

Cancer in Manitoba

DEPARTMENT OF EPIDEMIOLOGY
& CANCER REGISTRY



2012

Annual Statistical Report

 CancerCare Manitoba
ActionCancerManitoba

Department of Epidemiology and Cancer Registry

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Vision

Through engaged partnerships, effective research, and knowledge exchange, generate relevant information on all essential facets of cancer control including prevention, screening, early detection, treatment, and palliation.

Mission

To enhance the development and evaluation of a cancer control strategy by collecting data, and conducting surveillance and research across the spectrum of cancer control in Manitoba.

Department of Epidemiology and Cancer Registry

2012 Report from the Managers

The Department of Epidemiology and Cancer Registry continues its dedication to the advancement of cancer control initiatives and works diligently to provide high quality cancer information. The department continues to increase the number and complexity of variables captured in the Registry as well as providing epidemiological support to CancerCare Manitoba (CCMB) administrators, clinicians, researchers, program planners and the CancerCare Manitoba Foundation (CCMF).

Every year there is an increase in the number of projects and initiatives matched with an expectation of Departmental support. The Department is engaging with CCMB and our stakeholders to best meet the growing demand and need for data.

Data Requests

YEAR	PROGRAM PLANNING	SURVEILLANCE / EDUCATIONAL	RESEARCH	TOTAL
2008	17	21	21	59
2009	30	15	31	76
2010	29	25	38	92
2011	17	28	64	109
2012	35	23	45	103

2012 initiatives and ongoing work include:

- **Data Quality**

The Manitoba Cancer Registry has submitted 2012 data to the North America Association for Central Cancer Registries for certification. The Registry has held gold certification since 2006.

- **Staging**

Recognized as a leader in capturing stage amongst North American cancer registries, the Registry has stage at diagnosis information on cancer cases diagnosed from 2004 forward.

- **Prevention**

The Department has engaged in several projects to help determine how to reduce the risk of Manitobans getting cancer:

- The Youth Health Survey (YHS) is a collaborative project to determine youth behavioural risk factors. The Epidemiology Unit led this massive initiative (65,000 students) and provided individual reports to schools, RHAs and government departments.
- Responding to the ongoing need for public education on sun/UV safety, the Unit has engaged in outreach activities supported by CCMF.
- Due to the lack of a specific prevention unit, the Virtual Prevention Unit was created to answer the recognized need for organized and collaborative cancer prevention initiatives between CCMB departments.

- **Clinical Epidemiology**

The Department engages with CCMB clinicians and others to support research and determine clinical outcomes by:

- Dedicating cancer registrars and providing ongoing epidemiological collaboration with physicians and specific disease site groups. Expansion of coding to include clinical data for outcomes evaluation with disease site groups and developing and maintaining clinical databases for clinician research.
- Providing support to clinicians, students and staff throughout the research process.

- **IN SIXTY**

This major provincial initiative aims to reduce the wait times from suspicion of cancer to treatment. The Department is supporting multiple initiatives to improve the cancer patient journey.

- **System Performance**

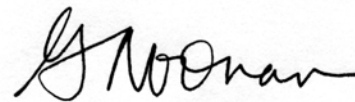
The Department continues its work with the Canadian Partnership Against Cancer by building and updating a number of indicators with more recent data and introducing several new ones for prevention, screening, treatment and long-term outcomes.

The Department is proud of its ability to provide key knowledge, data collection support, and analytical expertise. Our dedicated team of highly skilled experts must continually upgrade their education, and transform the data into useful information which then provides a picture of the state of cancer across the province. We are committed to supporting population based research which contributes to the development and evaluation of the 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. This year's report is based on the following information.

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

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

Incidence refers to the number of new cases of cancer diagnosed in Manitoba every year. Cancer cases referenced were diagnosed in the 2012 calendar year. Incidence is also provided by stage of disease at diagnosis.

The Manitoba Cancer Registry uses disease site groupings according to the International Classification of Diseases for Oncology Third Edition (ICD-O3), based on Surveillance Epidemiology and End Results (SEER) Groups. See Appendix 1 for the primary site groupings used for incidence.

Mortality data

Mortality information refers to Manitobans who died of cancer in the 2012 calendar year, however those patients may not have been diagnosed in 2012. The Vital Statistics Agency of Manitoba reported cancer as the leading cause of death in the province. In 2012, there were 2,704 deaths due to invasive cancer (age standardized rate – 212.7 per 100,000).¹ The totals in the summary on page 13 include all cancer deaths occurring in Manitoba.

Rates

Incidence counts and rates are presented in this report. Annual age-standardized rates are per 100,000 population and allow for comparison of cancer rates in different regions with different age structures. Rates are age-standardized (using the direct method) to the 2001 Manitoba population.

Staging data

The Manitoba Cancer Registry implemented has Stage Data Collection for all cases of cancer (excluding non-melanoma skin) diagnosed January 1, 2004 and forward. This data is consistent with the AJCC Cancer Staging Manual, 7th edition.

In this report, stage data is shown for all disease site groups with a cancer incidence of 45 cases per year or more and is represented using pie charts. Stage information, along with frequency of incidence for each of these sites, can also be found in table format on page 10.

Population data

Data are based on Manitoba estimates provided by Manitoba Health, Healthy Living and Seniors.

