

## Appendix 1 (as supplied by the authors): Supplementary data

### I. Cancer prevalence in Canada

We obtained 10-year person-based cancer prevalence rates for all of Canada for some years of our study period from data published by Statistics Canada in conjunction with the Canadian Cancer Society. Data on cancer prevalence broken down by province and territory were not available. However, 10-year person-based prevalence rates by sex were available for 2005, 2007 and 2009 only.<sup>1-3</sup> Based on the available data, we used linear interpolation to extrapolate prevalence rates by sex for the remaining years (2006, 2008, and 2010-2012).

The Canadian Cancer Statistics 2014 publication included tumour-based 10-year prevalence by sex and age group (ages 0-19, 20-29, 30-39, 40-49, 50-59, 60-69, 70-79, and 80+) (Table 6.2).<sup>3</sup> These data show that tumour prevalence rises with age, peaking for those 60-79 years of age. Mariotto and colleagues show that the likelihood of having more than one primary tumour rises with age.<sup>4</sup> Hence, rather than apply the sex and age distribution of tumour-based prevalence directly to person-based prevalence, we redistributed the sex and age weights to reflect the likelihood of finding fewer tumours per person among younger people and more tumours per person among older people. We then calculated the numbers of people living with cancer as of January 1<sup>st</sup>, 2009, by multiplying the sex/age group weights by the total number of males and females in each age group in the population. Finally, we divided the total population by the estimated numbers of people with cancer as of January 1<sup>st</sup>, 2009, in each sex/age group, to obtain the prevalence expressed as “1 in n” members of the Canadian population. We extrapolated the sex and age group distributed prevalence estimates from 2009 to all other years in our study based on the overall total prevalence estimates by sex for each year (described above).

To estimate the number of people living with cancer, we assumed the same prevalence rate in each province/territory (the prevalence rate for Canada) and multiplied our sex and age group prevalence estimates by the population (broken down by the corresponding sex and age groups) of each province/territory obtained from NHES data (Appendix tables C.11 to C.18).<sup>5</sup> For comparability with the EBIC report, we redistributed the total prevalence estimates from the Canadian Cancer Statistics 2014 groupings (provided above) to those used in the EBIC report (ages 0-14, 15-34, 35-54, 55-64, 65-74, and 75+) assuming equal allocations across age groups. For example, half of those ages 70-79 were allocated to the 65-74 year old group and half to the 75 and older group.

