Cancer in Manitoba

2009 ANNUAL STATISTICAL REPORT

Epidemiology & Cancer Registry

CancerCare Manitoba

Department of Epidemiology and Cancer Registry

CancerCare Manitoba is legally mandated under the Public Health Act of Manitoba to collect, classify and maintain accurate comprehensive information on all cancer cases for the province of Manitoba.

To reduce the burden of cancer in Manitoba, it is essential to first study the patterns of the disease and work to understand the reasons behind the trends. This is the mission of the Department of Epidemiology and Cancer Registry at CancerCare Manitoba. By collecting, organizing and analyzing a variety of population-based cancer data, this dedicated team of highly skilled experts transforms raw data into useful information that provides a picture of the state of cancer across the province which in turn is used to develop programs to prevent cancer, detect it earlier or improve treatment.

The Department of Epidemiology and Cancer Registry would like to acknowledge all those who submit cancer data to support this work including:

- Manitoba hospitals and clinics
- Physicians
- Diagnostic Services of Manitoba and all private labs
- Manitoba Health
- Manitoba Vital Statistics Agency

These partners help secure important information that makes the Manitoba Cancer Registry one of the most comprehensive registries in the world.

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Department of Epidemiology and Cancer Registry Report
2009 Annual Statistical Report

With our partners, CancerCare Manitoba's vision is to change the course of cancer in Manitoba and the Department of Epidemiology and Cancer Registry is proud to be a part of this effort. By collecting and organizing a variety of population-based data and providing professional consultation and services in the areas of statistics analysis and cancer epidemiology, the Department transforms raw data into useful information that is used to develop programs to prevent cancer, detect it earlier or improve treatment.

Additionally, the Department collaborates with local, national and international partners in cancer research and holds a variety of grants and contracts. During 2008-09, the Department engaged in a variety of vital projects bringing in $3.2 million in funding to CancerCare Manitoba and its research partners.

The Epidemiology Unit is a leader in the area of risk factor surveillance in Manitoba.

Current projects span the cancer spectrum and include:

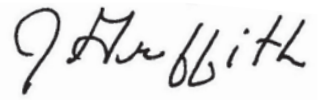
- youth health initiatives (Youth Health Survey and youth health knowledge exchange activities, youth smoking and tobacco use surveillance)
- developing a Manitoba Chronic Disease Risk Factor Surveillance System with our partners
- Manitoba First Nations and Metis health research
- studies on wait times (head and neck, breast cancer surgery, colorectal cancer diagnosis and treatment)
- colorectal cancer and screening research
- epidemiology and surveillance of HPV (Human Papilloma Virus) and the HPV vaccine in Manitoba
- risk of cervical abnormalities and cervical cancer among women with Inflammatory Bowel Disease
- association between cyanobacterial toxins and liver cancer
- establishment of a prostate tumour bank
- patterns of care for treatment of cervical cancer in Manitoba and construction of a detailed model of invasive cervical cancer
- patient needs studies and validating measure of patient empowerment

Recognized as a leader amongst North American cancer registries, the Manitoba Cancer Registry has one of the oldest and best kept databases in the country. To continue maintaining and improving the quality of the Registry data collected, our dedicated staff are regularly undergoing training to keep up with the latest standard in disease site classification systems. This expertise makes our team much sought after by organizations such as the Public Health Agency of Canada, Statistics Canada, Canadian Partnership Against Cancer and the Canadian Council of Cancer Registries to provide education and training nationally.

The quality of our data has once again been recognized and we are pleased to report that the Registry has achieved the Gold Standard for Registry Certification for 2009 from the North America Association for Central Cancer Registries (NAACCR) for complete, accurate, and timely data – a distinction we've held since 2006.

Manitoba was the first province to capture stage data on all cancer sites excluding non-melanoma skin cancers. Since 2004 (diagnosis year), the Manitoba Cancer Registry has been collecting this vital information for use in research, treatment, health care planning and delivery, as well as prevention programs. In 2009, the Registry took part in a first-of-its-kind initiative supported by the Canadian Partnership Against Cancer with the goal of achieving a national population-based collection of cancer stage data across Canada. Cancer staging is viewed as an essential element for quality care and the National Staging Initiative will help cancer system decision-makers target areas of greatest need in cancer control.

Physicians, researchers and health care administrators rely on the Department of Epidemiology and Cancer Registry for vital information - which is why we are committed to supporting population-based research which contributes to the development and evaluation of a Manitoba cancer control strategy.



Dr. Jane Griffith

MANAGER, EPIDEMIOLOGY UNIT
CancerCare Manitoba

Gail Noonan

MANAGER, MANITOBA CANCER REGISTRY
CancerCare Manitoba

Introduction to the Data

The Manitoba Cancer Registry is an essential tool for evidence-based, data-driven decision making that has an immense impact on treatment and research. The following information outlines the foundation of this year's report.

Additional statistical information is available upon request. Please contact the Manitoba Cancer Registry by calling (204) 787-2174 or email *epi.cancerregistry@cancercare.mb.ca*.

Manitoba Cancer Registry data is used for:

- health care planning and monitoring
- surveillance and studies on the causes and prevention of cancer, cancer clusters, treatment patterns, outcomes and survival
- patient care
- quality assurance
- reporting to the Canadian Cancer Registry, the North American Association of Central Cancer Registries and the International Association of Cancer Registries

Information sources include:

- provincial cytology and pathology departments
- admission/separation data from the provincial hospital abstracting system
- Vital Statistics
- letters and "Report of Malignant Neoplasm Forms" from physicians and other health care providers
- hospital health records
- correspondence from other provincial and territorial cancer registries on Manitoba residents diagnosed and/or treated in those jurisdictions

Incidence data

Cancer cases referenced were diagnosed in the 2009 calendar year. Incidence is also provided by stage of disease at diagnosis. Incidence refers to the number of new cancer diagnoses in the 2009 calendar year.

Mortality data

Mortality information refers to Manitobans who died of cancer in the 2009 calendar year, however those patients may not have been diagnosed in 2009. This information has been provided by Manitoba's Vital Statistics Agency. The totals in the summary on page 12-13 (Mortality by site, 2009) include all cancer deaths occurring in Manitoba.

Staging data

The Manitoba Cancer Registry implemented the Collaborative Stage Data Collection System for all cases of cancer (excluding non-melanoma skin) diagnosed January 1, 2004 and forward. This data derives the "best stage" grouping consistent with the AJCC Cancer Staging Manual, 6th edition.

In this report, stage data is captured on all disease site groups with a cancer incidence of 45 cases per year or more and is represented using pie charts. Additionally, stage information, along with frequency of incidence for each of these sites, can be found in table format in Appendix 3.

Disease Site Grouping

The Canadian Cancer Registry uses disease site groupings according to the International Classification of Diseases for Oncology (ICD-O) Sites based on Surveillance Epidemiology and End Results (SEER) Groups. Beginning with 2001 diagnoses, cases have been coded according to the third edition (ICD-O-3) (Fritz et al., 2000). The primary site groupings used for incidence are found in the Appendix. When collected in the Registry, disease site groupings can be divided into more definitive categories. These data can be extracted upon request.

Population data

Data are based on Manitoba estimates provided by Manitoba Health.

Cancer incidence and mortality

Tables of incidence and mortality in this report are categorized according to the International Classification of Diseases for Oncology third edition (ICD-O-3rd ed.).

Rates

Incidence and mortality are classic surveillance measures. In this report, both the counts and rates are presented. Annual age-standardized rates are per 100,000 population and allow the reader to compare cancer rates in different regions with different age structures (the rates are "adjusted" or "standardized" so that age differences are taken into account).

Rates have been age-standardized to the 2001 Manitoba population to support comparisons with other disease rates calculated by Manitoba sources (Manitoba Health and the Manitoba Centre for Health Policy for example).

NOTE: All statistics in the body of this report only include Manitoba residents.

Facts & Figures

Cancer is a significant health issue. In 2009, 9,539 Manitobans were diagnosed with cancer:

- 6,074 invasive cancers
- 3,121 in situ (confined to the area of origin)
- 344 unspecified cancers

In this same year, 2,755 people died from the disease.

The number of cancer cases in Manitoba is influenced by three factors:

- the age of the population
- the size of the population
- risk factors such as unhealthy living (including smoking, poor diet, inactivity, sun exposure), some environmental carcinogens, genetic predisposition and not being screened.

Incidence & Mortality

Incidence (the number of new cancer diagnoses) and mortality (deaths due to cancer) are often used to understand how cancer affects a population. In Manitoba, incidence and mortality rates are not increasing over time, but they are not decreasing either.

Incidence refers to the number of new cases diagnosed in Manitoba. It is important to recognize that cancer is not a single disease; there are more than 100 different types of cancer. The four most common cancers - lung, colorectal, breast and prostate – account for close to 68% of all the cancers diagnosed in Manitoba.