Additional statistical information is available upon request. Please contact the Manitoba Cancer Registry at:

1-877-787-1272 (toll-free), or
CCMBepireg@cancer.mb.ca

Manitoba's Cancer Profile

Facts & Figures

Manitoba's cancer profile

Cancer is a significant health issue. In 2012, **11,167** Manitobans were diagnosed with cancer:

- 6,200 invasive cancers
- 4,548 in situ (confined to the area of origin)
- 316 unspecified cancers
- 103 benign brain and CNS

In this same year, **2,704** 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.

Most Common Cancer Diagnoses, 2012

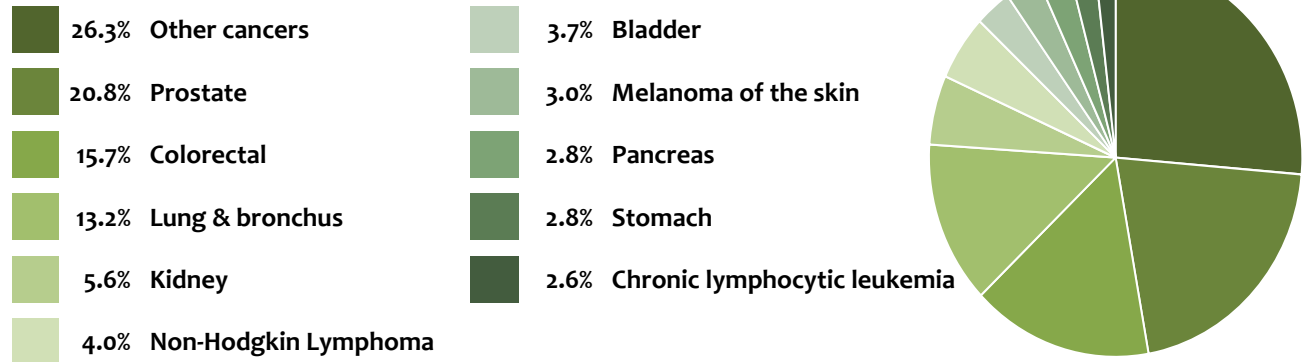
Incidence

Male		Female		Total	
SITE	CASES	SITE	CASES	SITE	CASES
Prostate	631	Breast	879	Breast	886
Colorectal	475	Lung & bronchus	460	Lung & bronchus	860
Lung & bronchus	400	Colorectal	333	Colorectal	808
Kidney	171	Corpus uteri	215	Prostate	631
Non-Hodgkin lymphoma	161	Thyroid	127	Non-Hodgkin lymphoma	279
Bladder	95	Non-Hodgkin lymphoma	118	Kidney	266
Melanoma of the skin	89	Kidney	95	Corpus uteri	215
Pancreas	85	Ovary	90	Pancreas	174
Stomach	70	Pancreas	89	Melanoma of the skin	171
Chronic lymphocytic leukemia	55	Melanoma of the skin	82	Thyroid	157
Multiple myeloma	50	Cervix uteri	61	Bladder	125

