



Public Health
Agency of Canada

Agence de santé
publique du Canada

TUBERCULOSIS IN CANADA



2003

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
Centre for Infectious Disease Prevention and Control
Public Health Agency of Canada
Tunney's Pasture, Ottawa, Ontario K1A 0K9**

Internal Postal Address: 0603B

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. HP37-5/2003-1E-PDF
ISBN 0-662-42978-8

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

TUBERCULOSIS

IN CANADA

2003

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 Services of 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 2003. Data included in this pre-release report should be considered provisional until publication of the full report *Tuberculosis in Canada 2003*.

HIGHLIGHTS

In 2003, 1,628 cases (5.1 per 100,000 population) of new active and relapsed TB were reported to the CTBRS. The highest rate of 19.6 per 100,000 population was reported in the North (Yukon Territory, Northwest Territories and Nunavut). The Atlantic region (Newfoundland and Labrador, Prince Edward Island, Nova Scotia and New Brunswick) had the lowest TB incidence with an average of 1.2 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 77% of the total number of reported cases, (Table 1).

Individuals between the ages of 25 and 34 years made up the largest number of reported cases, accounting for 20% of the total, (Table 2). In 2003, 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 14% and 15%, respectively. Birthplace was unknown for 3% of cases, (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 2003, (Table 4), and 58% of all foreign born cases, (Table 5). TB of the peripheral lymph nodes accounted for 15% of the 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: 1993-2003

Year of diagnosis		CANADA	Province/territory														
			Atlantic**				Que.	Ont.	Man.	Sask.	Alta.	B.C.	North***				
			Nfld. Lab.	P.E.I.	N.S.	N.B.							Yukon	N.W.T.	Nun.		
1993	Cases	2,012	99	-	-	-	-	352	769	108	153	156	337	38	-	-	-
	Rate	7.0	4.1	-	-	-	-	4.9	7.1	9.6	15.1	5.8	9.4	40.4	-	-	-
1994	Cases	2,074	42	-	-	-	-	361	831	116	147	178	324	75	-	-	-
	Rate	7.1	1.7	-	-	-	-	5.0	7.6	10.3	14.5	6.6	8.8	79.4	-	-	-
1995	Cases	1,931	34	-	-	-	-	380	766	108	155	126	308	54	-	-	-
	Rate	6.5	1.4	-	-	-	-	5.2	6.9	9.5	15.3	4.6	8.2	56.2	-	-	-
1996	Cases	1,868	57	-	-	-	-	332	771	97	113	140	316	42	-	-	-
	Rate	6.3	2.4	-	-	-	-	4.6	6.9	8.6	11.1	5.0	8.1	42.2	-	-	-
1997	Cases	1,976	34	-	-	-	-	360	761	96	121	166	405	33	-	-	-
	Rate	6.6	1.4	-	-	-	-	4.9	6.8	8.4	11.8	5.8	10.2	33.0	-	-	-
1998	Cases	1,791	37	-	-	-	-	289	724	116	98	158	329	40	-	-	-
	Rate	5.9	1.6	-	-	-	-	3.9	6.3	10.1	9.5	5.4	8.2	39.9	-	-	-
1999	Cases	1,806	44	-	-	-	-	314	684	132	116	149	328	39	-	-	-
	Rate	5.9	1.9	-	-	-	-	4.3	5.9	11.5	11.3	5.0	8.1	39.2	-	-	-
2000	Cases	1,694	25	-	-	-	-	318	670	98	104	133	285	61	-	-	-
	Rate	5.5	1	-	-	-	-	4.3	5.7	8.5	10.1	4.4	7.0	61.1	-	-	-
2001	Cases	1,703	40	-	-	-	-	259	634	115	114	116	379	46	-	-	-
	Rate	5.5	1.7	-	-	-	-	3.5	5.3	10.0	11.2	3.8	9.3	46.5	-	-	-
2002	Cases	1,640	30	9	1	9	11	282	692	98	89	128	290	31	0	4	27
	Rate	5.2	1.3	1.7	0.7	1.0	1.5	3.8	5.8	8.5	8.8	4.1	7.0	31.4	-	9.8	93.4
2003	Cases*	1,628	27	6	3	6	12	255	693	127	91	110	305	20	1	12	7
	Rate	5.1	1.2	1.2	2.2	0.6	1.6	3.4	5.7	10.9	9.2	3.5	7.3	19.6	3.3	28.4	24.0

