



Public Health  
Agency of Canada

Agence de santé  
publique du Canada

# TUBERCULOSIS IN CANADA

---



# 2004

PRE-RELEASE

## **MISSION:**

---

To promote and protect the health of Canadians through leadership, partnership, innovation and action in public health.

## **HOW TO REACH US**

---

For more information, copies of this report or other related reports, please contact:

**Tuberculosis Prevention and Control  
Community Acquired Infections Division  
Centre for Infectious Disease Prevention and Control  
Public Health Agency of Canada  
100 Eglantine Driveway, Health Canada Building  
A.L. 0603B, Tunney's Pasture  
Ottawa, ON K1A 0K9**

**Telephone: (613) 941-0238  
Facsimile: (613) 946-3902**

This report can also be accessed on the internet at:

**<http://www.publichealth.gc.ca/tuberculosis>**

This report was prepared by:

**Edward Ellis, MD, MPH, FRCPC  
Manager  
Tuberculosis Prevention and Control**

**Victor Gallant, MA  
Tuberculosis Database Manager  
Tuberculosis Prevention and Control**

**Derek Scholten, MSc  
A/Senior Epidemiologist  
Tuberculosis Prevention and Control**

**Mindy Miron  
Surveillance Officer  
Tuberculosis Prevention and Control**

© Her Majesty the Queen in Right of Canada, (2006)

Cat. HP37-5/2004-1E-PDF  
ISBN 0-662-42978-8

This publication can be made available in alternative formats upon request.

**TUBERCULOSIS**

---

**IN CANADA**

**2004**

---

**PRE-RELEASE**

# ACKNOWLEDGEMENTS

---

The authors acknowledge the members of the Canadian Tuberculosis Committee and the Provincial and Territorial Tuberculosis Programs for their contribution and participation in the Canadian Tuberculosis Reporting System:

Alberta Health and Wellness  
Disease Control and Prevention Branch

Division of Tuberculosis Control  
British Columbia Centre for Disease Control

Manitoba Tuberculosis Control Program

Department of Health and Wellness  
New Brunswick

Department of Health and Community Services  
Newfoundland and Labrador

Department of Health and Social Service  
Government of Northwest Territories

Office of the Chief Medical Officer of Health  
Nova Scotia Department of Health

Department of Health & Social Services  
Government of Nunavut

Vaccine Preventable Diseases and TB Control Unit  
Ontario Ministry of Health and Long-Term Care

Department of Health and Social Services  
Prince Edward Island

Direction de la Protection de la Santé Publique  
Ministère de la Santé et des Services Sociaux, Quebec

Tuberculosis Control Program  
Saskatchewan Health

Department of Health and Social Services  
Yukon

Association of Medical Microbiology and Infectious  
Disease Canada

Canadian Lung Association

Canadian Public Health Laboratory Network

Citizenship and Immigration Canada

Correctional Service Canada

First Nations and Inuit Health Branch  
Health Canada

National Microbiology Laboratory  
Public Health Agency of Canada

Tuberculosis Prevention and Control  
Public Health Agency of Canada

## INTRODUCTION

---

To facilitate an earlier release of Canadian tuberculosis (TB) data, the following tables have been extracted from the Canadian Tuberculosis Reporting System (CTBRS) for the year 2004. Data included in this pre-release report should be considered provisional until publication of the full report *Tuberculosis in Canada 2004*.

## HIGHLIGHTS

---

In 2004, 1,574 cases (4.9 per 100,000 population) of new active and relapsed TB were reported to the CTBRS. The highest rate of 107.8 per 100,000 population was reported in Nunavut . Prince Edward Island reported the lowest rate at 0.7 per 100,000 population. The three most populous provinces (British Columbia, Ontario and Quebec), which collectively make up 75% of Canada's population, accounted for 75% of the total number of reported cases, (Table 1).

Individuals between the ages for 25 and 34 years made up the largest number of reported cases, accounting for 20% of the total, (Table 2). In 2004, TB among foreign-born individuals accounted for 68% of all reported cases in Canada. Canadian-born non-Aboriginal and Canadian-born Aboriginal cases made up 13% and 17%, respectively, (Table 3).

Pulmonary TB, defined as tuberculosis of the lungs and conducting airways was the most frequently reported main diagnostic site, representing 59% of all reported cases in 2004, (Table 4), and 59% of foreign born cases, (Table 5). TB of the peripheral lymph nodes accounted for 14% of all cases and was the second most commonly reported diagnostic site.