Mortality has been used as an important indicator of combined success in reducing the impact of cancer. Cancer mortality is highest when the disease is found at a late stage, when treatment is less effective, which means recognizing symptoms and seeking medical help is key to early cancer diagnosis.

Compared to other Canadians, Manitobans have similar incidence and mortality rates however, cancer remains the top cause of mortality in the country. According to Statistics Canada's *Leading Causes of Death in Canada, 2008*, cancer accounted for 30% of all deaths in 2008, followed by heart disease (21%) and stroke (6%). For the first time, cancer was the leading cause of death in every province and territory. In 2007, it was the leading cause everywhere except Prince Edward Island and the Northwest Territories.

Most Common Cancer Diagnoses by Sex, 2009

Incidence

Male

SITE	CASES
Prostate	727
Colorectal	486
Lung & bronchus	431
Kidney	140
Non-Hodgkin's lymphoma	121
Bladder	94
Melanomas of the skin	87
Stomach	77
Pancreas	66

Female

SITE	CASES
Breast	852
Lung & bronchus	455
Colorectal	386
Uterus	211
Non-Hodgkin's lymphoma	132
Ovary	90
Thyroid	86
Kidney	72
Melanomas of the skin	70

Total

SITE	CASES
Lung & bronchus	886
Colorectal	872
Breast	857
Prostate	727
Non-Hodgkin's lymphoma	253
Kidney	212
Corpus uteri	211
Melanomas of the skin	157
Bladder	144

Mortality

Male

SITE	CASES
Lung & bronchus	390
Prostate	169
Colorectal	162
Pancreas	58
Esophagus	54
Kidney	53
Bladder	51
Non-Hodgkin's lymphoma	39
Stomach	35

Female

SITE	CASES
Lung & bronchus	308
Colorectal	176
Breast	168
Pancreas	67
Ovary	58
Non-Hodgkin's lymphoma	44
Kidney	28
Other digestive system	27
Stomach	27

Total

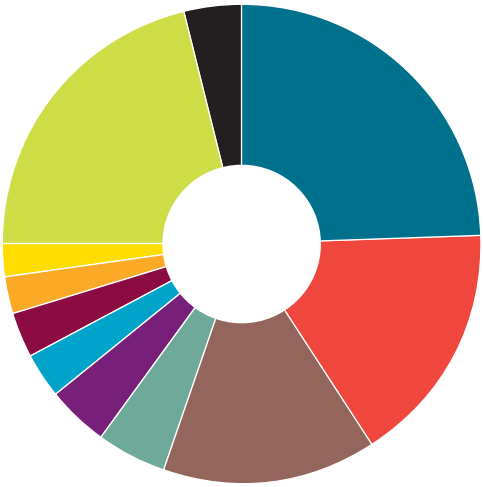
SITE	CASES
Lung & bronchus	698
Colorectal	338
Breast	190
Prostate	169
Pancreas	125
Non-Hodgkin's lymphoma	83
Kidney	81
Bladder	74
Esophagus	71

Invasive Cancers by Site

Cancer Incidence by Site, Male

- 24.5% PROSTATE
- 16.4% COLORECTAL
- 14.5% LUNG & BRONCHUS
- 4.7% KIDNEY
- 4.1% NON-HODGKIN'S LYMPHOMA
- 3.2% BLADDER
- 2.9% MELANOMAS OF THE SKIN
- 2.6% STOMACH
- 2.2% PANCREAS
- 21.1% ALL OTHER CANCER SITES
- 3.8% ILL DEFINED & UNKNOWN SITES

*Invasive cancers only



Cancer Incidence by Site, Female

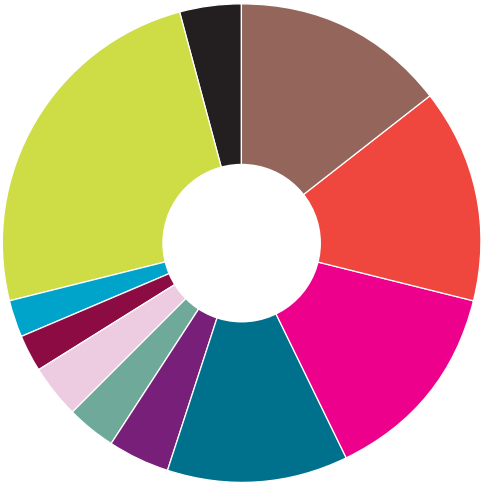
- 27.4% BREAST
- 14.6% LUNG & BRONCHUS
- 12.4% COLORECTAL
- 6.8% UTERUS
- 4.2% NON-HODGKIN'S LYMPHOMA
- 2.9% OVARY
- 2.8% THYROID
- 2.3% KIDNEY
- 2.3% MELANOMAS OF THE SKIN
- 19.9% ALL OTHER CANCER SITES
- 4.4% ILL DEFINED & UNKNOWN SITES

*Invasive cancers only

Cancer Incidence by Site, Total

- 14.6% LUNG & BRONCHUS
- 14.3% COLORECTAL
- 14.1% BREAST
- 12.0% PROSTATE
- 4.2% NON-HODGKIN'S LYMPHOMA
- 3.5% KIDNEY
- 3.5% CORPUS UTERI
- 2.6% MELANOMAS OF THE SKIN
- 2.4% BLADDER
- 24.7% ALL OTHER CANCER SITES
- 4.1% ILL DEFINED & UNKNOWN SITES

*Invasive cancers only



Cancer Mortality by Site

Cancer Mortality by Site, Male

28.9% LUNG & BRONCHUS
12.5% PROSTATE
12.0% COLORECTAL
4.3% PANCREAS
4.0% ESOPHAGUS
3.9% KIDNEY
3.8% BLADDER
2.9% NON-HODGKIN'S LYMPHOMA
2.6% STOMACH
17.0% ALL OTHER CANCER SITES
8.1% ILL DEFINED & UNKNOWN SITES

*Invasive cancers only

Cancer Mortality by Site, Female

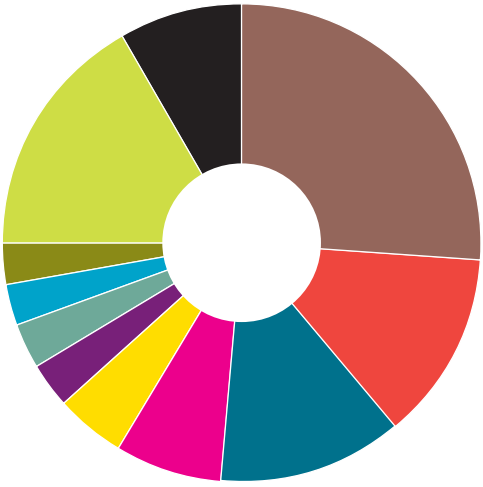
23.6% LUNG & BRONCHUS
14.4% BREAST
13.5% COLORECTAL
5.1% PANCREAS
4.4% OVARY
3.4% NON-HODGKIN'S LYMPHOMA
2.1% KIDNEY
2.1% OTHER DIGESTIVE SYSTEM
2.1% STOMACH
20.8% ALL OTHER CANCER SITES
8.5% ILL DEFINED & UNKNOWN SITES