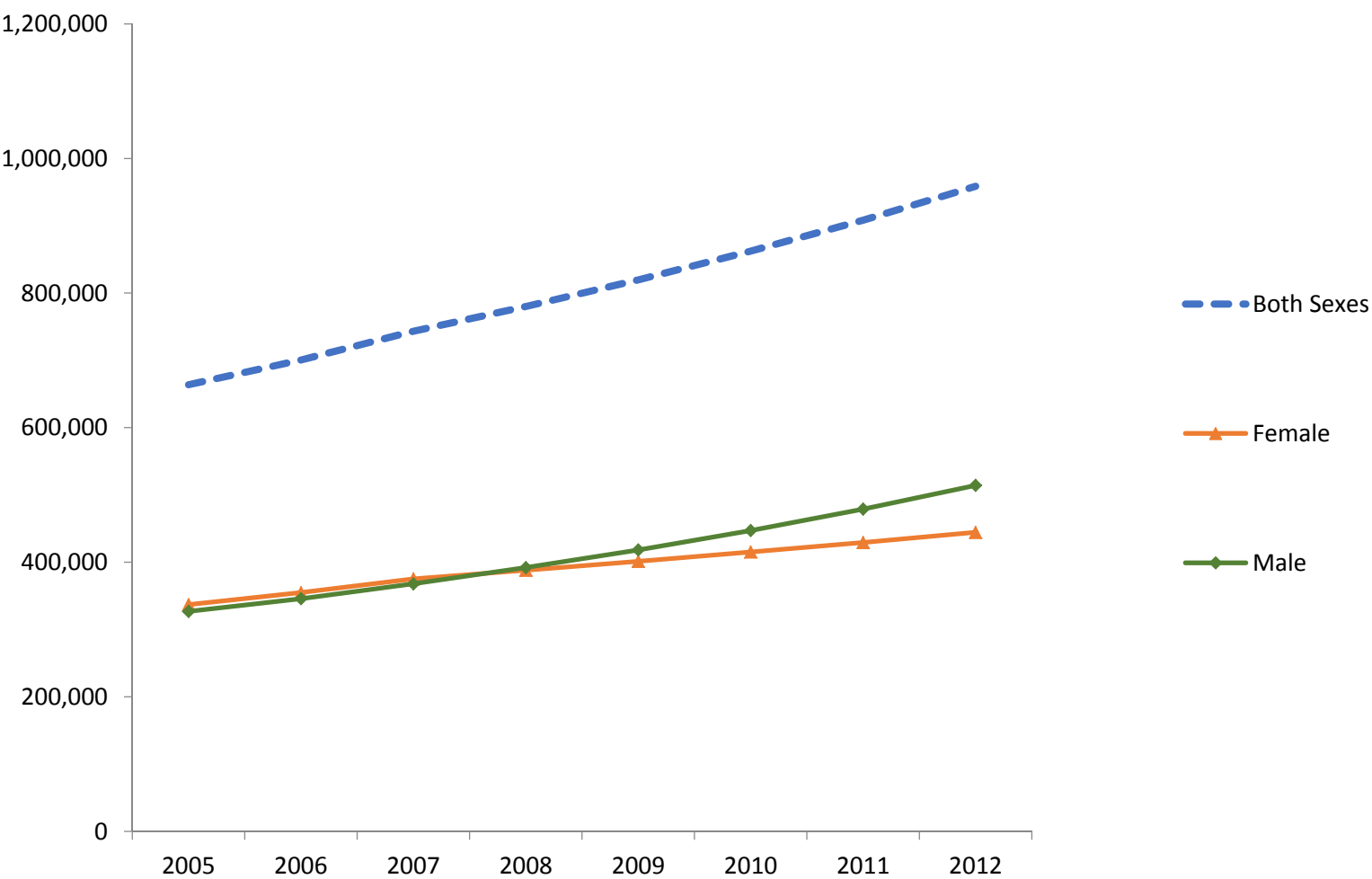
Table 2 includes estimates of cancer prevalence in Canada by sex for each year of our analysis. Our results suggest that prevalence in Canada has been increasing over time for both sexes, from 663,827 in 2005 to 958,632 in 2012 (an increase of 44.4% or 5.6% per annum). Between 2005 and 2007, we estimate that there were slightly more females than males with cancer in Canada; from 2008 onward the trend reverses (Figure 1). Prevalence increased in a linear fashion with age across the study period. The number of children (0-14) and young people (15-34) with cancer was low and rose slowly over the period. The number of patients with cancer between the ages of 35 and 54 was higher but remained relatively flat over the time period. By contrast, prevalence increased steadily from 2005 to 2012 among older patients (ages 55-64, 65-74 and 75 and older).

**Supplementary Table S1 – Estimated 10-year cancer prevalence\* by year (2005-2008 and 2009-2012), age and sex, for Canada**

	2005	2006	2007	2008	2009	2010	2011	2012
<b>Both Sexes</b>								
0-14	4,917	5,065	5,235	5,373	5,516	5,659	5,810	5,972
15-34	21,474	22,172	23,039	23,707	24,476	25,304	26,115	27,162
35-54	128,510	134,437	140,006	143,795	147,877	152,117	156,457	161,027
55-64	135,868	145,395	156,809	166,814	177,177	188,269	199,681	211,507
65-74	169,779	179,373	191,518	202,451	214,193	226,805	240,538	255,661
75+	203,278	214,122	226,584	237,943	250,283	264,151	279,562	297,303
Total	663,827	700,565	743,192	780,083	819,522	862,304	908,163	958,632
<b>Female</b>								
0-14	2,209	2,276	2,355	2,388	2,419	2,446	2,472	2,498
15-34	12,471	12,877	13,398	13,669	13,982	14,317	14,623	15,022
35-54	83,926	87,694	91,199	92,746	94,390	96,043	97,653	99,338
55-64	72,127	77,123	82,921	86,994	91,091	95,325	99,493	103,735
65-74	74,324	78,397	83,720	87,315	91,039	94,887	98,885	103,202
75+	91,960	96,446	101,692	104,931	108,359	112,165	116,167	120,608
Total	337,017	354,814	375,285	388,044	401,280	415,182	429,294	444,404
<b>Male</b>								
0-14	2,708	2,789	2,879	2,984	3,097	3,213	3,338	3,474
15-34	9,004	9,295	9,640	10,038	10,495	10,986	11,492	12,140
35-54	44,584	46,743	48,807	51,049	53,486	56,074	58,803	61,689
55-64	63,741	68,272	73,889	79,820	86,086	92,944	100,189	107,772
65-74	95,455	100,976	107,799	115,136	123,154	131,918	141,653	152,458
75+	111,318	117,676	124,892	133,012	141,924	151,986	163,395	176,695
Total	326,809	345,751	367,906	392,039	418,241	447,122	478,869	514,228

