foreign-born tuberculosis cases by birthplace and year of arrival in Canada: 2005

Birthplace (WHO region)	TOTAL	Year of arrival															
		≤ 1964	1965-1974	1975-1984	1985-1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Unk.
Africa, High HIV Prevalence (AFR-High)	**94**	0	1	0	7	0	3	1	1	3	2	10	12	12	16	22	4
Africa, Low HIV Prevalence (AFR-Low)	**26**	1	0	0	3	0	0	1	0	0	0	1	1	5	6	6	2
American Region - Latin American and Caribbean Countries (AMR)	**71**	0	2	7	13	2	0	1	2	3	2	3	3	8	8	8	9
Established Market Economies and Central Europe (EME-CEUR)	**56**	14	13	4	5	0	0	0	1	3	2	1	1	0	1	3	8
Eastern Europe (EEUR)	**29**	2	1	0	0	0	1	3	2	1	2	1	1	3	7	4	1
Eastern Mediterranean (EMR)	**123**	0	1	3	22	3	6	1	5	6	5	7	18	10	15	14	7
South-East Asia (SEAR)	**239**	5	12	18	35	5	10	12	6	7	10	17	16	23	15	25	23
Western Pacific Region (WPR)	**389**	4	7	53	129	13	7	6	9	10	17	18	18	18	35	24	21
Unknown	**31**	0	2	1	1	0	0	0	0	0	1	0	0	1	1	2	22
TOTAL	**1,058**	**26**	**39**	**86**	**215**	**23**	**27**	**25**	**26**	**33**	**41**	**58**	**70**	**80**	**104**	**108**	**97**

Table 19

Reported new active and relapsed foreign-born tuberculosis cases by immigration status – Canada and provinces/territories: 2005

Immigration status	CANADA	Province/territory												
		N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
Canadian citizen or landed immigrant	**306**	0	0	4	2	0	0	28	1	102	168	0	0	1
Refugee claimant	**11**	0	0	0	0	0	0	0	0	6	5	0	0	0
Other temporary resident (visitor, student, foreign nationals in Canada illegally)	**13**	0	0	1	0	0	0	0	0	0	12	0	0	0
Other	**14**	0	0	0	0	0	0	2	0	9	3	0	0	0
Unknown	**714**	0	0	0	0	150	546	0	5	0	13	0	0	0
TOTAL	**1,058**	**0**	**0**	**5**	**2**	**150**	**546**	**30**	**6**	**117**	**201**	**0**	**0**	**1**

Table 20

Reported relapsed tuberculosis cases by length of inactive interval – Canada and provinces/territories: 2005

Interval	CANADA	Province/territory												
		N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
< 2 years	**4**	0	0	0	0	1	0	1	1	0	1	0	0	0
2-5 years	**12**	0	0	0	0	1	0	3	1	2	4	0	0	1
6-9 years	**9**	0	0	0	0	2	0	2	1	3	0	0	0	1
10-19 years	**5**	0	0	0	0	0	0	0	3	1	1	0	0	0
20+ years	**38**	0	0	0	0	6	0	3	6	8	11	0	0	4
Unknown	**38**	1	0	0	0	2	33	0	0	1	1	0	0	0
TOTAL	**106**	**1**	**0**	**0**	**0**	**12**	**33**	**9**	**12**	**15**	**18**	**0**	**0**	**6**

Table 21

Reported new active and relapsed tuberculosis cases who died, by cause of death – Canada and provinces/territories: 2005

Cause of death	CANADA		Province/territory												
	No.	Percent of total cases reported for year	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
Update on 2004 cases who died in 2004 and 2005*															
TB was the cause of death	**27**	**1.7**	0	1	0	0	1	15	2	0	1	6	0	0	1
TB contributed to death but was not the underlying cause	**56**	**3.5**	0	0	1	1	8	16	5	3	9	12	0	1	0
TB did not contribute to death but was an incidental finding	**45**	**2.8**	1	0	1	1	6	15	7	1	2	10	0	0	1
Unknown	**11**	**0.7**	0	0	0	0	3	8	0	0	0	0	0	0	0
TOTAL	**139**	**8.6**	**1**	**1**	**2**	**2**	**18**	**54**	**14**	**4**	**12**	**28**	**0**	**1**	**2**
Cases reported in 2005 who died in 2005**															
TB was the cause of death	**19**	**1.2**	0	0	0	0	2	7	2	2	3	3	0	0	0
TB contributed to death but was not the underlying cause	**45**	**2.7**	1	0	0	0	8	20	1	0	8	7	0	0	0
TB did not contribute to death but was an incidental finding	**31**	**1.9**	0	0	1	0	4	11	4	1	0	8	0	1	1
Unknown	**3**	**0.2**	0	0	0	0	1	2	0	0	0	0	0	0	0
TOTAL	**98**	**6.0**	**1**	**0**	**1**	**0**	**15**	**40**	**7**	**3**	**11**	**18**	**0**	**1**	**1**

* Updates include results from both case and outcome reports.
** Includes results from case reports only.

Table 22

Reported new active and relapsed tuberculosis cases who died, by age group and sex – Canada and provinces/territories: 2005

Sex	TOTAL	Age group									
		< 1	1 – 4	5 – 14	15 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65 – 74	75 +
Update on 2004 cases who died in 2004 and 2005*											
Male	**94**	0	0	0	0	1	8	9	8	22	46
Female	**45**	0	0	0	0	1	4	3	8	11	18
TOTAL	**139**	**0**	**0**	**0**	**0**	**2**	**12**	**12**	**16**	**33**	**64**
Cases reported in 2005 who died in 2005**											
Male	**61**	0	1	0	2	0	3	11	9	14	21
Female	**37**	0	0	0	1	0	4	4	8	7	13
TOTAL	**98**	**0**	**1**	**0**	**3**	**0**	**7**	**15**	**17**	**21**	**34**

* Updates include results from both case and outcome reports.
** Includes results from case reports only.

Table 23

Reported new active and relapsed tuberculosis cases by HIV status – Canada and provinces/territories: 2005

HIV status	CANADA	Province/territory												
		N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
Positive	**59**	0	0	0	0	4	24	7	4	7	13	0	0	0
Negative	**367**	1	0	4	4	36	21	22	0	119	120	2	4	34
Unknown	**1,217**	8	1	3	2	215	599	85	135	20	133	1	4	11
TOTAL	**1,643**	**9**	**1**	**7**	**6**	**255**	**644**	**114**	**139**	**146**	**266**	**3**	**8**	**45**

Table 24

Treatment outcome status – Canada and provinces/territories: 2004

	TOTAL	Treatment outcome							
		Cure	Treatment completed without culture	Death during treatment	Trans-ferred	Absconded	Treatment ongoing	Other	Unknown
CANADA	**1,613**	**94**	**1,090**	**139**	**15**	**24**	**88**	**25**	**138**
Province/territory									
Newfoundland	**7**	0	5	1	1	0	0	0	0
Prince Edward Island	**1**	0	0	1	0	0	0	0	0
Nova Scotia	**8**	0	4	2	1	1	0	0	0
New Brunswick	**10**	4	3	2	0	1	0	0	0
Quebec	**219**	22	79	18	0	1	0	2	97
Ontario	**700**	0	507	54	0	8	82	9	40
Manitoba	**144**	0	122	14	0	4	2	1	1
Saskatchewan	**70**	4	58	4	1	3	0	0	0
Alberta	**109**	25	63	12	5	0	3	1	0
British Columbia	**299**	17	229	28	7	6	1	11	0
Yukon	**4**	1	2	0	0	0	0	1	0
Northwest Territories	**10**	4	5	1	0	0	0	0	0
Nunavut	**32**	17	13	2	0	0	0	0	0

Table 25

Treatment outcome status by treatment regimen – Canada: 2004

Treatment regimen	TOTAL	Treatment outcome							
		Cure	Treatment completed without culture	Death during treatment	Trans-ferred	Absconded	Treatment ongoing	Other	Unknown
TOTAL	**1,613**	**94**	**1,090**	**139**	**15**	**24**	**88**	**25**	**138**
INH (isoniazid)	**2**	0	2	0	0	0	0	0	0
RMP (rifampin)	**0**	0	0	0	0	0	0	0	0
PZA (pyrazinamide)	**0**	0	0	0	0	0	0	0	0
EMB (ethambutol)	**0**	0	0	0	0	0	0	0	0
No Drugs Prescibed	**27**	0	0	27	0	0	0	0	0
INH, RMP	**57**	3	48	5	0	1	0	0	0
INH, RMP, EMB	**19**	4	12	0	0	0	0	2	1
INH, RMP, PZA	**129**	19	94	4	3	5	0	4	0
INH, RMP, EMB, PZA	**369**	33	296	14	9	8	3	5	1
INH, EMB	**0**	0	0	0	0	0	0	0	0
INH, PZA	**0**	0	0	0	0	0	0	0	0
INH, PZA, EMB	**3**	1	2	0	0	0	0	0	0
PZA, EMB	**0**	0	0	0	0	0	0	0	0
RMP, EMB	**2**	1	1	0	0	0	0	0	0
RMP, PZA	**0**	0	0	0	0	0	0	0	0
RMP, PZA, EMB	**7**	2	4	0	1	0	0	0	0
INH, RMP, Others	**3**	1	0	1	1	0	0	0	0
INH, RMP, EMB, Others	**5**	0	2	0	0	1	1	1	0
INH, RMP, PZA, Others	**10**	2	7	1	0	0	0	0	0
INH, RMP, EMB, PZA, Others	**45**	6	32	3	0	0	2	2	0
INH, EMB, Others	**2**	0	1	1	0	0	0	0	0
INH, PZA, Others	**0**	0	0	0	0	0	0	0	0

…cont'd

Table 25 *Cont'd*

Treatment outcome status by treatment regimen – Canada: 2004

Treatment regimen	TOTAL	Treatment outcome							
		Cure	Treatment completed without culture	Death during treatment	Trans-ferred	Absconded	Treatment ongoing	Other	Unknown
INH, PZA, EMB, Others	**4**	0	3	1	0	0	0	0	0
PZA, EMB, Others	**0**	0	0	0	0	0	0	0	0
RMP, EMB, Others	**1**	0	0	1	0	0	0	0	0
RMP, PZA, Others	**0**	0	0	0	0	0	0	0	0
RMP, PZA, EMB, Others	**1**	0	1	0	0	0	0	0	0
Others	**8**	0	0	7	1	0	0	0	0

Table 26

Treatment outcome status by major mode of treatment – Canada: 2004

Major mode of treatment	TOTAL	Treatment outcome							
		Cure	Treatment completed without culture	Death during treatment	Transferred	Absconded	Treatment ongoing	Other	Unknown
DOT (daily/intermittent)	**508**	59	375	38	9	6	14	5	2
Daily – self administered	**421**	32	347	5	4	12	7	12	2
Other	**43**	3	24	15	1	0	0	0	0
Unknown	**641**	0	344	81	1	6	67	8	134
TOTAL	**1,613**	**94**	**1,090**	**139**	**15**	**24**	**88**	**25**	**138**

Table 27

Treatment outcome status by compliance estimate – Canada: 2004

Compliance estimate	TOTAL	Treatment outcome							
		Cure	Treatment completed without culture	Death during treatment	Transferred	Absconded	Treatment ongoing	Other	Unknown
< 50%	**7**	0	2	1	0	4	0	0	0
50–79%	**22**	1	7	2	1	3	2	6	0
≥ 80%	**805**	89	653	35	12	5	5	6	0
Unknown	**779**	4	428	101	2	12	81	13	138
TOTAL	**1,613**	**94**	**1,090**	**139**	**15**	**24**	**88**	**25**	**138**

Appendix II
Technical Notes

CONCEPTS, METHODS AND DATA QUALITY

The following information describes the strengths and limitations of the data in this report and how these data can be effectively used and interpreted. This information may be of particular importance when making comparisons with data from previous *TB in Canada* reports or other sources of TB information.

