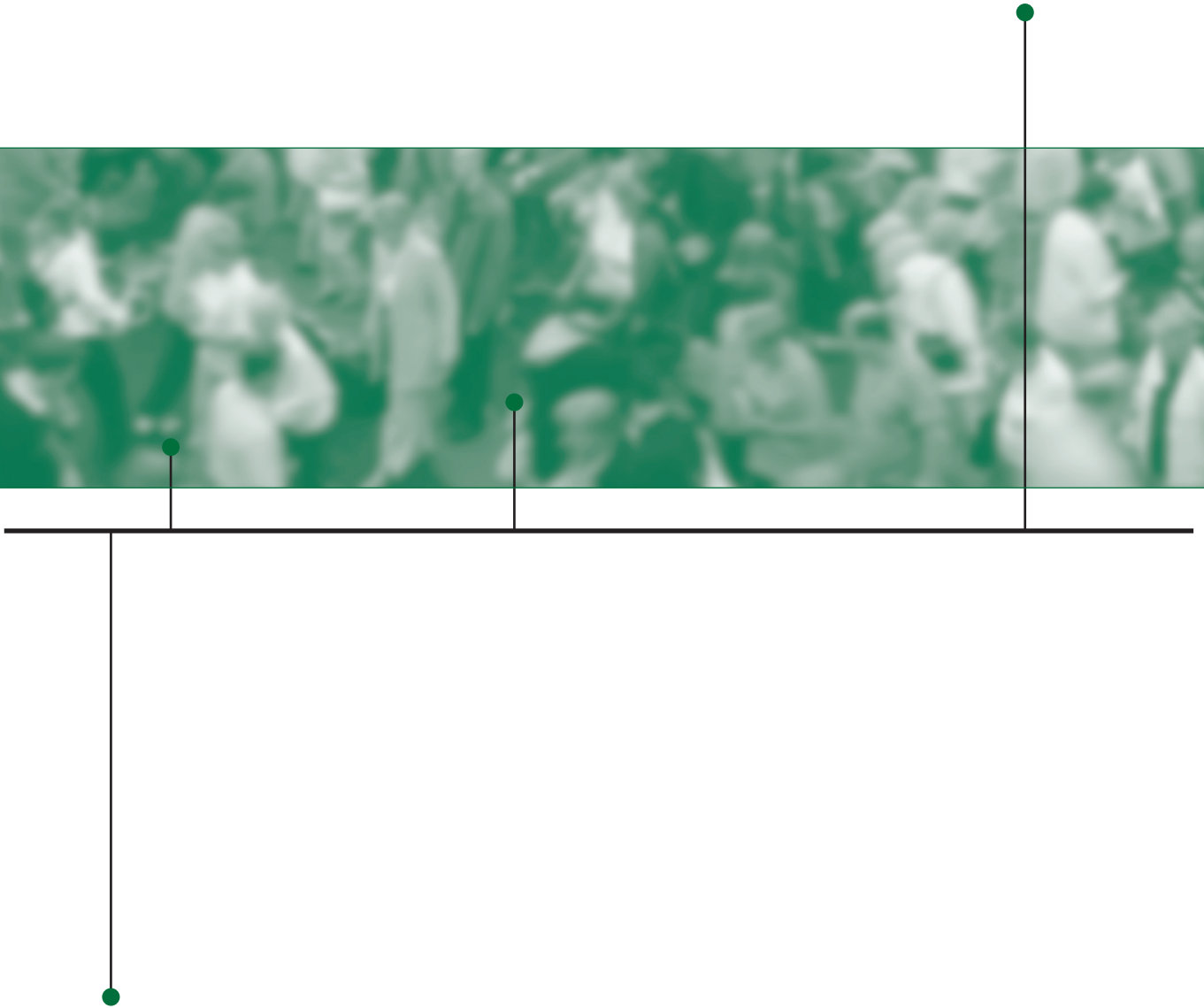
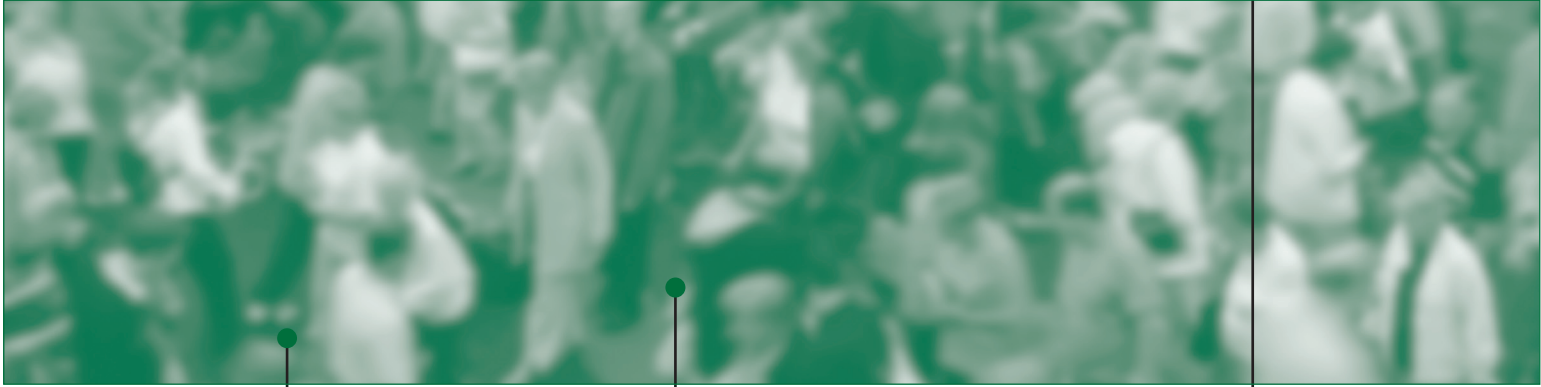


Death-related Statistics



Vital Statistics Information Box

DEATHS BY DECEDENT'S COUNTRY OF BIRTH

BRITISH COLUMBIA, 2006

Area	Province/Country	Births
Canada	Total	20,578
	British Columbia	8,015
	Saskatchewan	3,975
	Alberta	2,964
	Manitoba	2,128
	Ontario	2,043
	Quebec	654
	Nova Scotia	388
	New Brunswick	211
	Newfoundland	107
	Prince Edward Island	47
	Yukon	25
	Northwest Territories and Nunavut	17
	Unknown Province	4
North and Central America	Total	836
	United States	744
	Other North and Central American Countries	92
South America		44
Europe	Total	6,131
	England	1,941
	Other United Kingdom	889
	Poland	829
	Germany	600
	Netherlands	410
	Scandinavian Countries	363
	Italy	336
	Former Yugoslavia	191
	Ukraine	138
	Romania	61
	France	33
	Other Europe	840
Asia and the Middle East	Total	2,436
	China	923
	India	552
	Philippines	183
	Hong Kong	130
	Korea	76
	Vietnam	74
	Iran	59
	Pakistan	57
	Japan	42
	Taiwan	22
	Other Asian and Middle Eastern Countries	318
Africa	Total	194
Oceania	Total	155
	Fiji	92
	Australia	37
	Other Oceanic Countries	26
Unknown		139
Total		30,513

Death Introduction

In recognition of the importance of mortality statistics for health planning and research a comprehensive array of tables is presented in this part of the report. Causes of death and/or age at death form the base of most tables because they are crucial components of health status for regional, national, and international comparisons. While other causes may have contributed to the death, the Underlying Cause of Death (see Glossary) is widely accepted as the 'main' or 'important' reason for the death and was used for these tabulations. All causes are identified according to the World Health Organization's *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision* (ICD 10) which is a statistical coding system and the accepted international standard. The groups of codes used to define particular topics are noted in the tables.

Deaths – General Indicators

An overall view of the number of deaths by ICD-10 chapters by age group and gender is shown in Table 21. It provides a summary of the contribution of main cause groups to total deaths in British Columbia in 2006. More detailed information for the same age groups appears in Appendix 2, which provides counts at the "3-character level" for causes responsible for at least five deaths. Although the causes shown in Appendix 2 are fairly specific, most ICD-10 codes consist of four or five characters, and are therefore even more detailed than the "roll ups" shown in Appendix 2. Neoplasms and diseases of the circulatory system accounted for most of the deaths in 2006 for both genders. Deaths in those two cause categories are further analysed in the following sections.



Vital Statistics Information Box

PLACE OF DEATH FOR DEATHS FROM NATURAL CAUSES

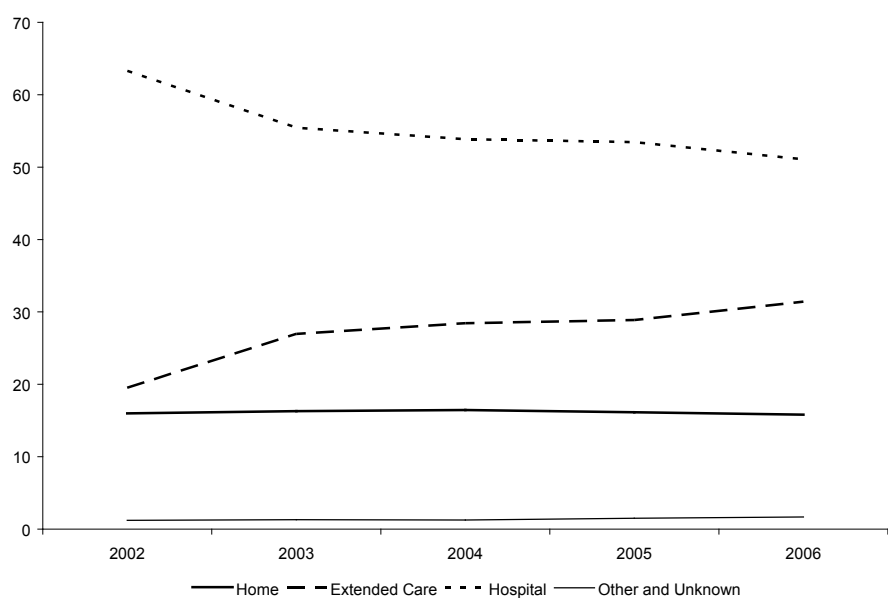
BRITISH COLUMBIA, 2002 - 2006

Deaths from natural causes in 2002 to 2006 were examined to determine the place of death. The majority of these deaths to British Columbia residents occurred in hospital (55.3% over the five year period). About one in six deaths from natural causes (16.1%) occurred at home and almost a quarter (27.1%) occurred in extended care facilities.

Place of Death	2002		2003		2004		2005		2006		2002-2006	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Home	4,268	16.0	4,440	16.3	4,578	16.5	4,548	16.1	4,580	15.8	22,414	16.1
Extended Care	5,213	19.5	7,343	27.0	7,913	28.4	8,138	28.9	9,094	31.4	37,701	27.1
Hospital	16,908	63.3	15,105	55.4	14,983	53.8	15,066	53.5	14,786	51.1	76,848	55.3
Other and Unknown	324	1.2	357	1.3	351	1.3	425	1.5	489	1.7	1,946	1.4
Total Deaths from Natural Causes	26,713	100.0	27,245	100.0	27,825	100.0	28,177	100.0	28,949	100.0	138,909	100.0

PERCENT OF DEATHS FROM NATURAL CAUSES BY PLACE OF DEATH

BRITISH COLUMBIA, 2002 - 2006



Vital Statistics Information Box

CANCER DEATHS IN BRITISH COLUMBIA, 1992 TO 2006

More British Columbians succumbed to Cancer or Malignant Neoplasms (ICD Codes C00-C97) than any other cause in 2006. The following charts illustrate the trends and changes in deaths caused by Cancer from 1992 to 2006. As illustrated, the proportion of deaths caused by specific types of Cancer has not changed substantially from 1992 to 2006. However, those dying of Cancer in 2006 are older than they were in 1992 and larger shares of them are female. The age standardized death rate has climbed, but the potential years of life lost per 10,000 standard population (PYLLSR) has fallen.

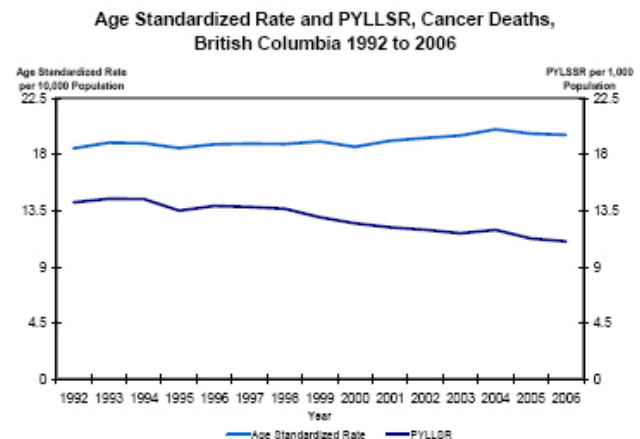
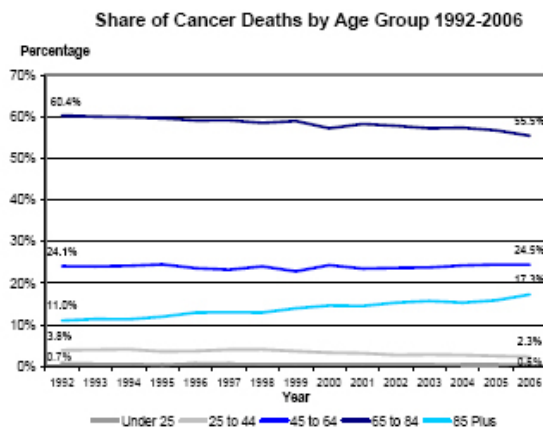
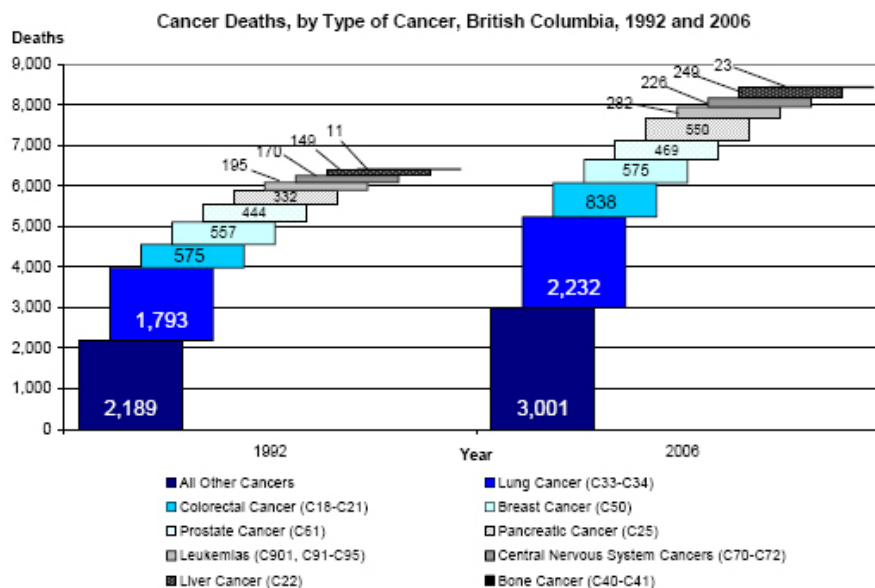


TABLE 21
CAUSES OF DEATH BY GENDER AND AGE
BRITISH COLUMBIA, 2006

ICD-10 Code(s)	Causes of Death	Gender	Age Group (in Years)										Total		
			<1	1-4	5-9	10-14	15-19	20-24	25-44	45-64	65-79	80+	Number	Percent	ASMR
A00-B99	Certain infectious and parasitic diseases	M	-	-	-	1	1	-	59	144	70	91	366	2.4	1.43
		F	1	-	-	-	2	1	30	62	65	133	294	2.0	0.91
		T	1	-	-	1	3	1	89	206	135	224	660	2.2	1.16
C00-D48	Neoplasms	M	-	3	3	5	7	9	92	1,096	1,858	1,406	4,479	28.8	17.57
		F	-	4	3	1	5	5	105	995	1,570	1,463	4,151	27.8	13.37
		T	-	7	6	6	12	14	197	2,091	3,428	2,869	8,630	28.3	15.17
D50-D89	Diseases of blood and blood-forming organs, certain immune mechanisms	M	2	1	-	-	1	-	1	4	8	23	40	0.3	0.16
		F	-	-	-	-	-	-	2	2	8	32	44	0.3	0.12
		T	2	1	-	-	1	-	3	6	16	55	84	0.3	0.14
E00-E90	Endocrine/nutritional/metabolic diseases	M	3	1	1	2	-	1	16	131	280	263	698	4.5	2.76
		F	1	-	2	1	3	2	5	62	159	327	562	3.8	1.61
		T	4	1	3	3	3	3	21	193	439	590	1,260	4.1	2.13
F00-F99	Mental and behavioural disorders	M	-	-	-	-	1	-	13	82	109	251	456	2.9	1.76
		F	-	-	-	-	-	-	6	26	69	539	640	4.3	1.50
		T	-	-	-	-	1	-	19	108	178	790	1,096	3.6	1.65
G00-G99	Diseases of the nervous system	M	1	1	1	1	2	3	15	75	187	255	541	3.5	2.12
		F	5	-	2	1	-	1	11	69	114	448	651	4.4	1.75
		T	6	1	3	2	2	4	26	144	301	703	1,192	3.9	1.93
H00-H59	Diseases of the eye and adnexa	M	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-
		T	-	-	-	-	-	-	-	-	-	-	-	-	-
H60-H95	Diseases of the ear and mastoid process	M	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-
		T	-	-	-	-	-	-	-	-	-	-	-	-	-
I00-I99	Diseases of the circulatory system	M	-	-	-	-	4	3	72	613	1,527	2,416	4,635	29.8	18.12
		F	-	-	1	-	2	3	40	202	894	3,712	4,854	32.5	12.17
		T	-	-	1	-	6	6	112	815	2,421	6,128	9,489	31.1	14.92
J00-J99	Diseases of the respiratory system	M	-	1	-	-	-	3	22	130	509	938	1,603	10.3	6.28
		F	1	2	-	-	1	-	13	76	368	1,203	1,664	11.1	4.34
		T	1	3	-	-	1	3	35	206	877	2,141	3,267	10.7	5.15
K00-K93	Diseases of the digestive system	M	1	-	-	1	1	1	24	159	209	205	601	3.9	2.34
		F	1	-	-	-	-	1	21	103	157	338	621	4.2	1.79
		T	2	-	-	1	1	2	45	262	366	543	1,222	4.0	2.06
L00-L99	Diseases of the skin and subcutaneous tissue	M	-	-	-	-	-	-	-	2	6	14	22	0.1	0.09
		F	-	-	-	-	-	-	-	2	8	24	34	0.2	0.09
		T	-	-	-	-	-	-	-	4	14	38	56	0.2	0.09
M00-M99	Diseases of the musculoskeletal system and connective tissue	M	-	1	-	-	-	-	4	11	21	28	65	0.4	0.26
		F	-	-	-	-	-	-	4	28	35	85	152	1.0	0.43
		T	-	1	-	-	-	-	8	39	56	113	217	0.7	0.36
N00-N99	Diseases of the genitourinary system	M	-	-	-	-	-	-	6	27	110	202	345	2.2	1.35
		F	-	-	-	-	-	-	7	22	70	288	387	2.6	0.99
		T	-	-	-	-	-	-	13	49	180	490	732	2.4	1.14
O00-O99	Complications of pregnancy, childbirth and the puerperium	M	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	2	-	-	-	2	0.0	+
		T	-	-	-	-	-	-	2	-	-	-	2	0.0	+
P00-P96	Certain conditions originating in the perinatal period	M	38	-	-	-	-	-	-	-	-	-	38	0.2	0.26
		F	33	1	-	-	1	-	2	-	-	-	37	0.2	0.26
		T	71	1	-	-	1	-	2	-	-	-	75	0.2	0.26
Q00-Q99	Congenital anomalies	M	23	-	-	1	1	1	5	17	4	3	55	0.4	0.29
		F	22	3	1	2	1	1	2	9	6	-	47	0.3	0.27
		T	45	3	1	3	2	2	7	26	10	3	102	0.3	0.28
R00-R99	Symptoms, signs and ill-defined conditions, unknown causes	M	19	5	2	5	20	35	139	193	81	38	537	3.5	2.32
		F	14	4	5	4	15	13	59	85	45	84	328	2.2	1.26
		T	33	9	7	9	35	48	198	278	126	122	865	2.8	1.79
V01-Y98	External causes	M	1	3	1	4	49	83	315	347	132	147	1,082	7.0	4.67
		F	-	-	1	2	15	17	81	109	72	180	477	3.2	1.64
		T	1	3	2	6	64	100	396	456	204	327	1,559	5.1	3.13
All causes		M	88	16	8	20	87	139	783	3,031	5,111	6,281	15,564	100.0	61.78
		F	78	14	15	11	45	44	390	1,852	3,642	8,858	14,949	100.0	42.53
PROVINCIAL TOTAL		T	166	30	23	31	132	183	1,173	4,883	8,753	15,139	30,513	100.0	51.37

Note: ASMR – Age Standardized Mortality Rate per 10,000 standard population (Canada 1991 Census). Total percentage may not add up to 100 due to rounding. + Denotes the number of cases is less than five. Non-residents are excluded. Total includes unknown gender. The output from ICD-10 mortality coding and underlying cause of death selection was modified in British Columbia to reflect the intent of certifiers in this jurisdiction and to provide greater continuity over time. Data using the standard ICD-10 rules for such categories as pneumonia/influenza, diabetes, or cancer should not be compared to the numbers shown above.

Leading Causes of Death

Important causes of death, that is, those that account for the greatest number of deaths, provide good measures of the health status of a population because they portray the relative risks for members of the population of dying from particular diseases which are considered to be “natural causes” or from unintentional injuries, homicides, or suicides which are considered to be “external causes”. Further, Age-Standardized Mortality Rates (ASMR) permit comparisons to other jurisdictions or time periods where the same standard population was used. See Age-Standardized Mortality Rate (ASMR) in the Glossary and an example of the computation method in the Methodology section.

Table 22 shows the twelve leading causes of death in British Columbia. The two leftmost columns list the cause and the corresponding codes in ICD-10. For 2001-2005 and the year 2006, the following four values are shown: number of deaths, the rank by number of deaths, the ASMR, and the rank by ASMR. The numbers demonstrate the absolute impact of each cause of death by showing how many individuals died from that cause in British Columbia during the time period. The rows of the table are in the order of the 2006 ASMR rank.

For 2006 the twelve leading causes of death shown in Table 22 were responsible for 85 percent of all deaths. The top three causes of death were the same for both time periods, not only in the rank by number of deaths, but also in the ASMR rank; they are (in non-clinical terms) cancer, heart disease, and stroke. For 2006, these three leading causes account for about 57 percent of all deaths.

Figure 35 shows visually the statistics in the Number column for 2006 in Table 22. It shows clearly the impact of cancer and heart disease on our population: causing nearly half of all deaths.

Table 23 shows the five leading causes of death in the seven different age groups. The leading cause of death among those under 1 year of age (infant mortality), were conditions originating in the perinatal period with a little over forty percent of the deaths being attributable to this cause. About half of all infant deaths occurred in the first seven days after birth and 7 out of 10 infant deaths occurred within the first 28 days after birth (see Table 27). Males accounted for slightly more than half of the deaths among those under 1 year of age. Infant mortality is more fully examined in the next section.

Among children 1 to 14 years old, malignant neoplasms were by far the most common major causes of deaths for males and females. Unintentional injuries claimed more male than female lives whereas congenital malformations and chromosome abnormalities claimed more female than male lives.

Unintentional injuries were a major cause of death, particularly for males, in both age groups from 15 to 44 years of age. Those causes include events such as motor vehicle accidents, falls, and unintentional poisonings, but examine the specific list by using ICD codes in Appendix 2. Unintentional injuries cause particular concern because they are usually preventable, the victims are young, and the death is often sudden. Premature deaths are further considered in the section on Potential Years of Life Lost. Counts of death due to unintentional injuries, suicide, and homicide in the current year tend to underestimate the actual figures due to known delays in determining causes of deaths. As a result it can be anticipated that these numbers will be revised in subsequent annual reports.

Between 15 and 24 years of age, suicides ranked second as the leading cause of death after unintentional injuries (see also Table 35). There were substantially fewer female deaths in this age group as shown in Table 23. However, in the age group between 25 and 44 malignant neoplasms (cancer) caused a substantially greater number of female deaths compared to males and the largest proportion of female deaths in this age group.

Cancers were the leading cause of death for those between 45 and 64 years and they claimed a somewhat larger number of males compared to females, although a greater proportion of female deaths in this age group were of cancer (see Table 23). The proportions were different because more males than females died with the remaining leading causes in this age group; cardiovascular disease, unintentional injuries, infectious and parasitic diseases and liver disease), claiming a substantially greater number of males.

Between 65 and 84 years of age one in three male and female deaths was due to malignant neoplasms (34.1 percent), followed by cardiovascular disease which claimed about one in five males and females (20.9 percent). For those 85 years and older, the relative importance of those two cause categories was reversed with cardiovascular disease claiming about one in three male and female deaths (30.4 percent).

A review of the leading causes in each age group in Table 23 will confirm the importance of cancer as a cause of death for British Columbians. It was ranked in the first three leading causes of death in each age group above 15 to 24 year olds and was in third place in that age group. It was the leading cause of death in British Columbia in 2001 to 2005, as well as in 2006 (see table 22 and Figure 35). Although cancer was the leading cause of death, it is noted that the age-standardized mortality rate for all cancers and for lung cancer has declined over the last two decades (see Figures 18 and 19).

TABLE 22
TWELVE LEADING CAUSES OF DEATH
BRITISH COLUMBIA, 2001–2005 AND 2006

Cause of Death	ICD-10 Code(s)	2001–2005				2006			
		Number	Rank	ASMR	Rank	Number	Rank	ASMR	Rank
Malignant neoplasms	C00-C97	40,660	1	15.68	1	8,445	1	14.86	1
Cardiovascular disease	I00-I51	34,290	2	12.14	2	6,692	2	10.54	2
Cerebrovascular diseases	I60-I69	11,238	3	3.90	3	2,216	3	3.43	3
Unintentional injuries	V01-X59, Y40-Y86, Y880-Y883	6,648	4	2.87	4	1,136	6	2.24	4
Chronic Pulmonary Disease	J40-J44	6,187	6	2.24	5	1,268	5	2.10	5
Pneumonia/Influenza	J10-J181, J188, J189	6,324	5	2.14	6	1,394	4	2.08	6
Death cause unknown/under investigation	R96-R99	705	12	0.32	12	785	10	1.66	7
Diabetes mellitus	E10-E14	4,646	7	1.73	7	975	7	1.64	8
Other diseases of digestive system	K00-K67, K80-K93	3,851	8	1.37	8	817	9	1.31	9
Vascular/senile dementia	F01, F03	2,812	10	0.92	11	840	8	1.20	10
Certain infectious and parasitic diseases	A00-B99	2,572	11	0.99	9	660	12	1.16	11
Urinary system diseases	N00-N39, N990, N991, N995	2,846	9	0.99	10	713	11	1.11	12
Other causes ¹		23,125		9.03		4,572		8.04	
TOTAL (All causes of death)		145,904		54.30		30,513		51.37	

Note: ¹Other causes includes undetermined and pending.

ASMR – Age Standardized Mortality Rate per 10,000 standard population (Canada 1991 Census).