*Invasive cancers only

Cancer Mortality by Site, Total

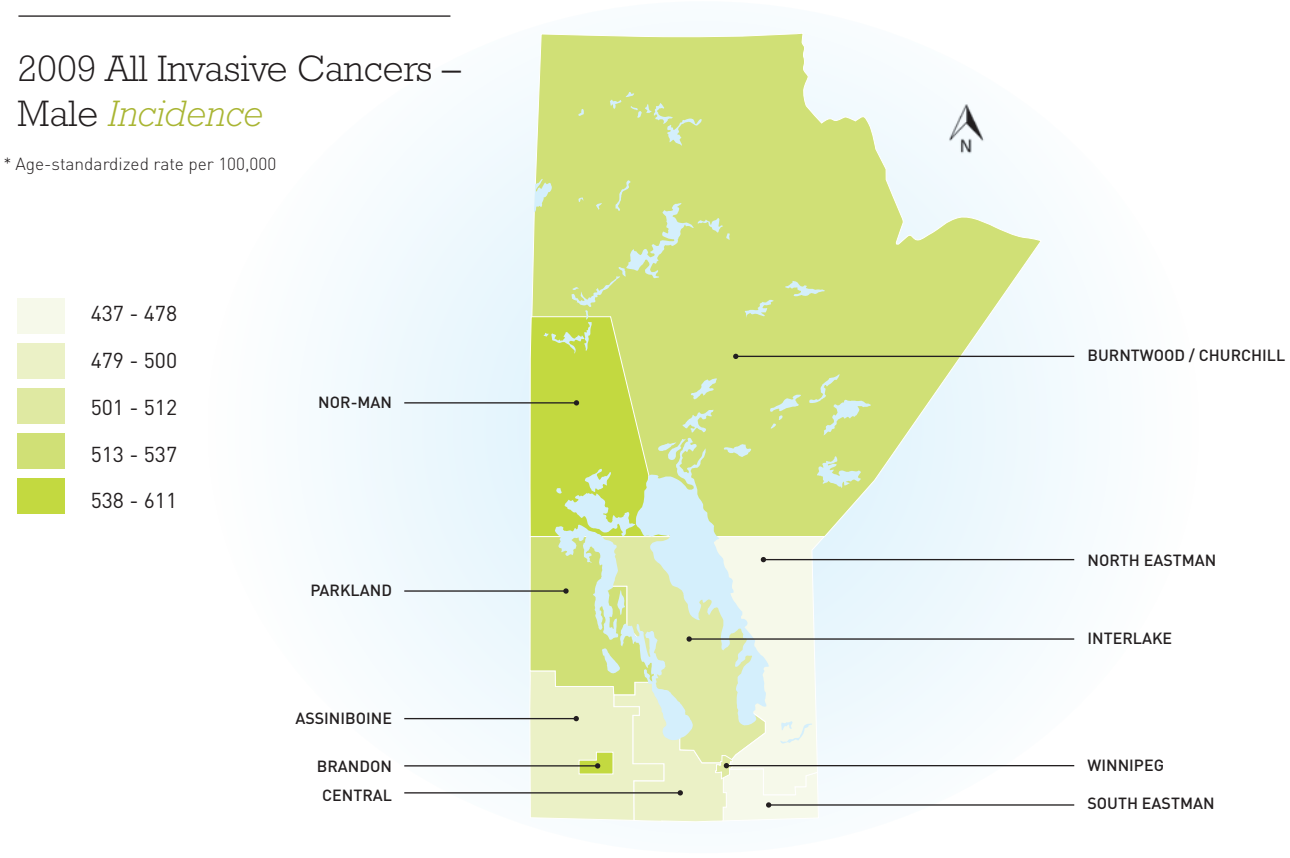
26.3% LUNG & BRONCHUS
12.7% COLORECTAL
12.5% PROSTATE
7.2% BREAST
4.7% PANCREAS
3.1% NON-HODGKIN'S LYMPHOMA
3.1% KIDNEY
2.8% BLADDER
2.7% ESOPHAGUS
16.6% ALL OTHER CANCER SITES
8.3% ILL DEFINED & UNKNOWN SITES

*Invasive cancers only



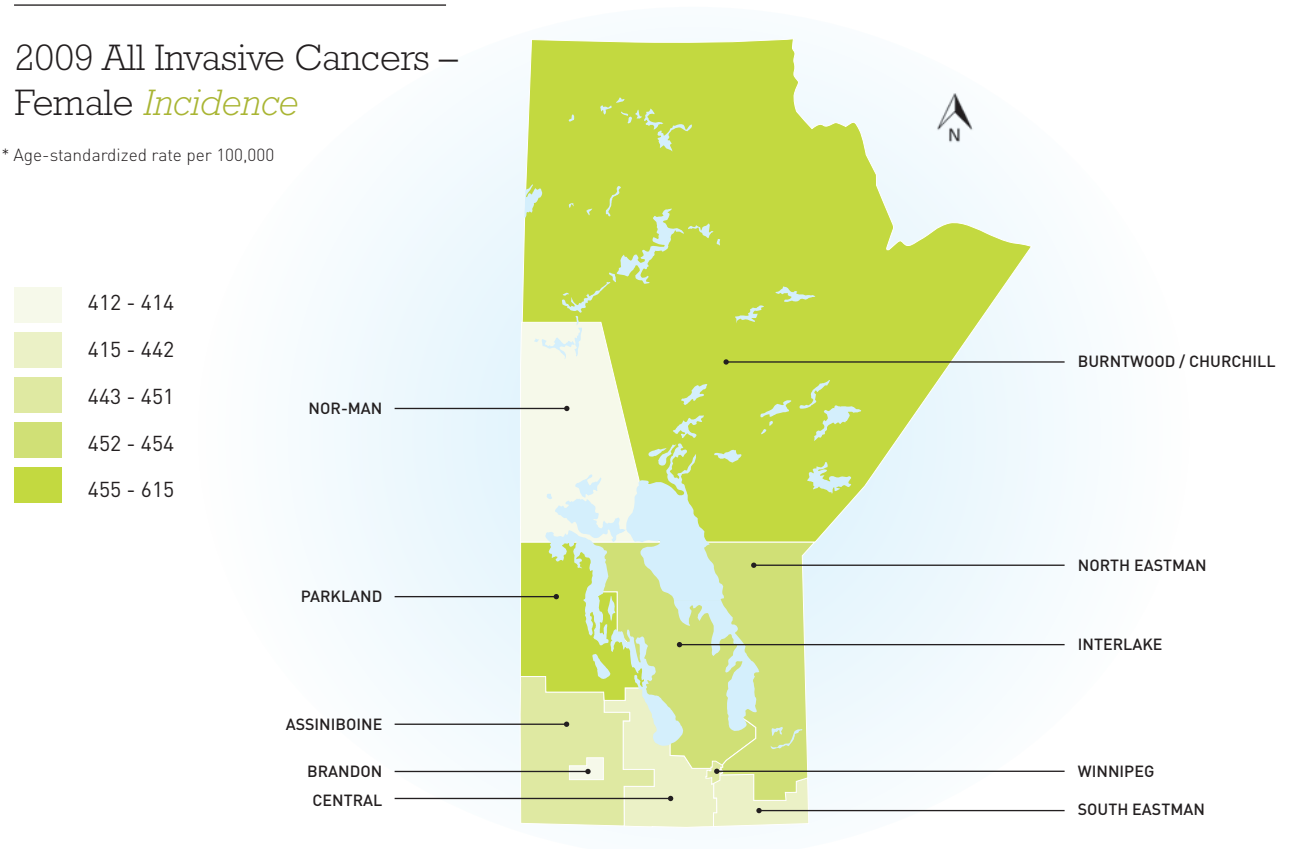
2009 All Invasive Cancers – Male *Incidence*

* Age-standardized rate per 100,000



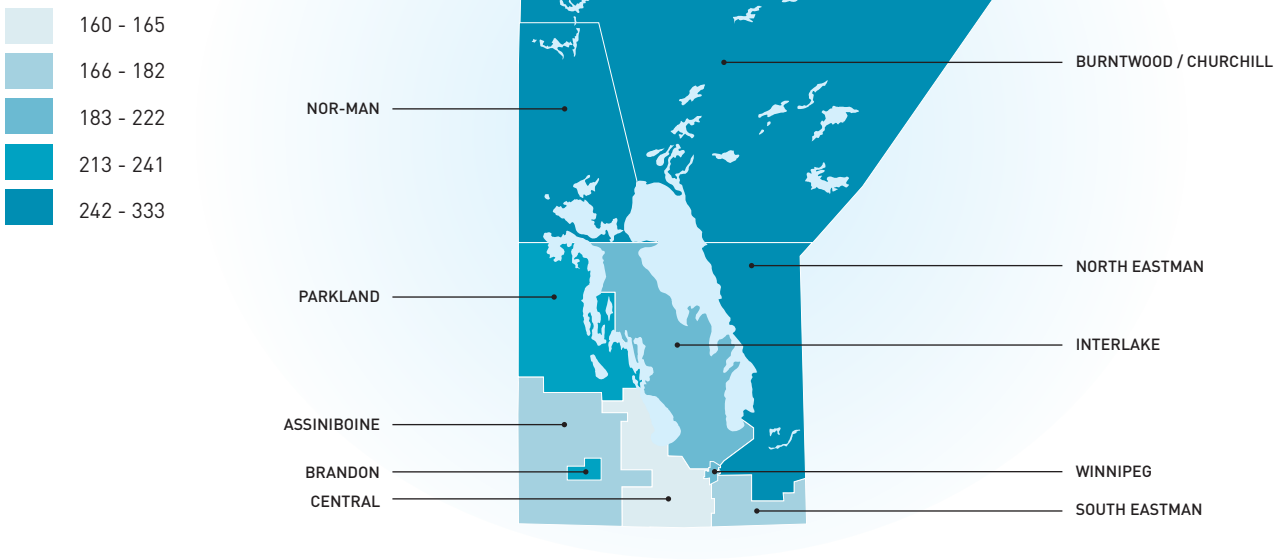
2009 All Invasive Cancers – Female *Incidence*

