### Performance Measure Definition

**Five year relative survival rate for colorectal cancer**

<table>
<thead>
<tr>
<th>Name and Definition</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full Name</strong></td>
<td>Five year relative survival ratios for the top four most common cancers: Colorectal cancer</td>
</tr>
<tr>
<td><strong>Short Name</strong></td>
<td>Five year relative survival rate for colorectal cancer</td>
</tr>
<tr>
<td><strong>Definition</strong></td>
<td>Five year relative survival rate for colorectal cancer is defined as the ratio of the observed survival for a group of individuals diagnosed with colorectal cancer to the survival expected in the general population with the same characteristics (sex, age and place of residence) as the colorectal cancer patients. The five year relative survival ratio can be interpreted as the proportion of patients alive after five years in a hypothetical situation where the colorectal cancer is the only possible cause of death.</td>
</tr>
</tbody>
</table>

| Domain | Population Health |

<table>
<thead>
<tr>
<th>Dimension</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Death</td>
<td>Environmental Factors</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Health Conditions</td>
<td>Human Function</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Personal Resources</td>
<td>Well Being</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

| Category of Measure | Health System Outcomes |
| Type of Measure     | Outcome Measure |
| Other Comments / Notes | Not applicable |

### Context

**Business Context**

Government of Alberta 2013-16 Strategic Plan

Alberta Health Outcomes and Measurement Framework

**Rationale**

At current projections in Alberta, one in two men and one in three women will develop cancer in their lifetimes, and one in four Albertans will die from cancer. Part of this is due to our aging population – we’re living longer and many cancers are slow to develop, only manifesting later in life. However, cancer isn’t just a disease of the elderly; it affects children and people of all ages. In 2011, cancer was the second leading contributor to potential years of life lost for all ages, accounting for about 25 percent of the total potential years of life lost.

Much of the work in the cancer control domain is aimed at improving long-term outcomes. This measure can be used to inform improvements in survival, which can be influenced by programs and strategies in areas of screening, diagnosis and treatment.

**Notes for Interpretation**

Survival analysis includes data on all primary cancer diagnoses. The older ages were excluded because some provinces had elevated survival in this group suggesting a bias in their data due to incomplete capture of death information. Including the older ages would inflate the relative survival estimates for Canada as a whole as well as reduce the comparability of survival across provinces.

“Canada” represents all provinces and territories, except Quebec. Data from Quebec have been excluded, in part, because the method of ascertaining the date of cancer diagnosis differs from the method used by other registries and because of issues in correctly ascertaining the vital status of cases.

**Organizational Strategy**

Changing Our Future: Alberta’s Cancer Plan to 2030


**Benchmark Comparisons**

National comparisons available:

Canada: Colorectal Cancer (66.5%)
Performance Measure Definition

**Cited References**
- The 2012 Cancer System Performance Report
- Changing Our Future: Alberta's Cancer Plan to 2030

**Technical Specifications**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Preferred Display Format</th>
<th>Numerator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td>99.9%</td>
<td>Observed cumulative survival probabilities of colorectal cancer patients after diagnosis with follow-up in a specific reporting period.</td>
</tr>
</tbody>
</table>

**Inclusion Criteria for Numerator**
- The cancer of interest is malignant colorectal cancer.
- International Classification of Diseases for Oncology, Third Edition Codes: C18.0 to C18.9, C19.9, C20.9, C26.0 excluding morphology types M-9050 to M-9055, M-9140, and M-9590 to M-9989.
- All primary cancers were included in the analysis; multiple primary sites were determined by World Health Organization, International Classification of Diseases for Oncology Third Edition (ICD-O-3) and the International Agency for Research on Cancer (IARC) rules.

**Exclusion Criteria for Numerator**
- Those younger than age 15 and those older than 74 at the time of diagnosis were excluded.
- Subjects diagnosed through autopsy only or death certificate only.
- Subjects with an invalid date and invalid sequences of date of birth, diagnosis and death.

**Data Source(s) for Numerator**
- Canadian Cancer Registry, Statistics Canada
- Provincial life tables, Statistics Canada

**Refresh Rate for Numerator**
- Annually

**Data Steward for Numerator**
- Statistics Canada

**Denominator**
- Expected survival of comparison population (general population with the same characteristics) that was alive for 1, 2, 3, 4 and 5 years for patients with follow-up in a specific reporting period.

**Inclusion Criteria for Denominator**
- Both sexes were included.

**Exclusion Criteria for Denominator**
- Population younger than age 15 and those older than 74 were excluded.

**Data Source(s) for Denominator**
- Canadian Cancer Registry, Statistics Canada
- Provincial life tables, Statistics Canada

**Refresh Rate for Denominator**
- Annually

**Data Steward for Denominator**
- Statistics Canada

**Technical Notes**
- This measure is age-standardized using direct method by weighing age-specific estimates for a given cancer to the age distribution of persons diagnosed with cancer during 1992 to 2001
  (The 2011 Cancer System Performance Report).

**Calculation**
- Five year relative survival rate = (observed survival for a group of colorectal cancer patients) / (expected survival for members of the general population)
### Performance Measure Definition

Observed survival is measured as the percentage of a defined patient population living a specific number of years from a given starting point, which is usually diagnosis (with exceptions, such as in conditional survival).

#### Relationship to Other Indicators
- Not applicable

#### Level of Reporting

<table>
<thead>
<tr>
<th></th>
<th>National</th>
<th>Provincial</th>
<th>Zone</th>
<th>Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting Notes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

#### Frequency of Reporting

<table>
<thead>
<tr>
<th></th>
<th>Annually</th>
<th>Quarterly</th>
<th>Monthly</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting Notes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

#### Limitations

It is important to note that this indicator has new exclusion criteria for the age groups (age 15 to 79 since 2011, age 15 to 99 before 2011). Due to this change, only results from 2011 and 2012 can be used for trend analysis. Survival rate calculated using the previous age groups should not be used to analyze the trend of this indicator.

The older ages were excluded because some provinces had elevated survival in this group suggesting a bias in their data due to incomplete capture of death information. Including the older ages would inflate the relative survival estimates for Canada as a whole as well as reduce the comparability of survival across provinces.