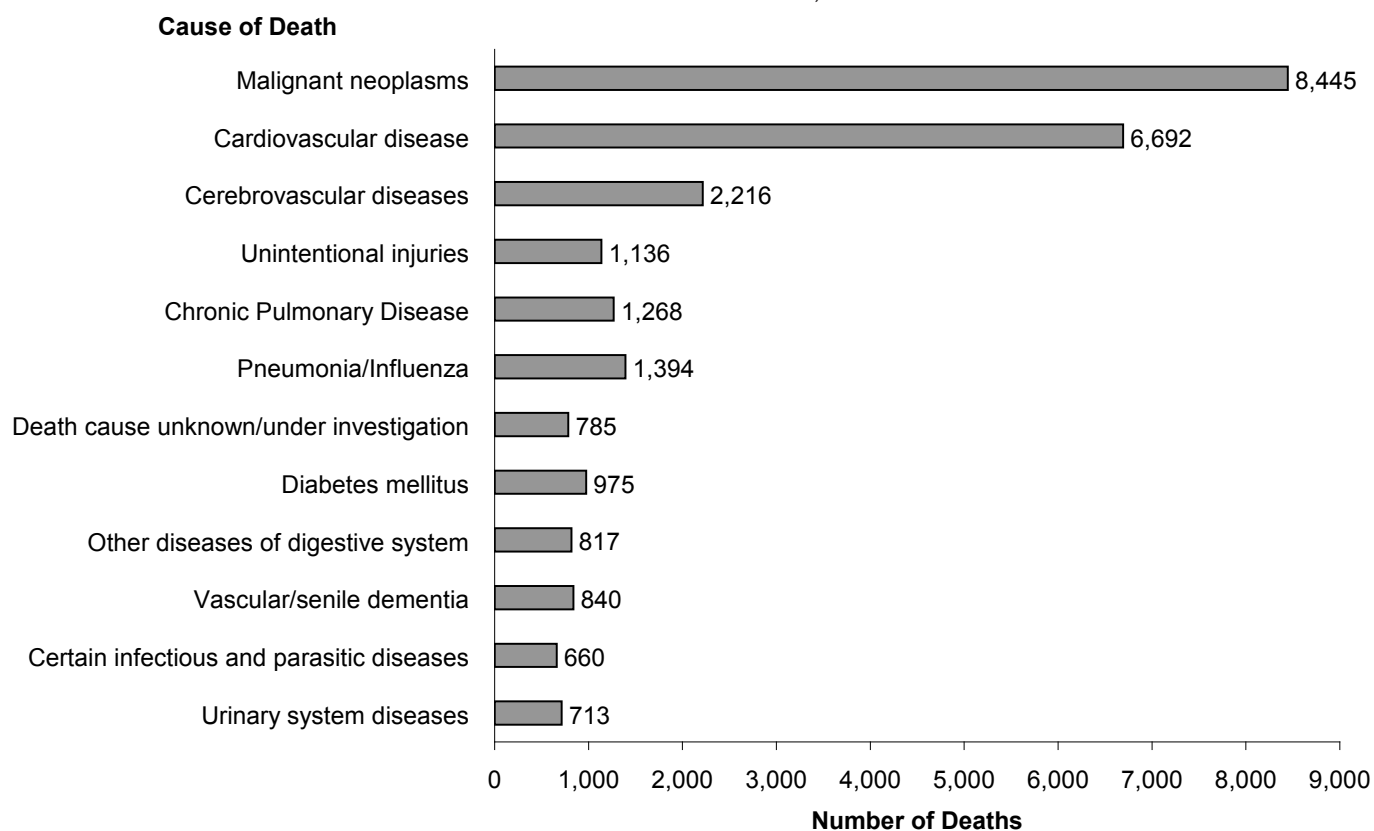
The ASMR in the current year determined the order in which the causes of death are presented.

Leading causes are ranked according to unrounded ASMR. As a result, causes of death with identical rounded ASMRs are not shown in this table.

Non-residents are excluded. The output from ICD-10 mortality coding and underlying cause of death selection was modified in British Columbia to reflect the intent of certifiers in this jurisdiction and to provide greater continuity over time.

Data using the standard ICD-10 rules for such categories as pneumonia/influenza, diabetes, or cancer should not be compared to the numbers shown above.

FIGURE 35
TWELVE LEADING CAUSES OF DEATH
 BRITISH COLUMBIA, 2006



Vital Statistics Information Box

AGE AT DEATH OF THE OLDEST MALE AND FEMALE

BRITISH COLUMBIA, 1986-2006

Gender	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Male	105	107	111	110	113	105	111	111	109	108	108	106	109	108	109	104	104	107	106	107	105
Female	110	107	110	110	110	113	107	110	110	108	109	111	113	108	111	113	111	107	108	110	109

TABLE 23
LEADING CAUSES OF DEATH BY AGE AND GENDER
 BRITISH COLUMBIA, 2006

Cause of Death	ICD-10 Code(s)	Males		Females		Total	
		Number	Percent	Number	Percent	Number	Percent
Under 1 Year Old							
1. Certain conditions originating in the perinatal period	P00-P96	38	43.2	33	42.3	71	42.8
2. Congenital malformations and chromosome abnormalities	Q00-Q99	23	26.1	22	28.2	45	27.1
3. Sudden infant death syndrome	R95	7	8.0	2	2.6	9	5.4
4. Other disorders of the nervous system	G00-G25, G31-G99	1	1.1	5	6.4	6	3.6
5. Metabolic disorders	E70-E89	3	3.4	1	1.3	4	2.4
Other causes ¹		16	18.2	15	19.2	31	18.7
All causes		88	100.0	78	100.0	166	100.0
1-14 Years Old							
1. Malignant neoplasms	C00-C97	10	22.7	8	20.0	18	21.4
2. Unintentional injuries	V01-X59, Y40-Y86, Y880-Y883	7	15.9	3	7.5	10	11.9
3. Congenital malformations and chromosome abnormalities	Q00-Q99	1	2.3	6	15.0	7	8.3
4. Metabolic disorders	E70-E89	3	6.8	3	7.5	6	7.1
5. Other disorders of the nervous system	G00-G25, G31-G99	3	6.8	3	7.5	6	7.1
Other causes ¹		20	45.5	17	42.5	37	44.0
All causes		44	100.0	40	100.0	84	100.0
15-24 Years Old							
1. Unintentional injuries	V01-X59, Y40-Y86, Y880-Y883	89	39.4	23	25.8	112	35.6
2. Suicide	X60-X84, Y870	31	13.7	6	6.7	37	11.7
3. Malignant neoplasms	C00-C97	13	5.8	10	11.2	23	7.3
4. Homicide	X85-Y09, Y871	9	4.0	2	2.2	11	3.5
5. Cardiovascular disease	I00-I51	6	2.7	4	4.5	10	3.2
Other causes ¹		78	34.5	44	49.4	122	38.7
All causes		226	100.0	89	100.0	315	100.0
25-44 Years Old							
1. Unintentional injuries	V01-X59, Y40-Y86, Y880-Y883	213	27.2	57	14.6	270	23.0
2. Malignant neoplasms	C00-C97	90	11.5	102	26.2	192	16.4
3. Suicide	X60-X84, Y870	88	11.2	21	5.4	109	9.3
4. Certain infectious and parasitic diseases	A00-B99	59	7.5	30	7.7	89	7.6
5. Cardiovascular disease	I00-I51	63	8.0	23	5.9	86	7.3
Other causes ¹		270	34.5	157	40.3	427	36.4
All causes		783	100.0	390	100.0	1,173	100.0

(concluded on next page)

Note: Order of leading causes based on total deaths in the specified age group.

¹Other causes includes undetermined and pending. Total percentage may not add up to 100 due to rounding. Non-residents are excluded. The output from ICD-10 mortality coding and underlying cause of death selection was modified in British Columbia to reflect the intent of certifiers in this jurisdiction and to provide greater continuity over time. Data using the standard ICD-10 rules for such categories as pneumonia/influenza, diabetes, or cancer should not be compared to the numbers shown above.

TABLE 23 – *concluded*
LEADING CAUSES OF DEATH BY AGE AND GENDER
 BRITISH COLUMBIA, 2006

Cause of Death	ICD-10 Code(s)	Males		Females		Total	
		Number	Percent	Number	Percent	Number	Percent
45-64 Years Old							
1. Malignant neoplasms	C00-C97	1,085	35.8	982	53.0	2,067	42.3
2. Cardiovascular disease	I00-I51	499	16.5	136	7.3	635	13.0
3. Unintentional injuries	V01-X59, Y40-Y86, Y880-Y883	223	7.4	75	4.0	298	6.1
4. Certain infectious and parasitic diseases	A00-B99	144	4.8	62	3.3	206	4.2
5. Diseases of liver	K70-K76	114	3.8	65	3.5	179	3.7
Other causes ¹		966	31.9	532	28.7	1,498	30.7
All causes		3,031	100.0	1,852	100.0	4,883	100.0
65-84 Years Old							
1. Malignant neoplasms	C00-C97	2,517	33.3	2,171	35.0	4,688	34.1
2. Cardiovascular disease	I00-I51	1,701	22.5	1,180	19.0	2,881	20.9
3. Cerebrovascular diseases	I60-I69	507	6.7	516	8.3	1,023	7.4
4. Chronic Pulmonary Disease	J40-J44	409	5.4	351	5.7	760	5.5
5. Diabetes mellitus	E10-E14	319	4.2	215	3.5	534	3.9
Other causes ¹		2,107	27.9	1,770	28.5	3,877	28.2
All causes		7,560	100.0	6,203	100.0	13,763	100.0
85 Years and Older							
1. Cardiovascular disease	I00-I51	1,108	28.9	1,971	31.3	3,079	30.4
2. Malignant neoplasms	C00-C97	676	17.6	781	12.4	1,457	14.4
3. Cerebrovascular diseases	I60-I69	365	9.5	687	10.9	1,052	10.4
4. Pneumonia/Influenza	J10-J181, J188, J189	300	7.8	507	8.1	807	8.0
5. Vascular/senile dementia	F01, F03	158	4.1	404	6.4	562	5.5
Other causes ¹		1,225	32.0	1,947	30.9	3,172	31.3
All causes		3,832	100.0	6,297	100.0	10,129	100.0

Notes for this table are on previous page.

Infant Mortality

The infant mortality rate (number of deaths less than 1 year old per 1,000 live births) is commonly used as an international indicator of a country's general standard of living and health status. A society's infant mortality rate is considered an important indicator of its health status because infant mortality is associated with socio-economic conditions, access to health care, and the health status of women of childbearing age. British Columbia had lower infant mortality rates than Canada as a whole from 1992 until 2004, the most recent year for which information on Canadian infant mortality rates are available (see Table 5). There were 166 infant deaths in British Columbia in 2006 or 4 deaths per 1,000 live births. The rate 20 years ago was just over eight per 1,000 live births and that has been progressively reduced to the rates seen in the last few years.

Table 24 shows the number of infants who died in 2006 by birth weight (in three bands) and the mother's age group. The first column has the mother's age groups from less than 20 years up to 40 years or older, and the infants' birth weights are grouped across the top of the table. Across the bottom and down the right side, the table shows row and column totals, percents, and rates per 1,000 live births. The difference in infant mortality rates across the three birth weight categories is quite distinct: for infants with birth weights of 2500 grams or more about one in 575 dies in their first year. Infants in the next birth weight category down suffer a six fold increase in death rate over babies weighing 2500 or more grams with one in 91 dying and infants who weigh less than 1,500 grams have the highest risk of infant mortality with about one in five dying within a year.

When these infant deaths are broken out across mother's age, the effect is not so dramatic. The one thing that is usually seen in recent decades is that the infant mortality rate to mothers under the age of 20 years has tended to be about double the rate to older women, although infant mortality was exceptionally low among teenagers in 2002 and 2006 (see Figure 15). Fortunately, for all age groups, during the same period there has been a consistent downward trend in the infant mortality rate.

Table 25 repeats the birth weight categories and general format shown in Table 24 but replaces maternal age groups with gestational periods. As mentioned in connection with Table 13, birth weight for gestational age is an important predictor of the health status of newborns and their subsequent well being. Table 25 confirms that importance with regard to infant mortality. Of the 166 infant deaths in 2006, only 59 were term births (37 to 41 weeks) with weights of 2,500 grams or more. There was a dramatic increase in infant mortality as birth weight and gestational age decreased. Almost two in five (37.9 percent) of infant deaths were extremely premature (less than 28 weeks) and low birth weight (less than 2,500 grams), but these births accounted for only 0.4 percent of all 2006 live births. More than half of infant deaths were low birth weight (56 percent), nearly three in five (57 percent) were premature (less than 37 weeks) and half (51 percent) were both low birth weight and premature.

Table 26 shows infant mortality in each Local Health Authority (LHA) for 2001-2005 and for the year 2006. The two columns on the left show the LHA number and name. The three columns for 2001-2005 show the number of infant deaths in the LHA (Observed Deaths), the ratio, and the rate of infant deaths per 1,000 live births. The ratio is the number of observed deaths divided by the number that would be expected if the LHA had the provincial rate per 1,000 live births. See Observed Deaths in the Glossary and Observed versus Expected Ratio in the Methodology section for an example of the computation method. For 2006, the table indicates the number of deaths in three age ranges (0 to 6 days, 0 to 27 days, and 28 to 364 days), the total number of infant deaths (0 to 364 days), and the infant death rate per 1,000 live births. The most outstanding characteristic of this table is the small numbers in the observed deaths columns. This means a very small increase or decrease in infant deaths in a single year can result in quite large shifts in the rate per 1,000 live births.

As might be expected from the small numbers that the LHA ratio values are based on, Figure 36 does not show any obvious geographical pattern. Neither north-south, interior-coastal, or urban-rural distinctions are apparent.

Causes of infant deaths and stillbirths are shown in Table 27. The numbers are small, so the rates are per 10,000 live births for infant deaths and per 10,000 total births (live births plus stillbirths) in the case of stillbirths. Infant deaths are often sub-divided into early neonatal (less than 7 days), late neonatal (7 to 27 days) and post-neonatal (28 to 364 days) deaths but note that, in this table, the time periods are different from those in Table 26. About half (49 percent) of infant deaths in 2006 occurred in the early neonatal period and 90 percent of them (77) were due to congenital anomalies or perinatal conditions. Bear in mind that Table 23 indicated that perinatal conditions claimed slightly more male than female infants and congenital anomalies claimed a relatively even number of male and female infants in 2006.

TABLE 24
**INFANT MORTALITY BY AGE OF MOTHER
AND BIRTH WEIGHT**
BRITISH COLUMBIA, 2006

Age of Mother	Birth Weight (in Grams)				Total		
	<1500	1500-2499	2500+	N.S.	Number	Percent	Rate
<20	2	-	4	-	6	3.6	4.08
20-24	9	2	12	-	23	13.9	3.76
25-29	14	8	23	1	46	27.7	3.99
30-34	16	5	17	-	38	22.9	2.86
35-39	17	5	9	1	32	19.3	4.19
40+	13	2	4	-	19	11.4	11.59
N.S.	-	-	-	2	2	1.2	
TOTAL	71	22	69	4	166	100.0	3.99
Percent	42.8	13.3	41.6	2.4	100.0		
Rate	219.81	11.01	1.76		3.99		

Note: Infant Mortality – Age at death less than one year.

Rate per 1,000 live births in the specified age or birth weight group.

+Denotes the number of cases is less than five.

Total percentage may not add up to 100 due to rounding.

Non-residents are excluded.

TABLE 25
**INFANT MORTALITY BY GESTATIONAL AGE
AND BIRTH WEIGHT**
BRITISH COLUMBIA, 2006

Gestational Age (In Weeks)	Birth Weight (in Grams)				Total		
	<1500	1500-2499	2500+	N.S.	Number	Percent	Rate
<20	6	-	-	-	6	3.6	1,000.00
20-27	57	-	-	-	57	34.3	404.26
28-36	8	14	10	-	32	19.3	10.71
37-41	-	8	59	2	69	41.6	1.81
42+	-	-	-	-	-	-	-
N.S.	-	-	-	2	2	1.2	
TOTAL	71	22	69	4	166	100.0	3.99
Percent	42.8	13.3	41.6	2.4	100.0		
Rate	219.81	11.01	1.76		3.99		

Note: Infant Mortality – Age at death less than one year.

Rate per 1,000 live births in the specified age or birth weight group.

+ Denotes the number of cases is less than five.

Total percentage may not add up to 100 due to rounding.

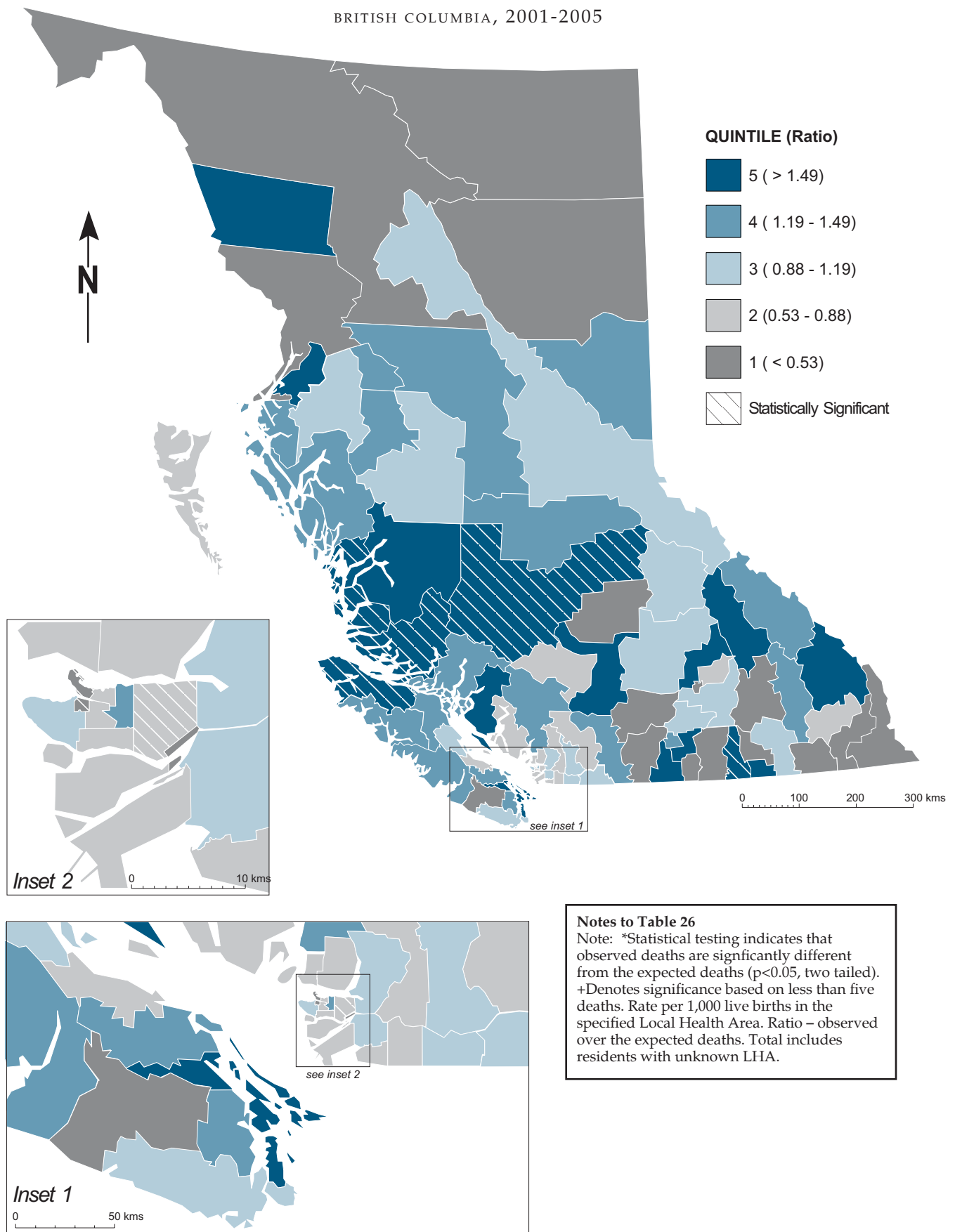
Non-residents are excluded.

N.S. – Not stated.

Local Health Area	2001-2005			2006				
	Observed Deaths	Ratio (p)	Rate	Age at Death (in Days)			Total	
				0-6	0-27	28-364	Number	Rate
001 Fernie	1	0.40	1.69	-	-	1	1	7.94
002 Cranbrook	2	0.42	1.80	-	-	-	-	-
003 Kimberley	1	0.86	3.64	-	-	-	-	-
004 Windermere	3	2.20	9.32	-	-	-	-	-
005 Creston	-	-	-	-	-	-	-	-
006 Kootenay Lake	1	1.22	5.18	-	-	-	-	-
007 Nelson	5	1.10	4.65	-	-	-	-	-
009 Castlegar	1	0.51	2.17	-	-	-	-	-
010 Arrow Lakes	-	-	-	-	-	-	-	-
011 Trail	5	1.74	7.35	1	1	-	1	6.67
012 Grand Forks	5	3.58 *	15.15	-	-	-	-	-
013 Kettle Valley	-	-	-	-	-	-	-	-
014 Southern Okanagan	-	-	-	1	1	-	1	7.52
015 Penticton	10	1.67	7.06	-	-	1	1	2.97
016 Keremeos	2	2.57	10.87	-	-	-	-	-
017 Princeton	-	-	-	-	-	-	-	-
018 Golden	2	1.41	5.95	-	-	-	-	-
019 Revelstoke	3	1.85	7.85	-	-	-	-	-
020 Salmon Arm	10	2.08	8.82	1	1	-	1	3.88
021 Armstrong - Spallumcheen	-	-	-	-	-	-	-	-
022 Vernon	10	0.90	3.79	3	3	1	4	8.06
023 Central Okanagan	28	0.98	4.16	2	3	2	5	3.53
024 Kamloops	21	1.13	4.79	1	3	1	4	4.29
025 100 Mile House	1	0.48	2.02	-	-	-	-	-
026 North Thompson	1	1.04	4.39	-	-	-	-	-
027 Cariboo - Chilcotin	14	2.27 *	9.64	-	1	2	3	10.60
028 Quesnel	6	1.25	5.30	-	-	2	2	8.00
029 Lillooet	1	0.82	3.47	-	-	-	-	-
030 South Cariboo	3	2.43	10.27	-	-	-	-	-
031 Merritt	1	0.44	1.86	-	-	-	-	-
032 Hope	2	1.30	5.51	1	1	-	1	15.38
033 Chilliwack	20	1.10	4.67	1	1	1	2	2.07
034 Abbotsford	33	0.97	4.10	3	7	1	8	4.89
035 Langley	22	0.85	3.62	1	2	-	2	1.54
037 Delta	18	0.88	3.71	1	1	-	1	1.11
038 Richmond	23	0.70	2.95	2	4	3	7	4.39
040 New Westminster	7	0.52	2.20	1	1	1	2	2.99
041 Burnaby	30	0.68 *	2.89	2	6	1	7	3.25
042 Maple Ridge	14	0.75	3.19	1	1	1	2	2.17
043 Coquitlam	44	1.01	4.27	1	3	1	4	1.99
044 North Vancouver	17	0.64	2.69	1	3	1	4	3.31
045 West Vancouver-Bowen Is.	4	0.63	2.66	-	-	-	-	-
046 Sunshine Coast	2	0.54	2.27	1	1	-	1	5.08
047 Powell River	5	1.65	7.00	-	-	-	-	-
048 Howe Sound	11	1.34	5.68	2	2	1	3	7.19
049 Bella Coola Valley	3	2.86	12.10	1	2	-	2	36.36
050 Queen Charlotte	1	0.77	3.26	1	1	-	1	20.83
051 Snow Country	-	-	-	-	-	-	-	-
052 Prince Rupert	5	1.21	5.14	-	-	-	-	-
053 Upper Skeena	2	1.26	5.33	-	-	-	-	-
054 Smithers	7	1.49	6.30	1	1	-	1	4.52
055 Burns Lake	2	1.07	4.52	1	1	-	1	11.36
056 Nechako	6	1.23	5.23	-	-	-	-	-
057 Prince George	26	1.17	4.96	-	-	-	-	-
059 Peace River South	8	1.37	5.81	-	-	-	-	-
060 Peace River North	5	0.48	2.02	2	3	2	5	9.09
061 Greater Victoria	43	1.17	4.95	3	3	1	4	2.29
062 Sooke	12	0.97	4.09	-	1	-	1	1.64
063 Saanich	13	1.50	6.35	2	2	1	3	7.58
064 Gulf Islands	3	1.64	6.94	-	-	-	-	-
065 Cowichan	12	1.20	5.09	3	3	1	4	7.34
066 Lake Cowichan	-	-	-	-	1	-	1	23.81
067 Ladysmith	7	2.33	9.89	2	2	1	3	19.61
068 Nanaimo	23	1.34	5.66	-	-	2	2	2.44
069 Qualicum	3	0.62	2.63	-	-	-	-	-
070 Alberni	9	1.42	6.04	1	1	2	3	9.38
071 Courtenay	11	1.13	4.80	1	1	-	1	2.16
072 Campbell River	11	1.46	6.20	1	2	-	2	5.38
075 Mission	8	0.88	3.73	1	1	-	1	2.47
076 Agassiz - Harrison	1	0.54	2.27	-	-	-	-	-
077 Summerland	2	1.36	5.76	-	-	-	-	-
078 Enderby	1	0.78	3.30	-	-	-	-	-
080 Kitimat	3	1.42	6.04	-	-	-	-	-
081 Fort Nelson	-	-	-	-	-	-	-	-
083 Central Coast	4	7.87 +	33.33	-	-	1	1	27.03
084 Vancouver Island West	1	1.45	6.13	-	-	-	-	-
085 Vancouver Island North	10	3.01 *	12.77	-	-	1	1	6.13
087 Stikine	-	-	-	-	-	-	-	-
088 Terrace	6	1.10	4.67	-	-	-	-	-
092 Nisga'a	2	3.42	14.49	-	-	-	-	-
094 Telegraph Creek	1	5.62	23.81	-	-	-	-	-
161 Vancouver - City Centre	8	0.47 *	2.01	1	1	1	2	2.30
162 Vancouver - Downtown E.side	8	0.82	3.49	3	5	1	6	12.37
163 Vancouver - North East	29	1.23	5.21	7	8	1	9	8.50
164 Vancouver - Westside	26	1.13	4.78	3	3	1	4	3.31
165 Vancouver - Midtown	15	0.72	3.03	7	8	2	10	9.70
166 Vancouver - South	18	0.67	2.86	6	6	4	10	7.35
201 Surrey	104	1.11	4.71	7	14	6	20	4.25
202 South Surrey/White Rock	6	0.55	2.34	1	1	-	1	1.96
PROVINCIAL TOTAL	854	1.00	4.24	82	117	49	166	3.99

Notes for this table follow the map.

FIGURE 36
INFANT MORTALITY BY LOCAL HEALTH AREA
 BRITISH COLUMBIA, 2001-2005



Note: Ratio - Observed over the expected. Refer to Figure 1 to clarify geographical location of Local Health Areas.

TABLE 27
SELECTED CAUSES OF INFANT DEATHS AND STILLBIRTHS
 BRITISH COLUMBIA, 2006

Cause of Death	ICD-10 Code(s)	Infant Deaths – Age Group (in Days)					Stillbirths	
		<7	7–27	28–364	Total	Rate ¹	Number	Rate ²
Congenital anomalies								
- of the nervous system	Q00-Q07	3	2	1	6	1.44	2	0.48
- of the eye, ear, face & neck	Q10-Q18	-	-	-	-	-	-	-
- of the heart and circulatory system	Q20-Q28	3	9	3	15	3.60	1	0.24
- of the respiratory system	Q30-Q34	2	-	2	4	0.96	-	-
- of the digestive system	Q35-Q45	-	1	-	1	0.24	-	-
- of the genital organs	Q50-Q56	-	-	-	-	-	-	-
- of the urinary system	Q60-Q64	1	1	1	3	0.72	1	0.24
- of the musculoskeletal system	Q65-Q79	2	1	-	3	0.72	-	-
Other and multiple system syndromes	Q80-Q89	1	1	1	3	0.72	1	0.24
Chromosomal anomalies	Q90-Q99	4	1	5	10	2.40	8	1.91
Total deaths due to congenital anomalies	Q00-Q99	16	16	13	45	10.81	13	3.10
Perinatal conditions								
Infant affected by maternal factors	P00-P04	21	-	-	21	5.04	106	25.26
Premature/postmature and fetal growth disorders	P05-P08	30	-	-	30	7.20	6	1.43
Birth trauma	P10-P15	-	-	-	-	-	1	0.24
Respiratory and cardiovascular disorders	P20-P29	5	1	-	6	1.44	20	4.77
Infections specific to the perinatal period	P35-P39	-	1	1	2	0.48	-	-
Hemorrhage and hematological disorders	P50-P61	-	2	-	2	0.48	2	0.48
Transitory endocrine and metabolic disorders	P70-P74	-	-	-	-	-	1	0.24
Digestive system disorders of fetus and newborn	P75-P78	-	1	1	2	0.48	-	-
Other disorders originating in the perinatal period	P80-P94, P96	5	2	1	8	1.92	111	26.45
Fetal death of unknown cause	P95	-	-	-	-	-	67	15.96
Total deaths due to perinatal conditions	P00-P96	61	7	3	71	17.05	314	74.82
Pneumonia/influenza	J10-J18.1, J18.8-J18.9	-	-	-	-	-	-	-
Sudden infant death syndrome (SIDS) ³	R95	-	-	1	8	9	2.16	-
Other causes ³		5	11	25	41	9.85	-	-
TOTAL		82	35	49	166	39.86	327	77.91

Note: ¹Rate per 10,000 live births.

²Rate per 10,000 total births (live births plus stillbirths).

³ Some of the infant deaths that were still under investigation (ICD-10 code R99) may later be identified as SIDS. Non-residents are excluded.

Deaths Due to HIV

Compared to other infectious diseases, Human Immunodeficiency Virus (HIV) mortality reached unprecedented rates in recent decades. Continued monitoring of HIV mortality is an important measure of the effectiveness of our public health initiatives. Mortality peaked in 1994 and the decline has been fluctuating since then.

Table 28 shows the number of deaths due to HIV broken out by gender and six age groups for each of the 16 years from 1991 to 2006. For each year the table shows the number of male, female, and total deaths due to HIV where the decedents were less than 20 years of age, in their 20s, 30s, 40s, 50s, and 60 or over. The percentage of the total deaths in each year is shown for each age group. At the bottom of the table are counts and percentages for the entire sixteen year period. The Total column on the right shows the number of females dying from HIV disease increased rapidly from low single digit levels in the early 1990s to 19 or more in recent years. The number of male deaths also rose rapidly from 1991 to 1994, then fell steeply until 1997, and since then it has fluctuated between 84 and 120, in 2006 there were 113 male deaths from HIV. Close inspection of the age group percentages in each year indicates that the age at death from HIV has risen over this 16 year span.