Data sources

The Canadian Tuberculosis Reporting System (CTBRS) is maintained by Tuberculosis Prevention and Control (TBPC), Public Health Agency of Canada. This surveillance system is derived from records of provincial/territorial tuberculosis registries that capture information on every new active and relapsed case of tuberculosis and on the treatment outcome for these cases.

All provinces/territories voluntarily submit their case and outcome data to TBPC. Case data for four of the thirteen provinces/territories are submitted electronically (Alberta, Ontario, Quebec and Saskatchewan). The remaining provinces/territories submit paper reporting forms (*See Appendix VII*). Outcome data are submitted electronically from Alberta, Saskatchewan and Ontario. Quebec submits aggregated outcome data. The remaining provinces submit outcome results on paper forms.

Reference period

The information contained in this report reflects the number of new and relapsed cases diagnosed between January 1, 2005 and December 31, 2005. Outcomes are reported on patients diagnosed between January 1, 2004 and December 31, 2004. Tables 1 through 4 present historical counts and rates for the years 1995 to 2005 inclusive.

Data quality and validation

Prior to analysis and publication, all data are reviewed for errors, inconsistencies and incomplete reporting. Follow-up is done with the reporting jurisdictions identifying any concerns or problems with the reported data. Previously reported data are also subject to revision in the event of late reporting or when revised information from the provinces/territories is received. Revisions are disseminated in subsequent reports.

Prior to the publication of *TB in Canada*, a pre-release containing selected tables is produced. The pre-release is sent to the provinces/territories for verification and is subsequently posted to the Public Health Agency of Canada website, http://www.phac-aspc.gc.ca/tbpc-latb/index.html.

Data accuracy

The methods used to collect and analyze the data in this report have been designed to minimize error. However, surveillance data are subject to certain types of error (e.g., coverage, measurement and processing error).

The accuracy of the data (including completeness and coverage of the population of interest) is partially a function of timely reporting/updates to TBPC from the provinces/territories. Some degree of lag does occur (i.e., reporting delay), almost exclusively affecting preliminary data and rarely the final data.

In general, the majority of data elements for case and outcome reports submitted to TBPC are complete. Reporting is less complete for some of the data elements introduced in 1997 such as HIV status. Historically, Ontario and Quebec have not had the capacity to report individual treatment outcomes. Prior to 2005 both Ontario and Quebec submitted outcome data in aggregated form only. In 2005 Ontario began submitting individual outcome data but Quebec continued to submit only aggregate outcome data.

Provinces/territories do not always report outcomes for all cases. However, reporting is improving and the percentage of outcomes reported in 2005 for 2004 cases was 90% of all cases. Ongoing work with the provinces/territories will ensure that the data reported in the *TB in Canada* reports correspond with those reported at the provincial/territorial level.

The data reported may be subject to coding, reporting and processing errors that cannot be detected and are not corrected at the source. Not all provinces/territories use ICD 9 or ICD 10 coding systems for disease, which are used to classify patients according to the main diagnostic site (see Table 4). Efforts are made to work with those provinces/territories using alternate coding systems to ensure that diagnostic reporting is as accurate as possible.

Rates

Rates are expressed as the number of cases reported each calendar year per 100,000 population. The denominators used to calculate rates for total Canadian population, provincial/territorial populations, total Canadian-born Aboriginal, Inuit and Métis were derived from official and custom census products from Statistics Canada, Demography Division.[12]

The rates presented for the total Aboriginal population including Métis, Inuit and North American Indian (combining Status (registered) Indian and non-Status Indian counts) were derived from the 2001 Census data published in the *Projections of the Aboriginal populations, Canada, provinces and territories, 2001 to 2017.*[13]

Current and historical incidence rates for the Status (registered) Indian population are based on population estimates from Indian Affairs and Northern Affairs Canada. These estimates are considered a more accurate reflection of the true counts of the Status Indian population.[14] However, using different sources does introduce possibility of conflicting numbers. As a result, caution should be observed when drawing comparative conclusions between the Status (registered) Indian and other origin groups.

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[12] Statistics Canada, Demography Division, Demographic, Estimates Section, Population estimates 0-90+, July, Canada – Provinces/Territories 1971-2005, updated February, 2008.

[13] Projections of the Aboriginal populations, Canada, provinces and territories 2001 to 2017 Demography Division, Statistics Canada Catalogue No. 91-547-XIE.

[14] Registered Indian Population, Household and Family Projections 2004-2029, INAC, 2007.

Prior to 2003, in the annual *Tuberculosis In Canada* reports, the case counts for Métis and non-Status Indians were combined into one aggregated number and as populations counts were not available, incidence rates were not calculated. In 2003, population estimates for Métis were produced by Statistics Canada, Demography Division, enabling the reporting of rates for this population. Starting in 2003, case counts for Métis were separated from those for non-Status counts and rates for the Métis were reported – accurate population counts for the non-Status Indian are not available and so incidence rates are not able to be calculated. Some jurisdictions have not been able to distinguish non-Status from Métis cases due to constraints with their TB program's reporting system. National rates for the Métis may be over inflated and need to be interpreted cautiously. It is hoped that in working with the jurisdictions these numbers will become more accurate in future reports.

Incidence rates in the foreign-born population from 2001 forward are based on population estimates from the 2001 census, a Statistics Canada, Demography Division customized product.

Incidence rates in the foreign-born population are presented according to the eight Stop-TB / WHO TB Epidemiological Regions described in the *Actions for Life: Towards a World Free of Tuberculosis: The Global Plan to Stop TB, 2006 – 2015*. The eight TB epidemiological regions include: the Established Market Economies (EME) and the Central European countries (CEUR); African countries with high HIV prevalence (AFR High HIV); African countries with low HIV prevalence (AFR Low HIV); the American Region (AMR) – Latin America Countries (LAC); Eastern Europe Region (EEUR); Eastern Mediterranean Region (EMR); South-East Asia Region (SEAR); and the Western Pacific Region (WP). Because EME and CEUR have similarly high per capita income level and low tuberculosis incidence rates the results for these two regions are combined.

Population denominators for the Canadian-born non-Aboriginal population are derived using the following formula:

Canadian-born non-Aboriginal
=
Total Canadian Population (Statistics Canada)
– Foreign Born (Statistics Canada)
– Total Aboriginal persons (Statistics Canada)

Finally, the historical rates, presented in this and subsequent reports are updated periodically as new estimates become available, which may explain small variances between rates in this report and in previous *TB in Canada* reports.

Deaths

Each year, deaths are reported for cases diagnosed within the current reporting year along with cases diagnosed in the previous year. However, prior to 2005, only cases with a death date in the current report year were counted. Starting in 2005, for those cases diagnosed in the previous year, all deaths will be counted – those who died in the previous year added to those who died in the current year. The report will continue, as it has in the past, to count the deaths for the cases diagnosed in the current year. This enhanced method for determining the number of deaths will more accurately reflect the actual number of deaths.

Privacy and confidentiality

Tables reporting provincial/territorial case counts and rates have been expanded to report on each province and territory as opposed to aggregate data for the four Atlantic provinces and three territories. However, to avoid any potential issues with confidentiality and privacy, tables

where population counts become too small may be collapsed in regions (e.g. for the three territories into "North"). In general, data will be suppressed in all instances where population denominators fall below 40.

VARIABLES MEASURED

The statistical data presented in this report refer to cases and rates of new active or relapsed tuberculosis and treatment outcomes.

Case definitions in effect in 2005

I TB case definition in the Canadian Tuberculosis Reporting System (CTBRS)

a. a. Cases with *Mycobacterium tuberculosis* complex (i.e. *M. tuberculosis* [including subspecies *M. canetti*], *M. bovis* [excluding BCG strain], *M. africanum*, *M.caprae*, *M.microti* or *M. pinnipedii*) demonstrated on culture.

OR

b. In the absence of bacteriological proof, cases clinically compatible with active tuberculosis that have, for example:

i chest x-ray changes compatible with active tuberculosis including idiopathic pleurisy with effusion

ii active extrapulmonary tuberculosis (meningeal, bone, kidney, peripheral lymph nodes etc.)

iii pathologic or post-mortem evidence of active tuberculosis

Note: Molecular biological techniques are research tools and are not included in the definition.

II Cases of tuberculosis diagnosed in Canada include all cases: Canadian-born, immigrants, refugees, refugee claimants, students, visitors, migrant workers and illegal aliens.

Visitors = those non-Canadians traveling with or without a visa, stopping in Canada en route.

III New and relapsed (reactivated) cases of tuberculosis[15]

a. **New case:** no documented evidence or history of previously active tuberculosis.

b. **Relapsed (reactivated) case:** documented evidence or history of previously active tuberculosis which became inactive.

c. **Inactive tuberculosis:**

i Cultures for *M. tuberculosis* negative for at least 6 months

OR

ii In the absence of cultures, chest (or other) x-rays, stable for a minimum of 6 months.

[15] As of 2008, the CTBRS classifies all cases as new or re-treatment cases; see *Canadian Tuberculosis Standards*, 6th ed., Appendix C for complete definitions.

IV Treatment outcomes

Cure – Negative culture at completion of treatment.

Treatment completed – Patient who has completed treatment without culture at the end of treatment.

Died – Death during treatment

a. TB was the cause of death;

b. TB contributed to death but was not the underlying cause; or

c. TB did not contribute to death.

Transfer – Patient transferred to new jurisdiction and the outcome of treatment is unknown.

Failure – Culture positive at five months or more

Absconded – Patient was lost to follow-up before completion of 80% of doses, eight months after treatment started

Treatment ongoing – Treatment is ongoing at the time of the treatment outcome report

Other

Unknown

Diagnostic classification

The diagnostic classification of tuberculosis (TB) in Canada is based upon the International Classification of Diseases, 9th and 10th Editions. For each case of TB, up to five individual diagnoses are captured for reporting purposes. The main diagnostic sites were divided into two broad categories: respiratory and non-respiratory. Respiratory is further subdivided into primary, pulmonary and other respiratory.

Primary includes primary respiratory tuberculosis and tuberculous pleurisy in primary progressive tuberculosis (ICD-9 codes 010.0-010.9; ICD-10 A15.7 and A16.7).

Pulmonary includes tuberculosis of the lungs and conducting airways: tuberculous fibrosis of the lung, tuberculous bronchiectasis, tuberculous pneumonia, tuberculous pneumothorax, isolated tracheal or bronchial tuberculosis and tuberculous laryngitis (ICD-9 codes 011-011.9, 012.2, 012.3; ICD-10 codes A15.0-A15.3, A15.5, A15.9, A16.0-A16.2, A16.4, A16.9).