**Table 1**

**Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 – Canada and provinces/territories: 1994-2004**

Year of diagnosis		CANADA	Province/territory												
			Nfld. Lab.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Nun.
1994	Cases	2,074	14	0	12	16	361	831	116	147	178	324	10	65	0
	Rate	7.1	-	-	-	-	5.0	7.6	10.3	14.5	6.6	8.8	-	-	-
1995	Cases	1,931	11	1	13	9	380	766	108	155	126	308	2	52	0
	Rate	6.5	-	-	-	-	5.2	6.9	9.5	15.3	4.6	8.2	-	-	-
1996	Cases	1,868	24	3	15	15	332	771	97	113	140	316	6	36	0
	Rate	6.3	-	-	-	-	4.6	6.9	8.6	11.1	5.0	8.1	-	-	-
1997	Cases	1,976	15	5	7	7	360	761	96	121	166	405	2	31	0
	Rate	6.6	-	-	-	-	4.9	6.8	8.4	11.8	5.8	10.2	-	-	-
1998	Cases	1,791	8	2	18	9	289	724	116	98	158	329	2	38	0
	Rate	5.9	-	-	-	-	3.9	6.3	10.1	9.5	5.4	8.2	-	-	-
1999	Cases	1,806	12	2	15	15	314	684	132	116	149	328	1	23	15
	Rate	5.9	-	-	-	-	4.3	5.9	11.5	11.3	5.0	8.1	-	-	-
2000	Cases	1,694	10	2	3	10	318	670	98	104	133	285	3	10	48
	Rate	5.5	-	-	-	-	4.3	5.7	8.5	10.1	4.4	7.0	-	-	-
2001	Cases	1,703	19	3	8	10	259	632	115	114	116	379	0	8	40
	Rate	5.5	-	-	-	-	3.5	5.3	10.0	11.2	3.8	9.3	-	-	-
2002	Cases	1,640	9	1	9	11	282	692	98	89	128	290	0	4	27
	Rate	5.2	1.7	0.7	1.0	1.5	3.8	5.8	8.5	8.8	4.1	7.0	-	9.8	93.4
2003	Cases	1,628	6	3	6	12	255	693	127	91	110	305	1	12	7
	Rate	5.1	1.2	2.2	0.6	1.6	3.4	5.7	10.9	9.2	3.5	7.3	3.3	28.4	24.0
2004	Cases*	1,574	7	1	8	10	218	662	144	70	109	299	4	10	32
	Rate	4.9	1.4	0.7	0.9	1.3	2.9	5.3	12.3	7.0	3.4	7.1	13.0	23.3	107.8

\* Cases and rates for 2003 are provisional until publication of the *Tuberculosis in Canada – 2004* Annual Report.

**Table 2**

**Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by age group – Canada: 1994-2004**

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 unk.
1994	Cases	<b>2,074</b>	20	72	98	274	411	261	224	212	271	231	0
	Rate	<b>7.1</b>	5.2	4.5	2.5	6.8	8.2	5.4	6.4	8.5	13.2	16.4	-
1995	Cases	<b>1,931</b>	27	64	85	229	325	314	201	209	251	225	1
	Rate	<b>6.5</b>	7.1	4.0	2.1	5.7	6.6	6.4	5.5	8.3	12.0	15.3	-
1996	Cases	<b>1,868</b>	11	68	63	214	356	304	191	193	250	218	0
	Rate	<b>6.3</b>	2.9	4.3	1.6	5.3	7.5	6.1	5.0	7.6	12.0	14.6	-
1997	Cases	<b>1,976</b>	9	50	58	214	385	292	216	227	246	279	0
	Rate	<b>6.6</b>	2.5	3.2	1.4	5.3	8.2	5.7	5.5	8.8	11.7	18.0	-
1998	Cases	<b>1,791</b>	19	61	71	186	307	302	180	171	235	259	0
	Rate	<b>5.9</b>	3.6	4.0	1.7	4.5	6.7	5.8	4.4	6.4	11.0	16.1	-
1999	Cases	<b>1,806</b>	27	59	63	200	329	260	187	181	236	264	0
	Rate	<b>5.9</b>	7.9	4.0	1.5	4.8	7.4	4.9	4.4	6.6	11.1	15.9	-
2000	Cases	<b>1,694</b>	10	56	42	206	308	277	203	150	199	243	0
	Rate	<b>5.5</b>	2.9	3.5	1.0	5.0	7.0	5.2	4.7	5.3	9.3	14.2	-
2001	Cases	<b>1,703</b>	7	34	70	164	315	274	202	175	213	249	0
	Rate	<b>5.5</b>	2.1	2.4	1.7	3.9	7.2	5.2	4.5	6.0	9.9	14.1	-
2002	Cases	<b>1,640</b>	7	44	42	203	307	263	197	161	201	215	0
	Rate	<b>5.2</b>	2.2	3.2	1.0	4.9	6.9	5.0	4.3	5.2	9.3	11.8	-
2003	Cases	<b>1,628</b>	6	34	41	195	333	278	204	156	177	204	0
	Rate	<b>5.1</b>	1.8	2.5	1.0	4.5	7.6	5.3	4.3	4.8	8.1	10.9	-
2004	Cases*	<b>1,574</b>	6	33	45	195	311	267	196	165	167	188	1
	Rate	<b>4.9</b>	1.8	2.4	1.1	4.5	7.1	5.2	4.1	4.9	7.5	9.8	-