Figure 37 shows clearly that in the period from 2001-2006 most deaths due to HIV disease in British Columbia occurred in individuals who were in their 30's, 40's and 50's, with the greatest toll being taken in those between 40 and 49 years of age.

Although there were fluctuations in the yearly numbers of HIV deaths in Table 29, there was a clear increasing trend until 1994 after which the numbers have generally decreased each year. The high point was also apparent in each of the Health Service Delivery Areas (HSDA) where frequencies permitted trend comparisons. The Vancouver HSDA had the largest population so the highest number would be expected in that area, but the rate per 100,000 population (18.3) was also highest in Vancouver. In 2006 there were 67 deaths due to HIV in that area, far higher than any other HSDA. Bear in mind that death statistics are based on the usual residence of the deceased, and people who die from HIV disease are usually diagnosed with the condition long before their death, so high numbers in Vancouver might simply reflect availability of services for people with HIV disease.

FIGURE 37
DEATHS DUE TO HIV DISEASE BY AGE GROUP
BRITISH COLUMBIA, 2001-2006

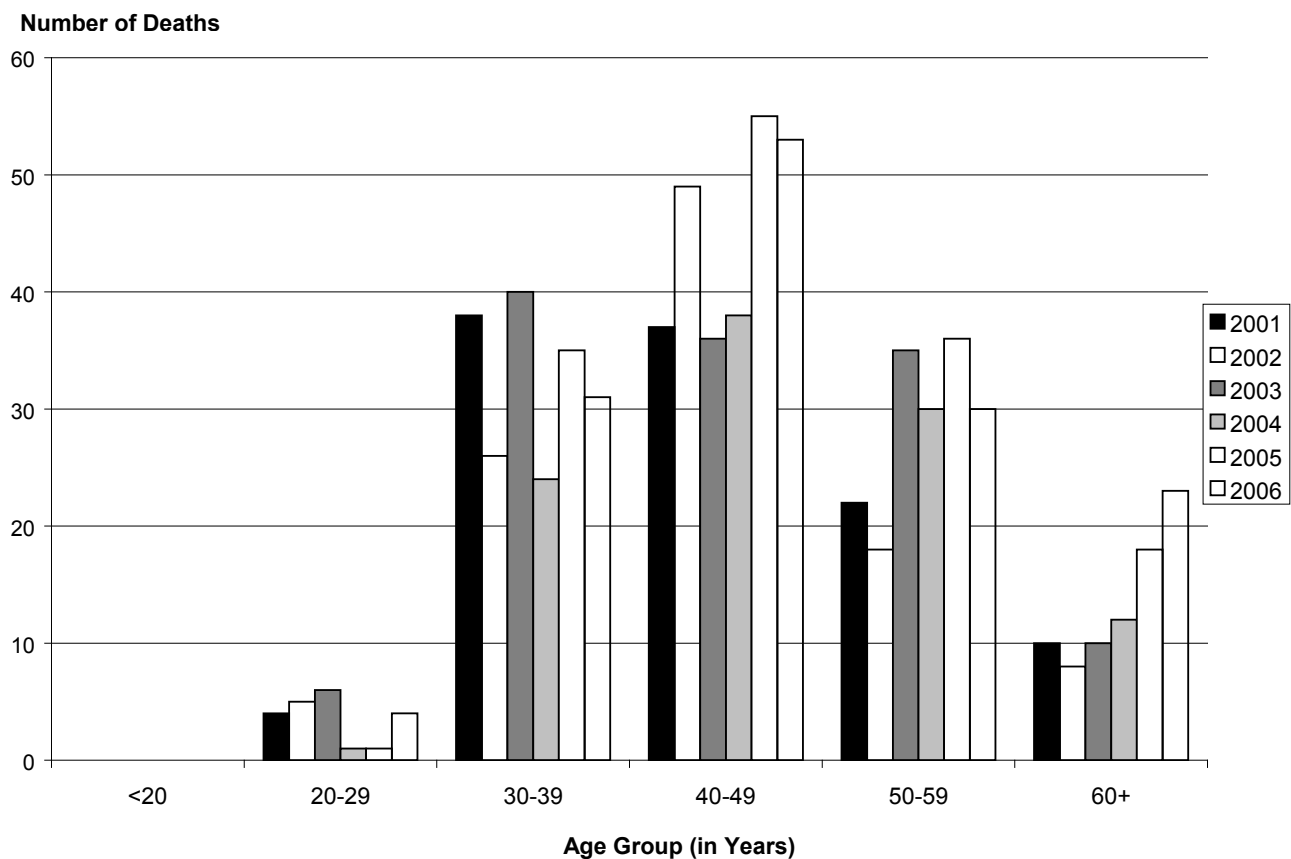


TABLE 28
DEATHS DUE TO HIV DISEASE BY
GENDER AND AGE GROUP

BRITISH COLUMBIA, 1991–2006

Year of Death	Gender	Age at Death (in Years)						Total
		<20	20–29	30–39	40–49	50–59	60+	
1991	M	-	14	79	54	23	6	176
	F	-	-	1	-	-	1	2
	T	-	14	80	54	23	7	178
	Percent	-	7.9	44.9	30.3	12.9	3.9	100.0
1992	M	-	28	101	89	22	5	245
	F	-	1	3	2	-	-	6
	T	-	29	104	91	22	5	251
	Percent	-	11.6	41.4	36.3	8.8	2.0	100.0
1993	M	-	28	113	95	34	14	284
	F	-	3	8	2	1	1	15
	T	-	31	121	97	35	15	299
	Percent	-	10.4	40.5	32.4	11.7	5.0	100.0
1994	M	-	19	147	101	29	12	308
	F	2	5	10	2	2	2	23
	T	2	24	157	103	31	14	331
	Percent	1	7.3	47.4	31.1	9.4	4.2	100.0
1995	M	-	17	116	103	31	9	276
	F	-	6	7	4	1	1	19
	T	-	23	123	107	32	10	295
	Percent	-	7.8	41.7	36.3	10.8	3.4	100.0
1996	M	3	9	106	73	34	10	235
	F	-	4	6	6	-	1	17
	T	3	13	112	79	34	11	252
	Percent	1.2	5.2	44.4	31.3	13.5	4.4	100.0
1997	M	-	11	40	33	11	6	101
	F	-	2	7	4	1	2	16
	T	-	13	47	37	12	8	117
	Percent	-	11.1	40.2	31.6	10.3	6.8	100.0
1998	M	-	6	32	44	7	3	92
	F	-	4	8	3	1	1	17
	T	-	10	40	47	8	4	109
	Percent	-	9.2	36.7	43.1	7.3	3.7	100.0
1999	M	1	3	37	32	13	4	90
	F	-	-	4	6	2	-	12
	T	1	3	41	38	15	4	102
	Percent	1.0	2.9	40.2	37.3	14.7	3.9	100.0
2000	M	-	5	31	31	23	8	98
	F	-	4	6	9	3	2	24
	T	-	9	37	40	26	10	122
	Percent	-	7.4	30.3	32.8	21.3	8.2	100.0
2001	M	-	-	30	33	19	9	91
	F	-	4	8	4	3	1	20
	T	-	4	38	37	22	10	111
	Percent	-	3.6	34.2	33.3	19.8	9.0	100.0
2002	M	-	4	20	37	15	8	84
	F	-	1	6	12	3	-	22
	T	-	5	26	49	18	8	106
	Percent	-	4.7	24.5	46.2	17.0	7.5	100.0
2003	M	-	2	34	26	32	10	104
	F	-	4	6	10	3	-	23
	T	-	6	40	36	35	10	127
	Percent	-	4.7	31.5	28.3	27.6	7.9	100.0
2004	M	-	-	17	30	29	10	86
	F	-	1	7	8	1	2	19
	T	-	1	24	38	30	12	105
	Percent	-	1.0	22.9	36.2	28.6	11.4	100.0
2005	M	-	1	27	43	31	18	120
	F	-	-	8	12	5	-	25
	T	-	1	35	55	36	18	145
	Percent	-	0.7	24.1	37.9	24.8	12.4	100.0
2006	M	-	2	22	42	27	20	113
	F	-	2	9	11	3	3	28
	T	-	4	31	53	30	23	141
	Percent	-	2.8	22.0	37.6	21.3	16.3	100.0
1991 - 2006	M	4	149	952	866	380	152	2,503
	F	2	41	104	95	29	17	288
	T	6	190	1,056	961	409	169	2,791
	Percent	0.2	6.8	37.8	34.4	14.7	6.1	100.0

Note: HIV Disease – ICD-10 codes B20–B24.

Total percentage may not add up to 100 due to rounding. Non-residents are excluded.

TABLE 29
DEATHS DUE TO HIV DISEASE BY HEALTH SERVICE DELIVERY AREA
 BRITISH COLUMBIA, 1991–2006

Health Service Delivery Area	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	1991–2006		
																	Number	Percent	Rate
11 East Kootenay	1	-	-	-	1	-	2	-	-	-	1	-	1	-	1	-	7	0.3	0.57
12 Kootenay Boundary	-	-	1	1	3	2	-	1	1	-	-	2	-	1	-	2	14	0.5	1.11
13 Okanagan	1	9	9	6	9	7	2	4	2	3	3	3	6	2	5	11	82	2.9	1.71
14 Thompson Cariboo Shuswap	3	3	4	3	-	3	2	2	2	2	6	2	4	6	2	4	48	1.7	1.43
21 Fraser East	1	4	6	7	6	7	1	4	3	3	2	4	1	5	6	4	64	2.3	1.70
22 Fraser North	14	15	22	25	21	15	8	6	7	11	8	10	10	8	7	10	197	7.1	2.43
23 Fraser South	10	14	12	18	17	23	6	4	11	7	11	10	8	5	12	9	177	6.3	1.95
31 Richmond	6	5	1	6	4	4	5	2	2	1	1	-	1	2	3	1	44	1.6	1.71
32 Vancouver	109	149	196	203	182	145	66	65	52	73	60	62	74	50	78	67	1,631	58.4	18.27
33 North Shore/ Coast Garibaldi	9	14	15	15	12	11	7	5	5	3	3	2	6	3	7	5	122	4.4	2.96
41 South Vancouver Island	16	20	21	28	17	21	10	10	13	7	9	3	8	9	9	16	217	7.8	4.04
42 Central Vancouver Island	4	16	6	13	14	6	4	3	4	8	4	4	4	5	6	3	104	3.7	2.78
43 North Vancouver Island	1	1	3	3	2	1	1	-	-	4	2	-	1	2	3	2	26	0.9	1.44
51 Northwest	-	1	1	-	2	1	-	-	-	-	-	-	-	1	2	-	8	0.3	0.59
52 Northern Interior	1	-	2	2	4	5	2	2	-	-	1	3	3	5	4	7	41	1.5	1.72
53 Northeast	2	-	-	1	1	-	-	1	-	-	-	1	-	1	-	-	7	0.3	0.69
N.S.	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	2	0.1	
PROVINCIAL TOTAL	178	251	299	331	295	252	117	109	102	122	111	106	127	105	145	141	2,791	100.0	4.44

Note: Health Service Delivery Area based on usual residence.
 Rate per 100,000 population in specified area.
 Total percentage may not add up to 100 due to rounding.
 Non-residents are excluded. N.S. – Not stated.

External Causes of Death

As the name implies, these causes of death arise from sources external to the individual (as opposed to endogenous or natural physiological processes), and include events such as motor vehicle accidents, poisonings, falls, suicide, and fire. With the exception of unintentional falls, where most of the deaths are elderly females, males are far more susceptible to these causes than females and gender differences are most apparent in the younger age groups.

All causes of death are coded according to the World Health Organization's *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision* (ICD 10); the codes for external causes begin with V, W, X, or Y. Note that unintentional deaths are called accidents in ICD-10. See Appendix 2 for a gender- and age-specific listing of these deaths according to individual ICD-10 codes.

Counts for deaths due to unintentional injuries, suicide, and homicide in the current year underestimate the actual figures due to known delays in determining causes of death. As such it should be anticipated that these figures may be revised in subsequent annual reports.

Table 30 shows the number of deaths for males and females from external causes. Also shown are ASMRs. These rates of death per 10,000 standard population are used to compare statistics from other time periods and other jurisdictions. The Glossary explains ASMR and the methodology section gives an example of the calculation method.

Although not age-standardized, during 2006 there were 51 deaths due to external causes for each 1,000 deaths in British Columbia (see Table 30). Approximately;

- 12 were suicides (376)
- 11 were motor vehicle accidents (334)
- 11 were unintentional falls (329)
- 8 were unintentional poisonings (252)
- 1 was unintentional drowning (42)
- 1 was homicide (27)
- 4 were due to other external causes (126)

More than two thirds of deaths by external causes were males as shown in Table 30. The leading four causes of external deaths in males in 2006 were (in rank order): suicide, motor vehicle accidents, poisoning, and falls. For females the leading four (in rank order) were: falls, motor vehicle accidents, suicide, and poisoning.

Table 31 shows the allocation of external death causes according to the Local Health Area (LHA) where the deceased lived, not where the incident occurred. Each of the major external causes is listed across the top of the table along with the total number and the age-standardized mortality rate (ASMR) for each LHA. The provincial totals and the percent of all external cause deaths are shown along the bottom of the table. Deaths due to motor vehicle accidents, falls, and suicides were the major external causes of death, with suicides leading the list for the province as a whole. However, the LHAs varied as to which of these cases was the most important in 2006. External causes occur mostly in younger age groups (see Appendix 2) so the ASMR column in Table 31 is particularly useful because it accounts for different age distributions in the LHAs by adjusting the mortality rates to a standard age distribution. See Age Standardized Mortality Rate in the Glossary and the calculation method in the Methodology section.

Table 32 shows numbers of deaths from suicide classified by month of occurrence and by gender. Percentages across months are also given. The data for 2006 shows that November was the month with the fewest number of suicides while October was the month with the highest number of suicides. In 2006 males died from suicide at a rate of more than three to one compared to females (see Table 32). The incidence numbers, especially for females, are quite small and therefore any conclusions based on them should be approached with caution.

TABLE 30
EXTERNAL CAUSES OF DEATH BY GENDER
BRITISH COLUMBIA, 2006

Cause of Death	ICD-10 Code	Male		Female		Total	
		Number	ASMR	Number	ASMR	Number	ASMR
Motor vehicle accidents	V02-V04, V09, V12-V14, V190-V196, V20-V79, V803-V805, V820-V821, V823-V890, V899, Y850	242	1.13	92	0.38	334	0.75
Other transport accidents	V01, V05-V06, V10-V11, V15-V18, V198-V199, V800-V802, V806-V809, V812-V819, V822-V829, V891, V893, V91, V93-V99, Y859	19	0.08	-	-	19	0.04
Accidental falls	W00-W19	165	0.66	164	0.41	329	0.53
Accident caused by machinery	W24, W28-W31	6	0.03	-	-	6	0.01
Accidental firearm discharge	W32-W34	2	0.01	-	-	2	0.00
Exposure to smoke, fire and flames	X00-X09	9	0.03	5	0.02	14	0.03
Accidental drowning (including water transport)	V90, V92, W65-W74	38	0.17	4	0.02	42	0.09
Accidental poisoning	X40-X49	190	0.83	62	0.27	252	0.55
All other accidents	W20-W23, W25-W27, W35-W64, W75-W99, X10-X39, X50-X59, Y35-Y36, Y40-Y84, Y88	73	0.29	53	0.15	126	0.22
Suicide	X60-X84, Y870	297	1.25	79	0.33	376	0.78
Homicide	X85-Y09, Y871	23	0.11	4	0.02	27	0.07
External events of undetermined intent	Y10-Y34, Y872	12	0.05	8	0.04	20	0.04
Sequelae of other external causes	Y86, Y89	6	0.03	6	0.02	12	0.02
TOTAL		1,082	4.67	477	1.64	1,559	3.13

Note: ASMR – Age Standardized Mortality Rate per 10,000 standard population (Canada 1991 Census).
Non-residents are excluded.

Local Health Area	Motor Vehicle Accidents	Other Transport Accidents	Unintentional		Fire/ Flames	Unintentional Drowning	Suicide	Homicide	Other	Total	
			Poisoning	Falls						Deaths	ASMR
001 Fernie	7	-	-	1	-	1	1	-	2	12	7.99
002 Cranbrook	4	-	1	2	-	-	5	-	9	21	7.34
003 Kimberley	-	-	-	3	-	-	-	-	1	4	2.71
004 Windermere	1	-	-	-	-	-	1	-	1	3	2.65
005 Creston	1	-	1	2	-	-	2	-	1	7	4.40
006 Kootenay Lake	-	-	-	2	1	-	-	-	-	3	9.54
007 Nelson	2	-	-	6	1	1	3	-	-	13	4.22
009 Castlegar	7	-	-	4	-	2	3	-	-	16	10.81
010 Arrow Lakes	-	1	-	2	-	1	-	-	-	4	5.77
011 Trail	1	1	-	3	-	-	1	-	2	8	2.29
012 Grand Forks	4	-	-	2	-	-	1	-	-	7	9.40
013 Kettle Valley	1	-	-	-	1	-	-	-	1	3	4.97
014 Southern Okanagan	4	-	-	5	-	2	2	-	-	13	4.02
015 Penticton	3	-	-	3	-	2	5	-	1	14	2.73
016 Keremeos	2	-	1	1	-	-	-	-	-	4	8.70
017 Princeton	2	-	-	-	-	-	1	-	1	4	5.53
018 Golden	2	-	-	-	-	-	1	-	2	5	7.95
019 Revelstoke	1	-	-	-	-	-	-	-	1	2	2.37
020 Salmon Arm	5	-	1	6	-	-	5	-	2	19	4.56
021 Armstrong - Spallumcheen	2	-	1	1	-	-	-	-	1	5	4.66
022 Vernon	6	1	1	4	-	-	4	-	4	20	2.49
023 Central Okanagan	13	-	9	17	-	1	6	1	7	54	2.58
024 Kamloops	15	-	5	11	-	1	6	3	6	47	3.79
025 100 Mile House	3	-	2	1	-	-	2	2	1	11	6.19
026 North Thompson	1	-	-	1	-	-	1	-	-	3	8.61
027 Cariboo - Chilcotin	9	1	3	2	-	-	2	-	1	18	6.73
028 Quesnel	5	-	-	1	-	-	3	-	-	9	3.80
029 Lillooet	1	-	1	-	-	2	1	-	-	5	9.56
030 South Cariboo	2	-	1	-	-	-	1	-	1	5	7.89
031 Merritt	5	-	1	2	-	-	-	-	-	8	6.59
032 Hope	1	-	-	2	-	-	-	-	-	3	2.08
033 Chilliwack	6	1	6	5	-	-	7	-	4	29	3.11
034 Abbotsford	12	1	8	4	-	1	8	2	6	42	3.03
035 Langley	7	-	4	10	-	-	10	-	3	34	2.32
037 Delta	6	-	7	1	3	1	6	-	2	26	2.41
038 Richmond	10	-	2	9	-	1	15	1	7	45	1.94
040 New Westminster	3	-	8	7	-	-	6	1	-	25	3.41
041 Burnaby	5	1	13	21	-	2	19	3	11	75	2.93
042 Maple Ridge	3	-	2	4	-	2	10	-	1	22	2.33
043 Coquitlam	21	1	12	12	-	1	15	1	1	64	3.01
044 North Vancouver	8	1	7	7	1	-	13	-	2	39	2.66
045 West Vancouver-Bowen Is.	-	-	-	3	-	1	3	-	2	9	1.23
046 Sunshine Coast	5	-	1	2	-	1	1	-	1	11	2.98
047 Powell River	4	-	1	-	-	-	4	-	1	10	4.73
048 Howe Sound	2	-	3	4	-	-	5	-	1	15	4.88
049 Bella Coola Valley	1	-	-	-	-	-	1	-	-	2	8.87
050 Queen Charlotte	1	-	-	-	-	1	1	-	-	3	5.46
051 Snow Country	-	-	-	-	-	-	1	-	-	1	23.28
052 Prince Rupert	-	-	-	1	1	1	1	-	-	4	2.39
053 Upper Skeena	-	-	-	1	-	-	-	-	-	1	2.27
054 Smithers	-	-	-	2	-	-	2	-	-	4	3.27
055 Burns Lake	1	-	-	1	-	-	-	-	-	2	2.29
056 Nechako	3	-	-	2	-	-	2	-	-	7	4.34
057 Prince George	7	-	2	7	-	-	7	-	7	30	3.25
059 Peace River South	5	-	-	-	-	-	1	-	-	6	2.26
060 Peace River North	11	1	-	-	-	-	2	-	-	14	3.93
061 Greater Victoria	9	-	13	31	-	-	19	1	9	82	2.52
062 Sooke	3	-	3	2	-	1	3	-	1	13	1.81
063 Saanich	-	-	3	9	-	-	4	-	1	17	1.61
064 Gulf Islands	2	-	1	-	-	-	1	-	-	4	2.66
065 Cowichan	1	-	5	5	-	1	8	2	3	25	4.10
066 Lake Cowichan	-	-	-	-	-	-	-	-	-	-	-
067 Ladysmith	3	-	-	3	-	-	2	-	1	9	3.72
068 Nanaimo	8	-	3	9	-	3	11	-	5	39	3.17
069 Qualicum	2	-	1	6	-	2	5	-	3	19	3.29
070 Alberni	4	5	-	5	-	-	5	-	2	21	6.93
071 Courtenay	7	-	4	6	-	2	8	-	1	28	3.77
072 Campbell River	4	1	4	2	-	-	8	-	2	21	4.18
075 Mission	5	-	2	5	-	2	1	-	3	18	4.37
076 Agassiz - Harrison	-	-	2	-	-	-	-	-	-	2	2.25
077 Summerland	-	-	-	-	-	-	-	-	1	1	0.49
078 Enderby	1	-	-	1	-	-	1	-	-	3	3.64
080 Kitimat	2	-	-	-	-	-	1	1	1	5	4.56
081 Fort Nelson	3	-	-	-	-	-	-	-	-	3	3.95
083 Central Coast	-	-	-	-	-	-	2	-	-	2	21.57
084 Vancouver Island West	-	-	-	-	-	-	1	-	-	1	12.24
085 Vancouver Island North	-	-	1	1	-	-	2	-	-	4	4.05
087 Stikine	-	-	-	-	-	-	-	-	-	-	-
088 Terrace	3	1	-	3	-	-	2	-	-	9	4.47
092 Nisga'a	-	-	-	-	-	1	-	-	-	1	5.91
094 Telegraph Creek	-	-	-	1	-	-	-	-	-	1	11.42
161 Vancouver - City Centre	4	-	9	5	-	1	14	-	1	34	2.61
162 Vancouver - Downtown E.side	6	-	34	4	1	-	9	-	6	60	8.57
163 Vancouver - North East	5	-	6	8	-	-	10	1	2	32	2.84
164 Vancouver - Westside	4	1	5	4	2	1	17	-	2	36	2.28
165 Vancouver - Midtown	4	-	5	3	-	-	9	-	4	25	2.69
166 Vancouver - South	4	-	3	6	-	-	10	-	5	28	1.68
201 Surrey	16	-	39	15	2	3	22	8	18	123	3.53
202 South Surrey/White Rock	3	1	5	8	1	-	4	-	-	23	2.61
PROVINCIAL TOTAL	334	19	252	329	14	42	376	27	166	1,559	3.13
PERCENT	21.4	1.2	16.2	21.1	0.9	2.7	24.1	1.7	10.6	100.0	

Notes for table follow table 32.

TABLE 32
SUICIDE DEATHS BY MONTH AND GENDER
 BRITISH COLUMBIA, 2006

Month	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
January	16	5.4	13	16.5	29	7.7
February	28	9.4	7	8.9	35	9.3
March	24	8.1	8	10.1	32	8.5
April	22	7.4	5	6.3	27	7.2
May	25	8.4	4	5.1	29	7.7
June	31	10.4	7	8.9	38	10.1
July	28	9.4	7	8.9	35	9.3
August	25	8.4	6	7.6	31	8.2
September	28	9.4	5	6.3	33	8.8
October	36	12.1	5	6.3	41	10.9
November	15	5.1	2	2.5	17	4.5
December	19	6.4	10	12.7	29	7.7
TOTAL	297	100.0	79	100.0	376	100.0

Note: Suicide Deaths – ICD-10 codes X60–X84, Y87.0.
 Total percentage may not add up to 100 due to rounding.
 Non-residents are excluded.

Notes to Table 31

Note: Based on usual residence. ASMR – Age standardized mortality rate per 10,000 standard population (Canada 1991 Census). PERCENT – Provincial total for each cause as a percent of the Provincial total for all deaths from external causes. Other is comprised of accident caused by machinery, accidental firearm discharge, all other accidents, external event of undetermined intent, and sequelae of other external causes. Total includes residents with unknown LHA.

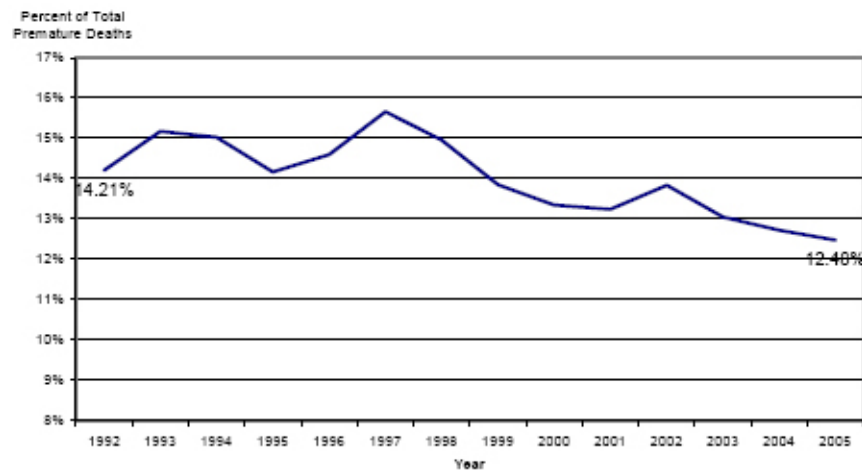


Vital Statistics Information Box

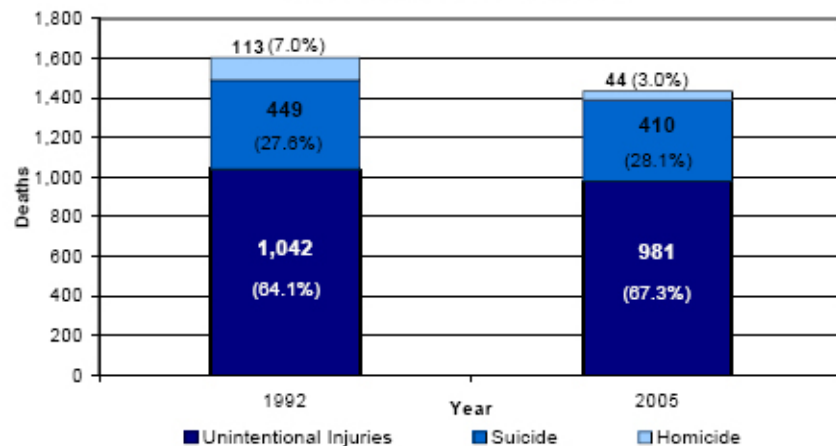
PREMATURE (<75 YEARS) EXTERNAL CAUSES OF DEATH IN BRITISH COLUMBIA, 1992 TO 2005

From 1992 to 2005, deaths among those under the age of 75 have accounted for just over two in five deaths (41.6 percent); however, four in five deaths (80.1 percent) from external causes were among those under the age of 75. The total number of deaths attributable to external causes has fallen from 2,027 in 1992 to 1,654 in 2005, and among those under the age of 75 the number of deaths has fallen from 1,629 to 1,457. The share of premature deaths attributable to external causes has fallen from 14.2 percent in 1992 to 12.5 percent in 2005. Unintentional injuries account for the vast majority of deaths from external causes of death with two in three external cause deaths among those under the age of 75 being from unintentional injuries.

Share of Premature Mortality Attributable to External Causes,
British Columbia 1992 to 2005



Deaths Under the Age of 75 Years due to
Unintentional Injuries, Homicide and Suicide,
British Columbia 1992 and 2005



Note: Percentages do not add up to 100 percent as external deaths of unknown intent are excluded.

Geographic Mortality

The geographic distribution of deaths is an important indicator for the administration of health care in the province because it provides on of several measures of the health status of residents.

Table 33 shows the number of deaths from all causes in each Local Health Area (LHA) not only for 2006, but also for the previous five years. The SMR (Standardized Mortality Ratio) columns are particularly useful because they compare the actual number of deaths in the LHA (observed) with the number that would be expected if the LHA had the same age-specific death rates as the whole province. The (p) columns indicate those LHAs where the observed number of deaths was different in a statistically significant way from the expected number. See Standardized Mortality Ratio in the Glossary for a further explanation and the Methodology section for the calculation method and a reference to the statistical test.

Table 33 also shows confidence intervals, which provide a measure of the variability of the statistic. The statistics in Table 3 are SMRs. A wide confidence interval indicates that the statistic is likely to fall within a wide range of values, while a narrow confidence interval indicates the statistic is likely to fall within a narrow range of values. In general, statistical confidence intervals will be wider for areas with small populations or rare events than for areas with larger populations or more common events.