**Source:** 10-year cancer prevalence was estimated using a combination of published 10-year prevalence figures for Canada as a whole for selected years (2005, 2007 and 2009) from the Canadian Cancer Society (CCS) and Statistics Canada<sup>1-3</sup> and National Health Expenditure data on population by age, sex and province/territory for 2005–2012.<sup>5</sup>

Supplementary Figure S1 – Estimated 10-year cancer prevalence by sex and year (2005-2008 and 2009-2012), Canada



**Source:** 10-year cancer prevalence was estimated using a combination of published 10-year prevalence figures for Canada as a whole for selected years (2005, 2007 and 2009) from the Canadian Cancer Society (CCS) and Statistics Canada<sup>1-3</sup> and National Health Expenditure data on population by age, sex and province/territory for 2005–2012.<sup>5</sup>

**Supplementary Table S2 - Neoplasm codes**

<b>EBIC CODE</b>	<b>EBIC DIAGNOSTIC CATEGORIES</b>	<b>ICD-9 CODE</b>	<b>ICD-10 CODE</b>
<b>E06</b>	<b>Malignant Neoplasms</b>	<b>140-208, 238.6</b>	<b>C00-C97</b>
E06.1	Oral Cancers	140-149	C00-C14
E06.2	Esophagus Cancer	150	C15
E06.3	Stomach Cancer	151	C16
E06.4	Colorectal Cancer	153,154,159.0	C18-C21,C26.0
E06.5	Liver Cancer	155 (minus 155.1,155.2)	C22.0,C22.2-C22.7
E06.6	Pancreas Cancer	157	C25
E06.7	Larynx Cancer	161	C32
E06.8	Trachea Cancer	162.0	C33
E06.9	Bronchus and Lung Cancers	162.2-162.9	C34
E06.10	Melanoma	172	C43
E06.11	Other Skin Cancers	173	C44
E06.12	Breast Cancer	174,175	C50
E06.13	Cervix Cancer	180	C53
E06.14	Body of Uterus Cancer	179,182	C54-C55
E06.15	Ovary Cancer	183	C56
E06.16	Prostate Cancer	185	C61
E06.17	Testis Cancer	186	C62
E06.18	Bladder Cancer (including in situ)	188	C67
E06.19	Kidney Cancer	189.0,189.1	C64-C65
E06.20	Brain Cancer	191,192	C70-C72
E06.21	Thyroid Cancer	193	C73
E06.22	Hodgkin Lymphoma	201	C81
E06.23	Non-Hodgkin Lymphoma	200,202 (minus 202.4)	C82-C85,C96.3
E06.24	Multiple Myeloma	203.0	C90.0,C90.2
E06.25	Leukemia	202.4,203.1,204-208	C90.1,C91-C95
E06.26	Other Malignant Neoplasms	152, 155.1, 155.2, 156, 158-160, 163-171, 176, 81, 184, 187, 189.2-190, 194-199, 203.8, 238.6	C17, C22.1, C22.9, C23, C24, C26-C31, C37-C41, C45-C49, C51, C52, C57-C60, C63, C66, C68-C69, C74-C80, C86, C88, C90.3,C96, C97

**Legend:**

EBIC – Economic Burden of Illness in Canada

ICD – International Classification of Diseases

## II. Cost extrapolation to other provinces/territories and Canada

Data from the NHEX were used to create extrapolation factors to reflect differences between Ontario and each province/territory,  $j$ , in terms of relative expenditures by category  $k$  (where  $k$  = hospital care, physician care and provincial/territorial government-funded outpatient prescription drugs). This calculation consisted of three steps:

- (1) Estimate the mean net cost of category  $k$ , for each sex/age group in a given province,  $j$ , by multiplying the estimate of the mean net cost of category  $k$  for patients in that sex/age group in Ontario by the ratio of total expenditures in category  $k$  for each sex/age group in province  $j$  to total expenditures in category  $k$  by sex/age group in Ontario, as follows

Estimated  
using ICES  
data

Estimated using  
NHEX data

$$NC_k^j = NC_k^{ON} * \left( \frac{CPP_{TOTk}^j}{CPP_{TOTk}^{ON}} \right),$$

where  $NC_k^j$  is the mean net cost of category  $k$  in a given sex/age group and province  $j$ ,  $NC_k^{ON}$  is the mean net cost of category  $k$  per patient in a given sex/age group in Ontario,  $CPP_{TOTk}^j$  is the mean cost per person of total expenditures in category  $k$  for that sex/age group in province  $j$ , and  $CPP_{TOTk}^{ON}$  is the mean cost per patient of total expenditures in category  $k$  for that sex/age group in Ontario.

