

Ontario Cancer Registry SEER*Stat Package

Frequently Asked Questions

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The SEER*Stat Software

1. What is SEER*Stat?

SEER*Stat is a free statistical software created and maintained by the <u>National Cancer Institute</u> (<u>NCI</u>) in the United States. The current version is 9.0.42 (released October 15, 2025). The software is designed to work with the NCI's Surveillance, Epidemiology and End Results (SEER) data, but can also be used to analyze data from other cancer registries that have been prepared to comply with the software.

Ontario Health (Cancer Care Ontario) prepares data from the Ontario Cancer Registry to be compatible with the SEER*Stat software and offers these databases through the Ontario Cancer Registry SEER*Stat Package. The package can be used to produce cancer incidence and mortality frequencies and rates (crude and age standardized), as well as survival and limited-duration prevalence statistics.

Ontario Cancer Registry SEER*Stat Package

2. What is included in the Ontario Cancer Registry SEER*Stat Package - Release 14?

The Ontario Cancer Registry SEER*Stat Package includes:

- SEER*Stat Software Version 9.0.42 (SeerStatAppSetup_904200.exe)
- Ontario Cancer Data Files (Ontario cancer incidence and mortality)
- User Guide: Data Notes and Description
- Quick Start Guide: Installation and SEER*Stat Examples with Ontario Cancer Data
- Important Notes to All Users of Ontario Cancer Registry SEER*Stat Package Release 14, and
- Frequently Asked Questions: Ontario Cancer Registry SEER*Stat Package Release 14

3. How do I request a copy of the Ontario Cancer Registry SEER*Stat Package – Release 14?

To request a copy of the package, you will need to complete a <u>Confidentiality Agreement</u> available on the Ontario Health (Cancer Care Ontario) website. Once a completed agreement form is submitted, you can expect to get further instructions from Ontario Health (Cancer Care Ontario) within three business days.

4. Can I submit one Confidentiality Agreement on behalf of several users?

Each user must complete their own Ontario Health Confidentiality Agreement for the Ontario Cancer Registry SEER*Stat Package – Release 14. If there are two or more applicants from the same institution, a designate for those applicants must be assigned to receive the data on the group's behalf. The designate may represent an unlimited number of applicants from the same

institution. The data will only be disclosed to the designate once all applicants have submitted the Ontario Health Confidentiality Agreement.

5. Do I need to submit another Confidentiality Agreement if I have received the package before?

Yes. All new and previous users must submit a Confidentiality Agreement with each new release of the Ontario Cancer Registry SEER*Stat Package.

6. How can I get the Ontario Cancer Registry SEER*Stat Package – Release 14?

This release will be available for download through Ontario Health's secure web-based managed file transfer (MFT) system. When your request is approved, Ontario Health (Cancer Care Ontario) will provide you with the necessary login credentials to access the downloadable package. See below for the minimum browser requirements needed to use the MFT:

- Apple Safari 9 on OS X only
- Google Chrome latest version
- Microsoft Internet Explorer 11 (Compatibility View is not supported)
- Mozilla Firefox latest version, or
- Microsoft Edge

7. What if I do not have permission to install software onto my work computer?

Please contact your IT administrator for help downloading and installing SEER*Stat software.

8. How often is a new Ontario Cancer Registry SEER*Stat Package released?

A new package is expected to be released every two years, which is usually when there are additional years of Ontario cancer data available for distribution.

9. Can I get an email notification when a new version is released?

Yes. There are two options for email notifications:

- New users can choose to get notifications about future releases and updates to the latest release of the Ontario Cancer Registry SEER*Stat Package by checking "Yes" under the section called "Consent to Receive Email" in the Confidentiality Agreement.
- Anyone interested in getting emails about the Ontario Cancer Registry SEER*Stat Package
 and other Ontario Health (Cancer Care Ontario) products related to cancer surveillance can
 email cancersurveillance@ontariohealth.ca to be added to our distribution list.

The release of the Ontario Cancer Registry SEER*Stat Package is also announced through other communication channels, such as the Association of Public Health Epidemiologists in Ontario (APHEO) forum.