Several LHAs had statistically significant and high ratios in 2006 and the previous 5 years: Cranbrook, Castlegar, Trail, Vernon, Kamloops, Cariboo-Chilcotin, Quesnel, Lillooet, South Cariboo, Merritt, Hope, Chilliwack, Langley, Maple Ridge, Prince Rupert, Smithers, Nechako, Prince George, Prince River South, Nanaimo, Alberni, Campbell River, Mission, Central Coast, Vancouver Island North, Terrace, Nisga'a, Vancouver Downtown Eastside and Surrey. The LHAs with statistically significant and low ratios in 2005 and the previous five years were: Richmond, Burnaby, Coquitlam, West Vancouver – Bowen Island, Saanich, Gulf Islands, Vancouver – North East, Vancouver – Westside, Vancouver – Midtown, and Vancouver – South.

Figure 38 shows the SMRs grouped into colour coded quintiles. The map provides an immediately apparent view of the provincial variation of SMRs but there was no pattern although low ratios were concentrated in the southeast and southwest.

Vital Statistics Information Box

DEATHS AGED 65+ BY GENDER AND HEALTH SERVICE DELIVERY AREA

BRITISH COLUMBIA, 2006

Health Service Delivery Area	Gender	Age at Death								% 65+	
		65-69	70-74	75-79	80-84	85-89	90-94	95-99	100+	Total	% 65+
11 East Kootenay	M	19	41	43	44	27	27	5	0	206	67.3%
	F	24	16	30	42	67	47	13	0	239	88.5%
12 Kootenay Boundary	M	54	39	49	64	46	34	11	2	299	78.3%
	F	20	36	45	50	77	61	17	4	310	86.1%
13 Okanagan	M	129	166	279	268	278	178	48	6	1,352	79.8%
	F	81	117	180	257	310	261	106	16	1,328	85.0%
14 Thompson Cariboo Shuswap	M	88	122	141	117	106	58	12	2	646	71.9%
	F	50	69	100	142	124	90	38	9	622	78.3%
21 Fraser East	M	73	132	150	165	159	69	32	5	785	73.6%
	F	49	79	131	165	182	139	54	8	807	82.3%
22 Fraser North	M	131	159	250	270	234	128	40	7	1,219	73.0%
	F	84	136	205	310	309	238	113	24	1,419	83.9%
23 Fraser South	M	168	177	281	361	290	166	46	7	1,496	72.1%
	F	110	150	235	346	416	307	113	26	1,703	83.9%
31 Richmond	M	37	42	67	70	63	44	10	0	333	76.0%
	F	15	36	47	93	98	57	36	3	385	83.0%
32 Vancouver	M	125	200	262	280	232	163	52	7	1,321	68.1%
	F	77	118	198	298	348	319	174	44	1,576	84.9%
33 North Shore/Coast Garibaldi	M	76	95	164	157	124	65	23	2	706	76.7%
	F	55	74	114	183	207	166	54	7	860	85.8%
41 South Vancouver Island	M	74	124	188	288	308	161	49	6	1,198	77.5%
	F	73	82	175	293	356	298	148	28	1,453	87.6%
42 Central Vancouver Island	M	109	123	191	198	173	84	22	2	902	74.5%
	F	76	87	135	214	209	169	57	10	957	83.4%
43 North Vancouver Island	M	46	48	69	56	64	23	9	0	315	66.6%
	F	27	36	45	70	74	57	22	2	333	78.5%
51 Northwest	M	27	29	48	28	29	7	0	0	168	67.2%
	F	15	18	29	22	32	9	5	1	131	68.6%
52 Northern Interior	M	61	70	73	56	39	22	7	2	330	66.0%
	F	41	37	49	55	53	31	10	1	277	74.5%
53 Northeast	M	14	24	34	26	9	6	2	0	115	59.0%
	F	9	10	17	21	22	13	6	2	100	68.5%
Provincial Total	M	1,231	1,591	2,289	2,449	2,181	1,235	368	48	11,392	73.2%
	F	806	1,101	1,735	2,561	2,884	2,262	966	185	12,500	83.6%

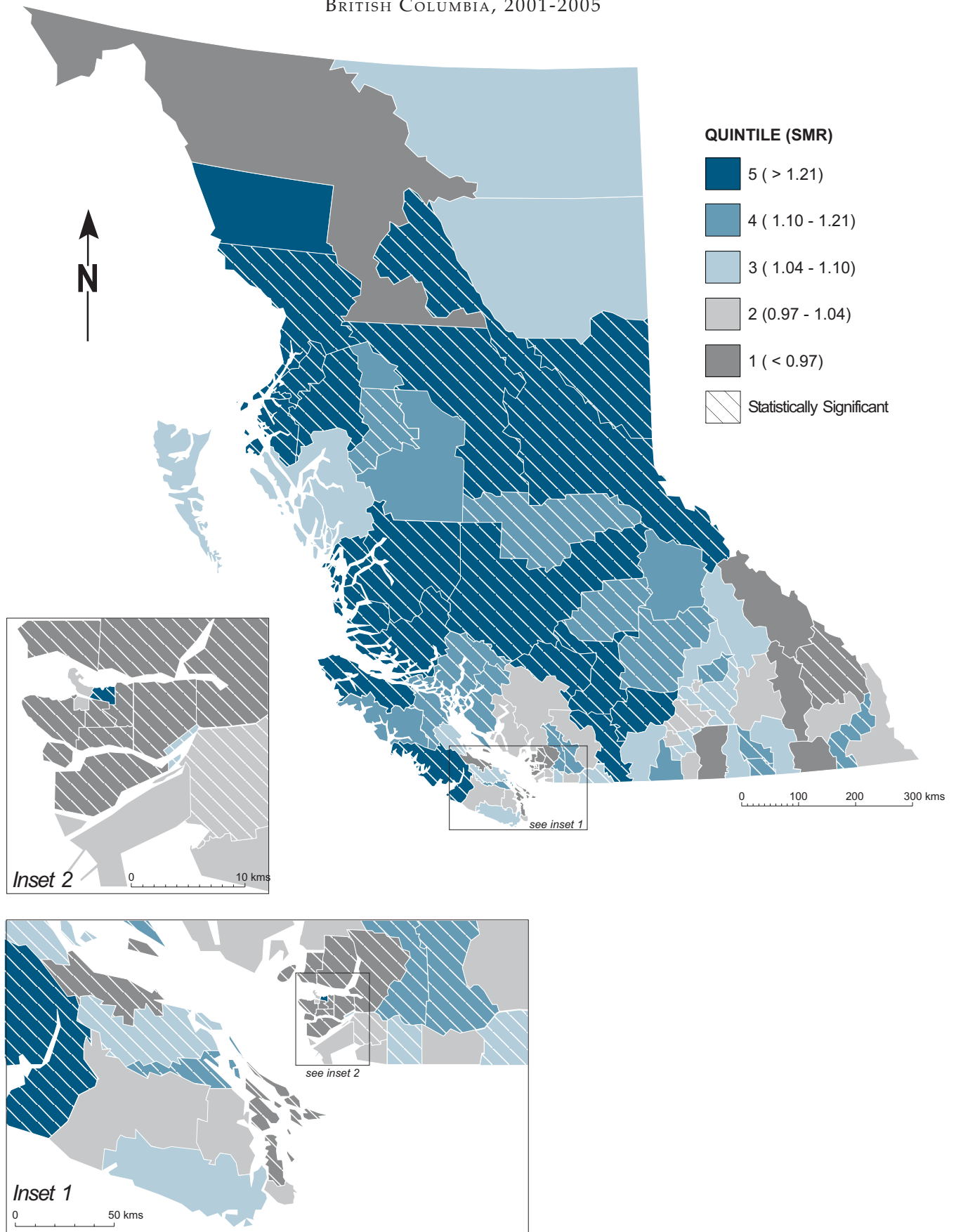
Note: %65+ is the percentage of deaths aged 65 or older out of all deaths to residents of the specified area by gender.

Provincial Total includes residents with unknown addresses.

88		2001-2005			2006				
Local Health Area		Observed Deaths	SMR	(p)	Observed Deaths	Expected Deaths	SMR	(p)	95% Confidence Interval
									Lower Upper
001	Fernie	399	1.02		75	79.06	0.95		0.75 - 1.19
002	Cranbrook	954	1.16	*	195	164.23	1.19	*	1.03 - 1.37
003	Kimberley	405	1.03		77	70.28	1.10		0.86 - 1.37
004	Windermere	233	0.85	*	46	57.65	0.80		0.58 - 1.06
005	Creston	636	0.93		134	134.82	0.99		0.83 - 1.18
006	Kootenay Lake	139	0.94		29	28.06	1.03		0.69 - 1.48
007	Nelson	951	1.06		188	176.32	1.07		0.92 - 1.23
009	Castlegar	575	1.13	*	155	102.12	1.52	*	1.29 - 1.78
010	Arrow Lakes	231	1.03		41	41.71	0.98		0.71 - 1.33
011	Trail	1,064	1.15	*	215	182.10	1.18	*	1.03 - 1.35
012	Grand Forks	472	1.07		88	91.79	0.96		0.77 - 1.18
013	Kettle Valley	130	0.88		26	31.10	0.84		0.55 - 1.22
014	Southern Okanagan	1,241	1.00		261	249.39	1.05		0.92 - 1.18
015	Penticton	2,520	1.05	*	514	476.95	1.08		0.99 - 1.18
016	Keremeos	313	1.11		69	57.17	1.21		0.94 - 1.53
017	Princeton	247	1.05		53	50.46	1.05		0.79 - 1.37
018	Golden	170	0.96		49	36.47	1.34		0.99 - 1.78
019	Revelstoke	266	1.06		53	49.15	1.08		0.81 - 1.41
020	Salmon Arm	1,533	1.04		315	303.28	1.04		0.93 - 1.16
021	Armstrong - Spallumcheen	385	1.00		62	79.01	0.78		0.60 - 1.01
022	Vernon	2,823	1.07	*	631	560.07	1.13	*	1.04 - 1.22
023	Central Okanagan	6,823	0.98	*	1,468	1,461.28	1.00		0.95 - 1.06
024	Kamloops	3,861	1.15	*	808	715.44	1.13	*	1.05 - 1.21
025	100 Mile House	562	1.13	*	110	106.29	1.03		0.85 - 1.25
026	North Thompson	139	1.16		31	23.37	1.33		0.90 - 1.88
027	Cariboo - Chilcotin	808	1.23	*	164	134.27	1.22	*	1.04 - 1.42
028	Quesnel	788	1.18	*	186	133.06	1.40	*	1.20 - 1.61
029	Lillooet	178	1.31	*	47	27.22	1.73	*	1.27 - 2.30
030	South Cariboo	366	1.38	*	73	51.23	1.42	*	1.12 - 1.79
031	Merritt	504	1.44	*	92	71.67	1.28	*	1.03 - 1.57
032	Hope	426	1.22	*	112	71.48	1.57	*	1.29 - 1.89
033	Chilliwack	3,111	1.08	*	696	609.49	1.14	*	1.06 - 1.23
034	Abbotsford	4,417	1.00		898	910.19	0.99		0.92 - 1.05
035	Langley	3,837	1.04	*	911	765.52	1.19	*	1.11 - 1.27
037	Delta	2,920	1.02		596	562.18	1.06		0.98 - 1.15
038	Richmond	4,223	0.72	*	902	1,320.22	0.68	*	0.64 - 0.73
040	New Westminster	2,454	1.08	*	501	477.76	1.05		0.96 - 1.14
041	Burnaby	6,812	0.93	*	1,381	1,549.65	0.89	*	0.84 - 0.94
042	Maple Ridge	2,667	1.18	*	540	480.80	1.12	*	1.03 - 1.22
043	Coquitlam	4,600	0.93	*	938	1,069.31	0.88	*	0.82 - 0.94
044	North Vancouver	3,995	0.91	*	862	918.60	0.94		0.88 - 1.00
045	West Vancouver-Bowen Is.	2,350	0.83	*	445	574.38	0.77	*	0.70 - 0.85
046	Sunshine Coast	1,215	1.00		263	259.81	1.01		0.89 - 1.14
047	Powell River	963	1.13	*	182	171.47	1.06		0.91 - 1.23
048	Howe Sound	539	0.99		127	116.55	1.09		0.91 - 1.30
049	Bella Coola Valley	97	1.31	*	25	16.21	1.54		1.00 - 2.28
050	Queen Charlotte	127	1.10		30	25.07	1.20		0.81 - 1.71
051	Snow Country	20	1.71	*	4	2.21	1.81		0.49 - 4.64
052	Prince Rupert	455	1.32	*	86	64.49	1.33	*	1.07 - 1.65
053	Upper Skeena	125	1.14		25	21.99	1.14		0.74 - 1.68
054	Smithers	391	1.12	*	86	67.94	1.27	*	1.01 - 1.56
055	Burns Lake	244	1.14		55	45.72	1.20		0.91 - 1.57
056	Nechako	468	1.26	*	100	73.48	1.36	*	1.11 - 1.66
057	Prince George	2,533	1.27	*	531	418.32	1.27	*	1.16 - 1.38
059	Peace River South	808	1.27	*	157	127.49	1.23	*	1.05 - 1.44
060	Peace River North	624	1.08		162	122.43	1.32	*	1.13 - 1.54
061	Greater Victoria	10,857	1.00		2,107	2,207.06	0.95	*	0.91 - 1.00
062	Sooke	1,592	1.04		333	332.51	1.00		0.90 - 1.12
063	Saanich	3,002	0.85	*	641	754.03	0.85	*	0.79 - 0.92
064	Gulf Islands	642	0.77	*	122	176.76	0.69	*	0.57 - 0.82
065	Cowichan	2,189	1.03		440	452.66	0.97		0.88 - 1.07
066	Lake Cowichan	222	1.01		45	45.00	1.00		0.73 - 1.34
067	Ladysmith	905	1.15	*	186	170.93	1.09		0.94 - 1.26
068	Nanaimo	4,115	1.07	*	906	837.08	1.08	*	1.01 - 1.16
069	Qualicum	2,268	0.95	*	497	524.49	0.95		0.87 - 1.03
070	Alberni	1,347	1.23	*	283	228.78	1.24	*	1.10 - 1.39
071	Courtenay	2,370	1.05	*	504	484.01	1.04		0.95 - 1.14
072	Campbell River	1,299	1.10	*	302	255.27	1.18	*	1.05 - 1.32
075	Mission	1,274	1.19	*	277	225.04	1.23	*	1.09 - 1.38
076	Agassiz - Harrison	299	1.03		64	61.37	1.04		0.80 - 1.33
077	Summerland	738	1.01		124	149.81	0.83	*	0.69 - 0.99
078	Enderby	362	1.17	*	74	63.65	1.16		0.91 - 1.46
080	Kitimat	249	1.09		56	46.26	1.21		0.91 - 1.57
081	Fort Nelson	73	1.08		22	14.34	1.53		0.96 - 2.32
083	Central Coast	69	2.38	*	18	5.78	3.11	*	1.85 - 4.92
084	Vancouver Island West	45	1.20		16	7.77	2.06	*	1.18 - 3.34
085	Vancouver Island North	321	1.30	*	75	50.08	1.50	*	1.18 - 1.88
087	Stikine	19	0.80		7	4.23	1.66		0.66 - 3.41
088	Terrace	562	1.27	*	127	89.25	1.42	*	1.19 - 1.69
092	Nisga'a	57	1.47	*	18	8.34	2.16	*	1.28 - 3.41
094	Telegraph Creek	20	1.52		2	3.23	0.62		0.07 - 2.23
161	Vancouver - City Centre	3,216	1.03		620	676.46	0.92	*	0.85 - 0.99
162	Vancouver - Downtown E.side	2,660	1.36	*	530	416.83	1.27	*	1.17 - 1.38
163	Vancouver - North East	2,925	0.89	*	572	687.10	0.83	*	0.77 - 0.90
164	Vancouver - Westside	3,749	0.80	*	775	960.12	0.81	*	0.75 - 0.87
165	Vancouver - Midtown	2,451	0.94	*	444	526.89	0.84	*	0.77 - 0.92
166	Vancouver - South	4,044	0.83	*	856	1,038.08	0.82	*	0.77 - 0.88
201	Surrey	7,598	1.03	*	1,741	1,568.71	1.11	*	1.06 - 1.16
202	South Surrey/White Rock	4,196	0.98		857	853.31	1.00		0.94 - 1.07
PROVINCIAL TOTAL		145,904	1.00		30,513	30,513.00	1.00		0.99 - 1.01

Note: SMR – Standardized Mortality Ratio. *Statistical testing indicates that observed deaths are significantly different from the expected deaths (p<0.05, two tailed). Total includes residents with unknown LHA. Observed deaths include unknown gender.

FIGURE 38
ALL CAUSES OF DEATH BY LOCAL HEALTH AREA
 BRITISH COLUMBIA, 2001-2005



Note: SMR - Standardized Mortality Ratio. Refer to Figure 1 to clarify geographical location of Local Health Areas.

Potential Years of Life Lost

Potential Years of Life Lost (PYLL) gives an indication of “premature” death by totalling the number of years British Columbians “lost” prior to age 75 years. For example, an infant death at the age of 6 months would have lost 75.5 years of life. The upper limit of 75 is used for both genders. PYLL indicates the importance of the various causes of premature death by giving more weight to deaths that occurred at younger ages than those that occurred later in life. Bear in mind that the total PYLL includes all ages or age groups up to 75 years old, so many deaths at an older age can have the same total PYLL as one death at a younger age.

The tables and figures in this section are comprehensive and, at times, may seem complex but they are particularly useful because they portray the impact of premature mortality. The Glossary further defines Potential Years of Life Lost. The precise calculation methods for the various indicators derived from PYLL are referenced in the tables in this section and are shown in the Methodology section.

Table 34 shows several PYLL based indicators for deaths of those under 75 years old as well as deaths of all ages for various causes of death. The No. (number) of Deaths column shows the number of persons under 75 years of age who died due to each cause group. Total PYLL counts the number of years all decedents would have lived if they reached the age of 75. Percent of PYLL shows each disease category’s proportion of the Total PYLL for all causes. Average PYLL is the disease category’s Total PYLL divided by its No. of Deaths. PYLLSR is the rate of PYLL per 1,000 standard population. See PYLL Standardized Rate in the Glossary and the Methodology sections for computation details.

The three rightmost columns in Table 34 relate to deaths at all ages for comparison. No. of Deaths is the total number of deaths due to each disease category. Percent of Deaths shows the number of deaths that occurred due to the Cause of Death out of one hundred total deaths. ASMR shows the death rate due to each cause standardized per 1,000 standard population. See Age-Standardized Mortality Rate in the Glossary and Methodology sections for an example of the calculation method.

Because PYLL focuses on premature mortality rather than on the simple fact of death, it is useful in assessing causes of death in terms of the extent to which each contributes to reduction in lifespan. In Table 34 the column labelled Average PYLL is helpful in exploring this effect. The larger the value in this column, the more premature are the deaths due to this category. The extreme case is certain conditions originating in the perinatal period. Most of the deaths from this cause are less than one year old (see Table 21) and the PYLL for deaths under one year old is 74.5 years. Motor vehicle accidents, which claim many young lives, have a high value for average PYLL at 35.6 years. Malignant neoplasms, on the other hand, although claiming many lives (4,301 under the age of 75) have a relatively low average PYLL at 12.9 years.

The PYLLSR and ASMR columns give standardized statistics which allow the comparison of PYLL and death rates between jurisdictions in Canada and between this year and other years. Such comparisons permit one to put British Columbia in a larger context and to see change over time.

Figure 39, by directly and visually contrasting PYLLSR and ASMR for several major causes of death, allows one to see, by comparing the profiles of the two sides of the graph, where there are significant differences in the impact of the various causes of death on PYLL and death rate. The clearest contrast is for external causes of death: a relatively moderate ASMR but very high PYLLSR. External causes are responsible for relatively few deaths but ‘waste’ much potential life.

In Table 35 causes of death in 2006 have been ranked according to the importance of Total PYLL in four age groups which correspond to what most people consider childhood and the young, middle, and later adult years. The central portion of the table indicates the number of deaths and number of years lost for males, females, and both genders. The PYLL column shows all the years lost in the age group due to each cause category. PYLL % indicates the percent of all PYLL in the age group due to each cause. As explained previously, PYLLSR is the ‘standardized’ rate adjusted to the Canada 1991 census, permitting comparison among places and times where the rates have been standardized to the same Canadian population.

Most of the PYLL under 15 years was due to conditions originating in the period around birth (see Table 35). Most of those deaths occurred less than seven days after birth (see Table 27) and caused more male than female deaths (see Table 21).

The PYLL due to motor vehicle accidents (MVA) age group of 15 to 24 year olds remains a major concern because they are largely preventable. Males accounted for the most of the deaths and most of the PYLL by far as shown in Table 35.

Males and females differed in their contributions to total PYLL in the age group of 25 to 44 year olds. Among females, malignant neoplasms were responsible for almost the same number of PYLL as all the other major causes combined. Among males, suicides accounted for the largest number of PYLL, although PYLL due to MVA and malignant neoplasms were important among females as well. Note that male deaths due to MVA were responsible for a greater number of deaths than in the 15 to 24 year age group but less than half the PYLL percentage.

Malignant neoplasms accounted for the largest share of PYLL for both genders in the 45-74 year age group (see Table 35).

Figure 40 presents the PYLLSR values from Table 35 so the gender differences are immediately apparent.

Males in the four age groups consistently 'lost' more years than females, although the standardized PYLL rates (PYLLSR) due to malignant neoplasms were similar in the two adult age groups and females lost more years due to Congenital Malformations and Chromosome Abnormalities and Disorders of the Nervous System in the under 15 years age group.

External causes have been covered in a previous section but Table 36 presents their geographic distribution in terms of PYLL, because of their impact on the relatively young. These causes, often seen to be more avoidable than the contrasting 'natural' causes of death, attract attention because of the greater potential for their reduction. PYLL Index is a way of displaying PYLL for a jurisdiction but adjusting it for population size, age distribution, and gender makeup so that areas can compare themselves with the province or each other. The table shows PYLL due to external causes of death by Local Health Area (LHA) for the period 2001 through 2005 and for the year 2006. It also displays the observed number of lost years in each LHA for both periods and, for 2006, the expected PYLL based on the age distribution in the LHA adjusted to the provincial age and gender specific rate. The PYLL Index is the ratio of observed to expected deaths with (p), a test of statistical significance and the 95% Confidence Interval of the ratio. See Expected Potential Years of Life Lost and PYLL Index in the Glossary and the Methodology section for a computational example.

In the five year period, over half of the LHAs (47) had statistically significant observed versus expected deaths and 32 of those were high. Only one of the populated areas in the lower mainland (Vancouver–Downtown Eastside) was statistically significant and high.

Figure 41 displays British Columbia's 89 local health areas, coloured according to their level of PYLL Index (PYLLI) for External Causes in the years 2001-2005. They are grouped into quintiles, five groups from those with the lowest (dark grey) to those with the highest PYLLI values (dark blue). Looking at this map, the pattern is one of an urban/rural distinction. The more urban areas, in general, are in the quintiles with lower PYLLI values.

TABLE 34
POTENTIAL YEARS OF LIFE LOST AND AGE STANDARDIZED
MORTALITY RATES BY SELECTED CAUSES OF DEATH

BRITISH COLUMBIA, 2006

Cause of Death	ICD-10 Code(s)	PYLL (Age Under 75 Years)					Mortality (All Ages)		
		No. of Deaths	Total PYLL	Percent of PYLL	Average PYLL	PYLLSR	No. of Deaths	Percent of Deaths	ASMR
Certain infectious and parasitic diseases	A00-B99	366	8,097.0	4.2	22.1	1.77	660	2.2	1.16
- HIV disease	B20-B24	138	3,845.0	2.0	27.9	0.90	141	0.5	0.30
Malignant neoplasms	C00-C97	4,301	55,484.5	29.0	12.9	11.05	8,445	27.7	14.86
- Malignant neoplasm of trachea and lung	C33-C34	1,251	13,792.5	7.2	11.0	2.66	2,232	7.3	4.04
- Malignant neoplasm of female breast	C500-C509	349	5,537.5	2.9	15.9	2.11	575	1.9	1.88
- Malignant neoplasm of colon and rectum	C18-C21	371	4,482.5	2.3	12.1	0.89	837	2.7	1.44
Endocrine nutritional and metabolic diseases	E00-E89	464	6,302.5	3.3	13.6	1.39	1,260	4.1	2.13
- Diabetes mellitus	E10-E14	350	3,985.0	2.1	11.4	0.81	975	3.2	1.64
Diseases of the circulatory system	I00-I99	2,123	24,602.5	12.8	11.6	5.04	9,489	31.1	14.92
- Ischemic heart diseases	I20-I25	1,161	12,847.5	6.7	11.1	2.52	4,441	14.6	7.07
- Cerebrovascular diseases	I60-I69	369	3,792.5	2.0	10.3	0.78	2,216	7.3	3.43
Diseases of the respiratory system	J00-J98	668	7,245.5	3.8	10.8	1.57	3,267	10.7	5.15
- Pneumonia/Influenza (excluding hypostatic)	J10-J181, J188, J189	186	2,793.5	1.5	15.0	0.63	1,394	4.6	2.08
- Chronic Pulmonary Disease	J40-J44	334	2,525.0	1.3	7.6	0.53	1,268	4.2	2.10
Diseases of the digestive system	K00-K92	534	8,189.0	4.3	15.3	1.67	1,222	4.0	2.06
- Chronic liver disease/cirrhosis	K70, K73-74, K760-K761	255	4,227.5	2.2	16.6	0.83	316	1.0	0.59
Congenital malformations and chromosome abnormalities	Q00-Q99	95	4,867.0	2.5	51.3	1.64	102	0.3	0.28
Certain conditions originating in the perinatal period	P00-P96	75	5,484.0	2.9	73.1	2.02	75	0.2	0.26
External causes of death	V01-Y98	1,163	35,463.0	18.5	30.5	8.82	1,559	5.1	3.13
- Motor vehicle accidents	V02-V04, V09, V12-V14, V190-V196, V20-V79, V803-V805, V820-V821, V823-V890, V892-V899, Y850	291	10,357.0	5.4	35.6	2.71	334	1.1	0.75
- Suicide	X60-X84, Y870	339	9,687.5	5.1	28.6	2.34	376	1.2	0.78
Other causes ¹		1,561	35,798.0	18.7	22.9	8.74	4,434	14.5	7.43
All causes		11,350	191,542.0	100.0	16.9	43.71	30,513	100.0	51.37

Note: PYLL – Potential Years of Life Lost, denotes the total number of years of life lost from an established life expectancy (75 years).

PYLLSR – PYLL Standardized Rate per 1,000 standard population (Canada 1991 Census).

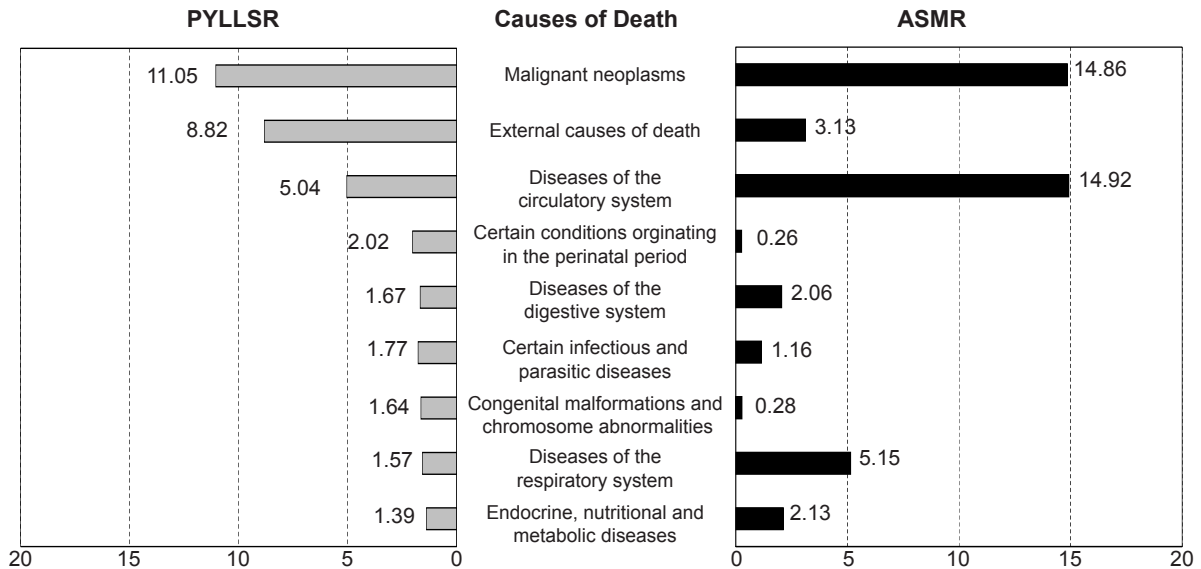
ASMR – Age Standardized Mortality Rate per 10,000 standard population (Canada 1991 Census).

¹Other causes includes undetermined and pending.