- (2) Estimate total net cost of category  $k$  for cancer patients in province  $j$  by multiplying the mean net estimated cost of category  $k$  for cancer in each sex/age group by the estimated number of patients diagnosed with cancer in the past 10 years in that sex/age group and then sum over the totals for each sex/age group to obtain the total net cost of category  $k$  for cancer patients in province  $j$  as follows

$$TC_k^j = \sum_i (NC * POP)_i,$$

where  $TC_k^j$  is the total net cost of category  $k$  for cancer patients in province  $j$  over all sex/age groups,  $NC$  is the mean net cost of category  $k$  for cancer per patient in a given sex/age group in province  $j$ ,  $POP$  is the total number of patients diagnosed with cancer in the prior 10 years in a given sex/age group in province  $j$ , and  $i$  denotes a member in the set of sex/age groups.

- (3) Estimate the total net cost of category  $k$  for cancer patients across Canada by summing total net cost estimates of category  $k$  across each province/territory  $j$ .

### III. Quality of control match

Supplementary Table S3 – Details of case-control match, 2005

Variable		2005 Alive Cohort			2005 Death Cohort		
		Cases (N=470,620)	Controls (N=470,620)	Standardized Difference in the Mean	Cases (N=114,354)	Controls (N=114,354)	Standardized Difference in the Mean
Age, years	Mean ± SD	62.47 ± 15.37	62.15 ± 15.41	0.02	74.40 ± 12.83	74.70 ± 13.16	0.02
	Median (IQR)	64 (53-74)	64 (52-74)	0.02	77 (67-83)	76 (68-84)	0.02
CADG 1	Number (%)	267,655 (56.9%)	267,655 (56.9%)	0	45,409 (39.7%)	45,409 (39.7%)	0
CADG 2	Number (%)	330,598 (70.2%)	330,598 (70.2%)	0	57,745 (50.5%)	57,745 (50.5%)	0
CADG 3	Number (%)	219,650 (46.7%)	219,650 (46.7%)	0	29,863 (26.1%)	29,863 (26.1%)	0
CADG 4	Number (%)	9,117 (1.9%)	9,117 (1.9%)	0	533 (0.5%)	533 (0.5%)	0
CADG 5	Number (%)	130,854 (27.8%)	130,854 (27.8%)	0	35,000 (30.6%)	35,000 (30.6%)	0
CADG 6	Number (%)	205,013 (43.6%)	205,013 (43.6%)	0	29,685 (26.0%)	29,685 (26.0%)	0
CADG 7	Number (%)	17,457 (3.7%)	17,457 (3.7%)	0	850 (0.7%)	850 (0.7%)	0
CADG 8	Number (%)	74,047 (15.7%)	74,047 (15.7%)	0	8,292 (7.3%)	8,292 (7.3%)	0
CADG 9	Number (%)	20,604 (4.4%)	20,604 (4.4%)	0	1,483 (1.3%)	1,483 (1.3%)	0
CADG 10	Number (%)	45,174 (9.6%)	45,174 (9.6%)	0	11,399 (10.0%)	11,399 (10.0%)	0
CADG 11	Number (%)	249,970 (53.1%)	249,970 (53.1%)	0	30,446 (26.6%)	30,446 (26.6%)	0
CADG 12	Number (%)	5,020 (1.1%)	5,020 (1.1%)	0	28 (0.0%)	28 (0.0%)	0

**Legend:** SD – standard deviation; IQR – interquartile range; CADG – Collapsed Adjusted Diagnosis Groups

**Note:** The cohort was matched on age+/-2 years, sex (hard match, not shown) and CADG from the Johns Hopkins Adjusted Clinical Groups (ACG) software.

