

## Description of CiNA Public Use Dataset, Diagnosis Year 2010 Forward

**The NAACCR CiNA Public Use Dataset** is a publicly accessible, non-confidential dataset with a limited number of variables, made available to user in SEER\*Stat.

- Access requires only a signed Data Assurances Agreement uploaded in the request in the NAACCR DaRT (Data Request Tracking) system:  
<https://apps.naaccr.org/dart/>.
- CiNA Public Use is a limited dataset of individual records of cancer incidence among US and Canada residents diagnosed from 1995 to the most current year of diagnosis.
- CiNA Public Use is updated with most recent diagnosis year annually in June/July. Users of the old dataset will have their access removed two weeks after the new dataset is released. Users will be notified of this via DaRT.
- Through SEER\*Stat, a user may generate counts, rates and trends. This dataset includes cases diagnosed from 2010 forward and age in the 20 age group categories.
  - SEER\*Stat statistical software is a standard tool for analysis of cancer-related data. SEER\*Stat is distributed with the CiNA Public Dataset. Additional information on SEER\*Stat is available on the NCI, SEER site: <http://seer.cancer.gov/seerstat/>.
  - Tutorials are available here: <http://seer.cancer.gov/seerstat/tutorials/>.
- CiNA Public Use Restrictions:
  - No case-level data is exportable from CiNA Public Use, only results.
  - To preserve confidentiality of the data, *data are automatically suppressed* for counts less than 6.
  - For issues of statistical stability, *we advise caution* in interpreting rates and other results based on fewer than 25 cases.

If you have questions about the NAACCR CiNA Public Use Dataset, please contact Recinda Sherman, Manager of Research and Data Use at [rsherman@naaccr.org](mailto:rsherman@naaccr.org) or 217-698- 0800 x6. A list of variables in the Public Use Dataset can be found here: <https://www.naaccr.org/cina-public-use-data-set/>

### Citation

Please reference to the source of these data in any published document as indicated in SEER\*Stat session. For example:

*NAACCR Incidence - CiNA Public File, 1995-2019 (which includes data from CDC's National Program of Cancer Registries (NPCR), CCCR's Provincial and Territorial Registries, and the NCI's Surveillance, Epidemiology and End Results (SEER) Registries), North American Association of Central Cancer Registries.*

### Population Coverage

To be included in the CiNA Public dataset, a registry data from the US or Canada must meet specific data quality standards. All Gold and Silver NAACCR-certified

central registries are eligible for inclusion in the CiNA Public dataset. Each registry must also consent to the use of their data in the CiNA Public dataset. A current list of certified registries is available here: <https://www.naaccr.org/certified-registries/>. Registries may have not been certified in prior years, but if their data quality improves over time, their data is included in CiNA. However, not all states meet the data quality criteria for each year and will have zero counts for those years. Please review *Registry Data Fitness for use By Data Year* available here: <https://www.naaccr.org/cina-data-products-overview/>.

### **Data Collection**

Cancer registry data is collected in an on-going, systematic, and standardized process. In Canada, the cancer registry collection program is overseen by the Canadian Council of Cancer Registries. In the US, there are two cancer registry collection programs—the National Cancer Institute’s Surveillance, Epidemiology and End Results (SEER Program) and the Center for Disease Control’s National Program of Cancer Registries (NPCR). Data for all three programs are collected in a coordinated process from hospitals and other medical facilities, including inpatient, outpatient, and standalone facilities.

The data are collected or overseen by certified tumor registrars (CTRs), who are highly trained medical professionals, to ensure complete and high quality data collection. The International Classification of Disease-Oncology (ICD-O) coding system is used to code topography (primary site) and morphology (histologic characteristics) of the collected cancers. Additional coding information is available in the NAACCR Data Standards & Data Dictionary (Volume II) available here: <https://www.naaccr.org/data-standards-data-dictionary/>.

Please note, the variables available in the CiNA Public Dataset are a subset of the full variable list collected. Many variables in the CiNA Public Dataset are aggregated and recoded for analysis.