Total percentage may not add up to 100 due to rounding. Non-residents are excluded.

The output from ICD-10 mortality coding and underlying cause of death selection was modified in British Columbia to reflect the intent of certifiers in this jurisdiction and to provide greater continuity over time. Data using the standard ICD-10 rules for such categories as pneumonia/influenza, diabetes, or cancer should not be compared to the numbers shown above.

FIGURE 39
**POTENTIAL YEARS OF LIFE LOST AND AGE STANDARDIZED
 MORTALITY RATES BY SELECTED CAUSES OF DEATH**
 BRITISH COLUMBIA, 2006



Note: PYLLSR - Potential Years of Life Lost Standardized Rate (age under 75 years) per 1,000 standard population.
 ASMR - Age Standardized Mortality Rate per 10,000 standard population.

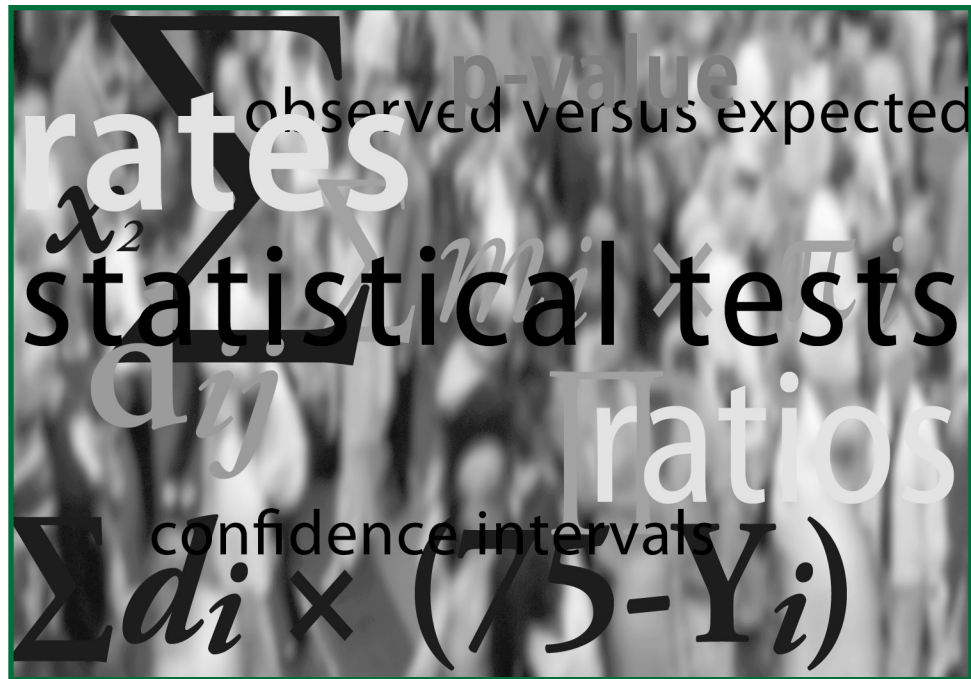


TABLE 35
POTENTIAL YEARS OF LIFE LOST BY AGE GROUP AND
MAJOR CAUSES OF DEATH (AGE UNDER 75 YEARS)

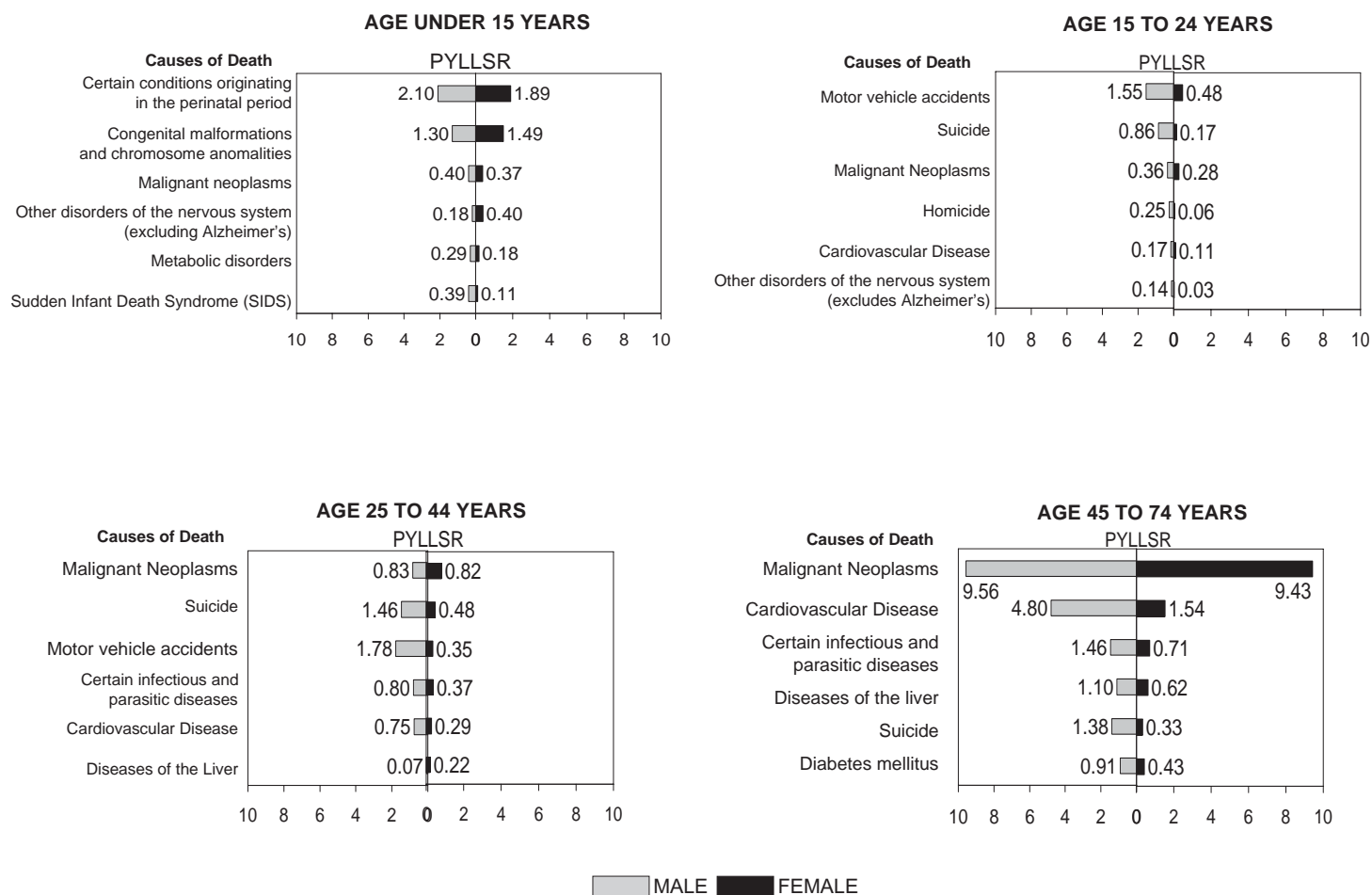
BRITISH COLUMBIA, 2006

Cause of Death	ICD-10 Code(s)	Male				Female				Total			
		Deaths	PYLL	PYLL %	PYLLSR	Deaths	PYLL	PYLL %	PYLLSR	Deaths	PYLL	PYLL %	PYLLSR
Under 15 Years Old													
Certain conditions originating in the perinatal period	P00-P96	38	2,831.0	29.8	2.10	34	2,530.5	29.7	1.89	72	5,361.5	29.8	1.99
Congenital malformations and chromosome abnormalities	Q00-Q99	24	1,776.0	18.7	1.30	28	2,047.5	24.0	1.49	52	3,823.5	21.2	1.40
Malignant neoplasms	C00-C97	10	659.0	6.9	0.40	8	553.0	6.5	0.37	18	1,212.0	6.7	0.38
Other disorders of the nervous system (excl. Alzheimer's)	G00-G25, G31-G99	4	276.5	2.9	0.18	8	570.0	6.7	0.40	12	846.5	4.7	0.29
Metabolic disorders	E70-E89	6	425.5	4.5	0.29	4	272.0	3.2	0.18	10	697.5	3.9	0.24
Sudden Infant Death Syndrome (SIDS)	R95	7	521.5	5.5	0.39	2	149.0	1.7	0.11	9	670.5	3.7	0.25
Other causes ¹		43	3,008.5	31.7	2.02	34	2,397.0	28.1	1.65	77	5,405.5	30.0	1.84
All causes		132	9,498.0	100.0	6.69	118	8519.0	100.0	6.09	250	18,017.0	100.0	6.39
15-24 Years Old													
Motor vehicle accidents	V02-V04, V09, V12-V14, V190-V196, V20-V79, V803-V805, V820-V821, V823-V890, V892, V899, Y850	56	3,050.0	24.8	1.55	17	942.5	19.2	0.48	73	3,992.5	23.2	1.02
Suicide	X60-X84, Y870	31	1,687.5	13.7	0.86	6	330.0	6.7	0.17	37	2,017.5	11.7	0.52
Malignant neoplasms	C00-C97	13	712.5	5.8	0.36	10	550.0	11.2	0.28	23	1,262.5	7.3	0.32
Homicide	X85-Y09, Y871	9	497.5	4.0	0.25	2	110.0	2.2	0.06	11	607.5	3.5	0.16
Cardiovascular disease	I00-I51	6	330.0	2.7	0.17	4	220.0	4.5	0.11	10	550.0	3.2	0.14
Other disorders of the nervous system (excl. Alzheimer's)	G00-G25, G31-G99	5	272.5	2.2	0.14	1	52.5	1.1	0.03	6	325.0	1.9	0.08
Other causes ¹		106	5,750.0	46.7	2.92	49	2,692.5	55.0	1.38	155	8,422.5	49.1	2.16
All causes		226	12,300.0	100.0	6.25	89	4,897.5	100.0	2.51	315	17,197.5	100.0	4.39
25-44 Years Old													
Malignant neoplasms	C00-C97	90	3,215.0	10.9	0.83	102	3,550.0	24.6	0.82	192	6,765.0	15.4	0.82
Suicide	X60-X84, Y870	88	3,385.0	11.5	1.46	21	877.5	6.1	0.48	109	4,262.5	9.7	0.97
Motor vehicle accidents	V02-V04, V09, V12-V14, V190-V196, V20-V79, V803-V805, V820-V821, V823-V890, V892, V899, Y850	83	3,372.5	11.4	1.78	20	770.0	5.3	0.35	103	4,142.5	9.4	1.06
Certain infectious and parasitic diseases	A00-B99	59	2,182.5	7.4	0.80	30	1,090.0	7.5	0.37	89	3,272.5	7.4	0.58
Cardiovascular disease	I00-I51	63	2,307.5	7.8	0.75	23	852.5	5.9	0.29	86	3,160.0	7.2	0.52
Diseases of liver	K70-K76	15	507.5	1.7	0.07	16	595.0	4.1	0.22	31	1,102.5	2.5	0.15
Other causes ¹		385	14,592.5	49.4	5.88	178	6,715.0	46.5	2.66	563	21,307.5	48.4	4.26
All causes		783	29,562.5	100.0	11.57	390	14,450.0	100.0	5.18	1,173	44,012.5	100.0	8.36
45-74 Years Old													
Malignant neoplasms	C00-C97	2,156	23,740.0	34.4	9.56	1,912	22,505.0	52.1	9.43	4,068	46,245.0	41.2	9.52
Cardiovascular disease	I00-I51	1,096	11,745.0	17.0	4.80	385	3,422.5	7.9	1.54	1,481	15,167.5	13.5	3.20
Certain infectious and parasitic diseases	A00-B99	179	3,087.5	4.5	1.46	92	1,375.0	3.2	0.71	271	4,462.5	4.0	1.08
Diseases of liver	K70-K76	186	2,615.0	3.8	1.10	97	1,457.5	3.4	0.62	283	4,072.5	3.6	0.87
Suicide	X60-X84, Y870	146	2,620.0	3.8	1.38	47	787.5	1.8	0.33	193	3,407.5	3.0	0.85
Diabetes mellitus	E10-E14	222	2,315.0	3.4	0.91	113	1,072.5	2.5	0.43	335	3,387.5	3.0	0.68
Other causes ¹		1,868	22,975.0	33.3	10.58	1,113	12,597.5	29.1	5.82	2,981	35,572.5	31.7	8.22
All causes		5,853	69,097.5	100.0	30.00	3,759	43,217.5	100.0	18.98	9,612	112,315.0	100.0	24.56

Note: PYLL – Potential Years of Life Lost, denotes the total number of years of life lost from an established life expectancy (75 years).

PYLLSR – PYLL Standardized Rate per 1,000 standard population (Canada 1991 Census). 'Other causes' includes undetermined and pending. Causes of death are ordered by total PYLL in the age group. Total percentage may not add up to 100 due to rounding. Non-residents are excluded. The output from ICD-10 mortality coding and underlying cause of death selection was modified in British Columbia to reflect the intent of certifiers in this jurisdiction and to provide greater continuity over time. Data using the standard ICD-10 rules for such categories as pneumonia/influenza, diabetes, or cancer should not be compared to the numbers shown above.

FIGURE 40
POTENTIAL YEARS OF LIFE LOST
STANDARDIZED RATES BY AGE GROUP AND GENDER
MAJOR CAUSES OF DEATH (AGE UNDER 75 YEARS)
 BRITISH COLUMBIA, 2006



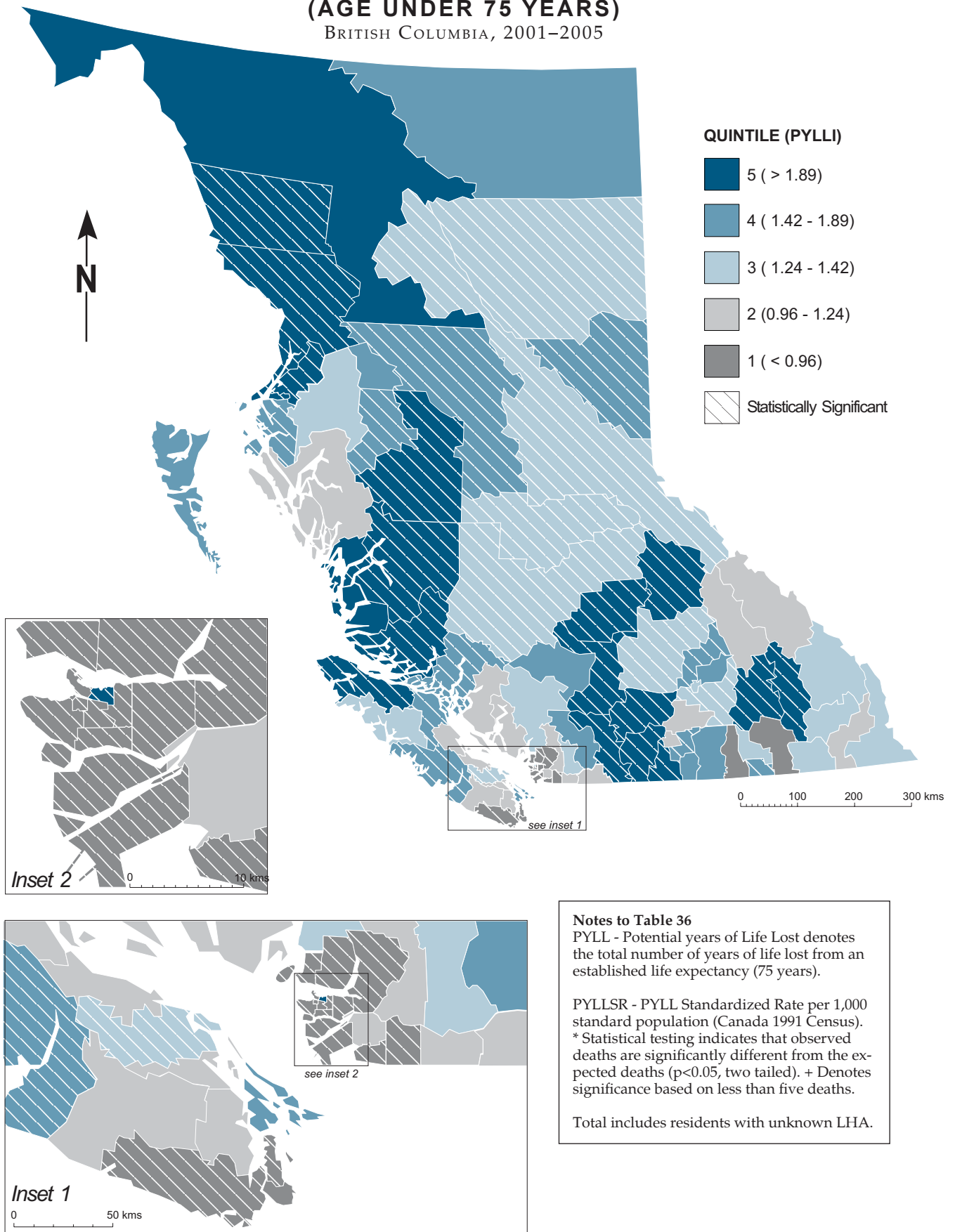
Note: Causes of death are ordered by total PYLL in the age group (Table 35).
 PYLLSR-PYLL Standardized Rate per 1,000 population.

POTENTIAL YEARS OF LIFE LOST BY LOCAL HEALTH AREA
EXTERNAL CAUSES OF DEATH (AGE UNDER 75 YEARS), BRITISH COLUMBIA, 2001-2005 AND 2006

Local Health Area		2001-2005			2006						
		Observed	Observed	PYLL	Observed	Observed	Expected	PYLL	95% Confidence Limit		
		Deaths	PYLL	Index (p)	Deaths	PYLL	PYLL	Index (p)	Lower	Upper	
001 Fernie		35	1,252.5	1.29	9	212.5	137.07	1.55	0.28	-	2.83
002 Cranbrook		47	1,429.5	0.96	16	515.0	203.91	2.53	1.16	-	3.89
003 Kimberley		16	595.0	1.27	1	2.5	65.00	0.05	0.00	-	0.12
004 Windermere		24	775.0	1.38	1	12.5	82.57	0.16	0.00	-	0.45
005 Creston		29	892.0	1.38	5	132.5	93.86	1.42	0.06	-	2.78
006 Kootenay Lake		17	452.5	2.47	2	70.0	23.50	2.98	0.00	-	7.12
007 Nelson		49	1,359.5	0.93	9	232.5	203.68	1.14	0.27	-	2.02
009 Castlegar		25	994.5	1.30	11	382.5	106.23	3.61	1.21	-	6.00
010 Arrow Lakes		18	700.0	2.61	1	57.5	35.85	1.62	0.00	-	4.76
011 Trail		47	1,661.5	1.48	3	32.5	151.27	0.22	0.00	-	0.53
012 Grand Forks		18	475.0	0.96	5	152.5	70.07	2.18	0.15	-	4.22
013 Kettle Valley		11	312.5	1.55	2	10.0	28.55	0.35	0.00	-	0.89
014 Southern Okanagan		41	1,302.5	1.48	8	155.0	131.44	1.18	0.12	-	2.24
015 Penticton		100	3,363.5	1.63	10	340.0	301.61	1.13	0.35	-	1.90
016 Keremeos		28	930.0	3.95	2	75.0	34.63	2.17	0.00	-	5.19
017 Princeton		15	602.5	2.46	3	72.5	35.60	2.05	0.00	-	5.10
018 Golden		15	522.5	1.13	5	177.5	64.17	2.77	0.05	-	5.49
019 Revelstoke		16	540.0	1.07	2	40.0	70.10	0.57	0.00	-	1.50
020 Salmon Arm		83	2,562.5	1.48	13	407.5	256.21	1.59	0.63	-	2.55
021 Armstrong - Spallumcheen		21	727.5	1.32	4	145.0	76.10	1.91	0.00	-	3.90
022 Vernon		142	4,354.5	1.29	13	452.5	493.63	0.92	0.37	-	1.47
023 Central Okanagan		297	9,619.0	1.08	32	970.0	1,334.50	0.73	0.44	-	1.02
024 Kamloops		255	8,219.0	1.34	32	990.0	883.35	1.12	0.68	-	1.56
025 100 Mile House		53	1,697.0	2.09	10	150.0	115.87	1.29	0.22	-	2.37
026 North Thompson		19	707.5	2.44	2	95.0	37.12	2.56	0.00	-	6.13
027 Cariboo - Chilcotin		74	2,362.0	1.38	14	515.0	230.43	2.23	0.98	-	3.49
028 Quesnel		72	2,085.0	1.42	7	297.5	197.45	1.51	0.34	-	2.68
029 Lillooet		18	445.0	1.63	5	177.5	36.68	4.85	0.29	-	9.41
030 South Cariboo		34	835.0	1.99	3	112.5	58.33	1.94	0.00	-	4.21
031 Merritt		36	1,260.0	1.91	6	210.0	92.46	2.27	0.29	-	4.25
032 Hope		33	972.5	2.09	1	27.5	64.05	0.44	0.00	-	1.28
033 Chilliwack		140	4,809.5	1.14	20	540.0	632.25	0.85	0.42	-	1.29
034 Abbotsford		220	7,769.0	1.05	34	1,150.0	1,058.56	1.09	0.69	-	1.48
035 Langley		150	4,925.0	0.70	24	670.0	1,025.56	0.65	0.34	-	0.96
037 Delta		112	3,756.0	0.62	23	762.5	845.89	0.90	0.49	-	1.31
038 Richmond		137	4,507.0	0.42	28	860.0	1,501.02	0.57	0.33	-	0.81
040 New Westminster		126	3,805.0	1.04	20	600.0	507.92	1.18	0.62	-	1.74
041 Burnaby		233	7,627.0	0.60	49	1,467.5	1,755.83	0.84	0.56	-	1.11
042 Maple Ridge		156	5,489.5	1.07	18	435.0	767.69	0.57	0.26	-	0.87
043 Coquitlam		252	8,597.0	0.68	52	1,530.0	1,769.03	0.86	0.60	-	1.13
044 North Vancouver		128	4,402.0	0.55	32	970.0	1,114.29	0.87	0.53	-	1.21
045 West Vancouver-Bowen Is.		51	1,412.5	0.54	5	167.0	378.94	0.44	0.00	-	0.92
046 Sunshine Coast		48	1,494.5	1.02	9	297.5	222.07	1.34	0.35	-	2.34
047 Powell River		37	1,117.0	1.02	10	290.0	150.53	1.93	0.54	-	3.31
048 Howe Sound		73	2,737.5	1.27	14	510.0	309.00	1.65	0.71	-	2.59
049 Bella Coola Valley		20	750.0	3.82	2	80.0	24.60	3.25	0.00	-	7.77
050 Queen Charlotte		19	537.5	1.63	3	67.5	44.17	1.54	0.00	-	3.46
051 Snow Country		6	280.0	6.39	1	52.5	4.73	11.20	0.00	-	32.96
052 Prince Rupert		45	1,562.5	1.55	4	110.0	130.19	0.84	0.00	-	1.79
053 Upper Skeena		15	502.5	1.43	-	-	47.17	-	-	-	-
054 Smithers		52	2,017.0	1.87	3	67.5	140.50	0.48	0.00	-	1.29
055 Burns Lake		27	907.5	1.98	1	57.5	64.40	0.90	0.00	-	2.65
056 Nechako		53	1,802.0	1.75	5	142.5	136.51	1.05	0.00	-	2.10
057 Prince George		245	8,064.5	1.28	24	720.0	852.67	0.84	0.46	-	1.23
059 Peace River South		72	2,495.0	1.55	6	195.0	231.06	0.84	0.02	-	1.67
060 Peace River North		74	2,728.5	1.34	13	567.5	297.72	1.91	0.82	-	2.99
061 Greater Victoria		360	11,786.0	0.95	48	1,390.0	1,772.81	0.78	0.53	-	1.04
062 Sooke		85	2,736.5	0.80	9	237.5	519.21	0.46	0.13	-	0.79
063 Saanich		72	2,205.0	0.69	9	222.5	457.97	0.49	0.13	-	0.84
064 Gulf Islands		32	1,080.0	1.53	3	117.5	106.61	1.11	0.00	-	2.44
065 Cowichan		105	3,658.5	1.23	19	582.5	440.47	1.32	0.70	-	1.94
066 Lake Cowichan		12	400.0	1.14	-	-	51.70	-	-	-	-
067 Ladysmith		31	1,062.5	1.21	5	197.5	129.93	1.52	0.09	-	2.96
068 Nanaimo		204	6,785.5	1.25	26	785.0	792.03	0.99	0.56	-	1.42
069 Qualicum		65	1,937.5	0.96	10	300.0	311.00	0.96	0.28	-	1.65
070 Alberni		94	3,229.0	1.76	17	537.0	261.78	2.05	0.96	-	3.14
071 Courtenay		119	3,839.5	1.17	22	580.0	487.96	1.19	0.65	-	1.73
072 Campbell River		110	3,480.0	1.46	18	550.0	345.33	1.59	0.78	-	2.41
075 Mission		89	2,867.5	1.26	16	435.0	334.08	1.30	0.56	-	2.04
076 Agassiz - Harrison		25	857.5	1.65	1	37.5	77.42	0.49	0.00	-	1.44
077 Summerland		20	720.0	1.22	1	22.5	87.15	0.26	0.00	-	0.77
078 Enderby		16	580.0	1.44	2	40.0	59.17	0.68	0.00	-	1.92
080 Kitimat		22	735.0	1.05	5	107.5	90.93	1.19	0.00	-	2.60
081 Fort Nelson		17	677.0	1.55	3	172.5	62.05	2.79	0.00	-	5.94
083 Central Coast		7	207.5	2.09	2	90.0	11.79	7.63	0.00	-	18.23
084 Vancouver Island West		6	215.0	1.37	1	17.5	20.97	0.86	0.00	-	2.49
085 Vancouver Island North		45	1,616.5	1.90	4	170.0	108.72	1.56	0.00	-	3.15
087 Stikine		5	162.5	2.34	-	-	8.86	-	-	-	-
088 Terrace		53	1,684.5	1.25	8	240.0	178.24	1.35	0.28	-	2.42
092 Nisga'a		13	422.5	3.31	1	12.5	18.03	0.72	0.00	-	2.08
094 Telegraph Creek		8	305.0	7.72	-	-	6.07	-	-	-	-
161 Vancouver - City Centre		208	6,185.0	0.83	28	850.0	1,087.74	0.78	0.46	-	1.10
162 Vancouver - Downtown E.side		316	9,739.5	2.76	53	1,577.5	518.34	3.04	2.17	-	3.92
163 Vancouver - North East		127	4,022.5	0.67	24	720.0	816.49	0.88	0.48	-	1.28
164 Vancouver - Westside		109	3,437.0	0.42	29	902.5	1,158.38	0.78	0.47	-	1.09
165 Vancouver - Midtown		118	3,829.5	0.70	21	607.5	737.10	0.82	0.43	-	1.22
166 Vancouver - South		151	5,234.5	0.67	21	552.5	1,098.21	0.50	0.25	-	0.76
201 Surrey		581	21,056.5	1.04	105	3,354.5	2,981.81	1.13	0.89	-	1.36
202 South Surrey/White Rock		88	2,955.0	0.75	15	522.0	597.06	0.87	0.37	-	1.38
PROVINCIAL TOTAL		7,504	248,217.5	1.00	1,163	35,463.0	35,463.00	1.00	0.94	-	1.06

Notes for this table follow the map.

FIGURE 41
EXTERNAL CAUSES OF DEATH BY LOCAL HEALTH AREA
(AGE UNDER 75 YEARS)
 BRITISH COLUMBIA, 2001–2005



Note: PYLLI - Potential Years of Life Lost Index. Refer to Figure 1 to clarify geographical location of Local Health Areas.

Medically Treatable Diseases

A list of causes have been identified where death could potentially have been avoided through appropriate medical intervention and treatment. The incidence of deaths from medically treatable diseases can be used by public health professionals as a way of monitoring the effect of health promotion programs. It should be noted that the causes are considered to have been medically treatable only if the death occurred to persons within specific age ranges. See Table 37 for a list of the causes and ages included in this category.

There were only 172 deaths due to these causes in 2006 which represents about half of one percent (0.56 percent) of all deaths in the province.

Table 37 indicates the number and percent of all medically treatable diseases by cause of death for 2006 and the five-year period 2001-2005. Bacterial infections accounted for most of the male and female deaths due to medically treatable diseases in 2006 and the previous five years (32.5 percent of male and 39.3 percent of female deaths due to medically treatable diseases in 2006 and 31.2 percent of all these deaths in 2001-2005). Two cause categories, hypertension and hypertensive diseases, and pneumonia and unqualified bronchitis, accounted for over half the male deaths (54.2 percent) and almost a quarter of the female deaths (23.6 percent) in 2006 due to medically treatable diseases.

Two time periods are detailed in Table 38 showing the incidence of deaths due to medically treatable diseases classified by the Local Health Area (LHA) in which the decedent lived and provincial totals. For the current year, 2006, the table shows the actual number of deaths observed in the LHA and the expected deaths based on the age adjusted provincial death rate. The SMR is the ratio of observed to expected deaths. The upper and lower limits of the 95 percent Confidence Interval are an indication of the amount of variation in the SMR. A narrow confidence interval generally indicates a larger population or a more common event than a wider confidence interval. The column headed (p) indicates those LHAs where observed deaths were significantly different from expected deaths. The observed deaths, SMR, and (p) are also shown for the five years 2001-2005. See the Glossary for an explanation of Standardized Mortality Ratio (SMR) and the Methodology section for the precise calculation method. More information on Confidence Intervals and Statistical Tests of Significance for Ratios is also available in the Methodology section.