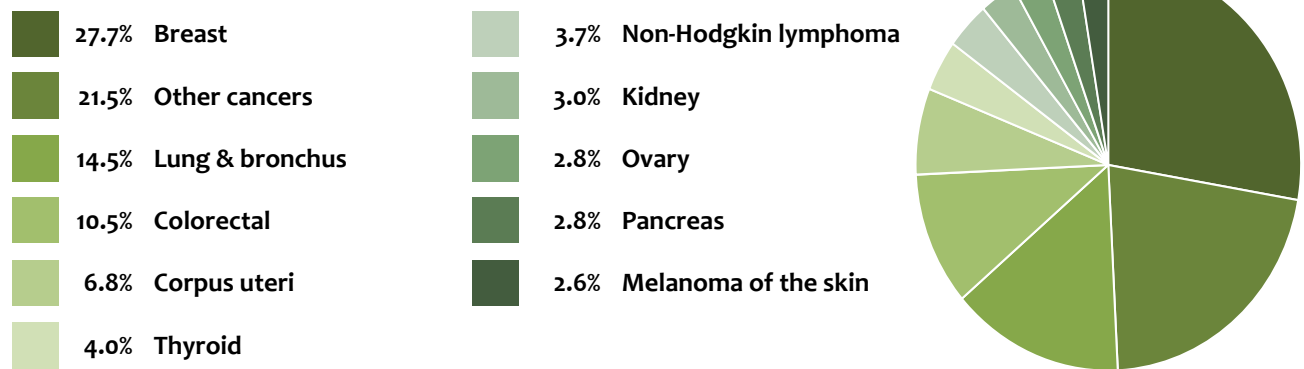
Cancer Incidence by Site

Invasive cancers only

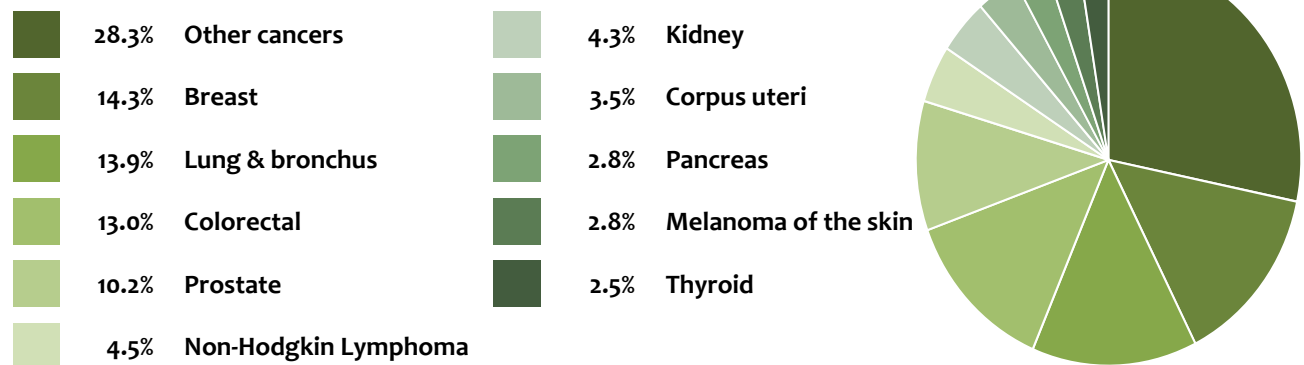
Cancer Incidence by Site, Male



Cancer Incidence by Site, Female



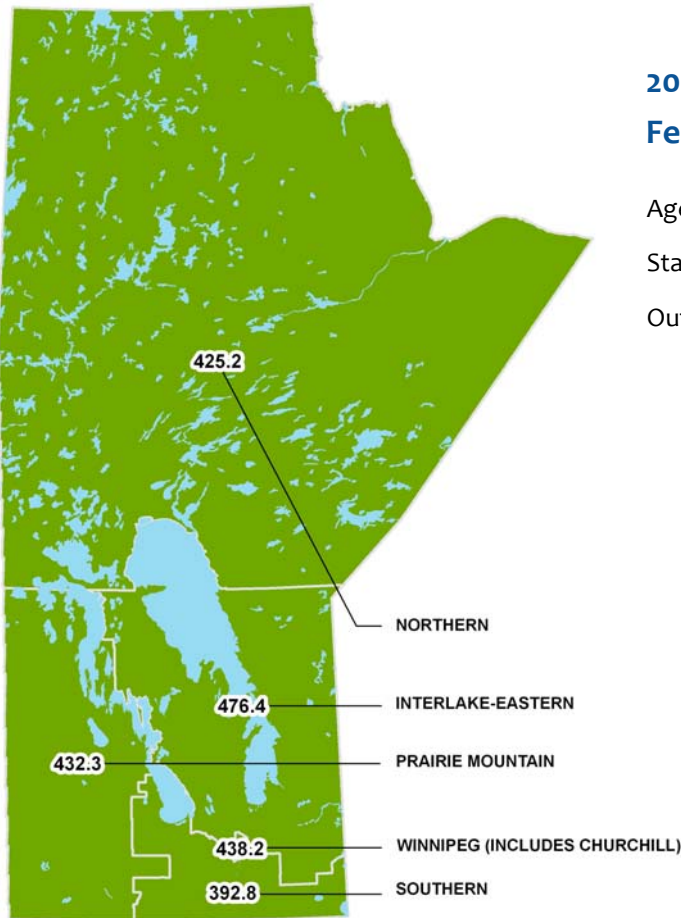
Cancer Incidence by Site, Total



Manitoba Cancer Rates by Regional Health Authority

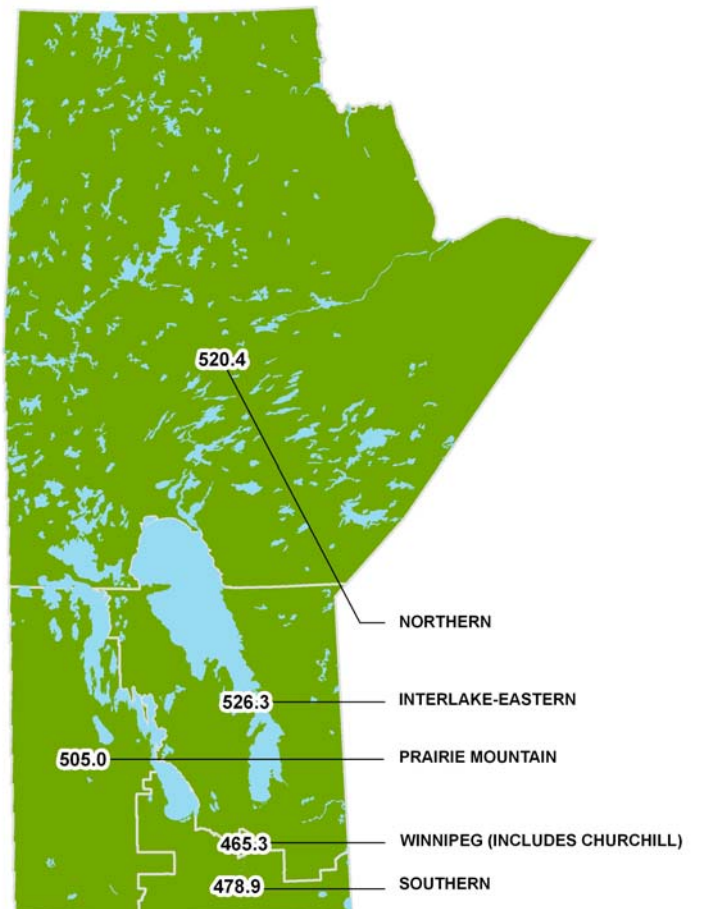
2012 All Invasive Cancers Female Incidence