**Source:** Data housed at Institute for Clinical Evaluative Sciences.

**Supplementary Table S4 – Details of case-control match, 2009**

Variable		2009 Alive Cohort			2009 Death Cohort		
		Cases (N=556,349)	Controls (N=556,349)	Standardized Difference in the Mean	Cases (N=121,977)	Controls (N=121,977)	Standardized Difference in the Mean
<b>Age, years</b>	Mean ± SD	63.01 ± 15.28	62.69 ± 15.27	0.02	75.29 ± 12.88	75.58 ± 13.22	0.02
	Median (IQR)	64 (54-74)	64 (53-74)	0.02	78 (68-85)	78 (68-85)	0.02
<b>CADG 1</b>	Number (%)	313,355 (56.3%)	313,355 (56.3%)	0	46,470 (38.1%)	46,470 (38.1%)	0
<b>CADG 2</b>	Number (%)	387,581 (69.7%)	387,581 (69.7%)	0	59,709 (49.0%)	59,709 (49.0%)	0
<b>CADG 3</b>	Number (%)	264,207 (47.5%)	264,207 (47.5%)	0	33,183 (27.2%)	33,183 (27.2%)	0
<b>CADG 4</b>	Number (%)	9,636 (1.7%)	9,636 (1.7%)	0	398 (0.3%)	398 (0.3%)	0
<b>CADG 5</b>	Number (%)	162,609 (29.2%)	162,609 (29.2%)	0	40,814 (33.5%)	40,814 (33.5%)	0
<b>CADG 6</b>	Number (%)	262,161 (47.1%)	262,161 (47.1%)	0	37,822 (31.0%)	37,822 (31.0%)	0
<b>CADG 7</b>	Number (%)	20,560 (3.7%)	20,560 (3.7%)	0	854 (0.7%)	854 (0.7%)	0
<b>CADG 8</b>	Number (%)	84,432 (15.2%)	84,432 (15.2%)	0	7,781 (6.4%)	7,781 (6.4%)	0
<b>CADG 9</b>	Number (%)	24,693 (4.4%)	24,693 (4.4%)	0	1,660 (1.4%)	1,660 (1.4%)	0
<b>CADG 10</b>	Number (%)	53,887 (9.7%)	53,887 (9.7%)	0	12,627 (10.4%)	12,627 (10.4%)	0
<b>CADG 11</b>	Number (%)	318,355 (57.2%)	318,355 (57.2%)	0	36,181 (29.7%)	36,181 (29.7%)	0
<b>CADG 12</b>	Number (%)	5,843 (1.1%)	5,843 (1.1%)	0	31 (0.0%)	31 (0.0%)	0

**Legend:** SD – standard deviation; IQR – interquartile range; CADG – Collapsed Adjusted Diagnosis Groups

**Note:** The cohort was matched on age+/-2 years, sex (hard match, not shown) and CADG from the Johns Hopkins Adjusted Clinical Groups (ACG) software.

**Source:** Data housed at Institute for Clinical Evaluative Sciences.

#### IV. Ontario patient-level costs

**Supplementary Table S5 – Total gross cost, and 95% confidence intervals (CI), by cost component for patients with malignant neoplasms diagnosed in the past 10 years in Ontario, 2005–2008 (constant 2015 \$000,000)**

