

Technical Appendix

Health Status Reporting Series Three

Life Expectancy

Saskatoon Health Region

Life Expectancy at Birth

Definition

Life expectancy predicts the average number of years that an individual born today is expected to live, based on the death rate of today's population. This does not reflect the quality of those years, only quantity.

Calculation

Life expectancy calculations were derived from the Association of Public Health Epidemiologists of Ontario. The abridged life table calculates life expectancy based on Chiang (1984), adapted for local area use (Manuel et al. 1998). For each data point, mortality data for five years was used as the numerator and one year worth of population data (from Covered Population, Saskatchewan Ministry of Health⁴) was used as the denominator. For example, to calculate life expectancy in 2012, 2010 to 2014 mortality data was used as the numerator in each age group with 2012 population used as the denominator. In some cases, the number of deaths in a five year time period was 0, in which case, an average value of 0.2 (1 death divided by 5 years) was imputed for each age group where this occurred.

Where Canada values are shown, each data point has three years of mortality used in the numerator. For example, to calculate life expectancy in 2012, 2011 to 2013 mortality data was used in the numerator.

Limitations

Death data for Saskatoon Health Region residents from Vital Statistics is up to 2014.

References

Association of Public Health Epidemiologists of Ontario. Life table template V 1.2 [online]. 2006 [cited 2007 Oct 22]. Available from: URL: <http://www.apheo.ca/index.php?pid=223>

Chiang CL. (1984). *The life table and its applications*. Malabar, Florida: Robert E. Krieger Publ. Co.

Manuel DG, Goel V, Williams JI. (1998). The derivation of life tables for local areas. *Chronic Diseases in Canada*, 19(2):52-6.

Saskatchewan Ministry of Health. Covered population report. Saskatchewan Ministry of Health 2013 [cited 2014 Mar 11]; Available from: URL: <http://www.health.gov.sk.ca/population-stats>

Greenberg L & Normandin C. Disparities in life expectancy at birth. Catalogue no. 82-624-X. Statistics Canada 2011 [cited 2017 Jan 6]; Available from: URL: <http://www.statcan.gc.ca/pub/82-624-x/2011001/article/11427-eng.pdf>

Statistics Canada. Life Expectancy. Catalogue no. 82-229-X. Statistics Canada 2016 [cited 2017 Jan 6]; Available from: URL: <http://www.statcan.gc.ca/pub/82-229-x/2009001/demo/lif-eng.htm>

Mortality Data

Time Frame

1995 – 2014.

Source

Saskatchewan Ministry of Health's Vital Statistics Branch.

Definition

Deaths are those that occur to SHR residents using data from 1991-2014 from Saskatchewan Vital Statistics, Alberta Vital Statistics, and CIHI hospital separations for deaths occurring in all other provinces. ICD-9 codes are used for all deaths before calendar year 2000 and after this date ICD-10 codes are used.

Inclusion/Exclusion

Includes those persons with Saskatchewan recorded as their province of residence.

Limitations

Conversion between ICD-9 and ICD-10 codes can be problematic for certain disease conditions because the codes are not comparable. Vital Statistics data is based on the underlying cause of death, which is limited to one diagnosis, unless there is an injury, then there is a separate code for the external cause. Readers should note that there may be more than one contributing cause of death, but that only the most responsible cause is used.