Age-standardized rate per 100,000
Standard population: Manitoba 2001
Out of province residents excluded



2012 All Invasive Cancers Male Incidence

Age-standardized rate per 100,000
Standard population: Manitoba 2001
Out of province residents excluded



Cancer Incidence - Cases and Rates in Manitoba by Site, 2012

CANCER SITE		00-29			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	0	0	0	2	0	2	4	0	4	11	2	13	13	4	17	15	11	26	45	17	62	7.61	2.13	4.57
	Tongue	0	0	0	0	0	0	3	0	3	8	1	9	13	4	17	7	3	10	0	2	2	31	10	41	4.47	1.32	2.88
	Major salivary gland	0	4	4	1	1	2	1	1	2	3	3	6	3	3	6	0	1	1	2	0	2	10	13	23	1.50	1.92	1.66
	Floor of mouth	0	0	0	0	0	0	0	0	0	2	0	2	2	0	2	0	1	1	0	0	0	4	1	5	0.50	0.16	0.34
	Gum & other mouth	0	0	0	0	1	1	1	1	2	3	2	5	3	2	5	2	4	6	3	0	3	12	10	22	1.90	1.50	1.63
	Nasopharynx	2	2	4	0	0	0	2	1	3	1	0	1	0	0	0	0	1	1	0	0	0	5	4	9	0.80	0.67	0.74
	Oropharynx	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
	Hypopharynx	0	0	0	0	0	0	0	1	1	2	0	2	3	0	3	0	0	0	0	0	0	5	1	6	0.62	0.18	0.40
	Other buccal cavity & pharynx	0	0	0	0	1	1	0	0	0	6	0	6	2	0	2	3	1	4	0	0	0	11	2	13	1.58	0.34	0.95
Digestive	Esophagus	0	0	0	1	0	1	2	0	2	10	2	12	18	1	19	11	2	13	6	4	10	48	9	57	7.27	1.16	4.03
	Stomach	0	0	0	1	0	1	4	0	4	11	8	19	15	6	21	20	7	27	19	15	34	70	36	106	11.64	4.58	7.73
	Small intestine	0	0	0	1	1	2	1	4	5	4	4	8	3	1	4	6	4	10	7	1	8	22	15	37	3.74	2.29	2.83
	Colon excluding rectum	2	1	3	2	2	4	12	13	25	44	25	69	77	50	127	82	66	148	71	71	142	290	228	518	47.28	30.76	38.02
	Rectum & rectosigmoid	3	0	3	3	4	7	14	7	21	32	27	59	64	19	83	49	25	74	20	23	43	185	105	290	28.58	14.37	21.07
	Anus	0	0	0	0	0	0	0	1	1	2	3	5	1	6	7	1	3	4	0	0	0	4	13	17	0.57	1.76	1.18
	Liver	1	0	1	0	0	0	2	0	2	9	3	12	18	3	21	12	3	15	6	11	17	48	20	68	7.31	2.48	4.82
	Gallbladder	0	0	0	0	0	0	0	0	0	1	1	2	5	5	10	0	4	4	2	4	6	8	14	22	1.13	1.82	1.51
	Pancreas	1	0	1	1	0	1	5	5	10	11	15	26	21	19	40	23	22	45	23	28	51	85	89	174	14.06	11.83	12.73
	Other digestive system	1	0	1	0	0	0	2	1	3	3	3	6	4	11	15	7	10	17	7	13	20	24	38	62	4.08	4.96	4.56
Respiratory	Larynx	0	0	0	0	0	0	1	0	1	1	1	2	10	1	11	2	2	4	6	1	7	20	5	25	3.08	0.69	1.73
	Lung & bronchus	0	0	0	2	2	4	6	17	23	46	50	96	137	133	270	133	154	287	76	104	180	400	460	860	64.07	62.41	62.80
	Other respiratory system	1	0	1	1	0	1	1	0	1	3	2	5	3	0	3	3	1	4	1	2	3	13	5	18	2.03	0.65	1.33
Other	Bones & joints	1	3	4	0	1	1	0	1	1	1	1	2	1	2	3	1	0	1	0	1	1	4	9	13	0.60	1.33	0.97
	Soft tissue (Including heart)	2	0	2	1	2	3	4	3	7	4	2	6	8	7	15	4	0	4	1	5	6	24	19	43	3.64	2.53	3.11
	Kaposi sarcoma	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	2	0	2	0.31	0.00	0.15
	Mesothelioma	0	0	0	0	0	0	0	0	0	1	0	1	7	0	7	8	0	8	7	1	8	23	1	24	3.87	0.11	1.76
	Melanoma of the skin	3	4	7	2	6	8	9	14	23	20	16	36	23	16	39	14	10	24	18	16	34	89	82	171	13.98	11.60	12.51
	Breast	0	2	2	0	34	34	0	112	112	1	170	171	2	249	251	3	166	169	1	146	147	7	879	886	1.14	121.19	64.52
Female genital	Cervix uteri		6			13			13			12			8			4			5			61			9.31	
	Corpus uteri		1			2			18			53			76			40			25			215			28.89	
	Uterus, NOS		0			0			1			0			1			0			2			4			0.52	
	Ovary		2			1			15			20			24			14			14			90			12.46	
	Other female genital system		0			3			1			9			9			9			12			43			5.76	