COST COMPONENT:	2005			2006			2007			2008		
	Gross Cost	Lower 95% CI	Upper 95% CI	Gross Cost	Lower 95% CI	Upper 95% CI	Gross Cost	Lower 95% CI	Upper 95% CI	Gross Cost	Lower 95% CI	Upper 95% CI
<b>Hospital Care</b>												
Acute inpatient hospital care	\$1,116.6	\$1,104.2	\$1,129.0	\$1,248.7	\$1,234.8	\$1,262.6	\$1,408.9	\$1,391.0	\$1,426.7	\$1,471.4	\$1,453.9	\$1,489.0
Ambulatory hospital care												
Day surgery	\$89.0	\$88.2	\$89.9	\$96.4	\$95.5	\$97.3	\$109.0	\$108.0	\$110.1	\$117.5	\$116.4	\$118.5
Emergency department visits	\$73.0	\$72.4	\$73.6	\$76.8	\$76.1	\$77.4	\$83.0	\$82.3	\$83.7	\$89.1	\$88.4	\$89.8
Cancer clinics	n/a	n/a	n/a	\$360.2	\$355.9	\$364.5	\$521.3	\$515.9	\$526.7	\$501.2	\$495.8	\$506.7
Dialysis clinics	n/a	n/a	n/a	\$38.4	\$35.8	\$41.1	\$66.2	\$61.8	\$70.5	\$87.7	\$82.0	\$93.4
Psychiatric inpatient hospital care	\$18.1	\$16.8	\$19.4	\$28.3	\$25.7	\$30.9	\$37.2	\$33.9	\$40.5	\$39.2	\$35.5	\$42.9
Chronic and rehabilitation care												
Complex continuing care	\$125.6	\$119.5	\$131.7	\$123.3	\$117.2	\$129.4	\$127.9	\$121.6	\$134.2	\$132.2	\$125.7	\$138.7
Long-term care	\$182.9	\$178.3	\$187.4	\$189.6	\$184.9	\$194.3	\$193.6	\$188.8	\$198.3	\$198.9	\$194.1	\$203.8
Rehabilitation	\$54.6	\$51.6	\$57.6	\$62.1	\$59.0	\$65.3	\$62.4	\$59.1	\$65.6	\$68.6	\$65.3	\$71.9
Other hospital care												
Chemotherapy	\$92.3	\$89.9	\$94.6	\$129.2	\$125.7	\$132.6	\$150.6	\$147.0	\$154.1	\$187.8	\$183.9	\$191.8
Radiation therapy	\$82.7	\$81.0	\$84.4	\$124.4	\$122.2	\$126.6	\$174.3	\$170.8	\$177.9	\$202.5	\$198.5	\$206.5
<b>Physician Care</b>												
Fee-for-service	\$487.1	\$483.9	\$490.4	\$538.4	\$535.2	\$541.5	\$581.3	\$577.2	\$585.3	\$629.4	\$624.6	\$634.1
Non-fee-for-service	\$54.3	\$53.5	\$55.0	\$69.4	\$68.5	\$70.3	\$82.8	\$81.8	\$83.7	\$101.8	\$100.7	\$102.9
<b>Drugs*</b>	\$391.5	\$388.0	\$395.0	\$424.3	\$420.5	\$428.2	\$442.6	\$438.9	\$446.4	\$474.5	\$470.6	\$478.3
<b>Other Care</b>												
Assistive devices	\$17.6	\$16.9	\$18.3	\$17.4	\$16.7	\$18.0	\$18.5	\$17.9	\$19.2	\$19.6	\$19.0	\$20.2
Home care	\$188.6	\$185.8	\$191.4	\$241.7	\$238.4	\$245.0	\$237.3	\$234.4	\$240.3	\$260.0	\$256.8	\$263.1
Diagnostic tests	\$35.6	\$35.4	\$35.8	\$37.3	\$37.1	\$37.5	\$39.8	\$39.6	\$40.0	\$44.3	\$44.1	\$44.5
Non-physician care**	\$9.7	\$9.5	\$9.9	\$10.5	\$10.4	\$10.7	\$11.8	\$11.6	\$12.0	\$13.7	\$13.5	\$13.9
<b>Total Direct Cost</b>	<b>\$3,019.3</b>	<b>\$2,999.1</b>	<b>\$3,039.5</b>	<b>\$3,816.2</b>	<b>\$3,792.0</b>	<b>\$3,840.5</b>	<b>\$4,348.4</b>	<b>\$4,319.6</b>	<b>\$4,377.2</b>	<b>\$4,639.4</b>	<b>\$4,609.4</b>	<b>\$4,669.4</b>

**Note:** Data for assistive devices were missing from September 2010 onwards, data for cancer and dialysis clinics were missing for 2005, and data for psychiatric hospitalizations were missing from January 2005 to September 2005. Costs are presented for matched cancer patients (cases) only.

\* 'Drugs' includes outpatient prescription drugs covered by the provincial government payer.

\*\* 'Non-physician care' includes care provided by other professionals outside the hospital setting.

**Source:** Data housed at Institute for Clinical Evaluative Sciences.



**Supplementary Table S6 – Total gross cost, and 95% confidence intervals (CI), by cost component for patients with malignant neoplasms diagnosed in the past 10 years in Ontario, 2009–2012 (constant 2015 \$000,000)**