* Age-standardized rate per 100,000



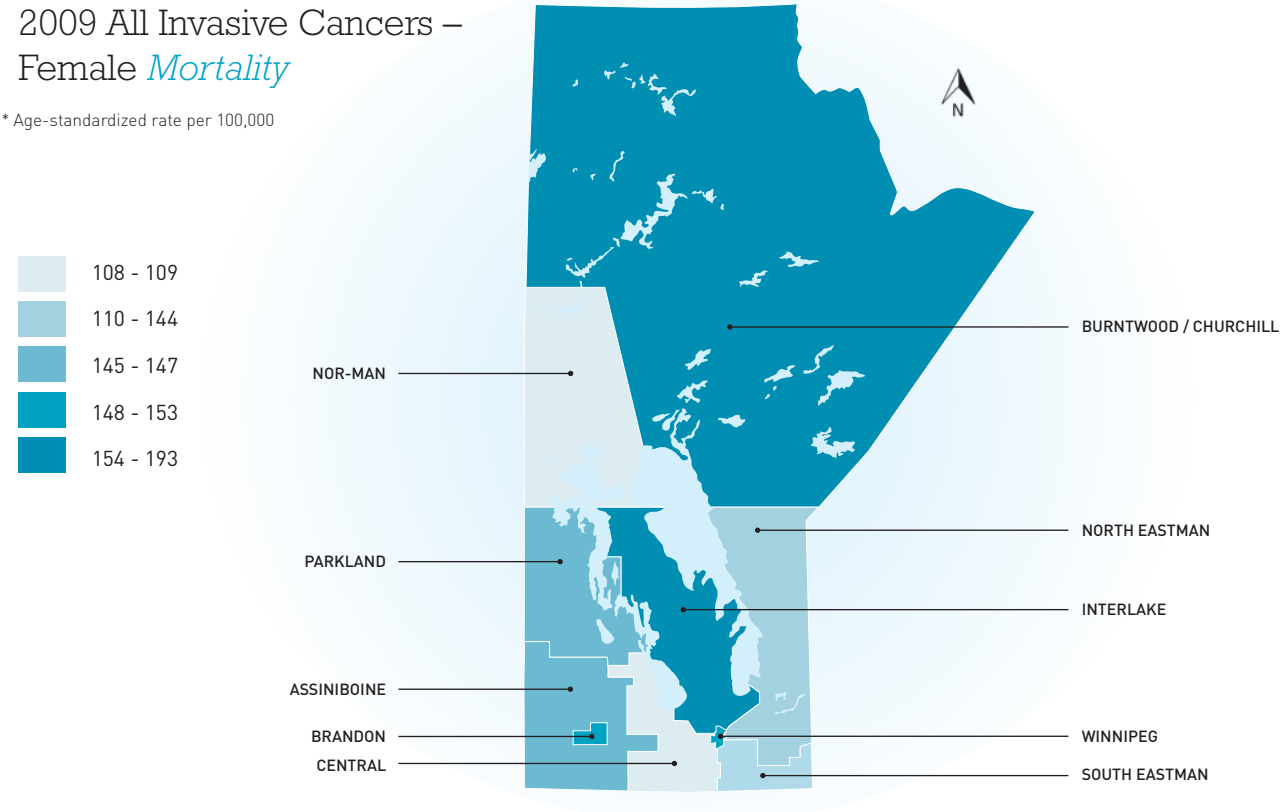
2009 All Invasive Cancers – Male *Mortality*

* Age-standardized rate per 100,000



2009 All Invasive Cancers – Female *Mortality*

* Age-standardized rate per 100,000



Cancer Incidence Cases & Rates in Manitoba by Site, 2009

	CANCER SITE	0-29			30-39			40-49			50-59			60-69			70-79			80+			TOTAL COUNT			*ASIR		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
BUCCAL CAVITY & PHARYNX	LIP	0	0	0	1	0	1	3	1	4	6	1	7	5	1	6	6	2	8	10	6	16	31	11	42	**5.50**	**1.47**	**3.24**
	TONGUE	0	0	0	0	0	0	1	0	1	7	3	10	4	3	7	7	0	7	3	2	5	22	8	30	**3.70**	**1.04**	**2.26**
	MAJOR SALIVARY GLAND	0	1	1	1	1	2	0	1	1	2	2	4	1	2	3	2	1	3	1	0	1	7	8	15	**1.21**	**1.24**	**1.18**
	FLOOR OF MOUTH	0	0	0	0	0	0	0	0	0	3	1	4	2	0	2	0	2	2	0	0	0	5	3	8	**0.69**	**0.47**	**0.59**
	GUM AND OTHER MOUTH	0	0	0	1	0	1	0	1	1	5	1	6	4	2	6	3	1	4	4	4	8	17	9	26	**2.86**	**1.20**	**1.96**
	NASOPHARYNX	0	0	0	0	0	0	1	0	1	3	0	3	2	0	2	2	0	2	0	0	0	8	0	8	**1.26**	**0.00**	**0.61**
	OROPHARYNX	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	3	0	0	0	3	1	4	**0.53**	**0.17**	**0.34**
	HYPOPHARYNX	0	0	0	0	0	0	0	0	0	3	0	3	3	1	4	4	0	4	1	1	2	11	2	13	**1.83**	**0.25**	**0.99**
	OTHER BUCCAL CAVITY & PHARYNX	0	0	0	1	0	1	2	1	3	5	3	8	6	1	7	1	1	2	1	1	2	16	7	23	**2.46**	**1.00**	**1.71**
DIGESTIVE	ESOPHAGUS	0	0	0	0	0	0	1	1	2	7	2	9	23	3	26	5	3	8	5	11	16	41	20	61	**6.34**	**2.61**	**4.46**
	STOMACH	1	1	2	3	1	4	6	2	8	9	7	16	23	10	33	21	9	30	14	9	23	77	39	116	**13.24**	**5.54**	**8.99**
	SMALL INTESTINE	0	0	0	1	0	1	0	1	1	3	3	6	7	3	10	8	4	12	3	4	7	22	15	37	**3.77**	**2.12**	**2.87**
	COLON EXCLUDING RECTUM	2	2	4	3	3	6	9	8	17	33	24	57	69	55	124	98	68	166	79	113	192	293	273	566	**52.35**	**37.24**	**43.93**
	RECTUM AND RECTOSIGMOID	0	0	0	0	2	2	15	8	23	39	27	66	62	21	83	47	25	72	30	30	60	193	113	306	**32.08**	**15.91**	**23.32**
	ANUS	0	0	0	1	0	1	0	4	4	4	3	7	0	3	3	0	3	3	1	1	2	6	14	20	**0.95**	**2.13**	**1.55**
	LIVER	0	0	0	0	0	0	2	0	2	7	4	11	5	1	6	9	2	11	4	6	10	27	13	40	**4.62**	**1.71**	**3.08**
	GALLBLADDER	0	0	0	0	0	0	0	2	2	1	2	3	1	5	6	1	3	4	2	5	7	5	17	22	**0.89**	**2.36**	**1.67**
	PANCREAS	0	0	0	3	0	3	2	1	3	12	4	16	26	20	46	6	22	28	17	22	39	66	69	135	**10.89**	**9.58**	**10.18**
	OTHER DIGESTIVE SYSTEM	0	0	0	0	1	1	1	1	2	3	4	7	3	8	11	8	11	19	5	13	18	20	38	58	**3.62**	**5.31**	**4.55**
RESPIRATORY	LARYNX	0	0	0	0	0	0	1	0	1	0	0	0	8	2	10	7	2	9	9	0	9	25	4	29	**4.53**	**0.60**	**2.24**
	LUNG AND BRONCHUS	0	1	1	1	2	3	10	32	42	39	68	107	121	127	248	141	135	276	119	90	209	431	455	886	**76.63**	**65.27**	**68.61**
	OTHER RESPIRATORY SYSTEM	1	0	1	1	0	1	0	0	0	1	1	2	0	0	0	1	2	3	0	1	1	4	4	8	**0.69**	**0.59**	**0.66**
	BONES AND JOINTS	1	2	3	0	0	0	2	0	2	0	0	0	0	1	1	0	0	0	0	0	0	3	3	6	**0.51**	**0.48**	**0.50**
	SOFT TISSUE (INCLUDING HEART)	4	2	6	1	3	4	3	2	5	1	1	2	4	1	5	4	2	6	2	3	5	19	14	33	**3.27**	**2.20**	**2.71**
	KAPOSI'S SARCOMA	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2	0	2	**0.38**	**0.00**	**0.16**
	MESOTHELIOMA	0	0	0	0	0	0	0	0	0	2	0	2	2	1	3	10	0	10	1	0	1	15	1	16	**2.73**	**0.13**	**1.32**
	MELANOMAS OF THE SKIN	1	2	3	1	6	7	10	11	21	21	13	34	20	15	35	20	9	29	14	14	28	87	70	157	**14.62**	**10.27**	**12.15**
	BREAST	0	3	3	0	23	23	0	112	112	1	176	177	1	232	233	1	165	166	2	141	143	5	852	857	**0.89**	**123.17**	**65.73**
FEMALE GENITAL	CERVIX UTERI		2			7			21			11			5			6			1			53			**8.61**	
	CORPUS UTERI		0			7			16			55			62			48			23			211			**30.59**	
	UTERUS, NOS		0			0			1			2			2			1			2			8			**1.11**	
	OVARY		2			3			9			19			25			17			15			90			**12.98**	
	OTHER FEMALE GENITAL SYSTEM		0			4			3			5			9			4			9			34			**4.85**	