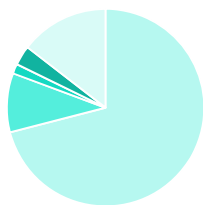
Male genital	Prostate	0			0			11			122			235			182			81			631			96.56			
	Testis	13			9			9			5			1			0			2			39			6.41			
	Penis	0			0			0			0			2			3			0			5			0.81			
	Other male genital system	0			0			0			0			1			1			2			4			0.70			
Urinary	Bladder	0	0	0	0	1	1	2	1	3	13	3	16	21	6	27	30	10	40	29	9	38	95	30	125	15.95	4.10	9.23	
	Kidney	3	2	5	3	2	5	20	7	27	29	29	58	56	26	82	41	15	56	19	14	33	171	95	266	26.58	12.78	19.17	
	Ureter	0	0	0	0	0	0	0	0	0	0	1	1	1	0	1	3	0	3	2	2	4	6	3	9	1.08	0.36	0.67	
	Other urinary system	0	0	0	0	0	0	0	0	0	1	1	2	0	1	1	0	0	0	2	0	2	3	2	5	0.52	0.25	0.33	
Brain & other nervous	Eye	1	0	1	0	0	0	0	0	0	2	1	3	3	2	5	0	0	0	0	0	0	6	3	9	0.78	0.37	0.57	
	Brain	7	3	10	1	2	3	7	4	11	5	7	12	11	8	19	10	6	16	5	3	8	46	33	79	7.38	4.73	5.94	
Enocrine	Other nervous system	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	1	3	0.35	0.18	0.26	
	Thyroid	3	10	13	7	25	32	3	33	36	3	34	37	10	14	24	2	10	12	2	1	3	30	127	157	4.62	19.72	12.17	
Lymphoma	Other endocrine	3	1	4	0	0	0	0	0	0	0	1	1	2	0	2	0	1	1	0	0	0	5	3	8	0.72	0.46	0.59	
	Hodgkin lymphoma	8	5	13	1	3	4	2	2	4	1	2	3	2	1	3	1	1	2	1	1	2	16	15	31	2.56	2.36	2.45	
	Non-Hodgkin lymphoma	2	3	5	4	2	6	11	5	16	34	14	48	37	25	62	45	30	75	28	39	67	161	118	279	25.86	15.80	20.54	
Leukemias	Multiple myeloma	0	0	0	1	0	1	2	1	3	9	4	13	14	6	20	11	10	21	13	13	26	50	34	84	8.03	4.50	6.10	
	Acute lymphocytic leukemia	5	0	5	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	7	0	7	1.10	0.00	0.56	
	Chronic lymphocytic leukemia	0	0	0	0	0	0	1	2	3	10	3	13	17	7	24	13	3	16	14	7	21	55	22	77	8.74	2.85	5.45	
	Acute myeloid leukemia	1	2	3	0	2	2	3	3	6	9	4	13	6	5	11	9	7	16	11	10	21	39	33	72	6.44	4.60	5.36	
	Chronic myeloid leukemia	1	0	1	0	1	1	0	0	0	3	1	4	2	3	5	3	1	4	4	2	6	13	8	21	2.14	1.05	1.51	
Other leukemias	10	5	15	0	1	1	1	0	1	1	2	3	2	0	2	1	2	3	9	2	11	24	12	36	4.09	1.81	2.75		
Other, ill defined & unknown	3	3	6	1	3	4	4	6	10	18	14	32	26	28	54	42	23	65	40	55	95	134	132	266	22.64	17.17	19.53		
TOTAL - ALL INVASIVE		78	59	137	43	117	160	149	294	443	499	554	1053	904	790	1694	803	680	1483	555	675	1230	3031	3169	6200	481.43	434.74	452.05	
In situ	Other skin & in situ	5	9	14	22	39	61	82	125	207	226	232	458	431	312	743	502	341	843	482	472	954	1750	1530	3280	290.34	206.40	241.22	
	Breast in situ	0	0	0	0	0	0	0	12	12	0	40	40	0	41	41	0	31	31	0	6	6	0	130	130	0.00	17.88	9.25	
	Cervix in situ		204			148				60			27					11			2			453			75.56		
	Prostate in situ	0			0			1				7												25			3.43		
	Bladder in situ	0	0	0	0	0	0	2	0	2	13	6	19	30	9	39	28	15	43	27	8	35	100	38	138	16.28	5.19	10.02	
	Other in situ (Excl. Breast, Skin, Cervix, Prostate, Bladder)	3	1	4	4	11	15	14	13	27	68	42	110	107	56	163	74	35	109	54	40	94	324	198	522	50.04	26.69	37.20	
TOTAL - INVASIVE & IN SITU		86	273	359	69	315	384	248	504	752	813	901	1714	1485	1219	2704	1410	1103	2513	1119	1203	2322	5230	5518	10748	841.52	766.46	788.91	
Brain & nervous system benign	Brain uncertain & unspecified	6	4	10	0	1	1	1	5	6	1	1	2	0	3	3	2	2	4	0	1	1	10	17	27	1.63	2.65	2.16	
	Neoplasms (Uncertain & unspecified, excluding brain)	4	15	19	5	10	15	6	18	24	23	34	57	24	24	48	21	26	47	35	44	79	118	171	289	19.32	23.88	21.33	
	Brain & nervous system benign	0	4	4	4	8	12	6	8	14	5	16	21	6	15	21	3	11	14	6	11	17	30	73	103	4.89	10.37	7.69	
ALL CANCERS		96	296	392	78	334	412	261	535	796	842	952	1794	1515	1261	2776	1436	1142	2578	1160	1259	2419	5388	5779	11167	867.36	803.36	820.09	