This analysis of deaths which were attributed to diseases considered treatable, and which therefore should not be fatal, is useful in assessing the use and availability of medical treatment. There were seven LHAs that had no deaths due to these conditions in 2001-2005 and 32 in 2006 as shown in Table 38. Further, there were only seven LHAs in 2001-2005 that showed differences between observed and expected deaths that were statistically significant based on five or more deaths and only one LHA with five or more deaths that was statistically significant in 2006.

Figure 42 shows the province divided up into its 89 LHAs, with each area indicated as to whether its SMR for deaths due to medically treatable diseases was high or low on a five category scale: dark blue indicates the highest SMRs and dark grey indicates the lowest. As might be expected from a table containing such low incidence numbers, this map shows no obvious geographic pattern of location of the quintiles.

TABLE 37
DEATHS DUE TO MEDICALLY TREATABLE DISEASES BY
SELECTED CAUSES AND GENDER

BRITISH COLUMBIA, 2001–2005 AND 2006

Cause of Death	ICD-10 Code(s)	2001–2005		2006					
		Number	Percent	Male		Female		Total	
				Number	Percent	Number	Percent	Number	Percent
Hypertension and hypertensive diseases	I10-I15	159	20.8	21	25.3	11	12.4	32	18.6
Pneumonia and unqualified bronchitis	J12-J181, J188, J189, J40	129	16.9	24	28.9	10	11.2	34	19.8
Malignant neoplasm of cervix	C53	141	18.4	-	-	25	28.1	25	14.5
Tuberculosis	A15-A19, B90	15	2.0	3	3.6	-	-	3	1.7
Asthma	J45-J46	34	4.4	2	2.4	-	-	2	1.2
Chronic rheumatic heart disease	I05-I09	8	1.0	-	-	-	0.0	-	0.0
Acute respiratory infections and influenza	J00-J06, J10-J11, J20-22	3	0.4	-	-	-	-	-	-
Bacterial Infections*	A00-A05, ..., M871	239	31.2	27	32.5	35	39.3	62	36.0
Hodgkin's disease	C81	11	1.4	2	2.4	2	-	4	2.3
Abdominal hernias, cholecystitis and cholelithiasis, appendicitis	K35-K37, K40-K46, K80, K81	25	3.3	4	4.8	6	6.7	10	5.8
Nutritional anemias	D50-D53	1	0.1	-	-	-	-	-	-
TOTAL		765	100.0	83	100.0	89	100.0	172	100.0

Note: Medically Treatable Diseases based on Charlton's definition (see Glossary).

*ICD-10 codes A00–A05, A20–A49, B95–B96, G00, H66, H70, H95.0–H95.1, I00–I01, I02.0, I02.9, L01–L08, M00, M02.8–M02.9, M46.2, M86, M87.1.

Deaths due to medically treatable diseases exclude all deaths less than age 5 years old.

Deaths due to medically treatable diseases also exclude

- deaths aged 65 or more from hypertensive disease.
- deaths aged 50 or more from pneumonia and unqualified bronchitis.
- deaths aged 65 or more from cervical cancer.
- deaths aged 65 or more from tuberculosis.
- deaths aged 50 or more from asthma.
- deaths aged 45 or more from chronic rheumatic heart disease.
- deaths aged 50 or more from acute respiratory infections and influenza.
- deaths aged 65 or more from bacterial infections.
- deaths aged 35 or more from Hodgkin's disease.
- deaths aged 65 or more from abdominal hernias, cholecystitis and cholelithiasis, appendicitis.
- deaths aged 65 or more from deficiency nutritional anemias.

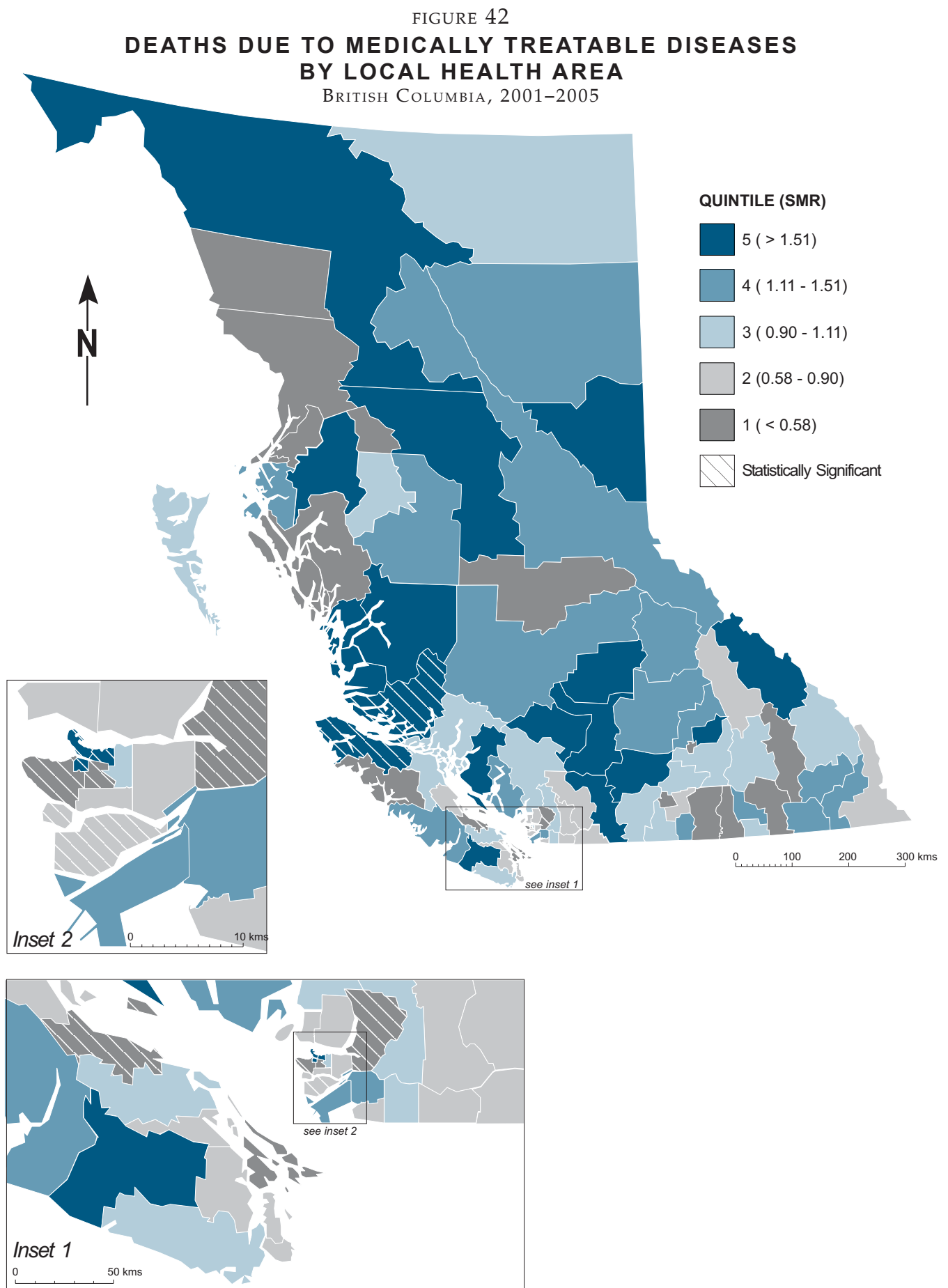
Total percentage may not add up to 100 due to rounding.

The output from ICD-10 mortality coding and underlying cause of death selection was modified in British Columbia to reflect the intent of certifiers in this jurisdiction and to provide greater continuity over time. Data using the standard ICD-10 rules for such categories as pneumonia/influenza, diabetes, or cancer should not be compared to the numbers shown above.

STANDARDIZED MORTALITY RATIO BY LOCAL HEALTH AREA DEATHS DUE TO MEDICALLY TREATABLE DISEASES, BRITISH COLUMBIA, 2001-2005 AND 2006

Local Health Area	2001-2005		2006				95% Confidence Interval	
	Observed	SMR (p)	Observed	Expected	SMR (p)		Lower	Upper
	Deaths		Deaths	Deaths				
001 Fernie	2	0.66	-	0.65	-	-	-	-
002 Cranbrook	7	1.50	-	1.00	-	-	-	-
003 Kimberley	2	1.18	-	0.37	-	-	-	-
004 Windermere	2	1.11	-	0.40	-	-	-	-
005 Creston	3	1.34	1	0.50	2.01	0.03	-	11.21
006 Kootenay Lake	-	-	-	0.13	-	-	-	-
007 Nelson	1	0.21	2	1.03	1.94	0.22	-	6.99
009 Castlegar	3	1.20	3	0.53	5.70	1.15	-	16.67
010 Arrow Lakes	1	1.04	-	0.19	-	-	-	-
011 Trail	4	1.06	1	0.78	1.28	0.02	-	7.10
012 Grand Forks	1	0.58	-	0.37	-	-	-	-
013 Kettle Valley	-	-	-	0.16	-	-	-	-
014 Southern Okanagan	5	1.48	1	0.79	1.26	0.02	-	7.02
015 Penticton	6	0.88	4	1.56	2.57	0.69	-	6.58
016 Keremeos	1	1.06	-	0.22	-	-	-	-
017 Princeton	1	0.98	-	0.24	-	-	-	-
018 Golden	3	2.19	-	0.29	-	-	-	-
019 Revelstoke	1	0.64	1	0.33	3.02	0.04	-	16.80
020 Salmon Arm	9	1.50	2	1.37	1.46	0.16	-	5.26
021 Armstrong - Spallumcheen	1	0.55	-	0.38	-	-	-	-
022 Vernon	12	1.10	3	2.48	1.21	0.24	-	3.53
023 Central Okanagan	27	0.96	9	6.52	1.38	0.63	-	2.62
024 Kamloops	24	1.23	5	4.36	1.15	0.37	-	2.68
025 100 Mile House	5	1.75	1	0.62	1.61	0.02	-	8.94
026 North Thompson	1	1.13	-	0.17	-	-	-	-
027 Cariboo - Chilcotin	7	1.38	-	1.06	-	-	-	-
028 Quesnel	2	0.44	1	0.93	1.07	0.01	-	5.98
029 Lillooet	3	3.80	1	0.17	6.05	0.08	-	33.65
030 South Cariboo	4	2.86	-	0.29	-	-	-	-
031 Merritt	5	2.52	-	0.42	-	-	-	-
032 Hope	3	1.90	3	0.34	8.72	1.75	-	25.48
033 Chilliwack	10	0.80	3	2.89	1.04	0.21	-	3.04
034 Abbotsford	17	0.82	7	4.65	1.50	0.60	-	3.10
035 Langley	22	1.01	4	5.05	0.79	0.21	-	2.03
037 Delta	22	1.12	4	4.28	0.93	0.25	-	2.39
038 Richmond	20	0.58	6	7.78	0.77	0.28	-	1.68
040 New Westminster	13	1.13	3	2.62	1.15	0.23	-	3.35
041 Burnaby	33	0.87	7	8.52	0.82	0.33	-	1.69
042 Maple Ridge	16	1.05	3	3.49	0.86	0.17	-	2.51
043 Coquitlam	22	0.57	5	8.65	0.58	0.19	-	1.35
044 North Vancouver	19	0.72	4	5.83	0.69	0.18	-	1.76
045 West Vancouver-Bowen Is.	7	0.68	1	2.33	0.43	0.01	-	2.39
046 Sunshine Coast	6	1.17	2	1.20	1.67	0.19	-	6.03
047 Powell River	7	1.80	1	0.85	1.18	0.02	-	6.56
048 Howe Sound	6	1.07	2	1.27	1.57	0.18	-	5.67
049 Bella Coola Valley	2	3.60	1	0.11	8.95	0.12	-	49.82
050 Queen Charlotte	1	1.00	-	0.21	-	-	-	-
051 Snow Country	-	-	-	0.03	-	-	-	-
052 Prince Rupert	3	1.12	-	0.55	-	-	-	-
053 Upper Skeena	-	-	1	0.19	5.22	0.07	-	29.07
054 Smithers	3	1.01	-	0.60	-	-	-	-
055 Burns Lake	2	1.47	-	0.30	-	-	-	-
056 Nechako	5	1.79	2	0.56	3.56	0.40	-	12.85
057 Prince George	27	1.51	6	3.77	1.59	0.58	-	3.47
059 Peace River South	8	1.78	-	0.98	-	-	-	-
060 Peace River North	8	1.50	-	1.22	-	-	-	-
061 Greater Victoria	34	0.87	7	8.94	0.78	0.31	-	1.61
062 Sooke	11	1.00	1	2.59	0.39	0.01	-	2.15
063 Saanich	8	0.66	2	2.71	0.74	0.08	-	2.66
064 Gulf Islands	1	0.34	-	0.71	-	-	-	-
065 Cowichan	6	0.61	3	2.23	1.35	0.27	-	3.94
066 Lake Cowichan	2	1.74	2	0.25	7.99	0.90	-	28.86
067 Ladysmith	2	0.64	1	0.72	1.40	0.02	-	7.77
068 Nanaimo	16	0.92	4	3.91	1.02	0.28	-	2.62
069 Qualicum	1	0.13	2	1.85	1.08	0.12	-	3.90
070 Alberni	7	1.17	1	1.29	0.78	0.01	-	4.32
071 Courtenay	8	0.72	1	2.52	0.40	0.01	-	2.21
072 Campbell River	8	1.03	2	1.72	1.16	0.13	-	4.20
075 Mission	4	0.59	-	1.53	-	-	-	-
076 Agassiz - Harrison	1	0.66	-	0.35	-	-	-	-
077 Summerland	1	0.48	-	0.47	-	-	-	-
078 Enderby	2	1.51	2	0.30	6.67	0.75	-	24.07
080 Kitimat	1	0.49	1	0.40	2.49	0.03	-	13.86
081 Fort Nelson	1	0.99	1	0.22	4.49	0.06	-	25.00
083 Central Coast	1	3.73	1	0.05	19.09	0.25	-	106.19
084 Vancouver Island West	-	-	-	0.07	-	-	-	-
085 Vancouver Island North	7	2.78	3	0.50	6.01	1.21	-	17.55
087 Stikine	1	4.15	-	0.05	-	-	-	-
088 Terrace	7	1.93	-	0.75	-	-	-	-
092 Nisga'a	-	-	-	0.07	-	-	-	-
094 Telegraph Creek	-	-	-	0.02	-	-	-	-
161 Vancouver - City Centre	30	1.57	7	4.41	1.59	0.64	-	3.27
162 Van. - Downtown E.side	46	4.49	8	2.30	3.47	1.49	-	6.84
163 Vancouver - North East	19	1.09	4	3.80	1.05	0.28	-	2.70
164 Vancouver - Westside	9	0.40	3	4.93	0.61	0.12	-	1.78
165 Vancouver - Midtown	6	0.37	1	3.61	0.28	0.00	-	1.54
166 Vancouver - South	20	0.86	3	5.26	0.57	0.11	-	1.66
201 Surrey	66	1.15	9	13.30	0.68	0.31	-	1.28
202 South Surrey/White Rock	13	0.86	3	3.58	0.84	0.17	-	2.45
PROVINCIAL TOTAL	765	1.00	172	172.00	1.00	0.86	-	1.16

Note: Medically Treatable Diseases based on Charlton's definition (see glossary - Medically Treatable Diseases). *Statistical testing indicates that observed deaths are significantly different from the expected deaths ($p < 0.05$, two tailed). +Denotes significance based on less than five deaths. SMR - Standardized Mortality Ratio. Total includes residents with unknown LHA.



Note: SMR - Standardized Mortality Ratio. Refer to Figure 1 to clarify geographical location of Local Health Areas.

Alcohol-Related Deaths

Alcohol-related deaths provide information on deaths due to alcohol (directly related) as well as those where alcohol was a contributing factor (indirectly related). Alcohol-related and drug overdose deaths are the only cause of death categories that are not based entirely upon the underlying causes of death. See the Glossary for a further explanation of alcohol-related deaths and Table 39 for the list of causes used for deaths directly due to alcohol.

Table 39 shows the number and percent of deaths that were directly and indirectly related to alcohol in 2006 and in the five preceding years. About one fifth (19.3 percent) of the 1,986 deaths related to alcohol in 2006 were directly attributable to alcohol (383 deaths). Alcohol was a contributing factor in the remaining 80.7 percent of these deaths. The table indicates that most of the deaths directly attributable to alcohol were caused by liver disease. The percents attributed to each cause in 2006 were quite consistent with those in the previous five years.

The 1,986 alcohol-related deaths represented 6.5 percent of all deaths in British Columbia in 2006, a decrease from 6.6 percent in the previous five years (see Table 39). On the other hand, 383 of those deaths (1.3 percent of all deaths) were directly related to alcohol which was a slight increase over the previous year. Figure 43 graphically shows the pattern of alcohol-related deaths by cause.

Table 40 shows numbers and percentages of alcohol-related deaths by age group for males, females, and the total population. All alcohol-related deaths, whether directly or indirectly related to alcohol (see Table 39), are included in this table. Details of the causes of these deaths are shown in the Glossary under Alcohol-Related Deaths.

Alcohol-related deaths constitute 6.5 percent of all deaths in 2006 and 9.6 percent of all male deaths (see Table 40). Males died of such causes three times more frequently as women in 2006.

Approaching half (46.3 percent) of all alcohol deaths were of seniors (65 or older); 41.1 percent were people between the ages of 45 and 64 as shown in Table 40.

The number of deaths directly and indirectly related to alcohol are shown for each of the Local Health Areas (LHA) in Table 41 as well as the number that would be expected according to the age- and gender-specific death rates in the whole province. The SMR is the ratio of the observed to the expected deaths and indicates the degree to which the number of deaths in the LHA is above or below the expected number. The (p) columns indicate those LHAs where the observed number of deaths was statistically different from the expected numbers. See Standardized Mortality Ratio in the Glossary for a further explanation and the Methodology section for the precise calculation method. The 95 percent Confidence Interval columns provide an indication of the variability of the SMR. A wide confidence interval indicates that the statistic is likely to fall within a wide range of values, while a narrow confidence interval indicates the statistic is likely to fall within a narrow range of values. In general, statistical confidence intervals will be wider for areas with small populations or rare events than for areas with larger populations or more common events.

There were 19 LHAs with at least five deaths where the observed values were statistically significant and above the expected values in both 2001-2005 and 2006 as shown in Table 41. There were 10 LHAs with SMRs that were statistically significant and low in both time periods. The map in Figure 44 shows the SMR quintiles and statistical significance patterns in each LHA during 2001-2005.

TABLE 39
ALCOHOL-RELATED DEATHS BY CAUSE
 BRITISH COLUMBIA, 2001–2005 AND 2006

Cause of Death	ICD-10 Code(s)	Year of Death			
		2001–2005		2006	
		Number	Percent	Number	Percent
Directly Related to Alcohol					
Alcohol intoxication	F100	224	2.3	31	1.6
Alcoholic psychoses and dependence	F101-F109	451	4.7	138	6.9
Alcoholic neurological disorders	G312, G621, G721	-	-	-	-
Alcoholic cardiomyopathy	I426	90	0.9	17	0.9
Alcoholic gastritis	K292	7	0.1	-	-
Alcoholic liver disease	K70	854	8.8	191	9.6
Alcohol induced chronic pancreatitis	K860	14	0.1	1	0.1
Alcohol poisoning	X45, X65	82	0.8	5	0.3
Other alcohol causes	E244, O354, O993, P043, Q860, R780 T510-T512, T519	-	-	-	-
SUBTOTAL		1,722	17.8	383	19.3
Indirectly Related to Alcohol ¹					
Certain infectious and parasitic diseases	A00-B99	271	2.8	77	3.9
Neoplasms	C00-D48	1,205	12.4	247	12.4
Endocrine/Nutritional/Metabolic	E00-E243, E248-E89	288	3.0	44	2.2
Mental disorders	F00-F09, F11-F99	119	1.2	22	1.1
Neurological diseases	G00-G311, G318-G620, G622-G720, G722-G99	119	1.2	25	1.3
Circulatory	I00-I425, I427-I99	2,217	22.9	386	19.4
Diseases of the respiratory system	J00-J98	645	6.7	159	8.0
Digestive system diseases	K00-K291, K293-K69, K71-K85, K861-K92	653	6.7	126	6.3
Urinary system diseases	N00-N39, N990, N991, N995	95	1.0	27	1.4
Unintentional injury	V01-X44, X46-X59, Y40-Y86, Y88	1,463	15.1	222	11.2
Suicide	X60-X64, X66-X84, Y87	601	6.2	87	4.4
Homicide	X85-Y09, Y871	60	0.6	3	0.2
All other causes		238	2.5	178	9.0
SUBTOTAL		7,974	82.2	1,603	80.7
TOTAL		9,696	100.0	1,986	100.0

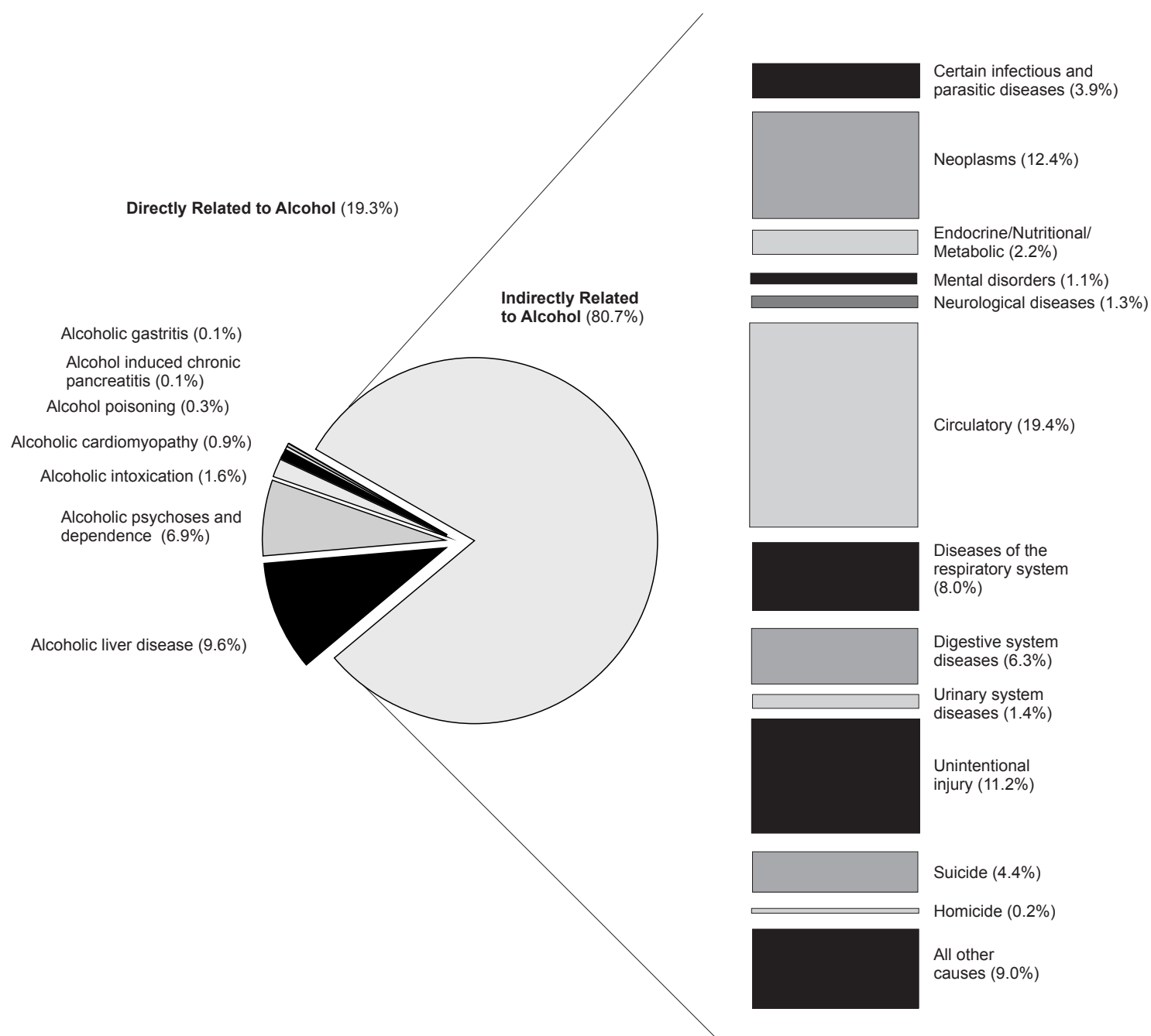
Note: ¹ICD-10 codes for indirectly related to alcohol exclude the codes for directly related to alcohol and will not match the list of codes used for these categories in other tables.

Total percentage may not add up to 100 due to rounding. Non-residents are excluded.

Coding practices from 1995 to 1999 may have produced over-counting of alcohol-related mortality. With the introduction of ICD-10 in 2000, more specific codes are available. Currently produced data should not be used in combination with data produced prior to 2000.

The output from ICD-10 mortality coding and underlying cause of death selection was modified in British Columbia to reflect the intent of certifiers in this jurisdiction and to provide greater continuity over time. Data using the standard ICD-10 rules for such categories as pneumonia/influenza, diabetes, or cancer should not be compared to the numbers shown above.

FIGURE 43
ALCOHOL-RELATED DEATHS BY CAUSE
 BRITISH COLUMBIA, 2006



See Table 39 for ICD-10 codes for each category.

TABLE 40
ALCOHOL-RELATED DEATHS BY AGE AND GENDER
 BRITISH COLUMBIA, 2006

Age	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
<15	-	-	2	0.4	2	0.1
15-19	13	0.9	2	0.4	15	0.8
20-24	24	1.6	8	1.6	32	1.6
25-44	151	10.1	49	10.0	200	10.1
45-64	625	41.7	191	39.1	816	41.1
65-84	603	40.3	186	38.1	789	39.7
85+	82	5.5	50	10.2	132	6.6
TOTAL	1,498	100.0	488	100.0	1,986	100.0

Note: Alcohol-related deaths – see Table 39 for ICD-10 codes and Glossary for more details.

Total percentage may not add up to 100 due to rounding. Non-residents are excluded.

Coding practices from 1995 to 1999 may have produced over-counting of alcohol-related mortality.

With the introduction of ICD-10 in 2000, more specific codes are available.

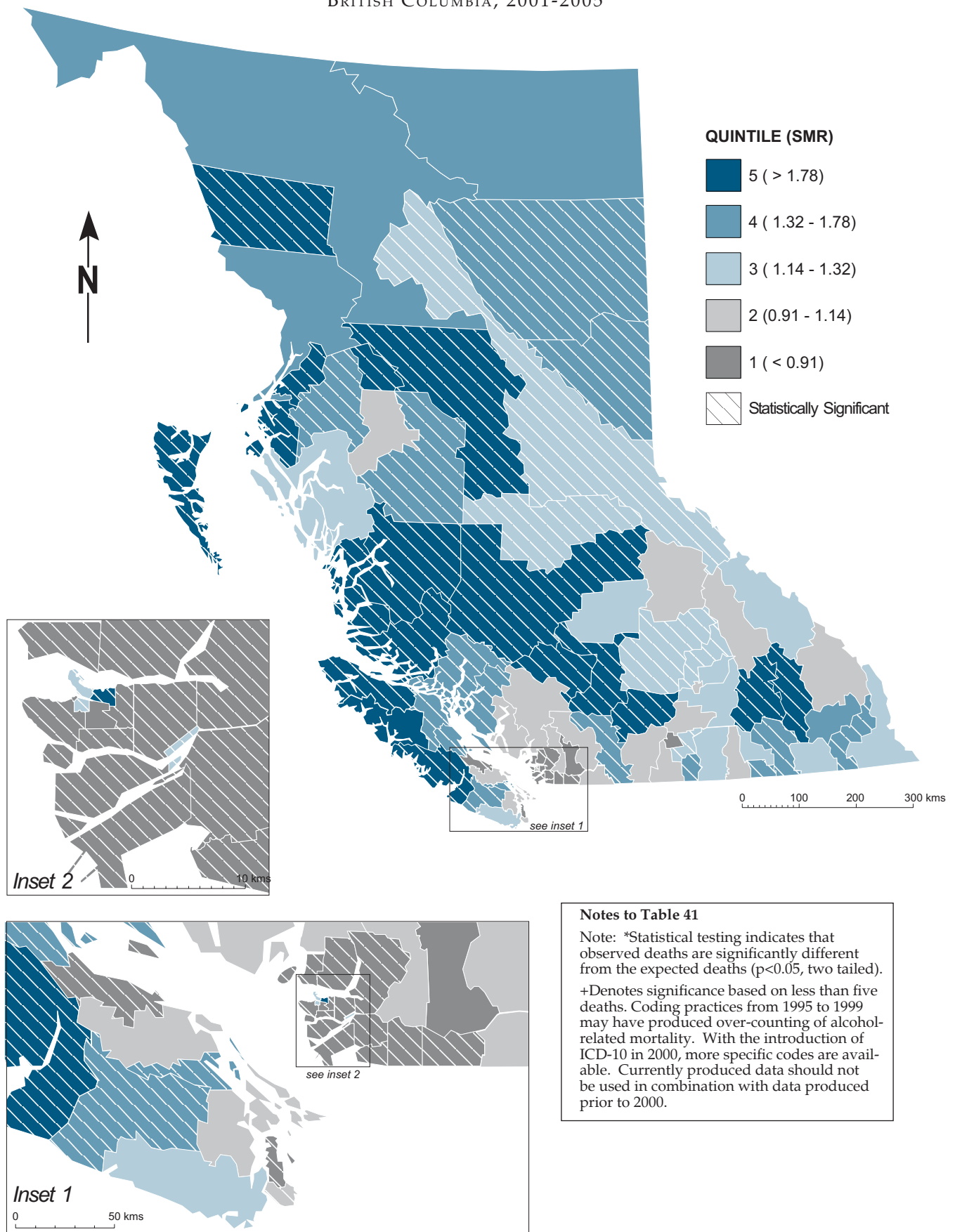
Currently produced data should not be used in combination with data produced prior to 2000.