* Age-standardized incidence rate per 100,000

Cancer Incidence Cases & Rates in Manitoba by Site, 2009 – Continued

	CANCER SITE	0-29			30-39			40-49			50-59			60-69			70-79			80+			TOTAL COUNT			*ASIR		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
MALE GENITAL	PROSTATE	0			1			21			114			287			201			103			727			**120.26**		
	TESTIS	14			10			5			4			0			1			0			34			**5.83**		
	PENIS	0			0			0			0			1			5			0			6			**1.12**		
	OTHER MALE GENITAL SYSTEM	0			0			0			0			2			0			1			3			**0.48**		
URINARY	BLADDER	0	0	0	0	1	1	2	1	3	13	3	16	23	12	35	24	17	41	32	16	48	94	50	144	**16.74**	**7.04**	**11.09**
	KIDNEY	3	0	3	5	2	7	12	9	21	30	15	45	39	16	55	25	16	41	26	14	40	140	72	212	**23.41**	**10.42**	**16.23**
	URETER	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	2	3	3	6	4	5	9	**0.82**	**0.64**	**0.69**
	OTHER URINARY SYSTEM	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	2	2	1	1	2	2	4	6	**0.35**	**0.59**	**0.47**
	EYE	0	0	0	0	0	0	0	1	1	1	0	1	1	0	1	0	1	1	1	2	3	3	4	7	**0.49**	**0.57**	**0.54**
BRAIN & OTHER NERVOUS	BRAIN	5	7	12	2	6	8	1	3	4	6	7	13	6	3	9	10	7	17	4	3	7	34	36	70	**5.85**	**5.73**	**5.68**
	OTHER NERVOUS SYSTEM	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	2	4	**0.36**	**0.35**	**0.35**
ENDOCRINE	THYROID	3	6	9	5	11	16	3	16	19	9	23	32	5	22	27	3	4	7	1	4	5	29	86	115	**4.70**	**13.09**	**8.95**
	OTHER ENDOCRINE	3	0	3	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1	0	1	1	4	2	6	**0.70**	**0.25**	**0.49**
LYMPHOMA	HODGKIN'S LYMPHOMA	7	8	15	6	0	6	2	2	4	2	0	2	2	0	2	3	2	5	0	0	0	22	12	34	**3.78**	**2.06**	**2.91**
	NON-HODGKIN'S LYMPHOMA	2	5	7	7	6	13	10	13	23	22	15	37	32	21	53	27	37	64	21	35	56	121	132	253	**20.54**	**19.31**	**19.88**
	MULTIPLE MYELOMA	0	0	0	0	0	0	0	0	0	6	8	14	12	5	17	15	4	19	8	7	15	41	24	65	**7.11**	**3.24**	**4.95**
LEUKEMIA	ACUTE LYMPHOCYTIC	7	7	14	0	1	1	1	1	2	0	0	0	0	2	2	0	1	1	0	0	0	8	12	20	**1.34**	**2.00**	**1.68**
	CHRONIC LYMPHOCYTIC	0	0	0	0	0	0	3	2	5	10	7	17	21	10	31	20	7	27	10	13	23	64	39	103	**10.83**	**5.30**	**7.85**
	ACUTE MYELOID	3	2	5	1	0	1	4	0	4	6	4	10	6	1	7	6	2	8	8	2	10	34	11	45	**5.90**	**1.60**	**3.50**
	CHRONIC MYELOID	0	1	1	2	0	2	6	1	7	1	3	4	2	4	6	4	3	7	0	2	2	15	14	29	**2.61**	**2.02**	**2.34**
	OTHER LEUKEMIAS	1	0	1	0	0	0	0	1	1	2	1	3	2	0	2	2	1	3	1	3	4	8	6	14	**1.32**	**0.82**	**1.08**
	OTHER, ILL DEFINED & UNKNOWN	0	1	1	2	2	4	3	2	5	12	17	29	23	23	46	37	33	70	35	58	93	112	136	248	**20.33**	**18.47**	**19.23**
	TOTAL - ALL INVASIVE	**59**	**57**	**116**	**60**	**92**	**152**	**143**	**291**	**434**	**456**	**547**	**1003**	**867**	**741**	**1608**	**800**	**687**	**1487**	**583**	**691**	**1274**	**2968**	**3106**	**6074**	**507.94**	**445.71**	**468.64**
	OTHER SKIN AND IN SITU	8	5	13	23	23	46	57	95	152	177	171	348	276	200	476	354	256	610	347	383	730	1242	1133	2375	**220.37**	**158.61**	**184.10**
	BREAST IN SITU	0	0	0	0	3	3	0	20	20	0	42	42	0	39	39	0	17	17	0	9	9	0	130	130	**0.00**	**18.90**	**9.77**
	CERVIX IN SITU		93			55			29			11			4			4			0			196			**34.05**	
	PROSTATE IN SITU	0			0			2			4			15			8			1			30			**4.75**		
	BLADDER IN SITU	0	0	0	0	0	0	3	2	5	10	4	14	29	10	39	34	5	39	24	7	31	100	28	128	**17.61**	**3.87**	**9.86**
	OTHER IN SITU (Excl. Breast, Skin, Cervix, Prostate, Bladder)	1	4	5	2	1	3	8	15	23	25	30	55	32	28	60	40	34	74	24	18	42	132	130	262	**22.70**	**19.11**	**20.37**
	TOTAL - INVASIVE & IN SITU	**68**	**159**	**227**	**85**	**174**	**259**	**213**	**452**	**665**	**672**	**805**	**1477**	**1219**	**1022**	**2241**	**1236**	**1003**	**2239**	**979**	**1108**	**2087**	**4472**	**4723**	**9195**	**773.37**	**680.24**	**711.93**
	BRAIN UNCERTAIN & UNSPECIFIED	1	2	3	1	0	1	3	2	5	1	3	4	0	1	1	0	0	0	2	2	4	8	10	18	**1.43**	**1.47**	**1.42**
	NEOPLASMS (Uncertain & unspecified, excluding brain)	6	9	15	2	14	16	8	11	19	17	23	40	21	18	39	30	16	46	27	41	68	111	132	243	**19.57**	**19.02**	**19.02**
	BRAIN & NERVOUS SYSTEM BENIGN	3	1	4	1	4	5	5	8	13	9	7	16	8	13	21	4	10	14	3	7	10	33	50	83	**5.32**	**7.48**	**6.47**
	ALL CANCERS	78	171	249	89	192	281	229	473	702	699	838	1537	1248	1054	2302	1270	1029	2299	1011	1158	2169	4624	4915	9539	**799.69**	**708.20**	**738.84**