Other Respiratory includes tuberculous pleurisy (non-primary); tuberculosis of: intrathoracic lymph nodes, mediastinum, nasopharynx, nose (septum), and sinus (any nasal) (ICD-9 codes: 012.0, 012.1 and 012.8; ICD-10 codes: A15.4, A15.6, A15.8, A16.3, A16.5, A16.8).

Nonrespiratory tuberculosis includes miliary, central nervous system, lymph and other sites.

The table below summarizes the codes used by ICD system for each of the diagnostic categories.

Table G

ICD9 and ICD10 codes by diagnostic classification

ICD System	Primary	Pulmonary	Other Respiratory	Miliary	CNS	Peripheral Lymph Nodes	Other
ICD 9	010, 010.0, 010.1, 010.8, 010.9	011, 011.0, 011.1, 011.2, 011.3, 011.4, 011.5, 011.6, 011.7, 011.8, 011.9, 012.2, 012.3	012, 012.0, 012.1, 012.8	018, 018.0, 018.8, 018.9	013, 013.0, 013.1, 013.8, 013.9	017.2	all other ICD9 codes
ICD 10	A15.7, A16.7	A15, A15.0, A15.1, A15.2, A15.3, A15.5, A15.9, A16.0, A16.1, A16.2, A16.4, A16.9	A15.4, A15.6, A15.8, A16.3, A16.5, A16.8	A19, A19.0, A19.1, A19.2, A19.8, A19.9	A17, A17.0, A17.1, A17.8, A17.9	A18.2	all other ICD10 codes including

Cases are reported based on the following hierarchy:

1. primary respiratory TB;
2. pulmonary;
3. other respiratory TB;
4. miliary/disseminated;
5. meninges/central nervous system;
6. peripheral lymph node; and
7. other sites (includes tuberculosis of intestines, peritoneum and mesenteric glands, bones and joints, genitourinary system, skin, eye, ear, thyroid, adrenal and spleen).

For cases with multiple diagnostic sites, the placement of the case into a disease group is determined using the hierarchy above. As an example, a case may have been diagnosed with TB of the *peripheral lymph nodes (scrofula, scrofulous abscess, tuberculous adenitis)* (ICD-9 17.2) and *tuberculosis of lung, infiltrative* (ICD-9 11.0). Because pulmonary TB is above peripheral lymph TB in the hierarchy, this case would be classified as pulmonary TB.

010 Primary Tuberculosis

010.0 Primary tuberculous complex

010.1 Tuberculous pleurisy in primary progressive tuberculosis

This disease state is characterized by pleuritis and pleural effusion, usually in an adolescent or young adult, but possibly in any age group, due to recent (within the preceding 24 months) infection with *Mycobacterium tuberculosis* complex. If another site of tuberculosis disease, such as CNS or disseminated/miliary disease, is believed to have occurred as a consequence of recent infection (within the preceding 24 months), it ought to be referred to as primary CNS (etc.) disease.

010.8 Other primary progressive tuberculosis (excl. tuberculous erythema nodosum {017.1})

This is usually, but not always, in a child, and is due to infection within the preceding 24 months with *Mycobacterium tuberculosis* complex. It includes pulmonary (lung parenchyma) tuberculosis, as well as tuberculosis of the intrathoracic lymph nodes, larynx, trachea, bronchus, or nasopharyngeal sinuses

010.9 Unspecified

011 Pulmonary Tuberculosis (with associated silicosis use code 502)

011.0 Tuberculosis of lung, infiltrative

011.1 Tuberculosis of lung, nodular

011.2 Tuberculosis of lung with cavitation

011.3 Tuberculosis of bronchus (excl. isolated bronchial TB {012.2})

011.4 Tuberculous fibrosis of lung

011.5 Tuberculous bronchiectasis

011.6 Tuberculous pneumonia (any form)

011.7 Tuberculous pneumothorax

011.8 Other pulmonary tuberculosis

011.9 Unspecified (respiratory tuberculosis NOS, tuberculosis of lung NOS)

012 Other Respiratory Tuberculosis (excl. respiratory tuberculosis, unspecified)

012.0 Tuberculous pleurisy

012.1 Tuberculosis of intrathoracic lymph nodes

012.2 Isolated tracheal or bronchial tuberculosis

012.3 Tuberculous laryngitis

012.8 Other (incl. tuberculosis of: mediastinum, nasopharynx, nose (septum), sinus (any nasal)

013 Tuberculosis of Meninges and Central Nervous System

013.0 Tuberculous meningitis (320.4) (excl. tuberculoma of meninges {013.1})

013.1 Tuberculoma of meninges (349.2)

013.8 Other (tuberculoma/tuberculosis of brain {348.8}, tuberculous abscess of brain {324.0}, tuberculous myelitis {323.4})

013.9 Unspecified (tuberculosis of central nervous system NOS)

014 Tuberculosis of Intestines, Peritoneum and Mesenteric Glands

Tuberculosis of: anus, intestine (large, small), rectum, retroperitoneal (lymph nodes)

Tuberculous: ascites, enteritis, peritonitis (567.0)

015 Tuberculosis of Bones and Joints

Incl. tuberculous: arthritis (711.4), necrosis of bone (730.–), osteitis (730.–), osteomyelitis (730.–), synovitis (727.0), tenosynovitis (727.0).

015.0 Vertebral column
Pott's: curvature (737.4), disease (730.4)
Tuberculous: kyphosis (737.4), spondylitis (720.8)

015.1 Hip

015.2 Knee

015.7 Other bone (tuberculous dactylitis, mastoiditis {383.1})

015.8 Other joint

015.9 Unspecified

016 Tuberculosis of Genitourinary System

016.0 Kidney (tuberculous pyelitis {590.8}, tuberculous pyelonephritis {590.8})

016.1 Other urinary organs (tuberculosis of bladder {595.4}, tuberculosis of ureter {593.8})

016.2 Epididymis (604.9)

016.3 Other male genital organs (tuberculosis of: prostate {601.4}, seminal vesicle {608.8}, testis {608.8})

016.4 Female genital organs (tuberculous: oophoritis {614.2}, salpingitis {614.2})

016.9 Unspecified

017 Tuberculosis of Other Organs

017.0 Skin and subcutaneous cellular tissue
Lupus: NOS, exedens, vulgaris, Scrofuloderma
(excl. lupus erythrematosus {695.4}, disseminated {710.0})
Tuberculosis: colliquativa, cutis, lichenoides, papulonecrotica, verrucosa cutis

017.1 Erythema nodosum with hpersensitivity reaction in tuberculosis
Bazin's disease, Tuberculosis indurativa
Erythema: induratum, nodosum (tuberculous)
Excl. erythema nodosum NOS (695.2)

017.2 Peripheral lymph nodes (scrofula, scrofulous abscess, tuberculous adenitis)

017.3 Eye
Tuberculous: chorioretinitis, disseminated (363.1), episcleritis (379.0), interstitial keratitis (370.5), iridocyclitis (chronic) (364.1), keratoconjunctivitis (phlyctenular) (370.3)

017.4 Ear
Tuberculosis of ear (382.3), otitis media (382.3) (excl. Tuberculous mastoiditis {015.7})

017.5 Thyroid gland

017.6 Adrenal glands (255.4), Addison's disease (tuberculous)

017.7 Spleen

017.8 Other
Tuberculosis of: endocardium [any valve] (424.–), oesophagus (530.1), myocardium (422.0), pericardium (420.0)

018 Miliary Tuberculosis

Incl.: tuberculosis: disseminated, generalized, miliary (whether of a single specified site, multiple sites or unspecified site), polyserositis

018.0 Acute

018.8 Other

018.9 Unspecified

137 Late Effects of Tuberculosis

137.0 Late effects of respiratory or unspecified tuberculosis

137.1 Late effects of central nervous system tuberculosis

137.2 Late effects of genitourinary tuberculosis

137.3 Late effects of tuberculosis of bones and joints

137.4 Late effects of tuberculosis of other specified organs

502 Pneumoconiosis due to other silica or silicates (see Pulmonary Tuberculosis {011})

Pneumoconiosis due to talc
Silicotic fibrosis (massive) of lung
Silicosis (simple) (complicated)

Source: ICD–10 CA/CCI Tabular List – CIHI, 2003

A15 Respiratory tuberculosis, bacteriologically and histologically confirmed

Includes: infections due to Mycobacterium tuberculosis and Mycobacterium bovis

Excludes: congenital tuberculosis (P37.0)
pneumoconiosis associated with tuberculosis (J65)
sequelae of tuberculosis (B90–)
silicotuberculosis (J65)

A15.0 Tuberculous of lung, confirmed by sputum microscopy with or without culture

Includes:

Tuberculous:
bronchiectasis
fibrosis of lung
pneumonia
pneumothorax

A15.1 Tuberculosis of lung, confirmed by culture only

Includes: Conditions listed in A15.0, confirmed by culture only

A15.2 Tuberculosis of lung, confirmed histologically

Includes: Conditions listed in A15.0, confirmed histologically

A15.3 Tuberculosis of lung, confirmed by unspecified means

Includes: Conditions listed in A15.0, confirmed but unspecified whether bacteriologically or histologically

A15.4 Tuberculosis of intrathoracic lymph nodes, confirmed bacteriologically and histologically

Includes:

Tuberculosis of lymph nodes:
hilar
mediastinal
tracheobronchial

Excludes: specified as primary (A15.7)

A15.5 Tuberculosis of larynx, trachea and bronchus confirmed bacteriologically and histologically

Includes:

Tuberculosis of:
bronchus
glottis
larynx
trachea

A15.6 Tuberculosis pleurisy, confirmed bacteriologically and histologically

Includes:

This disease state is characterized by pleuritis and pleural effusion, usually in an adolescent or young adult, but possibly in any age group, due to recent (within the preceding 24 months) infection with *Mycobacterium tuberculosis* complex. If another site of tuberculosis disease, such as CNS or disseminated/miliary disease, is believed to have occurred as a consequence of recent infection (within the preceding 24 months), it ought to be referred to as primary CNS (etc.) disease.

A15.7 Primary respiratory tuberculosis, confirmed bacteriologically and histologically

This is usually, but not always, in a child, and is due to infection within the preceding 24 months with *Mycobacterium tuberculosis* complex. It includes pulmonary (lung parenchyma) tuberculosis, as well as tuberculosis of the intrathoracic lymph nodes, larynx, trachea, bronchus, or nasopharyngeal sinuses.