\* Cases and rates for 2004 are provisional until publication of the *Tuberculosis in Canada – 2004* Annual Report.

**Table 3****Reported new active and relapsed tuberculosis cases by origin – Canada and provinces/territories: 2004**

Birthplace		CANADA	Province/territory											
			Nfld. Lab.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	North*	
Canadian-born	Aboriginal													
	North American Indian	220	0	0	0	0	3	18	87	60	10	28	14	
	Status Indian	200	0	0	0	0	0	16	87	45	10	28	14	
	Non-Status	20	0	0	0	0	3	2	0	15	0	0	0	
	Métis	6	0	0	0	0	0	0	4	0	2	0	0	
	Inuit	41	0	0	0	0	10	0	0	0	0	0	31	
	<b>Total Aboriginal</b>	<b>267</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>18</b>	<b>91</b>	<b>60</b>	<b>12</b>	<b>28</b>	<b>45</b>	
	Non-Aboriginal	197	6	1	4	7	65	44	19	2	9	39	1	
<b>Total Canadian-born</b>	<b>464</b>	<b>6</b>	<b>1</b>	<b>4</b>	<b>7</b>	<b>78</b>	<b>62</b>	<b>110</b>	<b>62</b>	<b>21</b>	<b>67</b>	<b>46</b>		
Foreign-born (WHO regions)	Africa, high HIV prevalence	87	0	0	1	2	12	46	9	0	10	7	0	
	Africa, low HIV prevalence	20	0	0	0	1	10	3	2	0	2	2	0	
	American region – Latin American and Caribbean countries	66	0	0	0	0	30	27	1	2	3	3	0	
	Established market economies and Central Europe	69	0	0	1	0	7	43	0	0	5	13	0	
	Eastern Europe	25	0	0	0	0	7	10	0	0	5	3	0	
	Eastern Mediterranean	114	0	0	0	0	17	78	0	4	9	6	0	
	South-East Asia	247	0	0	1	0	19	153	5	1	10	58	0	
	Western Pacific region	434	1	0	1	0	28	213	16	1	43	131	0	
	Unknown	13	0	0	0	0	2	7	1	0	1	2	0	
<b>Total Foreign-born</b>	<b>1,075</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>3</b>	<b>132</b>	<b>580</b>	<b>34</b>	<b>8</b>	<b>88</b>	<b>225</b>	<b>0</b>		
Unknown birthplace	35	0	0	0	0	8	20	0	0	0	7	0		
<b>TOTAL **</b>	<b>1,574</b>	<b>7</b>	<b>1</b>	<b>8</b>	<b>10</b>	<b>218</b>	<b>662</b>	<b>144</b>	<b>70</b>	<b>109</b>	<b>299</b>	<b>46</b>		

NOTE: Provincial/territorial data are suppressed and reported in aggregate if the provincial/territorial population for the group in question is less than 40.

\* The origin for cases in the three territories (Yukon, Northwest Territories and Nunavut) has been aggregated to "North" to respect patient confidentiality. For a more detailed breakdown contact the respective territorial TB program.

\*\* Cases for 2004 are provisional until publication of the *Tuberculosis in Canada – 2004* Annual Report.