Local Health Area		2001-2005			2006						
		Observed Deaths	SMR	(p)	Observed Deaths	Expected Deaths	SMR	(p)	95% Confidence Interval		
									Lower	Upper	
001	Fernie	41	1.23		4	6.67	0.60		0.16	-	1.54
002	Cranbrook	82	1.40	*	21	11.48	1.83	*	1.13	-	2.80
003	Kimberley	34	1.41		7	4.54	1.54		0.62	-	3.18
004	Windermere	24	1.09		6	4.50	1.33		0.49	-	2.90
005	Creston	50	1.29		4	7.71	0.52		0.14	-	1.33
006	Kootenay Lake	18	1.89	*	2	1.78	1.13		0.13	-	4.07
007	Nelson	85	1.41	*	13	11.89	1.09		0.58	-	1.87
009	Castlegar	43	1.30		19	6.54	2.90	*	1.75	-	4.54
010	Arrow Lakes	26	1.86	*	7	2.67	2.62	*	1.05	-	5.40
011	Trail	95	1.76	*	21	10.51	2.00	*	1.24	-	3.05
012	Grand Forks	31	1.14		11	5.48	2.01	*	1.00	-	3.59
013	Kettle Valley	14	1.31		2	2.22	0.90		0.10	-	3.26
014	Southern Okanagan	105	1.55	*	22	13.80	1.59		1.00	-	2.41
015	Penticton	155	1.28	*	29	23.96	1.21		0.81	-	1.74
016	Keremeos	19	1.10		5	3.59	1.39		0.45	-	3.25
017	Princeton	17	1.06		1	3.50	0.29		0.00	-	1.59
018	Golden	18	1.20		6	2.94	2.04		0.75	-	4.44
019	Revelstoke	20	1.06		3	3.72	0.81		0.16	-	2.35
020	Salmon Arm	115	1.25	*	18	18.84	0.96		0.57	-	1.51
021	Armstrong - Spallumcheen	24	0.97		5	4.99	1.00		0.32	-	2.34
022	Vernon	185	1.16		25	32.97	0.76		0.49	-	1.12
023	Central Okanagan	440	1.06		61	85.85	0.71	*	0.54	-	0.91
024	Kamloops	312	1.27	*	52	50.78	1.02		0.76	-	1.34
025	100 Mile House	50	1.27		14	8.15	1.72		0.94	-	2.88
026	North Thompson	11	1.06		4	1.94	2.06		0.56	-	5.29
027	Cariboo - Chilcotin	116	2.05	*	20	11.11	1.80	*	1.10	-	2.78
028	Quesnel	70	1.30	*	24	10.34	2.32	*	1.49	-	3.45
029	Lillooet	29	2.89	*	6	1.96	3.06	*	1.12	-	6.67
030	South Cariboo	59	2.97	*	13	3.87	3.36	*	1.79	-	5.75
031	Merritt	46	1.80	*	6	5.14	1.17		0.43	-	2.54
032	Hope	37	1.58	*	9	4.75	1.90		0.86	-	3.60
033	Chilliwack	164	0.92		35	37.02	0.95		0.66	-	1.31
034	Abbotsford	182	0.67	*	53	54.69	0.97		0.73	-	1.27
035	Langley	179	0.68	*	47	54.52	0.86		0.63	-	1.15
037	Delta	142	0.64	*	31	44.46	0.70	*	0.47	-	0.99
038	Richmond	174	0.43	*	38	86.68	0.44	*	0.31	-	0.60
040	New Westminster	170	1.22	*	41	28.68	1.43	*	1.03	-	1.94
041	Burnaby	345	0.73	*	78	97.85	0.80	*	0.63	-	0.99
042	Maple Ridge	173	1.02		32	35.16	0.91		0.62	-	1.28
043	Coquitlam	272	0.67	*	61	84.36	0.72	*	0.55	-	0.93
044	North Vancouver	199	0.65	*	36	61.87	0.58	*	0.41	-	0.81
045	West Vancouver-Bowen Is.	94	0.61	*	12	30.79	0.39	*	0.20	-	0.68
046	Sunshine Coast	71	0.93		18	16.08	1.12		0.66	-	1.77
047	Powell River	90	1.64	*	16	11.07	1.44		0.83	-	2.35
048	Howe Sound	58	1.06		11	11.25	0.98		0.49	-	1.75
049	Bella Coola Valley	25	3.91	*	9	1.26	7.14	*	3.26	-	13.56
050	Queen Charlotte	21	2.03	*	11	2.11	5.22	*	2.60	-	9.34
051	Snow Country	2	1.33		2	0.26	7.76		0.87	-	28.03
052	Prince Rupert	65	2.22	*	11	5.44	2.02	*	1.01	-	3.62
053	Upper Skeena	26	2.60	*	4	1.98	2.02		0.54	-	5.16
054	Smithers	29	0.93		9	5.95	1.51		0.69	-	2.87
055	Burns Lake	28	1.67	*	6	3.39	1.77		0.65	-	3.85
056	Nechako	59	1.86	*	15	6.07	2.47	*	1.38	-	4.08
057	Prince George	244	1.30	*	52	37.13	1.40	*	1.05	-	1.84
059	Peace River South	84	1.62	*	16	10.37	1.54		0.88	-	2.51
060	Peace River North	77	1.41	*	16	11.16	1.43		0.82	-	2.33
061	Greater Victoria	629	1.14	*	120	111.01	1.08		0.90	-	1.29
062	Sooke	138	1.14		21	25.81	0.81		0.50	-	1.24
063	Saanich	116	0.60	*	32	39.40	0.81		0.56	-	1.15
064	Gulf Islands	46	0.95		16	10.13	1.58		0.90	-	2.57
065	Cowichan	148	1.07		40	28.64	1.40		1.00	-	1.90
066	Lake Cowichan	25	1.57	*	5	3.23	1.55		0.50	-	3.61
067	Ladysmith	68	1.41	*	15	10.01	1.50		0.84	-	2.47
068	Nanaimo	272	1.13		52	50.46	1.03		0.77	-	1.35
069	Qualicum	103	0.74	*	23	30.00	0.77		0.49	-	1.15
070	Alberni	150	1.92	*	39	15.75	2.48	*	1.76	-	3.38
071	Courtenay	201	1.32	*	34	31.83	1.07		0.74	-	1.49
072	Campbell River	144	1.57	*	30	19.18	1.56	*	1.06	-	2.23
075	Mission	73	0.91		17	16.45	1.03		0.60	-	1.66
076	Agassiz - Harrison	21	0.99		11	4.53	2.43	*	1.21	-	4.34
077	Summerland	26	0.69		2	7.58	0.26	+	0.03	-	0.95
078	Enderby	24	1.23		5	3.97	1.26		0.41	-	2.94
080	Kitimat	27	1.22		5	4.24	1.18		0.38	-	2.75
081	Fort Nelson	13	1.48		4	1.75	2.28		0.61	-	5.84
083	Central Coast	20	6.63	*	5	0.54	9.19	*	2.96	-	21.45
084	Vancouver Island West	8	1.95		1	0.79	1.27		0.02	-	7.09
085	Vancouver Island North	55	2.14	*	16	4.89	3.27	*	1.87	-	5.31
087	Stikine	4	1.60		2	0.46	4.37		0.49	-	15.77
088	Terrace	63	1.57	*	17	7.76	2.19	*	1.27	-	3.51
092	Nisga'a	16	4.72	*	2	0.70	2.85		0.32	-	10.29
094	Telegraph Creek	10	9.12	*	-	0.24	-		-	-	-
161	Vancouver - City Centre	253	1.16	*	41	44.93	0.91		0.65	-	1.24
162	Vancouver - Downtown E.side	429	3.16	*	75	27.62	2.72	*	2.14	-	3.40
163	Vancouver - North East	158	0.71	*	22	45.09	0.49	*	0.31	-	0.74
164	Vancouver - Westside	133	0.48	*	26	55.38	0.47	*	0.31	-	0.69
165	Vancouver - Midtown	160	0.86		32	36.93	0.87		0.59	-	1.22
166	Vancouver - South	163	0.54	*	30	62.35	0.48	*	0.32	-	0.69
201	Surrey	520	0.85	*	125	129.01	0.97		0.81	-	1.15
202	South Surrey/White Rock	128	0.56	*	21	47.55	0.44	*	0.27	-	0.68
PROVINCIAL TOTAL		9,696	1.00		1,986	1,986.00	1.00		0.96	-	1.04

Notes for this table follow the map.

FIGURE 44
ALCOHOL-RELATED DEATHS BY LOCAL HEALTH AREA
 BRITISH COLUMBIA, 2001-2005



Note: SMR - Standardized Mortality Ratio. Refer to Figure 1 to clarify geographical location of Local Health Areas.

Smoking-Attributable Deaths

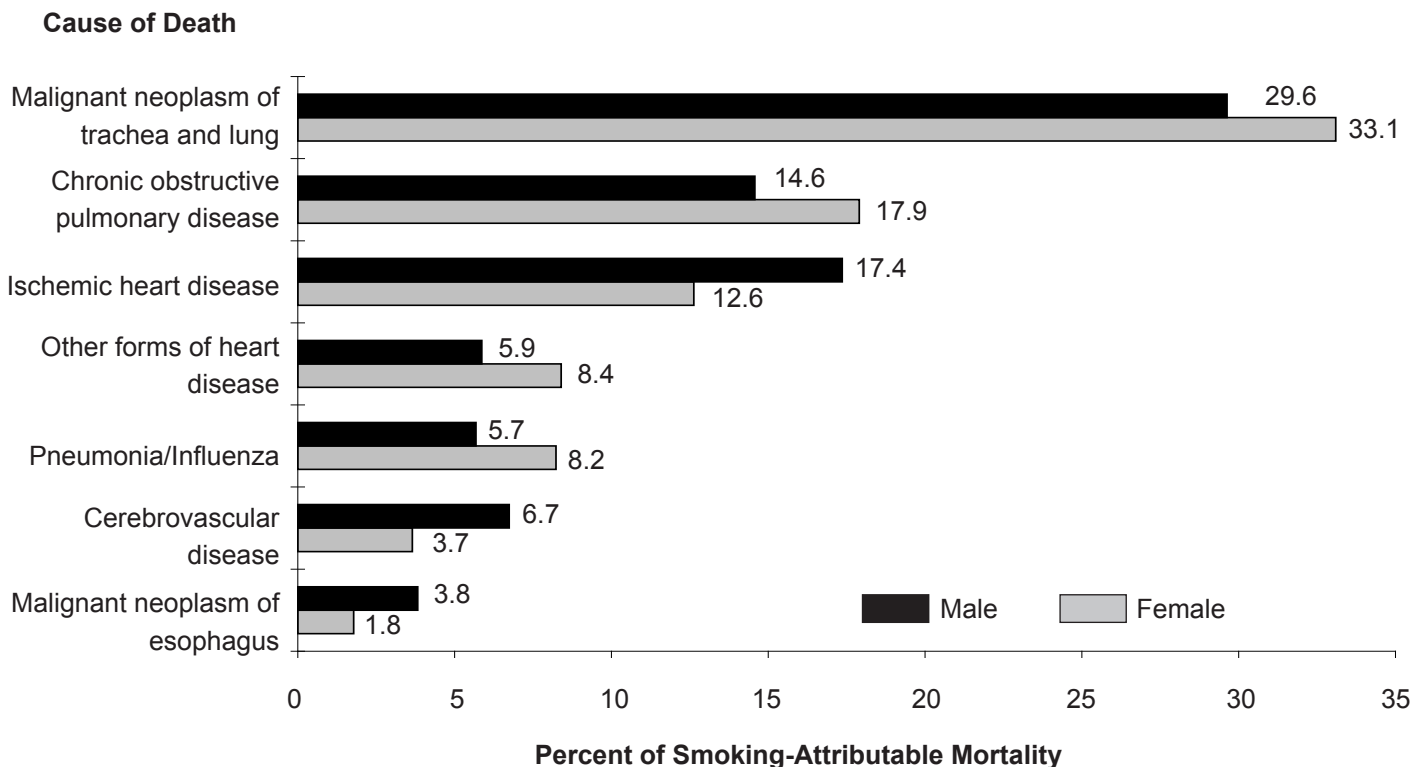
These tabulations portray the number and percent of deaths in 2006 that were attributable to smoking for those 35 years old and older. Because the decedent's smoking history is not available on the death record, the link between smoking and mortality is estimated indirectly. Research has indicated the fraction of deaths from certain diseases, like lung cancer, that are due to smoking and that fraction is then used to estimate the number of smoking attributable deaths due to those diseases. See the Glossary entry on Smoking-Attributable Mortality (SAM) for details and the Methodology section for the calculation formulae for these indicators.

Figure 45 shows visually the effect of seven of the causes with the highest incidence levels from Table 42. This display emphasizes the organ systems that contribute the most in calculating smoking attributable deaths.

Table 42 is designed to show the extent to which tobacco smoking contributes to individuals' premature death. As the health-destructive effects of smoking take some years to show up, this table is based on deaths of persons 35 years of age or older. For each of several causes listed on the left with the corresponding ICD-10 codes, the table shows the number of deaths and the SAM (%) value, an estimation calculated using the formula shown in the Methodology section. Also shown is the SAM Number, the number of deaths deemed to be attributable to the effects of smoking and SAM Percent, the percentage of all deaths attributable to the causes shown in this table.

In 2006, 5,972 deaths were considered attributable to the decedents' smoking as shown in Table 42. By far the largest contributory cause was malignant neoplasms of the trachea and lung (31.1 percent) followed by chronic obstructive pulmonary disease (16.0 percent) and ischemic heart disease (15.4 percent) with each having about half of the impact of lung cancer.

FIGURE 45
**SMOKING-ATTRIBUTABLE MORTALITY
BY SELECTED CAUSES AND GENDER**
BRITISH COLUMBIA, 2006



Note: Ischemic heart disease includes 35-64 years and 65+ years.

Cerebrovascular disease includes 35-64 years and 65+ years.

TABLE 42
SMOKING-ATTRIBUTABLE MORTALITY
 BRITISH COLUMBIA, 2006

Cause of Death	ICD-10 Code(s)	Male				Female				Total			
		Deaths	SAM (%)	SAM		Deaths	SAM (%)	SAM		Deaths	SAM		
				Number	Percent			Number	Percent		Number	Percent	
Malignant Neoplasms													
Malignant neoplasms of lip, oral cavity and pharynx	C00-C14	79	91.2	72	2.1	41	59.9	25	1.0	120	97	1.6	
Malignant neoplasm of esophagus	C15	171	78.2	134	3.8	62	71.0	44	1.8	233	178	3.0	
Malignant neoplasm of pancreas	C25	269	21.7	58	1.7	271	33.9	92	3.7	540	150	2.5	
Malignant neoplasm of larynx	C32	32	79.7	26	0.7	9	87.2	8	0.3	41	33	0.6	
Malignant neoplasm of trachea and lung	C33-C34	1,161	89.3	1,037	29.6	1,070	76.5	819	33.1	2,231	1,855	31.1	
Malignant neoplasms of cervix, uterus	C53-C55	-	-	-	-	123	33.9	42	1.7	123	42	0.7	
Malignant neoplasm of bladder	C67	180	44.8	81	2.3	55	37.6	21	0.8	235	101	1.7	
Malignant neoplasm of kidney and other unspecified urinary organs	C64-C66, C68	122	46.8	57	1.6	63	12.4	8	0.3	185	65	1.1	
SUBTOTAL		2,014		1,464	41.8	1,694		1,057	42.7	3,708	2,521	42.2	
Circulatory System Diseases													
Hypertension	I10-I13	112	24.6	28	0.8	196	16.4	32	1.3	308	60	1.0	
Ischemic heart diseases : 35-64 years	I20-I25	424	43.2	183	5.2	91	36.5	33	1.3	515	216	3.6	
65+ years		2,010	21.1	424	12.1	1,912	14.6	279	11.3	3,922	703	11.8	
Other forms of heart disease	I01-I09, I27, I30-I52	775	26.5	205	5.9	1,071	19.4	208	8.4	1,846	413	6.9	
Cerebrovascular diseases : 35-64 years	I60-I69	71	44.8	32	0.9	66	49.3	33	1.3	137	64	1.1	
65+ years		872	23.4	204	5.8	1,203	4.8	58	2.3	2,075	262	4.4	
Atherosclerosis	I70	96	55.5	53	1.5	83	31.7	26	1.1	179	80	1.3	
Aortic aneurysm	I71	145	55.5	80	2.3	91	31.7	29	1.2	236	109	1.8	
Other arterial diseases	I26, I28, I72-I78	55.5 98	54	1.6	108	31.7	34	1.4	206	89	1.5		
SUBTOTAL		4,603		1,264	36.1	4,821		732	29.6	9,424	1,996	33.4	
Respiratory System Diseases													
Pneumonia/Influenza	J10-J181, J188, J189	608	32.7	199	5.7	774	26.3	204	8.2	1,382	402	6.7	
Bronchitis, emphysema	J40-J43	65	84.7	55	1.6	41	79.2	32	1.3	106	88	1.5	
Chronic obstructive pulmonary disease	J44	602	84.7	510	14.6	559	79.2	443	17.9	1,161	953	16.0	
Other respiratory diseases	A15-A19, J45-J46	21	32.7	7	0.2	21	26.3	6	0.2	42	12	0.2	
SUBTOTAL		1,296		771	22.0	1,395		684	27.7	2,691	1,455	24.4	
TOTAL		7,913		3,499	100.0	7,910		2,473	100.0	15,823	5,972	100.0	

Note: Deaths are the total number of deaths aged 35+ years or as specified in the diagnostic category.

SAM – Smoking-Attributable Mortality, derived by multiplying the SAM(%) by the number of deaths in each category.

See glossary under Smoking-Attributable Mortality Percent for a definition of the formula for SAM(%).

Total SAM Number may not add up to the sum of Male SAM Number and Female SAM Number due to rounding.

Non-residents are excluded.

The output from ICD-10 mortality coding and underlying cause of death selection was modified in British Columbia to reflect the intent of certifiers in this jurisdiction and to provide greater continuity over time. Data using the standard ICD-10 rules for such categories as pneumonia/influenza, diabetes, or cancer should not be compared to the numbers shown above.

Drug-Induced Deaths

Drug-induced deaths are all deaths directly due to drug use, and include illicit and prescribed drugs. This category excludes causes indirectly related to drug use and also exclude those deaths due to alcohol or smoking. See Table 44 for a list of the causes associated with these deaths.

It is immediately apparent in Table 43 that males (223 deaths) were twice as susceptible to drug-induced causes of death compared to females (106 deaths). Also, they were centred among residents aged 25 to 44 years (42.9 percent) and those aged 45 to 64 years (43.5 percent), although drug-induced deaths appeared in every age group, except children less than 15 years. Note that the percentages of drug deaths progressively increased until reaching the two age groups with the highest fatalities, and then the percentages progressively decreased in older age groups, this happened for both males and females.

Table 44 shows the incidence, for 2001-2005 and 2006, of drug-induced deaths by cause. Almost three quarters (73.3 percent) of those deaths in 2006 and two thirds in 2001-2005 (65.0 percent) were the result of unintentional poisoning (called accidental poisoning in ICD-10). Of the 376 suicide deaths in B.C. in 2006 (see Table 30), nearly one in six (15.4 percent) were drug-induced.

Figure 46 makes the results in Table 44 more dramatic by visual display. Clearly, drug-induced deaths are almost all due to poisoning, suicide, and non-medicinal use of drugs.

Table 45 shows the number of observed and expected drug-induced deaths and the ratio of observed to expected deaths (SMR) in each Local Health Area in 2006 and in the previous five years. The calculation method for Standardized Mortality Ratio (SMR) appears in the Methodology section, supplemented by the definition in the Glossary. Notice that 38 LHAs had no deaths due to drugs in 2006 and 10 had no drug induced deaths in 2001-2005. Vancouver - Downtown Eastside was the only LHA where the observed number was statistically significant and higher than the expected number (SMR ratio) in 2006 and the previous five years.

Figure 47 provides an immediately visible pattern of the variation of SMRs in the LHAs divided into quintiles. The map shows SMR quintiles for 2001-2005 because the low 2006 frequencies in the LHAs would be susceptible to a large amount of variation.

TABLE 43
DRUG-INDUCED DEATHS BY AGE AND GENDER
BRITISH COLUMBIA, 2006

Age	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
<15	-	-	-	-	-	-
15-19	6	2.7	2	1.9	8	2.4
20-24	7	3.1	6	5.7	13	4.0
25-44	105	47.1	36	34.0	141	42.9
45-64	97	43.5	46	43.4	143	43.5
65-84	7	3.1	14	13.2	21	6.4
85+	1	0.4	2	1.9	3	0.9
TOTAL	223	100.0	106	100.0	329	100.0

Note: Excludes tobacco and alcohol.

Drug-induced deaths – see Table 44 for ICD-10 codes and Glossary for more details.

Total percentage may not add up to 100 due to rounding.

Non-residents are excluded.

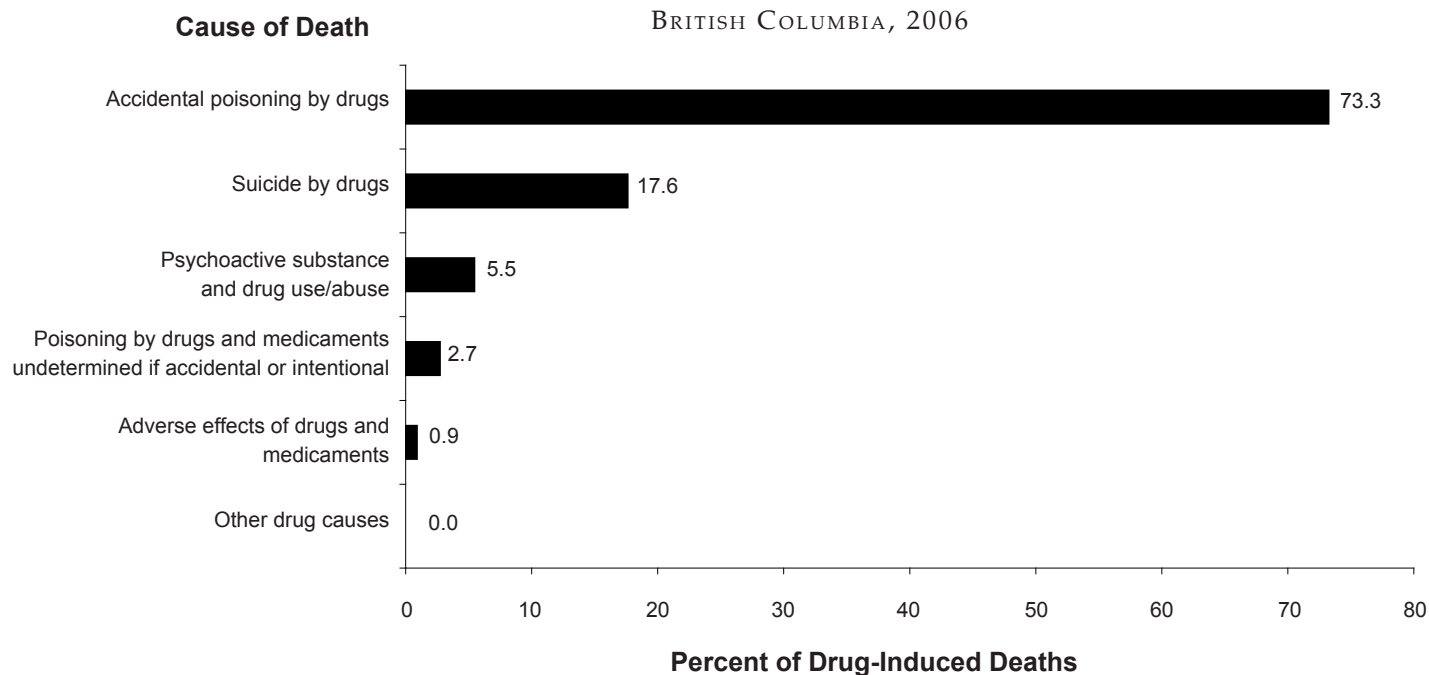
TABLE 44
DRUG-INDUCED DEATHS BY CAUSE
 BRITISH COLUMBIA, 2001–2005 AND 2006

Cause of Death	ICD-10 Code(s)	Year of Death			
		2001–2005		2006	
		Number	Percent	Number	Percent
Psychoactive substance and drug use/abuse	F11-F16, F19	113	5.4	18	5.5
Accidental poisoning by drugs	X40-X44	1,357	65.0	241	73.3
Suicide by drugs	X60-X64	532	25.5	58	17.6
Assault by drugs and medicaments	X85	2	0.1	-	-
Poisoning by drugs and medicaments undetermined if accidental or intentional	Y10-Y14	66	3.2	9	2.7
Adverse effects of drugs and medicaments	Y40-Y574, Y577-Y579, Y598, Y880	17	0.8	3	0.9
Other drug causes*		1	-	-	-
TOTAL		2,088	100.0	329	100.0

Note: Excludes tobacco and alcohol. Total percentage may not add to 100 due to rounding. Non-residents are excluded.

*ICD-10 codes D521, D590, D592, D611, D642, E032, E064, E231, E242, E273, F55, F551, G210, G211, G240, G251, G254, G256, G444, G620, G720, H263, I427, I952, J702, J703, J704, L105, L233, L244, L251, L270, L271, L432, L560, L561, L640, M022, M102, M320, M804, M814, M835, M871, N140, N141, N142, O355, P040, P041, P044, P584, P961, P962, R781, R782, R783, R784, R785, R786, R825.