A15.8 Other respiratory tuberculosis, confirmed bacteriologically and histologically

Includes: Mediastinal tuberculosis

Nasopharyngeal tuberculosis

Tuberculosis of:

nose

sinus [any nasal]

A15.9 Respiratory tuberculosis, unspecified, confirmed bacteriologically and histologically

A16 Respiratory tuberculosis, not confirmed bacteriologically or histologically

A16.0 Tuberculosis of lung, bacteriologically and histologically negative

Includes:

Tuberculous:

bronchiectasis

fibrosis of lung

pneumonia

pneumothorax

A16.1 Tuberculosis of lung, bacteriological and histological examination not done

Includes: Conditions listed in A16.0, bacteriological and histological examination not done

A16.2 Tuberculosis of lung, without mention of bacteriological or histological confirmation

Tuberculosis of lung

Tuberculous:

bronchiectasis
fibrosis of lung
pneumonia
pneumothorax

} NOS (without mention of bacteriological or histological confirmation)

A16.3 Tuberculosis of intrathoracic lymph nodes, without mention of bacteriological or histological confirmation

Includes:

Tuberculosis of lymph nodes:

- hilar
- intrathoracic
- mediastinal
- tracheobronchial

} NOS (without mention of bacteriological or histological confirmation)

Excludes: when specified as primary (A16.7)

A16.4 Tuberculosis of larynx, trachea and bronchus, without mention of bacteriological or histological confirmation

Includes:

Tuberculosis of:

- bronchus
- glottis
- larynx
- trachea

} NOS (without mention of bacteriological or histological confirmation)

A16.5 Tuberculous pleurisy, without mention of bacteriological or histological confirmation

This disease state is characterized by pleuritis and pleural effusion, usually in an adolescent or young adult, but possibly in any age group, due to recent (within the preceding 24 months) infection with *Mycobacterium tuberculosis* complex. If another site of tuberculosis disease, such as CNS or disseminated/miliary disease, is believed to have occurred as a consequence of recent infection (within the preceding 24 months), it ought to be referred to as primary CNS (etc) disease. *Excludes:* Primary respiratory tuberculosis, without mention of bacteriological or histological confirmation (A16.7)

A16.7 Primary respiratory tuberculosis without mention of bacteriological or histological confirmation

This is usually, but not always, in a child, and is due to infection within the preceding 24 months with *Mycobacterium tuberculosis* complex. It includes pulmonary (lung parenchyma) tuberculosis, as well as tuberculosis of the intrathoracic lymph nodes, larynx, trachea, bronchus, or nasopharyngeal sinuses. *Excludes:* Tuberculous pleurisy, without mention of bacteriological or histological confirmation (A16.5)

A16.8 Other respiratory tuberculosis, without mention of bacteriological or histological confirmation

- Mediastinal tuberculosis
- Nasopharyngeal tuberculosis
- **Tuberculosis of:**
  - Nose
  - sinus [any part]

} NOS (without mention of bacteriological or histological confirmation)

A16.9 Respiratory tuberculosis unspecified, without mention of bacteriological or histological confirmation

Includes: Respiratory tuberculosis NOS
Tuberculosis NOS

A17 Tuberculosis of nervous system

A17.0 Tuberculous meningitis (G01)

Includes: Tuberculosis of meninges (cerebral) (spinal)
Tuberculous leptomeningitis

A17.1 Meningeal tuberculoma (G07)

Includes: Tuberculoma of meninges

A17.8 Other tuberculosis of nervous system

Includes:

Tuberculoma of:
brain (G07)
spinal cord (G07)

Tuberculosis of:
brain (G07)
spinal cord (G07)

Tuberculous:
abscess of brain (G07)
meningoencephalitis (G05.0)
myelitis (G05.0)
polyneuropathy (G63.0)

A17.9 Tuberculosis of nervous system, unspecified (G99.8)

A18 Tuberculosis of other organs

A18.0 Tuberculosis of bones and joints

Includes:

Tuberculosis of:
hip (M01.1)
knee (M01.1)
vertebral column (M49.0)

Tuberculous:
arthritis (M01.1)
mastoiditis (H75.0)
necrosis of bone (M90.0)
osteitis (M90.0)
osteomyelitis (M90.0)
synovitis (M68.0)
tenosynovitis (M68.0)

A18.1 Tuberculosis of genitourinary system

Includes:

Tuberculosis of:

bladder (N33.0)
cervix (N74.0)
kidney (N29.1)
male genital organs (N51.-)
ureter (N29.1)
Tuberculous female pelvic inflammatory disease (N74.1)

A18.2 Tuberculous peripheral lymphadenopathy

Includes: Tuberculous adenitis

Excludes:

Tuberculosis of lymph nodes:

intrathoracic (A15.4, A16.3)
mesenteric and retroperitoneal (A18.3)
Tuberculous tracheobronchial adenopathy (A15.4, A16.3)

A18.3 Tuberculosis of intestines, peritoneum and mesenteric lymph nodes

Includes:

Tuberculosis (of):

anus and rectum (K93.0)
intestine (large) (small) (K93.0)
retroperitoneal (lymph nodes)

Tuberculous:

ascites
enteritis (K93.0)
peritonitis (K67.3)

A18.4 Tuberculosis of skin and subcutaneous tissue

Includes: Erythema induratum, tuberculous
Lupus:
exedens
vulgaris:
NOS
of eyelid (H03.1)
Scrofuloderma

Excludes: lupus erythematosus (L93.-)
systemic (M32.-)

A18.5 Tuberculosis of eye

Includes:

Tuberculous:

chorioretinitis (H32.0)
episcleritis (H19.0)
interstitial keratitis (H19.2)
iridocyclitis (H22.0)
keratoconjunctivitis (interstitial) (phlyctenular) (H19.2)

Excludes: lupus vulgaris of eyelid (A18.4)

A18.6 Tuberculosis of ear

Includes: Tuberculosis otitis media (H67.0)

Excludes: Tuberculous mastoiditis (A18.0)

A18.7 Tuberculosis of adrenal glands (E35.1)

Includes: Addison's disease, tuberculous

A18.8 Tuberculosis of other specified organs

Includes:

Tuberculosis of:

endocardium (I39.8)
myocardium (I41.0)
oesophagus (K23.0)
pericardium (I32.0)
thyroid gland (E35.0)
Tuberculous cerebral arteritis (I68.1)

A19 Miliary Tuberculosis

Includes:

Tuberculosis:

disseminated
generalized

Tuberculous polyserositits

A19.0 Acute miliary tuberculosis of a single specified site

A19.1 Acute miliary tuberculosis of multiple sites

A19.2 Acute miliary tuberculosis, unspecified

A19.8 Other miliary tuberculosis

A19.9 Miliary Tuberculosis, unspecified

Appendix III
Population Estimates: 2005

Population estimates by gender and age group, Canada and provinces/territories: 2005

Male

	CANADA	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
< 1	**173,687**	2,322	679	4,355	3,504	38,682	68,118	7,105	6,032	21,113	20,876	169	356	376
1 – 4	**697,987**	9,612	2,705	17,898	14,425	152,801	277,645	28,456	24,438	81,385	85,246	667	1,254	1,455
5 – 14	**2,045,959**	29,435	9,112	55,019	44,224	453,650	821,182	82,661	69,030	220,318	252,065	2,050	3,715	3,498
15 – 24	**2,250,070**	35,187	10,063	64,435	51,674	494,022	869,237	86,046	78,087	253,002	299,395	2,472	3,602	2,848
25 – 34	**2,237,284**	31,108	8,206	57,675	49,330	525,824	871,353	79,327	61,354	259,486	285,448	1,788	3,822	2,563
35 – 44	**2,572,173**	39,703	9,684	72,118	58,101	599,595	1,031,918	86,716	67,434	265,200	333,537	2,546	3,556	2,065
45 – 54	**2,447,473**	42,384	10,114	72,318	59,506	601,487	916,096	84,964	72,694	249,830	330,788	2,887	2,904	1,501
55 – 64	**1,740,076**	32,479	8,274	56,428	45,312	445,238	644,780	59,970	48,751	154,511	239,846	1,927	1,810	750
65 – 74	**1,065,125**	18,566	4,998	33,620	25,963	263,741	406,827	36,641	33,287	89,530	150,098	814	698	342
75 +	**773,970**	11,755	3,423	24,071	18,922	175,394	298,100	31,264	30,981	63,799	115,490	317	334	120
TOTAL	**16,003,804**	**252,551**	**67,258**	**457,937**	**370,961**	**3,750,434**	**6,205,256**	**583,150**	**492,088**	**1,658,174**	**2,112,789**	**15,637**	**22,051**	**15,518**

Female

< 1	**164,925**	2,218	674	4,158	3,333	36,602	64,450	6,843	5,790	20,266	19,736	171	342	342
1 – 4	**666,711**	9,306	2,861	17,210	14,023	145,470	265,566	27,441	23,005	78,051	80,433	609	1,377	1,359
5 – 14	**1,948,304**	27,652	8,459	53,070	41,660	431,820	787,382	78,250	65,525	207,636	238,016	2,089	3,452	3,293
15 – 24	**2,144,648**	34,555	9,975	61,916	48,345	471,206	832,876	81,947	72,863	238,313	284,315	2,243	3,329	2,765
25 – 34	**2,189,419**	32,283	8,809	60,003	48,622	502,386	868,136	75,754	60,128	240,355	284,943	2,085	3,365	2,550
35 – 44	**2,543,198**	41,754	9,999	72,876	58,263	579,214	1,028,856	84,207	67,371	254,175	338,088	2,805	3,745	1,845
45 – 54	**2,475,894**	43,324	10,636	74,925	60,499	609,849	934,770	84,387	71,012	242,363	337,407	2,815	2,726	1,181
55 – 64	**1,788,355**	33,045	8,475	57,696	45,829	464,760	668,446	61,131	49,187	152,302	243,727	1,549	1,393	815
65 – 74	**1,174,228**	19,402	5,355	37,134	28,657	304,791	450,665	40,569	36,277	95,039	154,791	667	604	277
75 +	**1,212,591**	18,054	5,687	39,065	31,127	301,502	459,043	50,471	46,798	94,054	166,001	381	340	68
TOTAL	**16,308,273**	**261,593**	**70,930**	**478,053**	**380,358**	**3,847,600**	**6,360,190**	**591,000**	**497,956**	**1,622,554**	**2,147,457**	**15,414**	**20,673**	**14,495**

TOTAL

< 1	**338,612**	4,540	1,353	8,513	6,837	75,284	132,568	13,948	11,822	41,379	40,612	340	698	718
1 – 4	**1,364,698**	18,918	5,566	35,108	28,448	298,271	543,211	55,897	47,443	159,436	165,679	1,276	2,631	2,814
5 – 14	**3,994,263**	57,087	17,571	108,089	85,884	885,470	1,608,564	160,911	134,555	427,954	490,081	4,139	7,167	6,791
15 – 24	**4,394,718**	69,742	20,038	126,351	100,019	965,228	1,702,113	167,993	150,950	491,315	583,710	4,715	6,931	5,613
25 – 34	**4,426,703**	63,391	17,015	117,678	97,952	1,028,210	1,739,489	155,081	121,482	499,841	570,391	3,873	7,187	5,113
35 – 44	**5,115,371**	81,457	19,683	144,994	116,364	1,178,809	2,060,774	170,923	134,805	519,375	671,625	5,351	7,301	3,910
45 – 54	**4,923,367**	85,708	20,750	147,243	120,005	1,211,336	1,850,866	169,351	143,706	492,193	668,195	5,702	5,630	2,682
55 – 64	**3,528,431**	65,524	16,749	114,124	91,141	909,998	1,313,226	121,101	97,938	306,813	483,573	3,476	3,203	1,565
65 – 74	**2,239,353**	37,968	10,353	70,754	54,620	568,532	857,492	77,210	69,564	184,569	304,889	1,481	1,302	619
75 +	**1,986,561**	29,809	9,110	63,136	50,049	476,896	757,143	81,735	77,779	157,853	281,491	698	674	188
TOTAL	**32,312,077**	**514,144**	**138,188**	**935,990**	**751,319**	**7,598,034**	**12,565,446**	**1,174,150**	**990,044**	**3,280,728**	**4,260,246**	**31,051**	**42,724**	**30,013**

Source: Population by age and sex, Canada, Provinces and Territories, July 1, 1971 to 2007. Statistics Canada, Demography Division.