*Age-standardized incidence rate per 100,000
Standard population: Manitoba 2001

Staging on sites with more than 45 cases

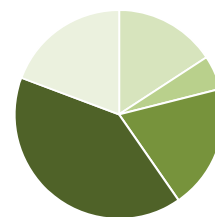
Lip

	Frequency	Percent
Stage I	44	71.0
Stage II	6	9.7
Stage III	1	1.6
Stage IV	2	3.2
Unknown	9	14.5
Total	62	100



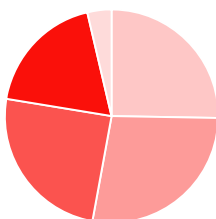
Esophagus

	Frequency	Percent
Stage I	9	15.8
Stage II	3	5.3
Stage III	11	19.3
Stage IV	23	40.4
Unknown	11	19.3
Total	57	100



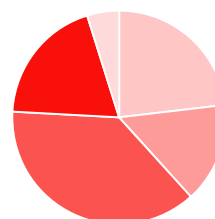
Colon excluding rectum

	Frequency	Percent
Stage I	131	25.3
Stage II	143	27.6
Stage III	128	24.7
Stage IV	97	18.7
Unknown	19	3.7
Total	518	100



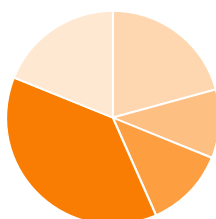
Rectum & rectosigmoid

	Frequency	Percent
Stage I	67	23.1
Stage II	44	15.2
Stage III	109	37.6
Stage IV	56	19.3
Unknown	14	4.8
Total	290	100



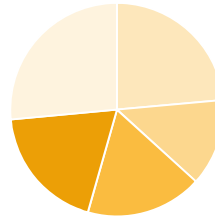
Stomach

	Frequency	Percent
Stage I	22	20.8
Stage II	11	10.4
Stage III	13	12.3
Stage IV	40	37.7
Unknown	20	18.9
Total	106	100



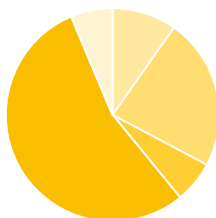
Liver

	Frequency	Percent
Stage I	16	23.5
Stage II	9	13.2
Stage III	12	17.7
Stage IV	13	19.1
Unknown	18	26.5
Total	68	100



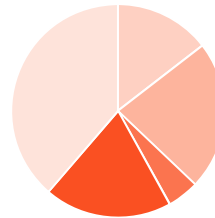
Pancreas

	Frequency	Percent
Stage I	17	9.8
Stage II	40	23.0
Stage III	11	6.3
Stage IV	95	54.6
Unknown	11	6.3
Total	174	100



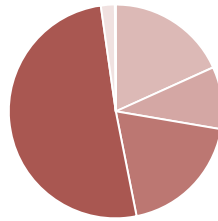
Other digestive system

	Frequency	Percent
Stage I	9	14.5
Stage II	14	22.6
Stage III	3	4.8
Stage IV	12	19.4
Unknown	24	38.7
Total	62	100



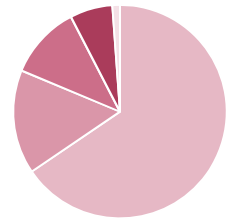
Lung & bronchus

	Frequency	Percent
Stage I	157	18.3
Stage II	81	9.4
Stage III	165	19.2
Stage IV	438	50.9
Unknown	18	2.1
Occult	1	0.1
Total	860	100



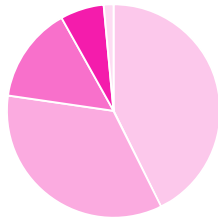
Melanoma of the skin

	Frequency	Percent
Stage I	112	65.5
Stage II	27	15.8
Stage III	19	11.1
Stage IV	11	6.4
Unknown	2	1.2
Total	171	100



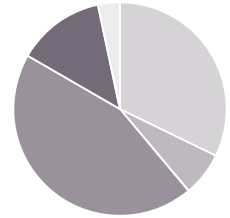
Breast

	Frequency	Percent
Stage I	378	42.7
Stage II	307	34.7
Stage III	129	14.6
Stage IV	59	6.7
Unknown	13	1.5
Total	886	100