* Age-standardized incidence rate per 100,000

Cancer Mortality Cases & Rates in Manitoba by Site, 2009

	CANCER SITE	0-29			30-39			40-49			50-59			60-69			70-79			80+			TOTAL COUNT			*ASMR		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
BUCCAL CAVITY & PHARYNX	LIP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	**0.21**	**0.00**	**0.07**
	TONGUE	0	0	0	0	0	0	0	0	0	0	1	1	3	0	3	0	1	1	2	0	2	5	2	7	**0.83**	**0.31**	**0.51**
	MAJOR SALIVARY GLAND	0	0	0	1	0	1	0	3	3	0	0	0	0	0	0	0	0	0	0	1	1	1	4	5	**0.19**	**0.64**	**0.43**
	FLOOR OF MOUTH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0.00**	**0.00**	**0.00**
	GUM AND OTHER MOUTH	0	0	0	0	0	0	0	0	0	1	0	1	2	1	3	1	1	2	2	3	5	6	5	11	**1.03**	**0.64**	**0.82**
	NASOPHARYNX	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	1	1	2	1	3	**0.28**	**0.11**	**0.21**
	OROPHARYNX	0	0	0	0	0	0	0	0	0	0	1	1	3	0	3	0	0	0	1	0	1	4	1	5	**0.62**	**0.14**	**0.35**
	HYPOPHARYNX	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	2	0	2	**0.28**	**0.00**	**0.14**
	OTHER BUCCAL CAVITY & PHARYNX	0	0	0	0	0	0	0	1	1	0	1	1	1	0	1	1	1	2	1	2	3	3	5	8	**0.54**	**0.71**	**0.63**
DIGESTIVE	ESOPHAGUS	0	0	0	0	0	0	3	1	4	10	2	12	18	4	22	8	3	11	15	7	22	54	17	71	**9.10**	**2.29**	**5.29**
	STOMACH	0	0	0	1	2	3	2	2	4	9	2	11	5	6	11	13	5	18	5	10	15	35	27	62	**6.08**	**3.77**	**4.87**
	SMALL INTESTINE	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	2	1	3	0	1	1	3	4	7	**0.53**	**0.55**	**0.55**
	COLON EXCLUDING RECTUM	0	0	0	0	1	1	4	1	5	13	10	23	17	24	41	27	34	61	48	63	111	109	133	242	**20.2**	**17.84**	**18.63**
	RECTUM AND RECTOSIGMOID	0	0	0	0	1	1	6	3	9	12	0	12	11	12	23	12	11	23	12	16	28	53	43	96	**9.09**	**5.97**	**7.41**
	ANUS	0	0	0	0	0	0	0	1	1	0	0	0	1	0	1	0	1	1	0	0	0	1	2	3	**0.14**	**0.34**	**0.24**
	LIVER	0	0	0	0	1	1	1	0	1	7	2	9	3	0	3	7	4	11	1	8	9	19	15	34	**3.15**	**2.05**	**2.67**
	GALLBLADDER	0	0	0	0	0	0	0	1	1	0	0	0	0	3	3	2	2	4	1	4	5	3	10	13	**0.60**	**1.36**	**1.02**
	PANCREAS	0	0	0	3	0	3	3	1	4	11	3	14	20	14	34	9	23	32	12	26	38	58	67	125	**9.64**	**9.27**	**9.60**
	OTHER DIGESTIVE SYSTEM	0	0	0	0	1	1	0	1	1	1	3	4	3	6	9	8	3	11	5	13	18	17	27	44	**3.17**	**3.56**	**3.39**
RESPIRATORY	LARYNX	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	3	1	4	5	1	6	9	3	12	**1.77**	**0.41**	**0.94**
	LUNG AND BRONCHUS	0	1	1	0	0	0	14	10	24	43	34	77	88	84	172	114	93	207	131	86	217	390	308	698	**70.36**	**43.17**	**53.91**
	OTHER RESPIRATORY SYSTEM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1	1	1	0	1	2	1	3	**0.38**	**0.17**	**0.25**
	BONES AND JOINTS	1	1	2	0	0	0	0	0	0	1	0	1	1	0	1	0	1	1	0	1	1	3	3	6	**0.44**	**0.45**	**0.47**
	SOFT TISSUE (INCLUDING HEART)	1	4	5	1	1	2	0	1	1	0	2	2	2	3	5	2	2	4	0	1	1	6	14	20	**1.02**	**2.17**	**1.61**
	KAPOSI'S SARCOMA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0.00**	**0.00**	**0.00**
	MESOTHELIOMA	0	0	0	0	0	0	0	1	1	2	0	2	4	0	4	5	1	6	1	2	3	12	4	16	**2.02**	**0.57**	**1.26**
	MELANOMAS OF THE SKIN	0	0	0	0	0	0	0	0	0	5	1	6	4	3	7	3	0	3	3	5	8	15	9	24	**2.46**	**1.11**	**1.75**
	BREAST	0	1	1	0	5	5	0	15	15	1	22	23	1	45	46	0	36	36	0	64	64	2	188	190	**0.28**	**26.08**	**14.55**
FEMALE GENITAL	CERVIX UTERI		0			2			2			3			5			7			1			20			**3.08**	
	CORPUS UTERI		0			0			0			1			5			7			10			23			**3.12**	
	UTERUS, NOS		0			0			3			0			4			2			6			15			**2.07**	
	OVARY		0			1			5			10			18			10			14			58			**8.10**	
	OTHER FEMALE GENITAL SYSTEM		0			0			0			2			0			1			9			12			**1.48**	

* Age-standardized mortality rate per 100,000

Cancer Mortality Cases & Rates in Manitoba by Site, 2009 – Continued

	CANCER SITE	0-29			30-39			40-49			50-59			60-69			70-79			80+			TOTAL COUNT			*ASMR		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
MALE GENITAL	PROSTATE	0			0			1			4			14			45			105			169			33.49		
	TESTIS	0			0			0			0			0			0			0			0			0.00		
	PENIS	0			0			0			0			0			0			0			0			0.00		
	OTHER MALE GENITAL SYSTEM	0			0			0			0			0			0			0			0			0.00		
URINARY	BLADDER	0	0	0	0	1	1	0	0	0	4	1	5	7	2	9	19	5	24	21	14	35	51	23	74	9.65	3.03	5.81
	KIDNEY	0	0	0	0	0	0	2	3	5	9	3	12	8	6	14	17	11	28	17	5	22	53	28	81	9.60	4.15	6.37
	URETER	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	1	1	0	0	0	2	1	3	0.28	0.17	0.23
	OTHER URINARY SYSTEM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
	EYE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	0.00	0.11	0.07
BRAIN & OTHER NERVOUS	BRAIN	0	2	2	0	2	2	4	2	6	6	1	7	5	4	9	8	4	12	2	2	4	25	17	42	4.21	2.63	3.35
	OTHER NERVOUS SYSTEM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	1	0	1	1	2	3	0.21	0.30	0.23
ENDOCRINE	THYROID	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	1	2	3	0	1	1	3	3	6	0.47	0.45	0.48
	OTHER ENDOCRINE	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	2	1	2	3	0.21	0.25	0.22
LYMPHOMA	HODGKIN'S LYMPHOMA	0	1	1	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	2	1	3	0.28	0.17	0.22
	NON-HODGKIN'S LYMPHOMA	0	0	0	1	0	1	2	1	3	6	2	8	6	9	15	9	12	21	15	20	35	39	44	83	7.10	5.94	6.41
	MULTIPLE MYELOMA	0	0	0	0	0	0	1	0	1	6	1	7	3	2	5	3	2	5	11	9	20	24	14	38	4.31	1.77	2.84
LEUKEMIA	ACUTE LYMPHOCYTIC LEUKEMIA	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	2	0	2	0.31	0.00	0.15
	CHRONIC LYMPHOCYTIC LEUKEMIA	0	0	0	0	0	0	0	1	1	0	0	0	2	1	3	3	2	5	6	3	9	11	7	18	2.12	0.99	1.41
	ACUTE MYELOID LEUKEMIA	3	1	4	0	1	1	0	1	1	2	1	3	6	5	11	8	6	14	9	1	10	28	16	44	5.06	2.45	3.48
	CHRONIC MYELOID LEUKEMIA	0	0	0	0	0	0	0	0	0	1	0	1	2	0	2	1	0	1	2	0	2	6	0	6	1.03	0.00	0.44
	OTHER LEUKEMIAS	0	1	1	0	0	0	0	0	0	2	1	3	2	0	2	2	3	5	4	8	12	10	13	23	1.78	1.73	1.77
	OTHER, ILL-DEFINED & UNKNOWN	2	0	2	1	0	1	2	4	6	16	15	31	21	23	44	37	32	69	30	37	67	109	111	220	19.54	15.42	17.11
	TOTAL - ALL INVASIVE	**8**	**12**	**20**	**8**	**19**	**27**	**46**	**64**	**110**	**180**	**125**	**305**	**268**	**294**	**562**	**370**	**333**	**703**	**471**	**457**	**928**	**1351**	**1304**	**2655**	244.10	181.12	205.17
	OTHER SKIN & IN SITU (incl. melanoma in situ)	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	0	2	4	2	6	8	2	10	1.51	0.23	0.76
	BREAST IN SITU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0		0		0	0	0	0	0.00	0.00	0.00
	CERVIX IN SITU		0			0			0			0			0			0			0			0			0.00	
	PROSTATE IN SITU	0			0			0			0			0			0			0			0			0.00		
	BLADDER IN SITU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
	OTHER IN SITU (excl. Breast, Skin, Cervix, Prostate, Bladder)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00
	TOTAL - INVASIVE + IN SITU	**8**	**12**	**20**	**8**	**19**	**27**	**46**	**64**	**110**	**180**	**125**	**305**	**270**	**294**	**564**	**372**	**333**	**705**	**475**	**459**	**934**	**1359**	**1306**	**2665**	245.60	181.35	205.93
	BRAIN UNCERTAIN & UNSPECIFIED	0	1	1	0	0	0	2	0	2	2	3	5	1	5	6	1	3	4	3	5	8	9	17	26	1.59	2.33	1.96
	NEOPLASMS (uncertain & unspecified - excl. brain)	0	0	0	0	0	0	1	0	1	1	1	2	5	2	7	7	1	8	12	27	39	26	31	57	4.89	3.67	4.31
	BRAIN & NERVOUS SYSTEM BENIGN	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	3	1	2	3	3	4	7	0.60	0.53	0.56
	ALL CANCERS	8	13	21	8	19	27	49	64	113	183	129	312	276	302	578	382	338	720	491	493	984	1397	1358	2755	252.68	187.87	212.76

* Age-standardized mortality rate per 100,000

Staff collaborate with health service providers and other researchers regarding a variety of health services including risk factors, screening, diagnosis, treatment and outcome evaluations.