Population estimates by Canadian-born origin and foreign-born birthplace – Canada and provinces/territories: 2005

	CANADA	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	North	Y.T.	N.W.T.	Nvt.
Canadian-born															
North American Indian	**770,608**	10253	1452	16145	14262	74897	171985	109729	102547	107223	141485	20630	7026	13493	111
Status Indian*	**778,332**				32,516	70,662	173,734	126,241	124,774	100,775	124,150	25,480	8,219	17,261	
Non-status**	-														
Inuit	**52,187**	5072	31	424	176	10769	1760	408	266	1223	961	31097	198	4836	26063
Metis	**324,343**	6067	246	3362	4633	17095	53967	62826	48700	74400	48205	4842	606	4199	37
Total Aboriginal†	**1,147,138**	**21,392**	**1,729**	**19,931**	**19,071**	**102,761**	**227,712**	**172,963**	**151,513**	**182,846**	**190,651**	**56,569**	**7,830**	**22,528**	**26,211**
Non-Aboriginal‡	**24,307,194**	480,589	131,113	859,477	700,966	6,559,740	8,546,542	837,534	779,865	2,554,650	2,816,945	39,773	19,618	16,904	3,251
Total Canadian-born	**25,454,332**	**501,981**	**132,842**	**879,408**	**720,037**	**6,662,501**	**8,774,254**	**1,010,497**	**931,378**	**2,737,496**	**3,007,596**	**96,342**	**27,448**	**39,432**	**29,462**
Foreigh-born^															
AFR High	**188,708**	491	81	1328	967	26540	98029	5520	2887	22515	30091	259	85	145	29
AFR Low	**94,369**	140	50	463	558	49362	33743	1727	742	4231	3275	78	15	54	9
AMR	**758,394**	400	215	3323	1515	164062	477163	21147	3439	39837	46917	376	174	151	51
EEUR	**318,045**	411	57	1263	415	60594	189765	10377	3221	21212	30503	227	73	144	10
EMR	**642,536**	866	336	7410	1668	145355	384868	6247	4181	39104	52286	215	44	151	20
EME + CEUR	**2,627,065**	7347	4180	34475	21805	330042	1430823	68449	29780	231256	464261	4,647	2627	1665	355
SEAR	**649,080**	966	89	2282	1189	45346	414706	8627	2549	40290	132767	269	140	119	10
WPR	**1,579,548**	1542	338	6038	3165	114232	762095	41559	11867	144787	492550	1,375	445	863	67
Total foreign-born	**6,857,745**	**12,163**	**5,346**	**56,582**	**31,282**	**935,533**	**3,791,192**	**163,653**	**58,666**	**543,232**	**1,252,650**	**7,446**	**3,603**	**3,292**	**551**
Total population^^	**32,312,077**	**514,144**	**138,188**	**935,990**	**751,319**	**7,598,034**	**12,565,446**	**1,174,150**	**990,044**	**3,280,728**	**4,260,246**	**103,788**	**31,051**	**42,724**	**30,013**

* Source: Registered Indian Population, Household and Family Projections 2004-2029, INAC, 2007.

** No accurate population counts for non-Status Indian available.

† Source: Statistics Canada: Projections of the Aboriginal populations, Canada, provinces and territories 2001 to 2017 Demography Division, Statistics Canada Catalogue No. 91-547-XIE.

‡ Calculated: Non-Aboriginal = Total population - Total Aboriginal - Total Foreign-born.

^ Source: Statistics Canada: Demography Division, Custom Product.

^^ Source: Statistics Canada, Demography Division, Demographic, Estimates Section, Population estimates 0-90+ July Canada - Provinces 1971-2005, updated Feburary 2008.

Appendix IV
WHO Estimated incidence of TB, 22 high-burden countries: 2005

COUNTRY	POPULATION (1000s)	NUMBER ESTIMATED				CUMULATIVE INCIDENCE (%) (REGIONAL PROPORTION OF GLOBAL TOTAL)
		ALL CASES		SMEAR-POSITIVE CASES		
		NUMBER (1000s)	RATE PER 100,000	NUMBER (1000s)	RATE PER 100,000	
1 India	**1,103,371**	1,852	168	827	75	21.0
2 China	**1,315,844**	1,319	100	593	45	36.0
3 Indonesia	**222,781**	533	239	240	108	42.0
4 Nigeria	**131,530**	372	283	162	123	46.3
5 Bangladesh	**141,822**	322	227	145	102	49.9
6 Pakistan	**157,935**	286	181	129	82	53.2
7 South Africa	**47,432**	285	601	116	245	56.4
8 Ethiopia	**77,431**	266	344	118	152	59.4
9 Phillipines	**83,054**	242	291	109	131	62.2
10 Kenya	**34,256**	220	642	94	274	64.7
11 DR Congo	**57,549**	205	356	90	156	67.0
12 Russian Fereation	**143,202**	170	119	76	53	68.9
13 Viet Nam	**84,238**	148	176	66	78	70.6
14 UR Tanzania	**38,329**	131	342	56	146	72.1
15 Brazil	**186,405**	111	60	49	26	73.3
16 Uganda	**28,816**	106	368	46	160	74.5
17 Thailand	**64,233**	91	142	41	64	75.6
18 Mozambique	**19,792**	89	450	37	187	76.6
19 Myanmar	**50,519**	86	170	38	75	77.6
20 Zimbabse	**13,010**	78	600	32	246	78.4
21 Cambodia	**14,071**	71	505	32	227	79.3
22 Afghanistan	**29,863**	50	167	23	77	79.8
Total, high-burden countries	**4,045,483**	**7,033**	**174**	**3,119**	**77**	
Africa	**738,083**	2,529	343	1,088	147	28.7
Americas	**890,757**	352	40	157	18	4.0
East Mediterranean	**541,704**	565	104	253	47	6.4
Europe	**882,395**	445	50	199	23	5.1
South East Asia	**1,656,529**	2,993	181	1,339	81	34.0
Western Pacific	**1,752,283**	1,927	110	866	49	21.9
Global total	**6,461,751**	**8,811**	**136**	**3,902**	**60**	**100.0**

Source: *Global tuberculosis control: surveillance, planning, financing, WHO report 2007.* Geneva, World Health Organization (WHO/HTM/TB/2007.376).

Appendix V
STOP-TB partnership
TB epidemiological regions
and member countries[16]

Africa, High HIV Prevalence (AFR-High)	Africa, Low HIV Prevalence (AFR-Low)
Botswana	Algeria
Burundi	Angola
Cameroon	Benin
Central African Republic	Burkina Faso
Congo	Cape Verde
Côte d'Ivoire	Chad
Democratic Republic of Congo	Comoros
Ethiopia	Equatorial Guinea
Gabon	Eritrea
Kenya	Gambia
Malawi	Ghana
Mozambique	Guinea
Namibia	Guinea-Bissau
Nigeria	Liberia
Lesotho	Madagascar
Rwanda	Mali
South Africa	Mauritania
Swaziland	Mauritius
Uganda	Niger
United Republic of Tanzania	Sao Tome & Principe
Zambia	Senegal
Zimbabwe	Seychelles
	Sierra Leone
	Togo

[16] *Stop TB Partnership and World Health Organization. Global Plan to Stop TB 2006–2015*. Geneva, World Health Organization, 2006 (WHO/HTM/STB/2006.35).

American region (AMR) – Latin American countries (LAC)	
Anguilla	Guyana
Antigua & Barbuda	Haiti
Argentina	Honduras
Bahamas	Jamaica
Barbados	Mexico
Belize	Montserrat
Bermuda	Netherlands Antillies
Bolivia	Nicaragua
Brazil	Panama
British Virgin Islands	Paraguay
Cayman Islands	Peru
Chile	Puerto Rico
Colombia	Saint Kitts and Nevis
Costa Rica	Saint Lucia
Cuba	St Vincent and the Grenadines
Dominica	Suriname
Dominican Republic	Trinidad and Tobago
Ecuador	Turks & Caicos Islands
El Salvador	Uruguay
Grenada	US Virgin Islands
Guatemala	Venezuela

Eastern Europe (EEUR)
Armenia
Azerbaijan
Belarus
Bulgaria
Estonia
Georgia
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Republic of Moldova
Romania
Russian Federation
Tajikistan
Turkey
Turkmenistan
Ukraine
Uzbekistan

Eastern Mediterranean (EMR)
Afghanistan
Bahrain
Djibouti
Egypt
Islamic Republic of Iran
Iraq
Jordan
Kuwait
Lebanon
Libyan Arab Jamahiriya
Morocco
Oman
Pakistan
Qatar
Saudi Arabia
Somalia
Sudan
Syrian Arab Republic
Tunisia
United Arab Emirates
West Bank & Gaza Strip
Yemen

Established Market Economies (EME)	
Andorra	Japan
Australia	Luxembourg
Austria	Malta
Belgium	Monaco
Canada	Netherlands
Czech Republic	New Zealand
Denmark	Norway
Finland	Portugal
France	San Marino
Germany	Singapore
Greece	Spain
Iceland	Sweden
Ireland	Switzerland
Israel	United Kingdom
Italy	USA

Central Europe (CEUR)
Albania
Bosnia and Herzegovina
Croatia
Cyprus
Hungary
Poland
Serbia and Montenegro
Slovakia
Slovenia
The Former Yugoslav Republic of Macedonia

South-East Asia (SEAR)
Bangladesh
Bhutan
Democratic People's Republic of Korea
India
Indonesia
Maldives
Myanmar
Nepal
Sri Lanka
Thailand
Timor-Leste

Western Pacific (WPR)	
American Samoa	Nauru
Brunei Darussalam	New Caledonia
Cambodia	Niue
China	Northern Mariana Islands
China, Hong Kong SAR	Palau
China, Macao SAR	Papua New Guinea
Cook Islands	Philippines
Fiji	Republic of Korea
French Polynesia	Samoa
Guam	Solomon Islands
Kiribati	Tokelau
Lao People's Democratic Republic	Tonga
Malaysia	Tuvalu
Marshall Islands	Vanuatu
Micronesia	Viet Nam
Mongolia	Wallis & Futuna Islands

Appendix VI
WHO reporting form for 2005 cases and 2004 outcomes

Identification (please update as necessary)

1.A	**Country**	**Canada**
1.B	**Date**	

National TB control programme manager or equivalent:

1.C	**Name**	
1.D	**Functional Title**	
1.E	**Address**	
1.F	**Telephone**	
1.G	**Fax**	
1.H	**E-mail**	

Please send your completed form to your local/regional WHO office NOT later than 1 August, 2006

If you cannot reply to all of the questions before the deadline, please fill in the form as much as possible and send it along; you can provide the remaining data later on.

Person filling out this form (if different from name at left)

1.I	
1.J	
1.K	
1.L	
1.M	
1.N	

This form allows WHO to collect data from over 200 diverse countries. It is NOT a recommended data collection format for national programmes.
(See WHO documents for such recommendations/guidelines: www.who.int/tb/publications/recording_and_reporting_draft).

To access the WHO global TB database, see www.who.int/tb/country

WHO TB data collection form for strategies and notifications in 2005, treatment outcomes of cases registered in 2004, and financial information for fiscal years 2005-2007.