Ontario Cancer Data

10. What years of data are included in this release?

The Ontario Cancer Registry SEER*Stat Package – Release 14 includes Ontario cancer incidence and mortality data from 1981 to 2022.

11. Can I use the new data files in this release with an older version of the SEER*Stat software?

Using new data files with an older version of the software is not recommended because there have been important updates to the SEER*Stat software since earlier releases. We recommend using the version of SEER*Stat included in the package for Release 14.

12. Is there a data dictionary provided with this release?

Yes. A detailed data dictionary can be found in the "User Guide: Data Notes and Description" document included in the package.

13. Can I get race or ethnicity information in this release?

No. Because the Ontario Cancer Registry does not collect any data on race or ethnicity, we do not provide this information in the data files for the Ontario Cancer Registry SEER*Stat Package.

14. Why are the Local Health Integration Network (LHIN)-based databases no longer included in this release?

Due to recent changes in Ontario's health system structure, the databases previously titled "Ontario Cancer Incidence by LHIN and Ontario Cancer Mortality by LHIN" are no longer included in the package. To learn more about the changes to Ontario's LHINs, visit the Ministry of Health's website. Users interested in exploring data for these former geographic areas can contact us at cancersurveillance@ontariohealth.ca.

Variables and Analyses

15. Can I compare analyses generated using a previous release with analyses generated from Release 14?

No. The Ontario Cancer Registry is a dynamic database that regularly gets new case information and updates to existing records, so data from earlier years of the Ontario Cancer Registry SEER*Stat Package (formerly known as the CCO SEER*Stat Package) may be slightly different.

16. Can I create user-defined variables or share my user-defined variables?

Yes. Instructions for creating user-defined variables are in the "Quick Start Guide" included in the package. User-defined variables may also be shared with other Ontario Cancer Registry SEER*Stat Package users. For a detailed guide to sharing user-defined variables, please visit the <u>U.S. National Cancer Institute's SEER*Stat Frequently Asked Questions web page</u>.

17. What are moving averages and how can I compute them?

A moving average is a calculation used to minimize short-term fluctuations by taking the average value of consecutive years (e.g., three, five), centered around the year of interest. To compute moving averages in SEER*Stat, you need to first create a user-defined variable for Year of Diagnosis (incidence rates) or Year of Death (mortality rates). Instructions on how to create a user-defined variable are provided in the "Quick Start Guide" included in the package.

Here is an example of how to compute a three-year moving average:

- 1. Define three-year groupings and use the middle year (the year of interest) as the label:
 - For 2000, use the years 1999, 2000 and 2001 and label as 2000
 - For 2001, use the years 2000, 2001 and 2002 and label as 2001, and
 - For 2002, use the years 2001, 2002 and 2003 and label as 2002
- Save the newly created variable with an appropriate name (e.g., "Year of Diagnosis, Three-Year Moving Avg").
- 3. Select the "Table" tab from the appropriate session in SEER*Stat. Then select your user-defined variable to be displayed in the output. Three-year moving averages will then be displayed in your output table.

Use the same method with five-year groupings to compute a five-year moving average.

18. How will the SEER multiple primary and histology rules affect my analyses?

The Ontario Cancer Registry adopted the <u>SEER Multiple Primary and Histology Coding Rules</u> for counting additional primary cancers beginning with 2010 diagnoses. Because the SEER rules have a more liberal consideration of subsequent primaries, they result in a larger number of new cases than pre-2010, when a more conservative, modified version of the International Association of Cancer Registries (IACR) rules were used. Therefore, changes in incidence numbers are a result of how cancers are being counted and do not mean that more people in Ontario are being diagnosed with cancer.

In the SEER*Stat software, users can select the "IACR Multiple Primary Flag" variable in the "Multiple Primary Fields" folder to distinguish between cases that meet the IACR multiple primary rules and other cases, which allows for comparisons before and after 2010. For more information on how to use the IACR Multiple Primary Flag, please refer to the "Quick Start Guide" included in the Ontario Cancer Registry SEER*Stat Package — Release 14.