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

** Atlantic includes Newfoundland and Labrador, Prince Edward Island, Nova Scotia, and New Brunswick.

*** North includes Yukon, Northwest Territories and Nunavut.

Table 2

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by age group – Canada: 1993-2003

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.
1993	Cases	2,012	26	69	108	234	386	270	210	214	257	237	1
	Rate	7.0	6.6	4.3	2.7	5.8	7.6	5.7	6.2	8.7	12.7	17.3	-
1994	Cases	2,074	20	72	98	274	411	261	224	212	271	231	-
	Rate	7.1	5.2	4.5	2.5	6.8	8.2	5.4	6.4	8.5	13.2	16.4	-
1995	Cases	1,931	27	64	85	229	325	314	201	209	251	225	1
	Rate	6.5	7.1	4.0	2.1	5.7	6.6	6.4	5.5	8.3	12.0	15.3	-
1996	Cases	1,868	11	68	63	214	356	304	191	193	250	218	-
	Rate	6.3	2.9	4.3	1.6	5.3	7.5	6.1	5.0	7.6	12.0	14.6	-
1997	Cases	1,976	9	50	58	214	385	292	216	227	246	279	-
	Rate	6.6	2.5	3.2	1.4	5.3	8.2	5.7	5.5	8.8	11.7	18.0	-
1998	Cases	1,791	19	61	71	186	307	302	180	171	235	259	-
	Rate	5.9	3.6	4.0	1.7	4.5	6.7	5.8	4.4	6.4	11.0	16.1	-
1999	Cases	1,806	27	59	63	200	329	260	187	181	236	264	-
	Rate	5.9	7.9	4.0	1.5	4.8	7.4	4.9	4.4	6.6	11.1	15.9	-
2000	Cases	1,694	10	56	42	206	308	277	203	150	199	243	-
	Rate	5.5	2.9	3.5	1.0	5.0	7.0	5.2	4.7	5.3	9.3	14.2	-
2001	Cases	1,703	7	34	70	164	315	274	202	175	213	249	-
	Rate	5.5	2.1	2.4	1.7	3.9	7.2	5.2	4.5	6.0	9.9	14.1	-
2002	Cases	1,640	7	44	42	203	307	263	197	161	201	215	-
	Rate	5.2	2.2	3.2	1.0	4.9	6.9	5.0	4.3	5.2	9.3	11.8	-
2003	Cases*	1,628	4	36	41	193	334	279	204	156	176	205	-
	Rate	5.1	1.2	2.6	1.0	4.5	7.7	5.4	4.3	4.8	8.0	10.9	-

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

Table 3**Reported new active and relapsed tuberculosis cases by origin – Canada and provinces/territories: 2003**

Birthplace		CANADA	Province/territory														
			Atlantic*				Que.	Ont.	Man.	Sask.	Alta.	B.C.	North**				
			Nfld. Lab.	P.E.I.	N.S.	N.B.							Yukon	N.W.T.	Nun.		
Canadian-born	Aboriginal																
	Status Indian	205	0	0	0	0	0	8	88	57	16	24	12	1	11	0	
	Non-Status Indian/Métis	31	0	0	0	0	2	0	0	25	2	2	0	0	0	0	
	Inuit	11	1	1	0	0	0	2	0	0	1	0	7	0	1	6	
	Total Aboriginal	247	1	1	0	0	0	4	8	88	82	19	26	19	1	12	6
	Non-Aboriginal	225	16	3	1	4	8	77	54	18	5	18	37	0	0	0	0
	Total Canadian-born	472	17	4	1	4	8	81	62	106	87	37	63	19	1	12	6
Foreign-born (WHO regions)	Africa, high HIV prevalence	75	0	0	0	0	0	20	41	5	1	5	3	0	0	0	0
	Africa, low HIV prevalence	19	1	0	0	0	1	6	6	2	0	3	1	0	0	0	0
	American region – Latin American countries	69	1	0	1	0	0	35	24	3	1	1	4	0	0	0	0
	Established market economies and Central Europe	73	0	0	0	0	0	8	42	0	0	9	14	0	0	0	0
	Eastern Europe	25	0	0	0	0	0	2	20	1	0	2	0	0	0	0	0
	Eastern Mediterranean	108	3	1	1	1	0	17	67	2	0	10	8	1	0	0	1
	South-East Asia	240	1	0	0	1	0	16	154	1	2	10	56	0	0	0	0
	Western Pacific region	450	1	0	0	0	1	44	225	7	0	33	140	0	0	0	0
	Unknown	46	0	0	0	0	0	12	31	0	0	0	3	0	0	0	0
	Total Foreign-born	1,105	7	1	2	2	2	160	610	21	4	73	229	1	0	0	1
Unknown birthplace	51	3	1	0	0	2	14	21	0	0	0	13	0	0	0	0	
TOTAL	1,628	27	6	3	6	12	255	693	127	91	110	305	20	1	12	7	

* Atlantic includes Newfoundland and Labrador, Prince Edward Island, Nova Scotia, and New Brunswick.