COST COMPONENT:	2009			2010			2011			2012		
	Gross Cost	Lower 95% CI	Upper 95% CI	Gross Cost	Lower 95% CI	Upper 95% CI	Gross Cost	Lower 95% CI	Upper 95% CI	Gross Cost	Lower 95% CI	Upper 95% CI
<b>Hospital Care</b>												
Acute inpatient hospital care	\$1,413.0	\$1,395.2	\$1,430.8	\$1,412.6	\$1,395.3	\$1,429.9	\$1,450.2	\$1,432.5	\$1,467.8	\$1,564.0	\$1,545.3	\$1,582.6
Ambulatory hospital care												
Day surgery	\$116.6	\$115.5	\$117.6	\$120.6	\$119.6	\$121.7	\$129.9	\$128.8	\$131.0	\$144.4	\$143.2	\$145.6
Emergency department visits	\$84.7	\$84.0	\$85.4	\$86.2	\$85.5	\$86.8	\$94.4	\$93.7	\$95.1	\$104.4	\$103.6	\$105.1
Cancer clinics	\$477.1	\$471.4	\$482.7	\$500.8	\$494.8	\$506.9	\$758.0	\$749.1	\$766.8	\$788.4	\$779.7	\$797.1
Dialysis clinics	\$82.4	\$76.9	\$87.9	\$89.0	\$83.1	\$94.9	\$62.9	\$58.9	\$67.0	\$72.5	\$68.0	\$77.0
Psychiatric inpatient hospital care	\$38.9	\$35.4	\$42.5	\$41.3	\$37.6	\$44.9	\$43.1	\$39.2	\$47.0	\$48.9	\$44.9	\$52.9
Chronic and rehabilitation care												
Complex continuing care	\$127.3	\$121.0	\$133.6	\$135.7	\$129.1	\$142.3	\$136.4	\$129.9	\$143.0	\$145.2	\$138.3	\$152.0
Long-term care	\$183.6	\$178.8	\$188.3	\$208.6	\$203.3	\$213.9	\$215.1	\$209.5	\$220.6	\$223.3	\$217.6	\$228.9
Rehabilitation	\$63.7	\$60.6	\$66.9	\$67.7	\$64.3	\$71.1	\$73.8	\$70.4	\$77.2	\$82.8	\$79.0	\$86.6
Other hospital care												
Chemotherapy	\$172.6	\$168.8	\$176.4	\$187.3	\$183.2	\$191.3	\$195.3	\$191.0	\$199.5	\$213.6	\$209.0	\$218.1
Radiation therapy	\$186.0	\$182.2	\$189.8	\$202.6	\$198.6	\$206.5	\$235.7	\$231.5	\$240.0	\$242.6	\$238.1	\$247.0
<b>Physician Care</b>												
Fee-for-service	\$595.3	\$591.8	\$598.9	\$639.8	\$636.7	\$642.9	\$694.8	\$691.6	\$698.1	\$725.7	\$722.4	\$728.9
Non-fee-for-service	\$112.8	\$109.2	\$116.3	\$111.3	\$110.4	\$112.2	\$102.5	\$101.9	\$103.1	\$122.3	\$121.6	\$123.0
<b>Drugs*</b>	\$474.2	\$470.0	\$478.4	\$478.2	\$473.0	\$483.3	\$485.4	\$479.8	\$490.9	\$516.8	\$510.8	\$522.9
<b>Other Care</b>												
Assistive devices	\$18.6	\$18.1	\$19.2	\$4.1	\$3.8	\$4.3	n/a	n/a	n/a	n/a	n/a	n/a
Home care	\$257.3	\$254.0	\$260.7	\$264.6	\$261.2	\$268.0	\$289.1	\$285.4	\$292.7	\$301.3	\$297.6	\$305.0
Diagnostic tests	\$46.1	\$45.9	\$46.3	\$46.2	\$46.0	\$46.4	\$46.2	\$46.0	\$46.4	\$47.5	\$47.3	\$47.7
Non-physician care**	\$15.1	\$14.9	\$15.4	\$17.2	\$16.9	\$17.4	\$19.0	\$18.7	\$19.2	\$20.7	\$20.5	\$21.0
<b>Total Direct Cost</b>	<b>\$4,465.5</b>	<b>\$4,435.7</b>	<b>\$4,495.3</b>	<b>\$4,613.5</b>	<b>\$4,583.3</b>	<b>\$4,643.7</b>	<b>\$5,031.7</b>	<b>\$4,999.8</b>	<b>\$5,063.6</b>	<b>\$5,364.2</b>	<b>\$5,330.7</b>	<b>\$5,397.6</b>

**Note:** Data for assistive devices were missing from September 2010 onwards, data for cancer and dialysis clinics were missing for 2005, and data for psychiatric hospitalizations were missing from January 2005 to September 2005. Costs are presented for matched cancer patients (cases) only.

\* 'Drugs' includes outpatient prescription drugs covered by the provincial government payer.

\*\* 'Non-physician care' includes care provided by other professionals outside the hospital setting.

**Source:** Data housed at Institute for Clinical Evaluative Sciences.

## V. Costs in Canada

**Supplementary Table S7 – Total (net) public expenditures on cancer care by provincial/territorial governments in Canada, by cost component, sex and year (constant 2015 \$000,000)**