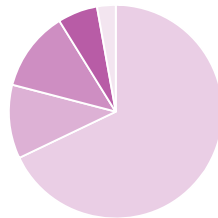
Ovary

	Frequency	Percent
Stage I	29	32.2
Stage II	6	6.7
Stage III	40	44.4
Stage IV	12	13.3
Unknown	3	3.3
Total	90	100



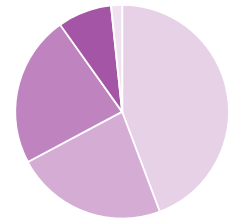
Corpus uteri

	Frequency	Percent
Stage I	146	67.9
Stage II	24	11.2
Stage III	26	12.1
Stage IV	13	6.1
Unknown	6	2.8
Total	215	100



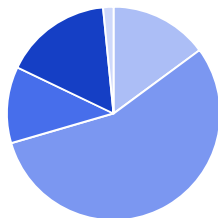
Cervix uteri

	Frequency	Percent
Stage I	27	44.3
Stage II	14	23.0
Stage III	14	23.0
Stage IV	5	8.2
Unknown	1	1.6
Total	61	100



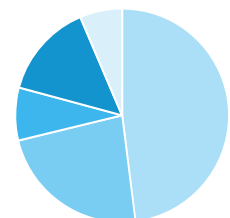
Prostate

	Frequency	Percent
Stage I	94	14.9
Stage II	351	55.6
Stage III	73	11.6
Stage IV	103	16.3
Unknown	10	1.6
Total	631	100








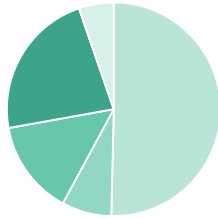
Bladder

	Frequency	Percent
Stage I	60	48.0
Stage II	29	23.2
Stage III	10	8.0
Stage IV	18	14.4
Unknown	8	6.4
Total	125	100







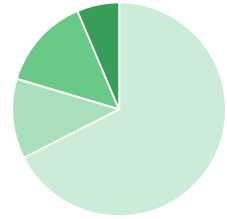
Kidney

	Frequency	Percent	
Stage I	134	50.4	
Stage II	20	7.5	
Stage III	38	14.3	
Stage IV	60	22.6	
Unknown	14	5.3	
Total	266	100	








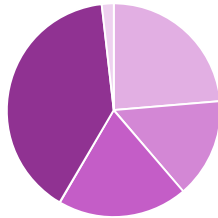
Thyroid

	Frequency	Percent	
Stage I	106	67.5	
Stage II	19	12.1	
Stage III	22	14.0	
Stage IV	10	6.4	
Total	157	100	



Non-Hodgkin lymphoma

	Frequency	Percent	
Stage I	66	23.7	
Stage II	42	15.1	
Stage III	55	19.7	
Stage IV	111	39.8	
Unknown	5	1.8	
Total	279	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.

Deaths by Underlying Cause in Manitoba¹

(Rate per 100,000)

CAUSES OF DEATH	2012			2011			2010		
	AMOUNT	Rate per MB Health Population	Rate per Statistics Canada Population	Amount	Rate per MB Health Population	Rate per Statistics Canada Population	Amount	Rate per MB Health Population	Rate per Statistics Canada Population
Accidents (V01-X59, Y85-Y86)	533	41.9	42.1	539	43.1	43.1	515	41.9	41.7
Cancer (C00-C97)	2704	212.7	213.4	2696	215.6	215.6	2692	218.8	217.9
Cerebrovascular Disease (I60-I69)	612	48.1	48.3	604	48.3	48.3	653	53.1	52.9
Diabetes (E10-E14)	323	25.4	25.5	407	32.5	32.5	333	27.1	27
Diseases of the heart (I00-I09, I11, I13, I20-I25, I26-I51)	2105	165.6	166.1	2137	170.9	170.9	2108	171.3	170.6
Pneumonia (J12-J18)	235	18.5	18.5	219	17.5	17.5	206	16.7	16.7
Suicide (X60-X84, Y890)	165	13	13	141	11.3	11.3	142	11.5	11.5

Reference

¹Vital Statistics Agency, 2012/13 Annual Report. Government of Manitoba; 2013. [cited October 27, 2014]. www.vitalstats.gov.mb.ca/annual_report.html

Research

2012 Publications

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.

Articles with names in bold are authored by department staff.

Clouston K, Katz A, Martens PJ, Sisler J, **Turner D**, Lobchuk M, et al. Does access to a colorectal cancer screening website and/or a nurse-managed telephone help line provided to patients by their family physician increase fecal occult blood test uptake?: A pragmatic cluster randomized controlled trial study protocol. *BMC Cancer* 2012; 12:182.