Components of the Stop TB Strategy (www.who.int/entity/tb/publications/2006/stop_tb_strategy.pdf)

*** Pursue high-quality DOTS expansion and enhancement** (see page 9 of the Stop TB Strategy)

Circle/enter a response.

2.A	**Did you have a national TB control manual (or guidelines for TB diagnosis and treatment) in 2005?** (If Yes, please provide a copy to WHO, if you have not already done so.)		No Yes
2.B	**How many TB basic management units were there in 2005?** The basic management unit is defined in terms of management, supervision, and monitoring responsibility. It may have several treatment facilities, one or more laboratories, and one or more hospitals. The defining aspect is the presence of a manager or coordinator who oversees TB control activities for the unit and who maintains a master register of all TB patients being treated, which is used to monitor the programme and report on indicators to higher levels.		
2.C	**How many of these units (2.B) were considered as "DOTS" units at the end of 2005?**		
2.D	**What proportion of the country's population was attributed to basic management units defined as DOTS units in your country in 2005 (coverage)?** Note: If a unit became a DOTS unit in October of 2005, then use only 1/4 of its population in your calculation; if in July, then use 1/2 of its population, etc.		%

DOTS coverage is a crude indicator of access to DOTS. The proportion of the population with access to DOTS services is lower than DOTS coverage in many countries. If you have an estimate of access to DOTS, please provide the estimate along with the definition of access and the method of estimation in "Remarks" page in addition to answering this question.

If you answer "No" or "Some" for DOTS units in questions 2.E-2.H (*), please explain in "Remarks" why this component of DOTS is not implemented in all DOTS units.

			DOTS units	Non-DOTS units
2.E	**Was sputum microscopy routinely used to diagnose suspected pulmonary cases?**	*	No Some units All units	No Some units All units
2.F	**Was standardized, short-course chemotherapy (less than 9 months) used routinely to treat TB patients in categories I, II and III (i.e. all patients except chronic and proven or suspected MDR-TB patients)?** If there is any category for which standardized short-course chemotherapy is not used, please specify in "Remarks". (for WHO-recommendations, see www.who.int/entity/tb/publications/tb_2003_313_chap4_rev.pdf)	*	No Some units All units	No Some units All units
2.G	**Was direct observation of treatment used routinely – at least during the initial phase (2–3 months) of treatment?**	*	No Some units All units	No Some units All units
2.H	**Were treatment outcomes of all registered TB patients (i.e. smear-positive, smear-negative/unknown, extrapulmonary and re-treatment cases) monitored, analysed by cohort, and reported to the next supervisory level?** If there is any case type (e.g., extrapulmonary) for which the treatment outcomes are not included in your current TB reporting system, please specify in "Remarks".	*	No Some units All units	No Some units All units
2.I	**Was culture routinely used to diagnose suspected pulmonary cases?**		No Some units All units	No Some units All units
2.J	**Is smear microscopy provided free-of-charge by the national TB programme to all patients with signs or symptoms of pulmonary tuberculosis?**		No Some units All units	No Some units All units
2.K	**Are TB drugs provided free-of-charge to all TB patients treated with first-line drugs under the national TB programme?**		No Some units All units	No Some units All units
2.L	**Were there any first-line drug stock-outs at central level in 2005?** If yes, please provide details in "Remarks".		No Yes	No Yes
2.M	**Were there any first-line drug stock-outs at the peripheral levels which resulted in treatment interruption or delay in start of treatment for TB patients in 2005?** If yes, please provide details in "Remarks".		No Yes Don't know	No Yes Don't know

2.N	**What is/are the NTP-recommended regimen/s for TB diagnostic category I?** (Category I includes new smear-positive patients, new smear-negative PTB with extensive parenchymal involvement, concomitant HIV disease and severe forms of extrapulmonary TB.)	

Use "H" for isoniazid, "R" for rifampicin, "Z" for pyrazinamide, "S" for streptomycin, "E" for ethambutol, "T" for thioacetazone. Use "/" to distinguish the initial phase from the continuation phase. A number before a phase shows the duration of that phase in months. Parentheses "()" indicate fixed-dose combinations. A number after a letter or letters in parentheses indicates the number of doses per week; no numbers indicates that the treatment is daily or 6 times weekly (excluding, for instance, Sundays). Example: 2(HRZE)/4(HR)3: initial phase 2 months, daily treatment with isoniazid, rifampicin, pyrazinamid and ethambutol in fixed-dose combination; continuation phase 4 months with isoniazid and rifampicin in fixed-dose combination 3 times per week.

2.O	**If the recommended category I treatment regimen does not include rifampicin in the continuation phase, do you intend to introduce it? If so, when?**	No Yes Not applicable	if "Yes", when: ……
2.P	**What is/are the NTP-recommended regimen/s for TB diagnostic category II?** Use code described for question 2.N. (Category II includes previously treated smear-positive PTB; relapse, after default and, in some settings, after failure. For further details, see www.who.int/entity/tb/publications/tb_2003_313_chap4_rev.pdf.)		

		Smear microscopy	Culture	Drug susceptibility testing
2.Q	**Please provide the number of laboratories working with the NTP in year 2005 which performed:**			

2.R	**Did you have an external quality assurance (EQA) system for smear microscopy in 2005?**	No Yes	2.S **Number of laboratories included in the EQA system:**

To access the WHO global TB database, see www.who.int/tb/country

Components of the Stop TB Strategy, *continued …* (www.who.int/entity/tb/publications/2006/stop_tb_strategy.pdf)

*** Pursue high-quality DOTS expansion and enhancement** *continued …* (see page 9 of the Stop TB Strategy)

3.A **Do you have a comprehensive strategic human resource development plan for TB control?** — No / Yes

3.B **If "Yes", what years does the plan cover?** (e.g., 2001–2005.)

	DOTS enhancement and sustainability	Management of MDR-TB	Collaborative TB/HIV activities	Implementation of PPM strategies
3.C **If "Yes", does the plan include training and staffing needs for the following activities?**	No / Yes	No / Yes / Not applicable	No / Yes / Not applicable	No / Yes / Not applicable

	Doctors	Nurses	Other (specify)
3.D **Is TB control (following NTP guidelines) included in the curricula for basic training of the following categories of health workers?**	No / Yes	No / Yes	

3.E **Are job descriptions for staff involved in TB control up-to-date?** (i.e. do they correspond with current policies and recommendations for TB control?) — No / Yes

*** Engage all care providers** (see page 14 of Stop TB Strategy and http://whqlibdoc.who.int/hq/2006/WHO_HTM_TB_2006.360_eng.pdf)

3.F **Did you have any guidelines on TB management for medical practitioners working outside public health clinics in 2005?** — No / Yes

3.G **Were the following institutions notifying cases to you, directly or indirectly, in 2005?** Please type "Not applicable" where it is needed.

Public health services								
Public hospitals	No / Some / All		Facilities governed by health insurance agencies	No / Some / All		Military	No / Some / All	
Medical college hospitals	No / Some / All		Prisons	No / Some / All		Other (please specify (……))	No / Some / All	
Private health services								
Private practitioners	No / Some / All		NGO/mission clinics and hospitals	No / Some / All		Other (please specify (……))	No / Some / All	
Private hospitals	No / Some / All		Corporate health care services	No / Some / All				

3.H **Are you promoting the International Standards for Tuberculosis Care (ISTC) in your country in 2006?** (http://www.who.int/entity/tb/publications/2006/istc_report.pdf) — No / Yes

Contribute to health system strengthening (see page 13 of the Stop TB Strategy)

3.I **Is contribution to health system strengthening explicitly mentioned as an objective, with defined activities, in the national TB control plan/strategy?** — No / Yes

3.J **Is the Practical Approach to Lung Health (PAL)** (http://whqlibdoc.who.int/hq/2005/WHO_HTM_TB_2005.351.pdf) **part of the national plan for TB control?** — No / Yes

Empower people with TB, and communities (see page 15 of the Stop TB Strategy)

3.K **Was community-based TB care implemented in your country in 2005?(http://whqlibdoc.who.int/hq/2003/WHO_CDS_TB_2003.313.pdf)** — No / Yes

3.L **Are you promoting the Patients' Charter for Tuberculosis Care** (http://www.who.int/entity/tb/publications/2006/istc_charter.pdf) **in your country in 2006?** — No / Yes

Enable and promote research (see page 16 of the Stop TB Strategy)

3.M **How many operational research projects were initiated in collaboration with NTP in the country in 2005?**
Operational research: research specifically aimed at developing interventions that result in improved policy-making, better design and implementation of health systems, and more efficient methods of service delivery.

WHO TB data collection form for strategies and notifications in 2005, treatment outcomes of cases registered in 2004, and financial information for fiscal years 2005-2007.

Components of the STOP TB strategy, *continued …* (www.who.int/entity/tb/publications/2006/stop_tb_strategy.pdf)

*** Address MDR-TB, TB/HIV and other challenges** (see page 11 of the Stop TB Strategy)

Drug resistance

4.A **Is the management of MDR-TB patients part of the activities of the national TB control programme?** — No / Yes

4.B **If "Yes", does it follow the WHO guidelines for the programmatic management of drug-resistant tuberculosis?** (http://whqlibdoc.who.int/publications/2006/9241546956_eng.pdf) — No / Yes / Not applicable

4.C **If "No", does the NTP plan to start treating the MDR -TB patients in the next two years?** — No / Yes (in 2006) / Yes (in 2007) / Not applicable

	GLC-approved	Other
4.D **How many laboratory-confirmed cases of MDR-TB were identified among new and re-treatment TB patients diagnosed in 2005?**		
4.E **How many patients registered as "new" in 2005 received DST at the start of treatment?**		
4.F **How many of these patients (4.E) were identified as MDR-TB based on DST at the start of treatment in 2005?**		
4.G **How many patients registered as "re-treatment" in 2005 received DST at the start of treatment?**		
4.H **How many of these patients (4.G) were identified as MDR-TB based on DST at the start of treatment?**		
4.I **How many MDR-TB patients are expected to be treated in 2006?**		
4.J **How many MDR-TB patients are expected to be treated in 2007?**		

Notes: MDR = multidrug-resistant. DST = drug sensitivity testing. GLC = The Green Light Committee: The mechanism of WHO and its partners of the Stop TB Partnership to enable access to second-line anti-TB drugs in low- and middle-income countries to treat multidrug-resistant tuberculosis (MDR-TB) under programmatic conditions and following specific guidelines. For further information, see www.who.int/tb/dots/dotsplus/management/en

Collaborative TB/HIV activities (http://www.who.int/tb/hiv)

Data on cotrimoxazole preventive therapy and antiretroviral therapy should be reported with the quarterly data on TB treatment outcomes and therefore final numbers for 2005 might not be available yet, however we request that you provide us with provisional numbers for 2005 as well as the final numbers for 2004.

	2004	2005
4.K **In 2004 and 2005, how many TB patients were tested for HIV?**		
4.L **Of those tested, how many were found to be HIV-positive?**		
4.M **Of those found to be HIV-positive, how many started co-trimoxazole preventive therapy?**		
4.N **Of those found to be HIV-positive, how many started ART?**		

	2006	2007
4.O **In 2006 and 2007, how many HIV-positive TB patients are expected to start ART?**		

4.P **In 2005, was there a national policy to offer HIV counselling and testing to all TB patients?** — No / Yes / Yes (only in specific groups)

4.Q **In 2005, was there a national surveillance system to measure the prevalence of HIV in TB patients?** — No / Yes

If "Yes", what source of data was used:

4.R **a) Data from the routine HIV testing of TB patients?** — No / Yes / Not applicable

4.S **b) Data from sentinel site surveys?** — No / Yes / Not applicable

c) Other, please explain in "Remarks".