**Table 4**

**Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by main diagnostic site - Canada: 1994-2004**

Main diagnostic site			Year of diagnosis										
			1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Respiratory	Primary*	Cases	152	163	120	131	130	155	101	114	86	79	90
		Rate	0.5	0.5	0.4	0.4	0.4	0.5	0.3	0.4	0.3	0.2	0.3
	Pulmonary**	Cases	1,202	1,147	1,058	1,137	1,055	1,093	1,058	1,072	996	960	925
		Rate	4.1	3.9	3.5	3.8	3.5	3.6	3.4	3.4	3.2	3.0	2.9
	Other Respiratory^	Cases	131	102	107	105	98	83	86	76	78	64	65
		Rate	0.4	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Nonrespiratory	Miliary	Cases	56	43	47	61	37	33	30	18	30	20	20
		Rate	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	CNS	Cases	18	22	19	25	24	15	15	14	17	25	17
		Rate	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1
	Lymph	Cases	302	249	242	266	271	239	254	222	231	249	228
		Rate	1.0	0.8	0.8	0.9	0.9	0.8	0.8	0.7	0.7	0.8	0.7
	Other^^	Cases	206	199	262	248	166	180	148	186	201	194	179
		Rate	0.7	0.7	0.9	0.8	0.5	0.6	0.5	0.6	0.6	0.6	0.6
Unknown	Cases	7	6	13	3	10	8	2	1	1	37	50	
	Rate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	
TOTAL^^^		Cases	2,074	1,931	1,868	1,976	1,791	1,806	1,694	1,703	1,640	1,628	1,574
		Rate	7.1	6.5	6.3	6.6	5.9	5.9	5.5	5.5	5.2	5.1	4.9

\* Primary includes primary respiratory tuberculosis and tuberculous plerisy 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, A16.4, A16.8).

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

^^^ Cases and rates for 2004 are provisional until publication of the *Tuberculosis in Canada - 2004* Annual Report.

**Table 5****Reported new active and relapsed tuberculosis cases by birthplace and main diagnostic site – Canada: 2004**

Birthplace		TOTAL	Main diagnostic site							Unknown
			Respiratory			Nonrespiratory				
			Primary*	Pulmonary**	Other Respiratory^	Miliary	CNS	Lymph	Other^^	
Canadian-born	Aboriginal									
	North American Indian	220	40	122	20	6	2	16	13	1
	Status Indian	200	37	110	19	6	2	16	9	1
	Non-Status	20	3	12	1	0	0	0	4	0
	Métis	6	0	4	1	0	0	1	0	0
	Inuit	41	12	16	0	1	1	0	11	0
	<b>Total Aboriginal</b>	<b>267</b>	<b>52</b>	<b>142</b>	<b>21</b>	<b>7</b>	<b>3</b>	<b>17</b>	<b>24</b>	<b>1</b>
	Non-Aboriginal	197	10	129	15	2		9	29	3
<b>Total Canadian-born</b>	<b>464</b>	<b>62</b>	<b>271</b>	<b>36</b>	<b>9</b>	<b>3</b>	<b>26</b>	<b>53</b>	<b>4</b>	
Foreign-born (WHO regions)	Africa, high HIV prevalence	87	7	50	1	1	0	12	11	5
	Africa, low HIV prevalence	20	0	10	2	1	0	4	3	0
	American region – Latin American and Caribbean countries	66	1	37	1	2	2	9	13	1
	Established market economies and Central Europe	69	4	47	1	2	3	4	7	1
	Eastern Europe	25	0	19	1	1	1	2	0	1
	Eastern Mediterranean	114	2	61	2	0	0	23	20	6
	South-East Asia	247	6	140	10	2	6	44	29	10
	Western Pacific region	434	7	265	10	2	2	89	38	21
	Unknown	13	1	10	0	0	0	2	0	0
	<b>Total Foreign-born</b>	<b>1,075</b>	<b>28</b>	<b>639</b>	<b>28</b>	<b>11</b>	<b>14</b>	<b>189</b>	<b>121</b>	<b>45</b>
Unknown birthplace	35	0	15	1	0	0	13	5	1	
<b>TOTAL^^^</b>	<b>1,574</b>	<b>90</b>	<b>925</b>	<b>65</b>	<b>20</b>	<b>17</b>	<b>228</b>	<b>179</b>	<b>50</b>	

\* 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 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, A16.4, A16.8).

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

^^^ Cases for 2004 are provisional until publication of the *Tuberculosis in Canada – 2004 Annual Report*.