Our certified cancer registrars can provide disease-related data to assist physicians and other health care providers directly involved in the care and treatment of their patients.

The Registry respects and protects a patient's right to privacy and ensures confidential health information is used appropriately. Requests for information for study and research purposes are processed through CancerCare Manitoba's Research Resource Impact Committee (RRIC) and must be approved by RRIC and relevant ethics boards.

The Provincial Personal Health Information Act and the Federal Personal Information Protection and Electronic Documents Act are complied with at all times.

2009 Publications

1 Marra F, Ogilvie G, Colley L, **Kliewer EV,** Marra C. Epidemiology and costs associated with genital warts in Canada. Sexually Transmitted Infections 2009 Apr;85(2):111-5. Epub 2008 Nov 3. PMID 18981170

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13 Cree M, Tonita J, **Turner D, Nugent Z,** Alvi R, Barss R, King C, Winget M. Comparison of Treatment Receieved versus Long-Standing Guidelines for Stage III Colon and Stage II/III Rectal Cancer Patients Diagnosed in Alberta, Saskatchewan, and Manitoba in 2004. Clin Colorectal Cancer. 2009 Jul;8(3):141-5.

14 Decker K, **Demers A,** Chateau D, **Musto G, Nugent Z,** Lotocki R, Harrison M. Papanicolaou test utilization and frequency of screening opportunities among women diagnosed with cervical cancer. Open Medicine 2009 3(3):1 40-1 47

This is only a sample of publications that have used Manitoba Cancer Registry data. For a complete listing, please visit www.cancercare.mb.ca and click on Epidemiology and Cancer Registry under the Research tab.

Six years of staging data equals research gold

Manitoba is a leader in collaborative staging and was the first province to capture stage data on all cancer sites diagnosed January 1, 2004 onward. The availability of cancer stage information provides valuable information to guide health care professionals in treating patients as effectively as possible. These data can assist with evaluation of the effectiveness of screening and treatment programs, analyses of prevalence and survival, research into new treatments and resource planning for health care management. Researchers from across Canada have been tapping into the Manitoba Cancer Registry's expertise and the requests are increasing. In 2005, three requests were received for staged data and in 2009, the number jumped to 24.

Registry staff have worked on a wide range of research projects using stage data. A few examples from 2009 include tumour size and lymph node involvement predicting survival in patients with oral cancer, survival and treatment patterns of non-small cell lung cancer, and comparison of treatment received versus long-standing guidelines for Stage III colon and Stage II/III rectal cancer diagnosed in three provinces including Manitoba.

The Registry is also a leader when it comes to training others in this field. The registry continues to have a cancer registrar (one of six across the country) acting as a national collaborative stage trainer as part of a collaboration between the Public Health Agency of Canada, Statistics Canada and the Canadian Council of Cancer Registries.

Data Requests

YEAR	PROGRAM / PLANNING	SURVEILLANCE	RESEARCH	TOTAL
2005	45	5	14	64
2006	16	13	17	46
2007	35	13	31	79
2008	17	21	21	59
2009	30	15	31	76

Quality Assurance

To ensure data entered into the Manitoba Cancer Registry are 100% complete and accurate, highly trained cancer registrars review all data using validation edits developed by the Canadian Cancer Registry (CCR) and the North American Association of Central Cancer Registries (NAACCR). Validation edits protect against error. For example, the ability to create a prostate cancer case when the gender is female would not be possible.

Once the review is complete, the data are submitted to the CCR and NAACCR registries and becomes part of these comprehensive databases. This information is used to study cancer patterns and trends and to monitor differences in cancer risks among different populations, as well as providing standardized and comparable cancer data.

The Manitoba Cancer Registry has been recognized for its high quality data and has held NAACCR gold certification since 2006.

2009 Edits

* 35 Manitoba Cancer Registry edits
  * two visual reviews containing 55 edits each
* 60 North American Association of Central Cancer Registries edits

Appendix 1

Place of Diagnosis 2009

	MALE	FEMALE	TOTAL
Health Sciences Centre	1206	920	2126
St. Boniface General Hospital	455	547	1002
Other Hospitals in Winnipeg	869	765	1634
Other Hospitals in Manitoba	820	1498	2318
Hospitals Outside Manitoba	86	103	189
Doctors and Clinics in Winnipeg	1170	997	2167
Doctors and Clinics in Manitoba	201	267	468
Total	**4807**	**5097**	**9904**

Place of Death 2009

	MALE	FEMALE	TOTAL
Hospitals - Winnipeg	763	768	1531
Hospitals - Outside Winnipeg	474	445	919
Other - Winnipeg	84	92	176
Other - Outside Winnipeg	76	53	129
Total	**1397**	**1358**	**2755**

Residence at Diagnosis 2009

	MALE	FEMALE	TOTAL
Winnipeg	2652	2887	5539
Manitoba-Outside Winnipeg	1972	2028	4000
Non-Manitoba Residence	183	182	365
Total	**4807**	**5097**	**9904**

Residence at Death 2009

	MALE	FEMALE	TOTAL
Greater Winnipeg	783	809	1592
Manitoba - Outside Greater Winnipeg	614	549	1163
Total	**1397**	**1358**	**2755**

Appendix 2

Age Distribution at Diagnosis 2009

AGE GROUP	MALE	RATE	FEMALE	RATE	TOTAL	RATE
00-04	8	21.68	11	31.07	19	26.28
05-09	3	7.8	3	8.28	6	8.03
10-14	2	4.69	8	19.72	10	12.02
15-19	10	22.73	17	40.08	27	31.24
20-24	17	40.71	56	138.2	73	88.73
25-29	38	97.9	76	197.43	114	147.45
30-34	36	93.94	83	218.4	119	155.91
35-39	53	134.11	109	278.16	162	205.83
40-44	64	145.28	187	423.92	251	284.69
45-49	165	351.59	286	620.53	451	484.85
50-54	295	693.32	402	944.02	697	818.72
55-59	404	1113.62	436	1186.88	840	1150.48
60-64	621	2146.49	558	1905.09	1179	2025.04
65-69	627	2991.13	496	2211.92	1123	2588.39
70-74	614	3597.8	540	2819.99	1154	3186.52
75-79	656	4642.6	489	2697.19	1145	3549.29
80+	1011	5750.53	1158	3518.37	2169	4295.56
Total	4624	771.74	4915	800.06	9539	786.08

Age Distribution at Death 2009

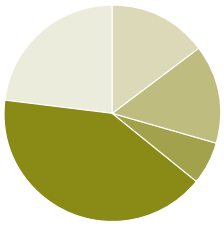
AGE GROUP	MALE	RATE	FEMALE	RATE	TOTAL	RATE
00-04	0	0	2	5.33	2	2.61
05-09	1	2.6	1	2.75	2	2.67
10-14	0	0	1	2.53	1	1.23
15-19	2	4.46	2	4.65	4	4.55
20-24	3	7.17	1	2.42	4	4.81
25-29	2	5	6	15.01	8	10
30-34	1	2.6	7	17.98	8	10.34
35-39	7	17.73	12	30.37	19	24.05
40-44	17	41.12	21	50.77	38	45.94
45-49	32	67.27	43	91.39	75	79.26
50-54	82	185.06	64	146.23	146	165.76
55-59	101	267.55	65	168.28	166	217.34
60-64	135	427.36	155	478.07	290	453.05
65-69	141	616.69	147	608.7	288	612.58
70-74	170	979.32	163	836.15	333	903.59
75-79	212	1488.55	175	992.63	387	1214.23
80+	491	2668.33	493	1466.78	984	1891.87
Total	1397	233.16	1358	221.06	2755	227.03

Appendix 3

Staging on sites with more than 45 cases

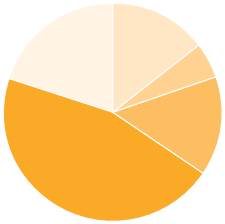
ESOPHAGUS

	FREQUENCY	PERCENT
Stage 1	9	14.75
Stage 2	9	14.75
Stage 3	4	6.56
Stage 4	25	40.98
Unknown	14	22.95
Total	61	100



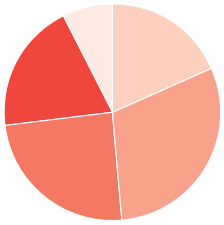
STOMACH

	FREQUENCY	PERCENT
Stage 1	17	14.66
Stage 2	6	5.17
Stage 3	17	14.66
Stage 4	53	45.69
Unknown	23	19.83
Total	116	100



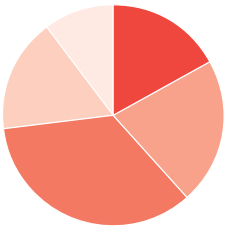
COLON EXCLUDING RECTUM

	FREQUENCY	PERCENT
Stage 1	105	18.55
Stage 2	171	30.21
Stage 3	138	24.38
Stage 4	110	19.43
Unknown	42	7.42
Total	566	100