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Appendix 1

INTERNATIONAL CLASSIFICATION OF DISEASES FOR ONCOLOGY 3rd Edition

PRIMARY SITE	SITE/ CELL TYPE	PRIMARY SITE	SITE/ CELL TYPE
Buccal cavity and pharynx	C00:C14	Male genital system	C60:C63
Lip	C000:C009	Prostate	C619
Tongue	C019:C029	Testis	C620:C629
Major salivary gland	C079:C089	Penis	C600:C609
Floor of mouth	C040:C049	Other male genital system	C630:C639
Gum & other mouth	C030:C039, C050:C059, C060:C069	Urinary system	C64:C68
Nasopharynx	C110:C119	Bladder (incl. in situ)	C670:C679
Oropharynx	C100:C109	Kidney and renal pelvis	C649, C659
Hypopharynx	C129, C130:C139	Ureter	C669
Other buccal cavity & pharynx	C090:C099, C140, C142:C148	Other urinary system	C680:C689
Digestive system	C15:C26	Eye	C690:C699
Esophagus	C150:C159	Brain & other nervous system	C70:C72
Stomach	C160:C169	Brain	C710:C719
Small intestine	C170:C179	Other nervous system	C710:C719 (type 953), C700:C709
Colon excluding rectum	C180:C189, C260		C720:C729
Rectum & Rectosigmoid	C199, C209	Endocrine	C73:C75
Anus	C210:C212, C218	Thyroid	C739
Liver	C220	Other endocrine	C379, C740:C749, C750:C759
Gallbladder	C239	Lymphomas	C77
Pancreas	C250:C259	Hodgkin disease	types 9650:9667
Other digestive system	C240:C249, C221, C480, C481:C482, C268:C269, C488	Non-Hodgkin lymphoma	types 9590:9596, 9670:9719, 9727:9729, 9597
Respiratory system	C30:C39		type 9823, all sites except C420, C421, C424
Larynx	C320:C329		type 9827, all sites except C420, C421, C424
Lung & bronchus	C340:C349	Multiple myeloma	C421, types 9731:9732, 9734
Other respiratory system	C300:C301, C310:C319, C384, C339, C381:C383, C388, C390:C399	Leukemias	C42
Bones & joints	C400:C419	Acute lymphocytic	types 9826, 9835:9837
Soft tissue (including heart)	C380, C470:C479, C490:C499	Chronic lymphocytic	C420 (type 9823), C421 (type 9823), C421 (type 9823), C424 (type 9823)
Mesothelioma	types 9050:9055	Acute myeloid	types 9840, 9861, 9866, 9867, 9871:9874, 9891, 9895:9897, 9910, 9920, 9865, 9869
Kaposi sarcoma	types 9140	Chronic myeloid	types 9863, 9875, 9876, 9945, 9946
Skin	C44	Other	types 9733, 9742, 9800, 9801, 9805, 9806-9809, 9811-9818, 9820, 9831, 9832:9834, 9860, 9870, 9930, 9931, 9940, 9948, 9963, 9964
Melanomas of the skin	C440:C449 (types 8720:8790)		C420 (type 9827), C421 (type 9827), C424 (type 9827)
Other skin	C440:C449	Other, ill-defined, & unknown	types 9740, 9741, 9750:9758, 9760:9769, 9950:9962, 9970:9989
Breast	C500:C509		C760:C768, (types 8000:9589)
Female genital system	C51:C58		C809 (types 8000:9589)
Cervix uteri	C530:C539		C420:C424 (types 8000:9589)
Corpus uteri	C540:C549		C770:C779 (types 8000:9589)
Uterus, NOS	C559		
Ovary	C569		
Other female genital system	C529, C510:C519, C570:C589		

2014 Department of Epidemiology and Cancer Registry Staff

Donna Turner, PhD

PROVINCIAL DIRECTOR,
POPULATION ONCOLOGY

Gail Noonan, CTR

MANITOBA CANCER REGISTRY MANAGER

Jane Griffith, PhD

EPIDEMIOLOGY MANAGER

CANCER REGISTRARS

Elena Avila, HIT

Jennifer Cadger, HIT

Danielle Chalmers, CHIM

Angela Deneka, HIT

Sheila Fukumura, CTR

SENIOR CANCER REGISTRAR

Sara Gray, CHIM

Pat Hagan, HIT

Terri-Lee Handel, CTR

Coreen Hildebrand, CTR

SENIOR QUALITY CONTROL COORDINATOR

Jo-Anne Janzen, CHIM, CTR

SENIOR EDUCATION COORDINATOR

Sharon Lawrence, HIT

Loriann Love, HIT

Joanna Panganiban, CHIM

Margaret Schroeder, HIM

Melissa Scott, CHIM

EPIDEMIOLOGISTS

Rashid Ahmed, PhD

Oliver Bucher, MSc

Tannis Erickson, MSc

Jane Griffith, PhD

Donna Turner, PhD

HEALTH OUTCOMES ANALYSTS

Katherine Fradette, MPH

Pascal Lambert, MSc

PROGRAMMER ANALYSTS

Katie Galloway, MSc

Humaira Khair, MSc

Huimin Lu, MSc

Grace Musto, BSc

Mary Natividad, BSc

Emma Shu, MSc

Lin Xue, MSc

STUDY COORDINATORS

Elizabeth Harland, MA

Kate McGarry, MSc, MPA

PROJECT MANAGER

Cheryl Clague, CHIM

COMMUNICATIONS

Roberta Koscielny

ADMINISTRATIVE ASSISTANT

Karen Carson-Walton

CONTACT DETAILS

Room ON2114
675 McDermot Ave.
Winnipeg, MB R3E 0V9

Main line: (204) 787-2174
Email: CCMBepireg@cancercare.mb.ca

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