19. How will the changes in coding and case creation standards introduced with the 2018 diagnosis year affect my analyses?

Multiple primary and histology coding rules provide cancer registries with a standard set of rules to follow when coding and counting distinct cancers. The 2018 SEER Solid Tumor Coding Rules replaced the 2007 SEER Multiple Primary and Histology Coding Rules for cases diagnosed from January 1, 2018, onward. As a result of this update, there have been changes to some subtypes and histology codes. However, this update has not resulted in significant changes in incidence for overall cancer sites. Please refer to the "User Guide: Data Notes and Description" document included in the package for details on these changes.

20. How will the changes in staging classification introduced with the 2018 diagnosis year affect my analyses?

The Canadian Council of Cancer Registries decommissioned the Collaborative Stage Data Collection System (CS) and mandated the eighth edition of the American Joint Committee on Cancer Tumor Nodes Metastases Staging Classification (AJCC TNM8) beginning with the 2018 diagnosis year. The AJCC TNM8 has stricter requirements than the CS for key data elements when mapping to an overall stage group, which has led to an increase in cancers with unknown stage and a shift in stage distribution for certain cancer types starting in 2018. Please refer to the "User Guide: Data Notes and Description" document included in the package for details on these changes before comparing any cancer stage from the 2018 diagnosis year onward with previous years. Direct comparison is not recommended for all cancer types.

Citation

21. How do I cite Ontario Cancer Registry data analyzed from this release in publications?

The suggested citation can be retrieved from the session information. Please check the "User Guide: Data Notes and Description" document included in the package to find out how to copy session information. The following are examples of the citation formats:

- Software:
 - Surveillance Research Program, National Cancer Institute SEER*Stat software (<u>seer.cancer.gov/seerstat</u>) version 9.0.42.
- Ontario Cancer Incidence, 1981–2022 Database:
 - Ontario Cancer Registry SEER*Stat Package Release 14 OCR (Jun. 2025). Statistics Canada. Table 17-10-0005-01 Population estimates on July 1st, by age and gender [Internet]. Ottawa (CA): Government of Canada; 2025 Sep 24 [cited 2025-03-28]. Available from: 150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1710000501.

You must acknowledge Ontario Health (Cancer Care Ontario) as the source of data in all papers, publications and reports that result from the use of the data. The acknowledgement must be in the following format: "Parts of this material are based on data and information provided by Ontario Health. The analyses, conclusions, opinions and statements expressed herein are those of the author(s), and not necessarily those of Ontario Health."

21. Do I need to let Ontario Health (Cancer Care Ontario) know about publications I develop using this release?

Yes. You must send all publications (e.g., reports, factsheets, memos) that use data from the Ontario Cancer Registry SEER*Stat Package to Ontario Health (Cancer Care Ontario) by emailing OCRSEERStat@ontariohealth.ca.

Resources and Contact

22. Where can I get supporting materials?

Training videos for producing basic cancer incidence, mortality, survival and prevalence statistics for Ontario using the Ontario Cancer Registry SEER*Stat Package are available on the Ontario Cancer Registry SEER*Stat Package website.

SEER*Stat tutorials are also offered on the <u>National Cancer Institute website</u>. Members can download additional SEER*Stat training materials from the <u>Association of Public Health</u> <u>Epidemiologists in Ontario (APHEO) website</u> in the "Cancer Resources" section.

Other relevant information and resources on Ontario cancer data, including more information about the Ontario Cancer Registry, can be found on the <u>Cancer Care Ontario website</u>.

23. Who should I contact if I have other questions?

If you have questions or comments, or want to let us know about any publications using the Ontario Cancer Registry SEER*Stat Package – Release 14, contact us at OCRSEERStat@ontariohealth.ca.

If you have questions about the cancer registry, contact the Ontario Cancer Registry at OH-CCO ocrquestions@ontariohealth.ca.

To get statistics that cannot be found in the Ontario Cancer Registry SEER*Stat Package, email OH-CCO Datarequest@ontariohealth.ca.