4.T **Do you have an national estimate of the prevalence of HIV in TB patients in 2005?** — No / Yes

If "Yes", please provide:

4.U **a) the estimated percent prevalence of HIV in TB patients** — %

4.V **b) a reference to the source of the estimate (if it is available electronically, please attach it or provide a web address) or describe the survey design including population studies, sampling method and sample size.**

To access the WHO global TB database, see www.who.int/tb/country

Completeness of reporting

Page 5

5.A **Was there a designated person responsible for data management and analysis at the central level of NTP in 2005?** No / Yes

If "Yes" please give the name and e-mail address of the contact person:

5.B **Name**

5.C **Email**

Please use this table to explain the reporting process in your country. In the first row, provide information about reports which are received in the central office. Show where those reports come from, how many you expect for each reporting period, and how many times per year you receive these reports. (see example below)

Please see the example, if you need help to fill in the table. Use as many rows as you need to reflect the situation in your country.

	Reports received by:	Sender	Number of senders (i.e. if reports are sent by provincial TB coordinators, put the number of provincial TB coordinators here)	Number of times reports are received each year (i.e. quarterly = 4 times)	Number of expected reports for (calculated automatically)		Number of reports received for	
					Case finding 2005	Treatment outcomes 2004	Case finding 2005	Treatment outcomes 2004
5.D	National TB data manager or equivalent							
5.E								
5.F								
5.G								
5.H								
5.I								

5.J **What is the lowest level for which you have data in the central office of the NTP?** Individual patients / Health facilities / Districts / Province / Other …….. [please specify]

5.K **What software or application do you use to manage your TB data?**

5.L **Do you have a plan to develop or find a TB-specific computer application that meets all of your requirements?** No / Yes

Example

Reports received by:	Sender	Number of senders (i.e. if reports are sent by provincial TB coordinators, put the number of provincial TB coordinators here)	Number of times reports are received each year (i.e. quarterly = 4 times)	Number of expected reports for		Number of reports received for	
				Case finding, 2005	Treatment outcomes, 2004	Case finding, 2005	Treatment outcomes, 2004
National TB data manager	Provincial TB coordinators	6	4	24	24	24	24
Provincial TB coordinators	District TB coordinators	57	4	228	228	210	200
District TB coordinators	Health facilities TB officers	350	4	1400	1400	1250	1050

In this country, there are 6 provincial TB coordinators.

In this country, all provinces reported, but there were missing reports at lower levels.

WHO TB data collection form for strategies and notifications in 2005, treatment outcomes of cases registered in 2004, and financial information for fiscal years 2005-2007.

SASKATCHEWAN: TB notifications for 2005 (number of patients) (www.who.int/tb/publications/recording_and_reporting_draft)

Page 6

6.A **Number of TB cases in 2004** 139

*Number of these cases, by **strategy**, that are*

Strategy applies to basic management units, not individual patients. If a unit is a "DOTS" unit, then all cases from that unit should be reported as DOTS cases.

		DOTS	Non-DOTS
6.B	**New pulmonary smear-positive**		
6.C	**New pulmonary smear-negative**		
6.D	**New pulmonary smear-unknown**		
6.E	**New extrapulmonary**		
6.F	**Other NEW cases not in lines B–E**		
6.G	**Smear-positive relapse pulmonary**		
6.H	**Treatment after failure (smear-positive pulmonary)**		
6.I	**Treatment after default (smear-positive pulmonary)**		
6.J	**Other RE-TREATMENT cases not in lines G–I.**		
6.K	**Other, not in lines B–J (i.e., history unknown)** Please specify what these cases are, in "Remarks."		
6.L	**New pulmonary lab-confirmed cases**		

Lab-confirmed includes smear-positive cases plus any cases confirmed by additional laboratory methods.

6.M **How many people with symptoms and signs suggestive of TB (e.g. cough of long duration; more than 2-3 weeks) were screened for TB in 2005?**

Red colour indicates that the age-sex total is not equal to the number of notified cases. Please re-check the numbers and explain any discrepency in "Remarks".

Age and sex of new pulmonary smear-positive TB cases, 2005

	0–14	15–24	25–34	35–44	45–54	55–64	65+	Total (calculated automatically)
DOTS								
6.N **Male**								
6.O **Female**								
Non-DOTS								
6.P **Male**								
6.Q **Female**								

If totals do not correspond to the number of new smear-positive cases (6.B), please explain in "Remarks".

If you have data by age and sex that do not fit this framework (e.g., different age groups or data based on all new cases, not just smear-positive), then you can provide the data that you have in "Remarks".

To access the WHO global TB database, see www.who.int/tb/country

WHO TB data collection form for strategies and notifications in 2005, treatment outcomes of cases registered in 2004, and financial information for fiscal years 2005-2007.

Treatment outcomes for cases registered in 2003 (number of patients) (www.who.int/tb/publications/recording_and_reporting_draft)

Page 7

Red colour indicates that the number of evaluated cases is not equal to the number of registered cases. Please re-check the numbers and explain any discrepency in "Remarks".

DOTS		Total number of cases registered	Cured	Completed	Died	Failed	Defaulted	Transferred out*	Total evaluated (calculated automatically)
7.A	New pulmonary smear-positive	428							
7.B	New pulmonary smear-negative and unknown	391							
7.C	New extrapulmonary	611							
7.D	Relapse (smear-positive pulmonary)	85							
7.E	Treatment after failure (smear-positive pulmonary)								
7.F	Treatment after default (smear-positive pulmonary)								
7.G	Other re-treatment	20							

non-DOTS									Total evaluated (calculated automatically)
7.H	New pulmonary smear-positive								
7.I	New pulmonary smear-negative and not done								
7.J	New extrapulmonary								
7.K	Relapse (smear-positive pulmonary)								
7.L	Treatment after failure (smear-positive pulmonary)								
7.M	Treatment after default (smear-positive pulmonary)								
7.N	Other re-treatment								

7.O **If culture is routinely available throughout the country, then you should use this page to report outcomes of laboratory-confirmed cases rather than smear-positive cases, and enter "lab-confirmed" in this box.**

Notes
If treatment outcomes for re-treatment cases cannot be separated into relapse, after-failure and after-default, then please provide these outcomes in row "Other re-treatment" and mention in "Remarks" which types of re-treatment cases contributed in this row.

* "Transferred-out" is the subset of transfer patients for whom the outcome was not evaluated.

To access the WHO global TB database, see www.who.int/tb/country

WHO TB data collection form for strategies and notifications in 2005, treatment outcomes of cases registered in 2004, and financial information for fiscal years 2005-2007.

Treatment outcomes for HIV-positive TB cases registered in 2004 (number of patients) (www.who.int/tb/publications/recording_and_reporting_draft)

Page 8

Red colour indicates that the number of evaluated cases is not equal to the number of registered cases. Please re-check the numbers and explain any discrepency in "Remarks".

		Total number of cases registered	Cured	Completed	Died	Failed	Defaulted	Transferred out*	Total evaluated (calculated automatically)
8.A	New pulmonary smear-positive								
8.B	New pulmonary smear-negative and unknown								
8.C	New extrapulmonary								
8.D	Relapses (smear-positive pulmonary)								
8.E	Treatment after failure (smear-positive pulmonary)								
8.F	Treatment after default (smear-positive pulmonary)								
8.G	Other re-treatment								

Final treatment outcomes for MDR cases registered in 2002 (number of patients) (paragraph 18.4.8 in http://whqlibdoc.who.int/publications/2006/9241546956_eng.pdf)

GLC-approved		Total number of cases registered	Cured	Completed	Died	Failed	Defaulted	Transferred out*	Total evaluated (calculated automatically)
8.H	New cases								
8.I	Re-treatment cases								
8.J	Other cases								
Other									
8.K	New								
8.L	Re-treatment								
8.M	Other								

8.N **If culture is routinely available throughout the country, then you should use this page to report outcomes of laboratory-confirmed cases rather than smear-positive cases, and enter "lab-confirmed" in this box.**

Notes
If treatment outcomes for re-treatment cases cannot be separated into relapse, after-failure and after-default, then please provide these outcomes in row "Other re-treatment" and mention in "Remarks" which types of re-treatment cases contributed in this row.

* "Transferred-out" means transferred out and not evaluated. It is the subset of transfer patients for whom the outcome was not evaluated.

To access the WHO global TB database, see www.who.int/tb/country

Financial information - budget data

Please see "Instructions for page 9 and 10" on separate sheet at the end of this form

FISCAL YEAR 2006
(your fiscal year starting during the calendar year 2006)

9.A Beginning of your fiscal year 2006 (day, month, year)

9.B Expected number of new smear-positive patients to be treated in 2006

9.C Expected number of new smear-negative/extra-pulmonary patients to be treated in 2006

Please give amounts for budget, funding, and gap

in ABSOLUTE US dollars

EXPECTED Funding the data you provided last year (if any) appear in the historical data file; you should have been received it along with the data collection form.

	BUDGET REQUIRED[a]	Government[b]	Loans[c]	GFATM[d]	Other Grants[e]	GAP[f]
9.D **TB drugs: first-line**						
9.E **Staff working exclusively for TB control (central unit staff and subnational TB coordinators)**						
9.F **Routine programme management and supervision activities**						
9.G **Laboratory supplies and equipment for smears, culture and DST**						
9.H **PPM (Public–Private Mix) and PAL**						
9.I **Collaborative TB/HIV activities**						
9.J **Second-line drugs for MDR-TB**						
9.K **Management of MDR-TB (budget excluding second-line drugs)**						
9.L **Advocacy, communication & social mobilization and community-based care**						
9.M **Operational research**						
9.N **All other budget lines for TB (e.g., technical assistance)**						
9.O **TOTAL**	0	0	0	0	0	0

Red colour indicates that the numbers in that row or column do not add up to the total you have entered. Please double-check and provide an explanation in "Remarks" if necessary.

FISCAL YEAR 2007
(your fiscal year starting during the calendar year 2007)

9.P Beginning of your fiscal year 2007 (day, month, year)

9.Q Expected number of new smear-positive patients to be treated in 2007

9.R Expected number of new smear negative/extra-pulmonary patients to be treated in 2007

Please give amounts for budget, funding, and gap

in ABSOLUTE US dollars

EXPECTED Funding (if available)

	BUDGET REQUIRED[a]	Government[b]	Loans[c]	GFATM[d]	Other Grants[e]	GAP[f]
9.S **TB drugs: first-line**						
9.T **Staff working exclusively for TB control (central unit staff and subnational TB coordinators)**						
9.U **Routine programme management and supervision activities**						
9.V **Laboratory supplies and equipment for smears, culture and DST**						
9.W **PPM (Public–Private Mix) and PAL**						
9.X **Collaborative TB/HIV activities**						
9.Y **Second-line drugs for MDR-TB**						
9.Z **Management of MDR-TB (budget excluding second-line drugs)**						
9.AA **Advocacy, communication & social mobilization and community-based care**						
9.AB **Operational research**						
9.AC **All other budget lines for TB (e.g., technical assistance)**						
9.AD **TOTAL**	0	0	0	0	0	0

Please contact the following people for assistance if required: Pilar Ramon-Pardo, ramonpp@paho.org (for AMR); Katherine Floyd, floydk@who.int (for EUR, SEAR, WPR); Andrea Pantoja, pantojaa@who.int (for AFR, EMR).