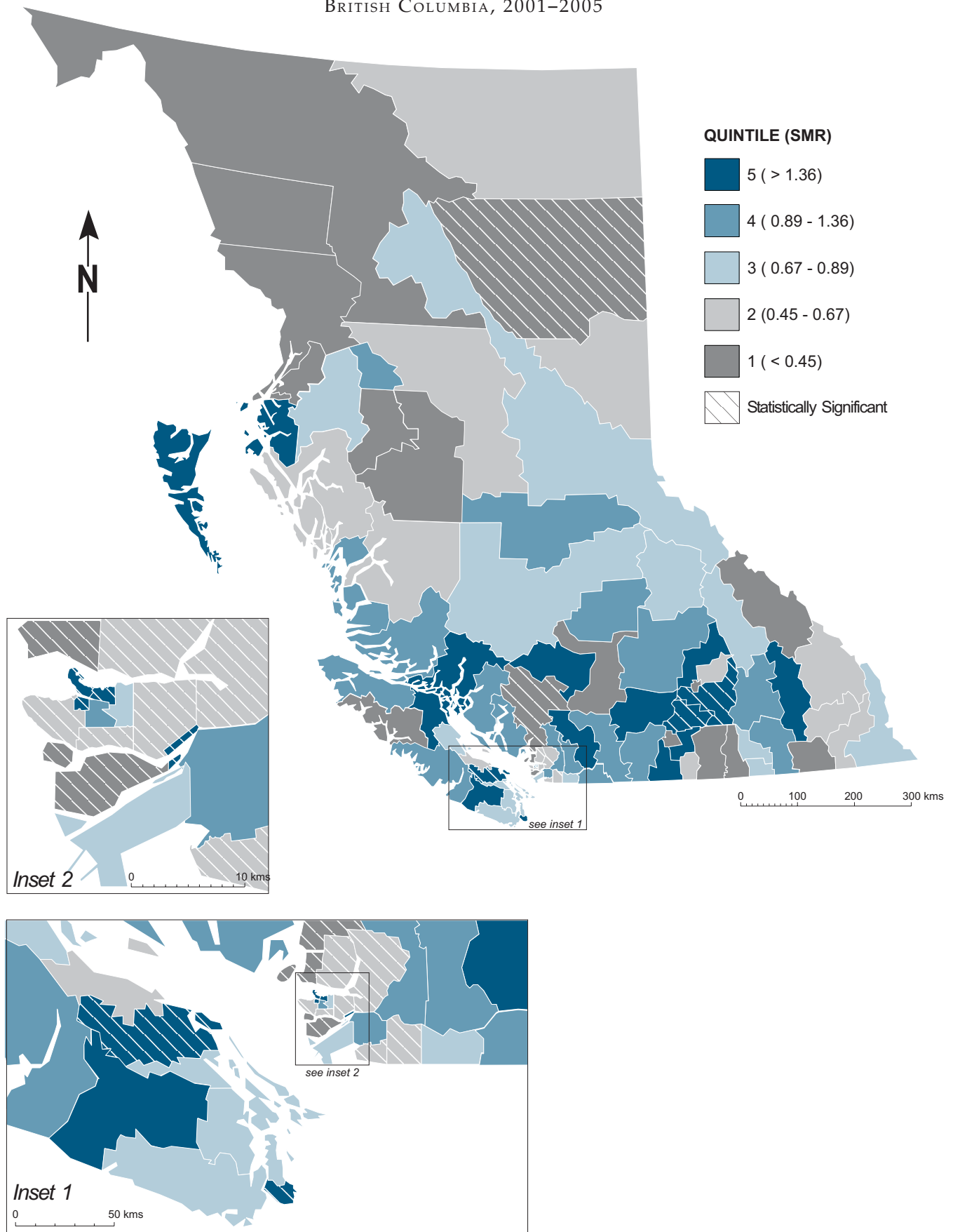
FIGURE 46
DRUG-INDUCED DEATHS BY CAUSE
 BRITISH COLUMBIA, 2006



112		2001-2005		2006				
Local Health Area		Observed Deaths	SMR (p)	Observed Deaths	Expected Deaths	SMR (p)	95% Confidence Interval	
							Lower	Upper
001	Fernie	6	0.76	-	1.22	-	-	-
002	Cranbrook	8	0.66	1	1.83	0.55	0.01	3.04
003	Kimberley	2	0.47	-	0.64	-	-	-
004	Windermere	3	0.64	-	0.76	-	-	-
005	Creston	2	0.36	1	0.86	1.16	0.02	6.45
006	Kootenay Lake	4	2.46	-	0.23	-	-	-
007	Nelson	14	1.14	-	1.87	-	-	-
009	Castlegar	5	0.77	1	0.98	1.02	0.01	5.68
010	Arrow Lakes	3	1.28	-	0.34	-	-	-
011	Trail	8	0.81	1	1.46	0.69	0.01	3.82
012	Grand Forks	-	-	-	0.66	-	-	-
013	Kettle Valley	-	-	-	0.27	-	-	-
014	Southern Okanagan	5	0.60	-	1.35	-	-	-
015	Penticton	26	1.41	2	2.93	0.68	0.08	2.46
016	Keremeos	4	1.76	1	0.37	2.70	0.04	15.00
017	Princeton	3	1.28	-	0.38	-	-	-
018	Golden	-	-	-	0.57	-	-	-
019	Revelstoke	3	0.72	-	0.64	-	-	-
020	Salmon Arm	22	1.47	2	2.42	0.83	0.09	2.98
021	Armstrong - Spallumcheen	2	0.43	-	0.70	-	-	-
022	Vernon	54	1.89 *	1	4.58	0.22	0.00	1.21
023	Central Okanagan	106	1.39 *	11	12.49	0.88	0.44	1.58
024	Kamloops	59	1.16	6	8.06	0.74	0.27	1.62
025	100 Mile House	8	1.16	1	1.08	0.93	0.01	5.17
026	North Thompson	2	0.86	-	0.33	-	-	-
027	Cariboo - Chilcotin	11	0.81	2	2.02	0.99	0.11	3.57
028	Quesnel	15	1.26	-	1.74	-	-	-
029	Lillooet	3	1.38	1	0.32	3.11	0.04	17.33
030	South Cariboo	-	-	2	0.53	3.76	0.42	13.59
031	Merritt	8	1.51	1	0.81	1.23	0.02	6.85
032	Hope	5	1.26	-	0.62	-	-	-
033	Chilliwack	35	1.01	8	5.68	1.41	0.61	2.78
034	Abbotsford	51	0.87	9	9.30	0.97	0.44	1.84
035	Langley	39	0.67 *	5	9.35	0.53	0.17	1.25
037	Delta	38	0.76	8	7.63	1.05	0.45	2.07
038	Richmond	27	0.30 *	7	14.17	0.49	0.20	1.02
040	New Westminster	61	1.85 *	10	5.19	1.93	0.92	3.54
041	Burnaby	59	0.55 *	20	16.77	1.19	0.73	1.84
042	Maple Ridge	39	0.92	8	6.95	1.15	0.50	2.27
043	Coquitlam	67	0.64 *	16	16.35	0.98	0.56	1.59
044	North Vancouver	38	0.55 *	9	10.69	0.84	0.38	1.60
045	West Vancouver-Bowen Is.	8	0.34 *	-	3.70	-	-	-
046	Sunshine Coast	13	1.00	1	2.11	0.47	0.01	2.64
047	Powell River	13	1.34	2	1.51	1.33	0.15	4.80
048	Howe Sound	7	0.41 *	3	2.70	1.11	0.22	3.25
049	Bella Coola Valley	1	0.65	-	0.22	-	-	-
050	Queen Charlotte	5	1.80	-	0.42	-	-	-
051	Snow Country	-	-	-	0.04	-	-	-
052	Prince Rupert	11	1.39	-	1.13	-	-	-
053	Upper Skeena	3	1.12	-	0.40	-	-	-
054	Smithers	3	0.36	-	1.22	-	-	-
055	Burns Lake	-	-	-	0.56	-	-	-
056	Nechako	4	0.51	-	1.15	-	-	-
057	Prince George	42	0.85	2	7.41	0.27 +	0.03	0.97
059	Peace River South	8	0.63	-	2.00	-	-	-
060	Peace River North	6	0.39 *	-	2.48	-	-	-
061	Greater Victoria	177	1.63 *	16	16.90	0.95	0.54	1.54
062	Sooke	24	0.83	4	4.79	0.84	0.22	2.14
063	Saanich	24	0.81	4	4.61	0.87	0.23	2.22
064	Gulf Islands	6	0.89	1	1.10	0.91	0.01	5.04
065	Cowichan	20	0.79	7	4.06	1.72	0.69	3.55
066	Lake Cowichan	5	1.69	1	0.47	2.13	0.03	11.86
067	Ladysmith	6	0.76	-	1.27	-	-	-
068	Nanaimo	64	1.39 *	4	7.38	0.54	0.15	1.39
069	Qualicum	12	0.63	1	3.20	0.31	0.00	1.74
070	Alberni	20	1.30	1	2.36	0.42	0.01	2.36
071	Courtenay	25	0.88	4	4.59	0.87	0.23	2.23
072	Campbell River	28	1.41	5	3.13	1.60	0.51	3.73
075	Mission	21	1.13	3	2.97	1.01	0.20	2.95
076	Agassiz - Harrison	6	1.40	2	0.70	2.84	0.32	10.27
077	Summerland	1	0.19	-	0.85	-	-	-
078	Enderby	2	0.59	-	0.55	-	-	-
080	Kitimat	3	0.55	-	0.78	-	-	-
081	Fort Nelson	2	0.62	-	0.51	-	-	-
083	Central Coast	1	1.29	-	0.10	-	-	-
084	Vancouver Island West	-	-	-	0.17	-	-	-
085	Vancouver Island North	6	0.89	1	0.95	1.05	0.01	5.85
087	Stikine	-	-	-	0.08	-	-	-
088	Terrace	7	0.68	-	1.50	-	-	-
092	Nisga'a	-	-	-	0.14	-	-	-
094	Telegraph Creek	-	-	-	0.05	-	-	-
161	Vancouver - City Centre	100	1.55 *	11	10.45	1.05	0.52	1.88
162	Vancouver - Downtown E.side	198	6.26 *	38	5.04	7.54 *	5.33	10.35
163	Vancouver - North East	44	0.87	10	7.75	1.29	0.62	2.37
164	Vancouver - Westside	32	0.48 *	9	10.23	0.88	0.40	1.67
165	Vancouver - Midtown	52	1.09	9	7.26	1.24	0.57	2.35
166	Vancouver - South	39	0.60 *	6	10.20	0.59	0.21	1.28
201	Surrey	167	1.03	44	26.65	1.65 *	1.20	2.22
202	South Surrey/White Rock	23	0.63 *	6	6.01	1.00	0.36	2.17
PROVINCIAL TOTAL		2,088	1.00	329	329.00	1.00	0.89	1.11

Note: *Statistical testing indicates that observed deaths are significantly different from the expected deaths ($p < 0.05$, two tailed).
 +Denotes significance based on less than five deaths. SMR - Standardized Mortality Ratio. Total includes residents with unknown LHA.

FIGURE 47
DRUG-INDUCED DEATHS BY LOCAL HEALTH AREA
 BRITISH COLUMBIA, 2001–2005



Note: SMR - Standardized Mortality Ratio. Refer to Figure 1 to clarify geographical location of Local Health Areas.

Drug Overdose Deaths

This section provides information on deaths due to unintentional poisoning by illicit/illegal drugs. These deaths are a small portion of deaths due to unintentional poisoning by drugs, and exclude accidental poisoning by drugs in therapeutic use.

Data on unintentional illicit/illegal drug deaths are retrieved from the Coroners' Medical Certificate of Death and only include deaths where an overdose occurred and was determined to be the underlying cause of death. Deaths due to conditions that may arise from substance abuse, such as Hepatitis 'B' and 'C' and HIV, are excluded. Inclusion of these events would increase the numbers significantly.

Among the substances implicated in these overdoses there are those generally referred to as "illicit drugs" – heroin, cocaine, and "psychostimulants with abuse potential" including "crystal meth" (methamphetamine hydrochloride) and "ecstasy" (methylenedioxymethamphetamine). A more precise term for these chemicals might be "illegal" drugs as there is no medically recognized, legal use for either "ecstasy" or "crystal meth". Although both heroin and cocaine have very limited therapeutic uses, in circumstances where a fatal overdose has occurred it is almost certain that these drugs would have been obtained via illegal means. On the other hand, where morphine is implicated, it is possible that some of the deaths involved legally obtained drugs because morphine is prescribed for chronic and/or severe pain (such as that associated with advanced cancer) and if taken improperly could result in an unintentional overdose. Unfortunately it is not always possible to differentiate whether an opiate overdose was caused by heroin or morphine, as the information received on the Coroners' final reports does not consistently specify this, rather recording "morphine type" overdose, (hence the label "heroin/morphine type"). Of continuing note is the fact that deaths are occurring as the result of unintentional methadone overdoses. The legal use of this drug is most often in the treatment of opiate addiction, but it would appear that it is being used in unsanctioned ways that are resulting in death.

It is important to note that the data presented in Table 46 and Figure 48 for 2006 (and to some extent earlier years) will be revised upwards as final reports from the investigating Coroners are submitted to the Vital Statistics Agency for processing and coding. For example, last year's Information Box showed 65 heroin/morphine and 79 cocaine overdose fatalities in 2005. A year later, the 2005 counts have risen to 84 and 87 fatal overdoses attributable to the drugs respectively. As shown in Figure 48 cocaine use appeared to be eclipsing heroin in 2004 and 2005 as the most common cause of fatal overdoses but in 2006 heroin was again the main cause. Psychostimulant overdoses as a cause of death appear to be remaining fairly low in number. GHB (gamma hydroxybutyrate or "date rape" drug) appears in 2006 for the first time.

Age standardized mortality rates (ASMR) provide a means of comparing death rates across different populations and geographic areas. Table 47 shows deaths due to unintentional overdoses are not confined to any one area in the province. Vancouver Island Health Authority, Vancouver Coastal and the Fraser Health Authority have ASMRs due to unintentional illicit / illegal drug overdose similar to or greater than the provincial average with both Vancouver Coastal Health Authority and Fraser Health Authority being above the provincial average. ASMRs for 2006 at the time of reporting appear to have declined in all areas except the Fraser Health Authority. However, these results should be viewed with caution for the reasons cited above regarding delayed reporting. As evidenced by Table 48 and Figure 49, although drug overdose fatalities appear to be declining generally, males consistently succumb to unintentional overdoses at a greater rate than females. Why this happens is open to debate, but it does show a need to particularly target this group in treatment and prevention strategies.

TABLE 46
UNINTENTIONAL ILLICIT/ILLEGAL OVERDOSE DEATHS BY
TYPE OF DRUG

BRITISH COLUMBIA, 2000–2006

Drug	ICD-10 Code	2000	2001	2002	2003	2004	2005	2006
Heroin/morphine type	X42	120	127	76	92	66	84	91
Methadone	X42	20	25	26	23	29	22	13
Cocaine	X42	76	69	63	71	98	87	55
Psychostimulants*	X41	-	2	2	7	5	3	4
GHB	X41	-	-	-	-	-	-	3
Other mixed drugs	X44	28	17	22	21	24	28	22
TOTAL		244	240	189	214	222	224	188
Heroin+Cocaine deaths included above**		57	51	35	40	40	49	42

Note:

Deaths that were still under investigation may later be identified as unintentional illicit/illegal overdose deaths.

*ICD-10 codes for psychostimulants include "crystal meth" and "ecstasy".

**Heroin + cocaine deaths are already counted in either Heroin/morphine type or Cocaine.

Drug overdose deaths must also include these specified drug (nature of injury) codes:

- T40.0, T40.1, or T40.2 for heroin/morphine type.

- T40.3 for methadone.

- T40.5 for cocaine.

- T43.6 for psychostimulants.

- T41.2 for gamma hydroxybutyrate (GHB = "date rape" drug).

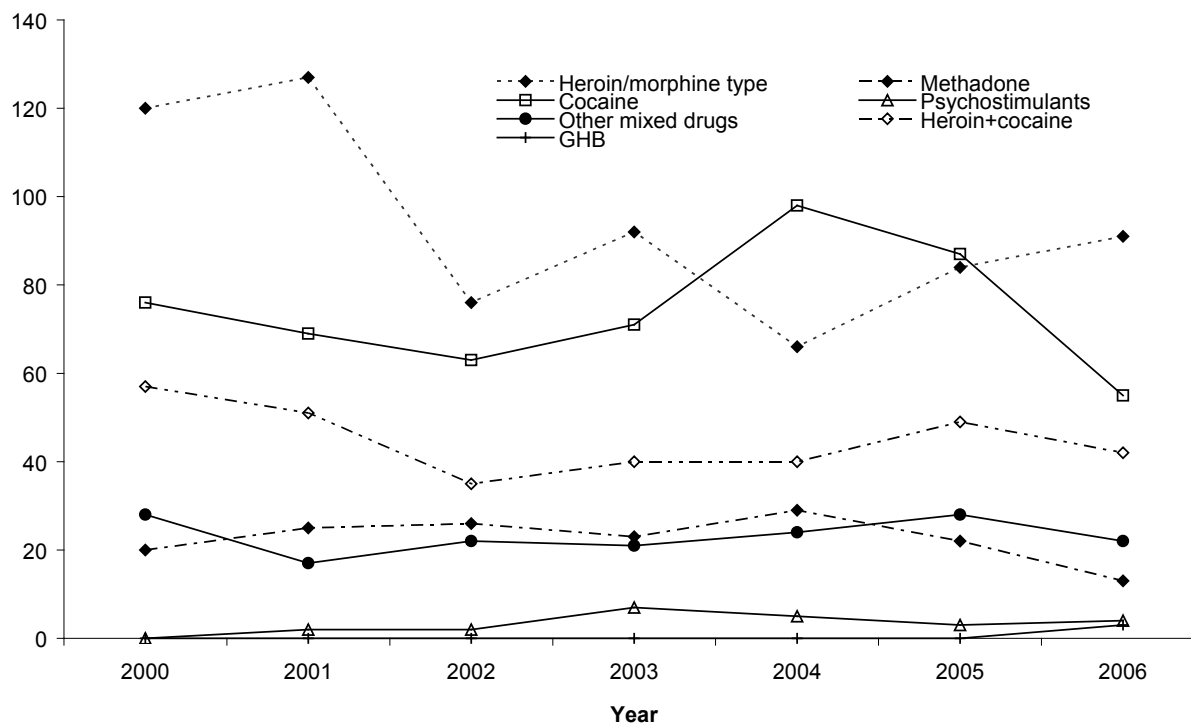
- T40 or T43.6 for other mixed drugs.

Non-residents are excluded.

FIGURE 48
UNINTENTIONAL ILLICIT/ILLEGAL OVERDOSE DEATHS
BY CAUSE

BRITISH COLUMBIA, 2000–2006

Number of Deaths



See Table 46 for notes.

TABLE 47
**ASMR FOR UNINTENTIONAL ILLICIT/ILLEGAL OVERDOSE DEATHS
 BY HEALTH AUTHORITY**
 BRITISH COLUMBIA, 2000–2006

Health Authority	2000	2001	2002	2003	2004	2005	2006
01 Interior	0.49	0.60	0.56	0.67	0.69	0.58	0.21
02 Fraser	0.62	0.56	0.36	0.42	0.38	0.52	0.54
03 Vancouver Coastal	0.71	0.64	0.48	0.47	0.54	0.51	0.47
04 Vancouver Island	0.56	0.65	0.72	0.66	0.73	0.53	0.41
05 Northern	0.40	0.46	0.22	0.37	0.34	0.26	0.05
PROVINCIAL TOTAL	0.60	0.59	0.46	0.50	0.52	0.51	0.41

Note: Deaths that were still under investigation may later be identified as unintentional illicit/illegal overdose deaths.
 ASMR - Age Standardized Mortality Rate per 10,000 standard population (Canada 1991 Census).
 Non-residents are excluded.

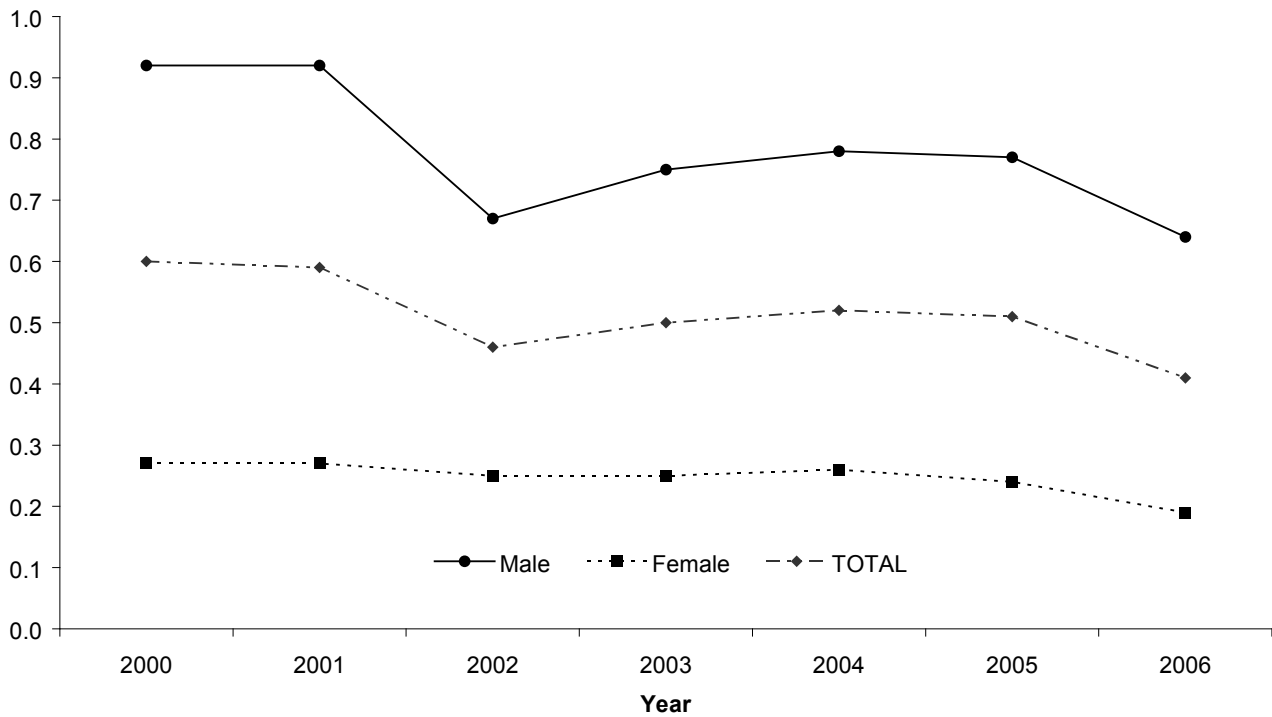
TABLE 48
**ASMR FOR UNINTENTIONAL ILLICIT/ILLEGAL OVERDOSE DEATHS
 BY GENDER**
 BRITISH COLUMBIA, 2000–2006

Gender	2000	2001	2002	2003	2004	2005	2006
Male	0.92	0.92	0.67	0.75	0.78	0.77	0.64
Female	0.27	0.27	0.25	0.25	0.26	0.24	0.19
TOTAL	0.60	0.59	0.46	0.50	0.52	0.51	0.41

Note: Deaths that were still under investigation may later be identified as unintentional illicit/illegal overdose deaths.
 ASMR - Age Standardized Mortality Rate per 10,000 standard population (Canada 1991 Census).
 Non-residents are excluded.

FIGURE 49
**ASMR FOR UNINTENTIONAL ILLICIT/ILLEGAL OVERDOSE DEATHS
BY GENDER**
BRITISH COLUMBIA, 2000-2006

Rate per 10,000
Standard Population



See Table 48 for notes.

Burials and Cremations

Table 49 shows the method used to dispose of decedents' remains. This table, which covers the years from 1986 through 2006, primarily shows the declining popularity of burial and increasing preference for cremation. At the beginning of this time span the ratio of cremations to burials was three to two; in 2006 it was almost four to one.

TABLE 49
METHOD OF DISPOSITION OF DECEDENT
BRITISH COLUMBIA, 1986–2006

Year	Burial		Cremation		Other	N.S.	Total
	Number	Percent	Number	Percent			
1986	8,204	39.1	12,686	60.4	98	20	21,008
1987	8,211	38.0	13,279	61.4	104	24	21,618
1988	8,319	37.2	13,926	62.3	96	16	22,357
1989	8,061	35.4	14,616	64.1	81	28	22,786
1990	8,208	35.1	15,088	64.4	91	28	23,415
1991	8,035	33.7	15,675	65.8	75	34	23,819
1992	7,818	32.0	16,512	67.5	97	36	24,463
1993	7,987	31.2	17,214	67.2	151	251	25,603
1994	7,710	29.8	17,888	69.3	177	55	25,830
1995	7,616	29.0	18,361	70.0	185	63	26,225
1996	7,639	27.9	19,546	71.4	193	12	27,390
1997	7,359	27.0	19,650	72.1	207	46	27,262
1998	7,197	25.9	20,376	73.3	225	9	27,807
1999	7,061	25.3	20,629	74.0	197	-	27,887
2000	6,467	23.6	20,694	75.7	186	1	27,348
2001	6,684	23.7	21,327	75.5	223	1	28,235
2002	6,541	22.8	21,978	76.5	191	3	28,713
2003	6,606	22.7	22,361	76.7	186	-	29,153
2004	6,377	21.5	23,158	77.9	183	-	29,718
2005	6,278	20.9	23,627	78.5	180	-	30,085
2006	6,352	20.8	24,000	78.7	161	-	30,513

Note: Percent is based on total deaths in the specified year.
Other includes remains not recovered and donations as per will of deceased.
N.S. – Not stated.

Vital Statistics Information Box

METHOD OF DISPOSITION BY DECEDENT'S LOCAL HEALTH AREA OF RESIDENCE BRITISH COLUMBIA, 2006

Local Health Area		Burial		Cremation		Other	Total
		Number	Percent	Number	Percent		
001	Fernie	10	13.3	65	86.7	-	75
002	Cranbrook	32	16.4	162	83.1	1	195
003	Kimberley	13	16.9	64	83.1	-	77
004	Windermere	6	13.0	40	87.0	-	46
005	Creston	32	23.9	102	76.1	-	134
006	Kootenay Lake	6	20.7	23	79.3	-	29
007	Nelson	43	22.9	143	76.1	2	188
009	Castlegar	54	34.8	100	64.5	1	155
010	Arrow Lakes	9	22.0	32	78.0	-	41
011	Trail	38	17.7	173	80.5	4	215
012	Grand Forks	34	38.6	54	61.4	-	88
013	Kettle Valley	2	7.7	24	92.3	-	26
014	Southern Okanagan	49	18.8	211	80.8	1	261
015	Penticton	77	15.0	437	85.0	-	514
016	Keremeos	11	15.9	58	84.1	-	69
017	Princeton	4	7.5	49	92.5	-	53
018	Golden	8	16.3	41	83.7	-	49
019	Revelstoke	9	17.0	43	81.1	1	53
020	Salmon Arm	40	12.7	275	87.3	-	315
021	Armstrong-Spallumcheen	11	17.7	51	82.3	-	62
022	Vernon	108	17.1	522	82.7	1	631
023	Central Okanagan	301	20.5	1,163	79.2	4	1,468
024	Kamloops	136	16.8	659	81.6	13	808
025	100 Mile House	17	15.5	93	84.5	-	110
026	North Thompson	10	32.3	21	67.7	-	31
027	Cariboo-Chilcotin	40	24.4	124	75.6	-	16
028	Quesnel	35	18.8	151	81.2	-	186
029	Lillooet	15	31.9	31	66.0	1	47
030	South Cariboo	16	21.9	57	78.1	-	73
031	Merritt	28	30.4	64	69.6	-	92
032	Hope	23	20.5	89	79.5	-	112
033	Chilliwack	156	22.4	539	77.4	1	696
034	Abbotsford	291	32.4	607	67.6	-	898
035	Langley	165	18.1	744	81.7	2	911
037	Delta	115	19.3	480	80.5	1	596
038	Richmond	210	23.3	684	75.8	8	902
040	New Westminster	112	22.4	388	77.4	1	501
041	Burnaby	358	25.9	1,005	72.8	18	1,38
042	Maple Ridge	82	15.2	457	84.6	1	540
043	Coquitlam	172	18.3	759	80.9	7	938
044	North Vancouver	115	13.3	742	86.1	5	862
045	West Vancouver-Bowen Is.	64	14.4	380	85.4	1	445
046	Sunshine Coast	16	6.1	247	93.9	-	263
047	Powell River	22	12.1	159	87.4	1	182
048	Howe Sound	27	21.3	100	78.7	-	127
049	Bella Coola Valley	15	60.0	10	40.0	-	25
050	Queen Charlotte	17	56.7	13	43.3	-	30
051	Snow Country	1	25.0	3	75.0	-	4
052	Prince Rupert	25	29.1	61	70.9	-	86
053	Upper Skeena	11	44.0	14	56.0	-	25
054	Smithers	25	29.1	61	70.9	-	86
055	Burns Lake/Eutsuk	20	36.4	35	63.6	-	55
056	Nechako	45	45.0	55	55.0	-	100
057	Prince George	111	20.9	418	78.7	2	531
059	Peace River South	59	37.6	98	62.4	-	15
060	Peace River North	58	35.8	104	64.2	-	162
061	Greater Victoria	306	14.5	1,796	85.2	5	2,107
062	Sooke	47	14.1	284	85.3	2	333
063	Saanich	74	11.5	565	88.1	2	641
064	Gulf Islands	11	9.0	111	91.0	-	122
065	Cowichan	74	16.8	365	83.0	1	440
066	Lake Cowichan	6	13.3	39	86.7	-	45
067	Ladysmith	31	16.7	155	83.3	-	186
068	Nanaimo	101	11.1	804	88.7	1	906
069	Qualicum	38	7.6	459	92.4	-	497
070	Alberni	60	21.2	223	78.8	-	283
071	Courtenay	40	7.9	464	92.1	-	504
072	Campbell River	38	12.6	264	87.4	-	302
075	Mission	58	20.9	219	79.1	-	277
076	Agassiz-Harrison	14	21.9	50	78.1	-	64
077	Summerland	22	17.7	102	82.3	-	124
078	Enderby	15	20.3	59	79.7	-	74
080	Kitimat	20	35.7	36	64.3	-	56
081	Fort Nelson	9	40.9	13	59.1	-	2
083	Central Coast	15	83.3	3	16.7	-	18
084	Vancouver Island West	1	6.3	15	93.8	-	16
085	Vancouver Island North	18	24.0	57	76.0	-	75
087	Stikine	3	42.9	4	57.1	-	7
088	Terrace	35	27.6	92	72.4	-	127
092	Nisga'a	17	94.4	-	-	1	18
094	Telegraph Creek	1	50.0	1	50.0	-	2
161	Vancouver - City Centre	118	19.0	497	80.2	5	620
162	Vancouver - Downtown E. side	172	32.5	356	67.2	2	530
163	Vancouver - North East	258	45.1	279	48.8	35	572
164	Vancouver - Westside	214	27.6	554	71.5	7	775
165	Vancouver - Midtown	172	38.7	267	60.1	5	444
166	Vancouver - South	313	36.6	538	62.9	5	856
201	Surrey	399	22.9	1,334	76.6	8	1,741
202	South Surrey/White Rock	141	16.5	711	83.0	5	857
PROVINCIAL TOTAL		6,352	20.8	24,000	78.7	161	30,513