RECTUM & RECTOSIGMOID

	FREQUENCY	PERCENT
Stage 1	52	16.99
Stage 2	66	21.57
Stage 3	106	34.64
Stage 4	51	16.67
Unknown	31	10.13
Total	306	100

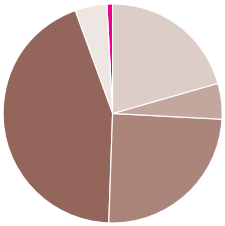


PANCREAS

	FREQUENCY	PERCENT
Stage 1	9	6.67
Stage 2	28	20.74
Stage 3	12	8.89
Stage 4	71	52.59
Unknown	15	11.11
Total	135	100

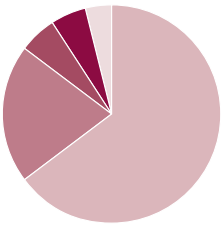
LUNG & BRONCHUS

	FREQUENCY	PERCENT
Stage 1	183	20.65
Stage 2	48	5.42
Stage 3	218	24.60
Stage 4	390	44.02
Unknown	42	4.74
Occult	5	0.56
Total	886	100



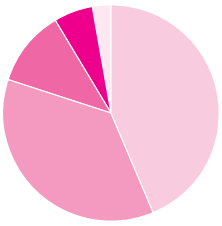
MELANOMAS OF THE SKIN

	FREQUENCY	PERCENT
Stage 1	102	64.97
Stage 2	32	20.38
Stage 3	9	5.73
Stage 4	8	5.10
Unknown	6	3.82
Total	157	100



BREAST

	FREQUENCY	PERCENT
Stage 1	374	43.64
Stage 2	313	36.52
Stage 3	98	11.44
Stage 4	50	5.83
Unknown	22	2.57
Total	857	100

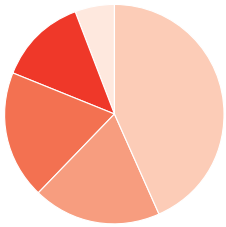


Appendix 3 – Continued

Staging on sites with more than 45 cases – Continued

CERVIX UTERI

	FREQUENCY	PERCENT
Stage 1	23	43.40
Stage 2	10	18.87
Stage 3	10	18.87
Stage 4	7	13.21
Unknown	3	5.66
Total	53	100

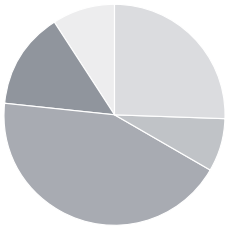


CORPUS UTERI

	FREQUENCY	PERCENT
Stage 1	132	62.56
Stage 2	30	14.22
Stage 3	24	11.37
Stage 4	9	4.27
Unknown	16	7.58
Total	211	100

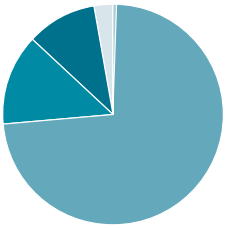
OVARY

	FREQUENCY	PERCENT
Stage 1	23	25.56
Stage 2	7	7.78
Stage 3	39	43.33
Stage 4	13	14.44
Unknown	8	8.89
Total	90	100



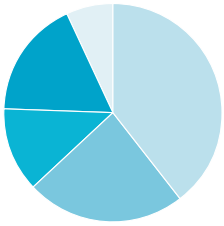
PROSTATE

	FREQUENCY	PERCENT
Stage 1	1	0.14
Stage 2	536	73.73
Stage 3	96	13.20
Stage 4	75	10.32
Unknown	19	2.61
Total	727	100



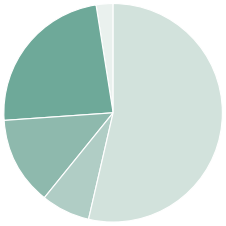
BLADDER

	FREQUENCY	PERCENT
Stage 1	57	39.58
Stage 2	34	23.61
Stage 3	18	12.50
Stage 4	25	17.36
Unknown	10	6.94
Total	144	100



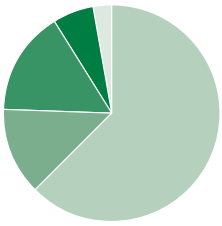
KIDNEY

	FREQUENCY	PERCENT
Stage 1	114	53.77
Stage 2	15	7.08
Stage 3	28	13.21
Stage 4	50	23.58
Unknown	5	2.36
Total	212	100



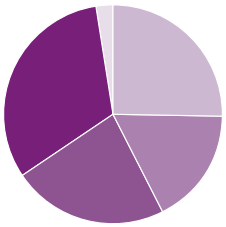
THYROID

	FREQUENCY	PERCENT
Stage 1	72	62.61
Stage 2	15	13.04
Stage 3	18	15.65
Stage 4	7	6.09
Unknown	3	2.61
Total	115	100



NON-HODGKIN'S LYMPHOMA

	FREQUENCY	PERCENT
Stage 1	64	25.30
Stage 2	44	17.39
Stage 3	58	22.92
Stage 4	81	32.02
Unknown	6	2.37
Total	253	100



In keeping with international coding conventions, all invasive brain tumours, multiple myeloma and leukemia are considered unstageable using the collaborative staging system utilized by all population-based North American Cancer Registries.

Appendix 4

International Classification of Diseases for Oncology – 3rd Edition

PRIMARY SITE	SITE/ CELL TYPE
Buccal cavity & pharynx	C00:C14
Lip	C000:C009
Tongue	C019:C029
Major salivary gland	C079:C089
Floor of mouth	C040:C049
Gum & other mouth	C030:C039, C050:C059, C060:C069
Nasopharynx	C110:C119
Oropharynx	C100:C109
Hypopharynx	C129, C130:C139
Other buccal cavity & pharynx	C090:C099, C140, C142:C148
Digestive system	C15:C26
Esophagus	C150:C159
Stomach	C160:C169
Small intestine	C170:C179
Colon excluding rectum	C180:C189, C260
Rectum & Rectosigmoid	C199, C209
Anus	C210:C212, C218
Liver	C220
Gallbladder	C239
Pancreas	C250:C259
Other digestive system	C240:C249, C221, C480, C481:C482, C268:C269, C488
Respiratory system	C30:C39
Larynx	C320:C329
Lung & bronchus	C340:C349
Other respiratory system	C300:C301, C310:C319, C384, C339, C381:C383, C388, C390:C399
Bones & joints	C400:C419
Soft tissue (including heart)	C380, C470:C479, C490:C499
Mesothelioma	types 9050:9055
Kaposi sarcoma	types 9140
Skin	C44
Melanomas of the skin	C440:C449 (types 8720:8790)
Other skin	C440:C449
Breast	C500:C509
Female genital system	C51:C58
Cervix uteri	C530:C539
Corpus uteri	C540:C549
Uterus, NOS	C559
Ovary	C569
Other female genital system	C529, C510:C519, C570:C589

PRIMARY SITE	SITE/ CELL TYPE
Male genital system	C60:C63
Prostate	C619
Testis	C620:C629
Penis	C600:C609
Other male genital system	C630:C639
Urinary system	C64:C68
Bladder (incl. in situ)	C670:C679
Kidney	C649, C659
Ureter	C669
Other urinary system	C680:C689
Eye	C690:C699
Brain & other nervous system	C70:C72
Brain	C710:C719
Other nervous system	C710:C719 (type 953), C700:C709 C720:C729
Endocrine	C73:C75
Thyroid	C739
Other endocrine	C379, C740:C749, C750:C759
Lymphomas	C77
Hodgkin's lymphoma	types 9650:9667
Non-Hodgkin's lymphoma	types 9590:9596, 9670:9719, 9727:9729 type 9823, all sites except C420, C421, C424 type 9827, all sites except C420, C421, C424
Multiple myeloma	C421, types 9731:9732, 9734
Leukemias	C42
Acute lymphocytic	types 9826, 9835:9837
Chronic lymphocytic	C420(type 9823), C421 (type 9823), C421 (type 9823), C424 (type 9823)
Acute myeloid	types 9840, 9861, 9866, 9867, 9871:9874, 9891, 9895:9897, 9910, 9920
Chronic myeloid	types 9863, 9875, 9876, 9945, 9946
Other	types 9733, 9742, 9800, 9801, 9805, 9820, 9831, 9832:9834, 9860, 9870, 9930, 9931, 9940, 9948, 9963, 9964 C420 (type 9827), C421 (type 9827), C424 (type 9827)
Other, ill-defined & unknown	types 9740,9741, 9750:9758, 9760:9769, 9950:9962, 9970:9989 C760:C768, (types 8000:9589) C809 (types 8000:9589) C420:C424 (types 8000:9589) C770:C779 (types 8000:9589)

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