WHO TB data collection form for strategies and notifications in 2005, treatment outcomes of cases registered in 2004, and financial information for fiscal years 2005-2007.

Financial information - utilization of health services and expenditure data

Please see "Instructions for page 9 and 10" on separate sheet at the end of this form

10.A Typical number of visits to a health facility required for one new smear-positive patient after diagnosis is made

10.B Typical number of visits to a health facility required for a new smear negative/extra-pulmonary patient after diagnosis is made

10.C Estimated percentage of new smear-positive patients that are hospitalized %

10.D Estimated percentage of new smear negative/extra-pulmonary patients that are hospitalized %

10.E Estimated average duration of stay for new smear-positive patients if hospitalized (days)

10.F Estimated average duration of stay for new smear negative/extra-pulmonary patients if hospitalized (days)

10.G Number of hospital beds used exclusively for TB (including beds in sanatoria, where these exist)

FISCAL YEAR 2005
(your fiscal year starting during the calendar year 2005)

Please give amounts spent and received

in ABSOLUTE US dollars

Red colour indicates that your numbers do not add up to calculated totals. Please re-check.

	ACTUAL EXPENDITURE[g]	RECEIVED Funding: Government[h]	Loans[i]	GFATM[d]	Other Grants[e]
10.H **TB drugs: first-line**					
10.I **TB drugs: second-line (for MDR-TB)**					
10.J **Staff working exclusively for TB control (central unit staff and subnational TB coordinators)**					
10.K **Initiatives to increase case detection and cure rates (e.g., PPM, Community care, PAL)**					
10.L **Collaborative TB/HIV activities**					
10.M **Buildings, vehicles, equipment (lab/office, etc)**					
10.N **All other budget lines for TB (e.g., training, fuel, supplies, recording and reporting)**					
10.O **TOTAL**					

Please contact the following people for assistance if required: Pilar Ramon-Pardo, ramonpp@paho.org (for AMR); Katherine Floyd, floydk@who.int (for EUR, SEAR, WPR); Andrea Pantoja, pantojaa@who.int (for AFR, EMR).

Remarks

Thank you for completing the WHO annual data collection form. Please return it to your local/regional WHO office.

To access the WHO global TB database, see www.who.int/tb/country

Appendix VII
Canada – Case and treatment outcome reporting forms

Active Tuberculosis Report Form – New and Relapsed Cases

Serial No. _____

For Internal Use Only
Date received at TBPC — Year / Month / Day
TBPC Number

CONFIDENTIAL WHEN COMPLETED

Date Form Completed — Year / Month / Day

Province/Territory/Patient ID

1. Reporting province/territory
2. Register case number
3. Unique Identifier *(if name not provided)*
4. Date of birth — Year / Month / Day
5. Sex — 1 M 2 F

Patient Initials and Usual Residence

6. First Middle Last
7. City/Town/Village — County and Health Unit — Postal Code — Geo Codes (PR CD / PR HU/SC)

Origin

8.
1 Status Indian (registered) → Lives on reserve most of the time: 1 Yes; 2 No; 8 Not Applicable; 9 Unknown
2 Métis
3 Inuit
8 Other aboriginal *(specify)* _____
5 Canadian Born non-Aboriginal → If under age 20: country of birth of mother _____; country of birth of father _____
6 Foreign-Born: (a) Country of Birth; (b) Year of Arrival in Canada _____; (c) Immigration status: (current status) 1 Landed immigrant or Canadian citizen; 2 Refugee claimant; 3 Non-resident (migrant worker, visitor, student, illegal alien); 8 Other (specify) _____; 9 Unknown

Diagnosis

9. Date of diagnosis — Year / Month / Day

10. Diagnosis
ICD - 9 ____.____ ____.____ ____.____ ____.____ ____.____
ICD - 10 ____.____ ____.____ ____.____ ____.____ ____.____

Bacillary Status

11. Check all that apply:

	Microscopy							Culture						
	Sputum	Bronchial Wash	GI Wash	Node biopsy	Urine	CSF	Other	Sputum	Bronchial Wash	GI Wash	Node biopsy	Urine	CSF	Other
Negative														
Positive														
Not Done/ Unknown														

12. Case Criteria
1 Positive culture
2 No positive culture, clinical diagnosis

13. Antibiotic resistance to initial positive culture
1 Yes → 1 INH 2 SM 3 EMB 4 RMP 5 PZA
2 No
8 Other *(specify)* _____
9 Unknown

14. Date Treatment Started — Year / Month / Day

15. Initial Drugs Prescribed *(check all boxes that apply)*
1 INH
2 SM
3 EMB
4 RMP
5 PZA
7 No drugs prescribed
8 Other *(specify)* _____
9 Unknown

16. Case Finding
1 Symptoms compatible with site of disease
2 Incidental findings
3 Post-mortem
4 Contact investigation
5 Post-landing surveillance
6 Pre-landing immigration evaluation (in Canada)
7 Occupational screening program
8 Other screening
9 Other *(specify)* _____
10 Unknown

17. First episode of TB
1 Yes 2 No →
If no: (a) Year of previous diagnosis _____
(b) Previous diagnosis occurred in: 1 Canada 2 Other Country: ___
(c) Previous treatment with *(check all antibiotics used)*:
1 INH
2 SM
3 EMB
4 RMP
5 PZA
8 Other *(specify)* _____

18. Patient died before completion of therapy
1 Yes
1 TB was the cause of death
2 TB contributed to death but was not the underlying cause
3 TB did not contribute to death
Date of death — Year / Month / Day
2 No 3 Not applicable 9 Unknown

19. HIV status
1 Positive 2 Negative 9 Unknown

HC/SC 4368E (01-2002) DISPONIBLE EN FRANÇAIS

Health Canada / Santé Canada

CONFIDENTIAL WHEN COMPLETED

Serial No. _____

Treatment Outcome of a New Active or Relapsed Tuberculosis Case

See reverse for Guidelines for Completing the Treatment Outcome form.

For Internal Use Only
Date received at TBPC: Year / Month / Day — TBPC Number

Tuberculosis Prevention and Control (TBPC)
Centre for Infectious Disease Prevention and Control
Population and Public Health Branch
Room 0108B, Brooke Claxton Building
Internal Address Locator: 0900B1
Tunney's Pasture, Ottawa, ON K1A 0L2

Date Form Completed Year / Month / Day

1. Reporting province / territory:

2. Register case number:

3. Unique Identifier: (if name not provided) _____

4. Date of birth: Year / Month / Day

5. Sex: 1 M 2 F

6. Patient Initials First / Middle / Last

7. Date of diagnosis: Year / Month / Day

8. Date initial treatment started: Year / Month / Day

9. Initial drugs prescribed (list all that apply):
1 INH 2 SM 3 EMB 4 RMP 5 PZA 7 No drugs prescribed 8 Other *(specify)* _____ 9 Unknown

10. If transfer from original reporting province/territory, please state treating province:

11. Register case number: (if different from 2 above)

12. Unique identifier: (if different from 3 above) _____

13. Date treatment started: Year / Month / Day

14. Last day of this treatment: Year / Month / Day

15. Did resistance develop during treatment?
1 Yes 2 No

If yes, please check drug(s) *(check all that apply):*
1 INH 2 SM 3 EMB 4 RMP 5 PZA 8 Other *(specify)* _____ 9 Unknown

16. What was the treatment outcome? ***(Check one only).***
1 Cure - negative culture at completion of treatment.
2 Treatment completed - without culture at end of treatment.
3 Death during treatment → 1 TB was the cause of death; 2 TB contributed to death but was not the underlying cause; 3 TB did not contribute to death
Date of Death: Year / Month / Day
4 Transferred to new jurisdiction - outcome of treatment unknown *(specify new jurisdiction)* _____
5 Failure - culture positive at 5 months or more.
6 Absconded (lost to follow-up before completion of 80% of doses, 8 months after treatment started).
7 Treatment Ongoing
8 Other *(specify)* _____ 9 Unknown

17. Treatment regimen ***(for drugs taken > 1 month) (check all that apply)***:
1 INH 2 SM 3 EMB 4 RMP 5 PZA
Duration (months)
8 Other *(specify)* _____ Duration (months)
8 Other *(specify)* _____
9 Unknown

18. Major mode of treatment:
1 DOT (daily or intermittent)
2 Daily, self-administered
8 Other (specify) _____
9 Unknown

19. Compliance estimate ***(% of medication received):***
1 80%+ 3 50-79% 4 <50% 9 Unknown

20. Last sputum smear (respiratory cases only):
1 Positive 2 Negative 3 Not done 9 Unknown
Date of last smear: Year / Month / Day

21. Last sputum culture (respiratory cases only):
1 Positive 2 Negative 3 Not done 9 Unknown
Date of last culture: Year / Month / Day

22. Most recent chest x-ray results (respiratory cases only):
1 Better than initial x-rays 2 Worse than initial x-rays 3 Stable 4 Not done 9 Unknown

23. Date of most recent x-ray: Year / Month / Day

HC/SC 9012E (01-2002) **Copy 1 (white) - TBPC (mailing address at top of form) Copy 2 (yellow) - Provincial / Territorial TB Registry**

DISPONIBLE EN FRANÇAIS

Appendix VIII
The Canadian Tuberculosis Committee
2008

PROVINCIAL/TERRITORIAL TB CONTROL PROGRAM REPRESENTATIVES

Alberta (Chair)
Dr. Richard Long

British Columbia
Dr. Kevin Elwood

Manitoba
Dr. Margaret Fast

New Brunswick
Ms. Eileen McQuade

Newfoundland and Labrador
Ms. Cathy O'Keefe

Nova Scotia
Dr. Assaad Al-Azem

Northwest Territories
Ms. Cheryl Case

Nunavut
Ms. Elaine Randell

Ontario
Dr. George Samuel

Prince Edward Island
Dr. Heather Morrison

Québec
Dr. Paul Rivest

Saskatchewan
Ms. Diane McDougall

Yukon
Ms. Cathy Stannard

ASSOCIATION OF MEDICAL MICROBIOLOGY AND INFECTIOUS DISEASE CANADA
Dr. Wendy Wobeser

CANADIAN LUNG ASSOCIATION REPRESENTATIVE
Ms. Debbie Smith

CANADIAN THORACIC SOCIETY
Dr. Heather Ward

CANADIAN PUBLIC HEALTH LABORATORY NETWORK
Dr. Fran Jamieson

CITIZENSHIP AND IMMIGRATION CANADA
Dr. Lise Scott

CORRECTIONAL SERVICE CANADA
Ms. Teresa Garrahan

FIRST NATIONS AND INUIT HEALTH BRANCH, HEALTH CANADA
Dr. Lilian Yuan

NATIONAL REFERENCE CENTRE FOR MYCOBACTERIOLOGY, NATIONAL MICROBIOLOGY LABORATORY, PUBLIC HEALTH AGENCY OF CANADA
Ms. Joyce Wolfe

TUBERCULOSIS PREVENTION AND CONTROL, PUBLIC HEALTH AGENCY OF CANADA
Dr. Edward Ellis