** North includes Yukon, Northwest Territories and Nunavut.

Table 4

Reported new active and relapsed tuberculosis cases and incidence rate per 100,000 by main diagnostic site - Canada: 1993-2003

Main diagnostic site		Year of diagnosis										
		1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Primary*	Cases	189	152	163	120	131	130	155	101	114	86	79
	Rate	0.7	0.5	0.5	0.4	0.4	0.4	0.5	0.3	0.4	0.3	0.2
Pulmonary**	Cases	1,171	1,202	1,147	1,058	1,137	1,055	1,093	1,058	1,072	996	959
	Rate	4.1	4.1	3.9	3.5	3.8	3.5	3.6	3.4	3.4	3.2	3.0
Other Respiratory^	Cases	105	135	107	109	107	101	83	91	79	78	64
	Rate	0.4	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.2
Miliary	Cases	48	56	43	47	61	37	33	30	18	30	20
	Rate	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
CNS	Cases	19	18	22	19	25	24	15	15	14	17	25
	Rate	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1
Lymph	Cases	280	302	249	242	266	271	239	254	222	231	249
	Rate	1.0	1.0	0.8	0.8	0.9	0.9	0.8	0.8	0.7	0.7	0.8
Other ^^	Cases	203	206	199	262	248	166	180	148	186	201	195
	Rate	0.7	0.7	0.7	0.9	0.8	0.5	0.6	0.5	0.6	0.6	0.6
Unknown	Cases	3	7	6	13	3	10	8	2	1	1	37
	Rate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
TOTAL	Cases	2,013	2,074	1,931	1,868	1,976	1,791	1,806	1,695	1,703	1,640	1,628
	Rate	7.0	7.1	6.5	6.2	6.6	5.9	5.9	5.5	5.5	5.2	5.1

* 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 Tuberculosis 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: TB of intestines, peritoneum and mesenteric glands, bones and joints, genitourinary system, skin, eye, ear, thyroid, adrenal and spleen

Table 5**Reported new active and relapsed tuberculosis cases by birthplace and main diagnostic site – Canada: 2003**

Birthplace		TOTAL	Main diagnostic site							
			Primary*	Pulmonary**	Other Respiratory [^]	Miliary	CNS	Lymph	Other ^{^^}	Unknown
Canadian-born	Aboriginal									
	Status Indian	205	34	121	19	2	3	19	7	0
	Non-Status Indian/Métis	31	5	21	3	0	0	2	0	0
	Inuit	11	0	7	0	1	1	0	2	0
	Total Aboriginal	247	39	149	22	3	4	21	9	0
	Non-Aboriginal	225	12	156	8	6	3	12	28	0
	Total Canadian-born	472	51	305	30	9	7	33	37	0
Foreign-born (WHO regions)	Africa, high HIV prevalence	75	0	39	3	2	1	16	8	6
	Africa, low HIV prevalence	19	1	13	0	0	0	2	2	1
	American region – Latin American countries	69	2	41	5	1	0	6	14	0
	Established market economies and Central Europe	73	6	41	1	1	1	9	13	1
	Eastern Europe	25	1	17	1	0	0	2	2	2
	Eastern Mediterranean	108	1	55	2	1	4	22	21	2
	South-East Asia	240	5	138	3	2	4	54	26	8
	Western Pacific region	450	7	263	17	3	5	96	46	13
	Unknown	46	1	31	2	0	2	4	4	2
	Total Foreign-born	1,105	24	638	34	10	17	211	136	35
Unknown birthplace		51	4	16	0	1	1	5	22	2
TOTAL		1,628	79	959	64	20	25	249	195	37

* 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 Tuberculosis 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: TB of intestines, peritoneum and mesenteric glands, bones and joints, genitourinary system, skin, eye, ear, thyroid, adrenal and spleen