	2005	2006	2007	2008	2009	2010	2011	2012
<b>Both Sexes</b>								
Hospital Care	\$1,645.7	\$1,828.7	\$2,463.1	\$2,600.1	\$2,600.6	\$2,748.8	\$3,669.2	\$4,399.2
Chemotherapy	\$186.7	\$286.9	\$412.0	\$484.4	\$495.9	\$563.8	\$670.9	\$708.2
Radiation Therapy	\$208.8	\$301.7	\$360.0	\$450.3	\$476.9	\$533.9	\$563.2	\$627.2
Physician Care	\$496.4	\$549.5	\$608.3	\$697.4	\$717.6	\$750.3	\$782.3	\$888.4
Drugs	\$209.9	\$230.4	\$255.5	\$295.0	\$298.0	\$331.7	\$368.8	\$449.9
Other Care	\$199.5	\$387.0	\$368.0	\$410.9	\$347.6	\$323.4	\$333.5	\$398.9
Total	\$2,947.0	\$3,584.4	\$4,466.8	\$4,938.1	\$4,936.6	\$5,252.0	\$6,387.9	\$7,472.0
<b>Female</b>								
Hospital Care	\$778.1	\$861.2	\$1,198.1	\$1,308.3	\$1,239.3	\$1,300.8	\$1,743.1	\$2,027.3
Chemotherapy	\$87.8	\$135.6	\$196.1	\$218.5	\$204.1	\$226.5	\$324.9	\$389.4
Radiation Therapy	\$119.2	\$207.8	\$243.4	\$281.1	\$286.9	\$314.9	\$316.9	\$333.8
Physician Care	\$245.2	\$276.0	\$302.5	\$347.3	\$351.6	\$369.4	\$382.0	\$426.8
Drugs	\$70.8	\$86.9	\$102.3	\$124.1	\$125.8	\$135.2	\$151.3	\$183.4
Other Care*	\$117.1	\$224.1	\$222.7	\$244.3	\$194.3	\$176.7	\$179.9	\$210.1
Total	\$1,418.2	\$1,791.6	\$2,265.1	\$2,523.5	\$2,402.1	\$2,523.4	\$3,098.1	\$3,570.7
<b>Male</b>								
Hospital Care	\$867.5	\$967.6	\$1,265.0	\$1,291.8	\$1,361.3	\$1,448.1	\$1,926.1	\$2,372.0
Chemotherapy	\$98.9	\$151.3	\$215.9	\$265.9	\$291.8	\$337.4	\$346.0	\$318.9
Radiation Therapy	\$89.6	\$93.9	\$116.5	\$169.2	\$190.0	\$219.0	\$246.4	\$293.4
Physician Care	\$251.1	\$273.5	\$305.8	\$350.1	\$366.0	\$380.8	\$400.3	\$461.6
Drugs	\$139.1	\$143.6	\$153.2	\$170.9	\$172.2	\$196.5	\$217.5	\$266.6
Other Care*	\$82.4	\$162.9	\$145.3	\$166.6	\$153.3	\$146.8	\$153.6	\$188.8
Total	\$1,528.8	\$1,792.8	\$2,201.7	\$2,414.6	\$2,534.6	\$2,728.5	\$3,289.8	\$3,901.3

\*'Other Care' includes home care, non-physician care (including other professional services), diagnostic testing, and assistive devices.

**Source:** Costs for Canada were estimated using a combination of purpose-derived estimates of mean net cost of cancer in Ontario, National Health Expenditures (NHEX) data on relative expenditures by cost category for each province versus Ontario (Table E),<sup>5</sup> and prevalence figures for each province/territory, which we estimated based on data from the Canadian Cancer Society (CCS) and Statistics Canada<sup>1-3</sup> and NHEX data on population by age, sex and province/territory for 2005–2012.<sup>5</sup>

## References

1. Canadian Cancer Society's Steering Committee on Cancer Statistics. 2009. Canadian Cancer Statistics 2009. Toronto, ON: Canadian Cancer Society; 2009. Available online: <http://www.cancer.ca/en/cancer-information/cancer-101/canadian-cancer-statistics-publication/past-editions-canadian-cancer-statistics/?region=on> (Accessed: March 29, 2016).
2. Canadian Cancer Society's Steering Committee on Cancer Statistics. 2011. Canadian Cancer Statistics 2011. Toronto, ON: Canadian Cancer Society; 2011. Available online: <http://www.cancer.ca/en/cancer-information/cancer-101/canadian-cancer-statistics-publication/past-editions-canadian-cancer-statistics/?region=on> (Accessed: March 29, 2016).
3. Canadian Cancer Society's Advisory Committee on Cancer Statistics. 2014. Canadian Cancer Statistics 2014. Toronto, ON: Canadian Cancer Society; 2014. Available online: <http://www.cancer.ca/en/cancer-information/cancer-101/canadian-cancer-statistics-publication/past-editions-canadian-cancer-statistics/?region=on> (Accessed: March 29, 2016).
4. Mariotto AB, Rowland JH, Ries LAG, Scoppa S, Feuer EJ. Multiple Cancer Prevalence: A Growing Challenge in Long-term Survivorship. *Cancer Epidemiol Biomarkers Prev* 2007;16:566-571.
5. Canadian Institute for Health Information. 2016. National Health Expenditures Database (NHEX) Metadata. Available online: <https://www.cihi.ca/en/spending-and-health-workforce/spending/health-spending-data/national-health-expenditure-database> (Accessed: March 30, 2016).