## Variables

Demographic	Age recode (2 variables, 20 & 21 age groups) State/Province Race/Ethnicity Country Race (2 variables) Sex
Cancer ID	Year of Diagnosis Primary Site (2 variables) Grade Histology Behavior CBTRUS Histology Recode Diagnostic confirmation ICCC site recode Summary Stage Laterality Record # Recode Type of Report Source
Area-based	Census Tract Poverty Indicator Yost Quintile Metro/Non-Metro (2 variables)

**Variable Details (name of folder ->field name:)**

*Age at Diagnosis -> **Age recode with <1 year olds and 95+:***

- 5-year aggregates; 21 age groups: 0, 1-4, 5-9,...80-84, 85-89, 90-94, 95+
- No unknown age

*System-Supplied -> **Age recode with < 1 year olds and 90+:***

- 5-year aggregates; 20 age groups: 0, 1-4, 5-9,...80-84, 85-89, 90+.
- No unknown age
- Recommended age variable

*Race, Sex, Year Dx, State/Province, Country -> **Year of Diagnosis:***

- 2010-most current available

*Race, Sex, Year Dx, State/Province, Country -> **State/Province:***

- Name of state/province
- Consent from each registry is required. Registries are included for the years in which they meet the NAACCR CiNA high-quality data standards.
- Refer to the Registry Data Fitness for Use by Data Year spreadsheet available here: <https://www.naacr.org/cina-data-products-overview/>

*Race, Sex, Year Dx, State/Province, Country -> **Race/ethnicity:***

- Hispanic All Races, Non-Hispanic White, Non-Hispanic Black, Non-Hispanic Other, Non-Hispanic Unknown Race, Unknown Hispanic (based on NHIA)

*Race, Sex, Year Dx, State/Province, Country -> **Country:***

- North America, US, Canada

*Race, Sex, Year Dx, State/Province, Country -> **Race Recode:***

- W, B, AIAN (based on PRCDA counties only), API, Other/Unknown/non PRCDA AIAN

*Race, Sex, Year Dx, State/Province, Country -> **Race Recode:***

- W, B, Oth, unknown

*Race, Sex, Year Dx, State/Province, Country -> **Sex:***

- Total Male & Female, Male, Female

*Site and Morphology -> **Primary Site:***

- Based on ICD-O-3 regardless of diagnosis date
- Labeled, more details than site recode variables

*Site and Morphology -> **Grade:***

- Well differentiated; Grade I
- Moderately differentiated; Grade II
- Poorly differentiated; Grade III
- Undifferentiated; anaplastic; Grade IV
- T-cell
- B-cell; pre-B; B-precursor
- Null cell; non T-non B
- NK cell; natural killer cell
- Unknown
- Blank(s)

*Site and Morphology -> **Histology:***

- Malignant histology available based ICD-O-3
- Benign, borderline, *in situ* categories without histology for non-malignant cases

*Site and Morphology -> **Behavior:***

- Benign, Borderline malignancy, *In situ*, Malignant, Only Malignant in ICD-O-3, Only malignant 2010+

*Site and Morphology -> **CBTRUS: Histology Recode:***

- This variable uses the categories defined for malignant and non-malignant Brain and CNS categories defined by CBTRUS (Central Brain Tumor Registry of the US)
- See Appendix A for additional details

*Site and Morphology -> **Diagnostic Confirmation:***

- Microscopically confirmed
- Positive laboratory test/marker study
- Direct visualization without microscopic confirmation Radiography without microscopic confirm
- Clinical diagnosis
- Unknown

*Site and Morphology -> **Site recode ICD-O-3/WHO 2008:***

- Categorical sites
- Based on ICD-O-3, updated for Hematopoietic codes based on *WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues (2008)*.
- Categories defined here:  
[https://seer.cancer.gov/siterecode/icdo3\\_dwhohome](https://seer.cancer.gov/siterecode/icdo3_dwhohome)

*Site and Morphology -> **ICCC site recode ICD-O-3/WHO 2008:***

- International Classification of Childhood Cancer, 3<sup>rd</sup> edition, based on ICD-O-3/IARC 2017
- Categories defined here: <https://seer.cancer.gov/iccc/>

*Stage – LRD (Summary and Historic) -> **Summary Stage (SEER based on Diagnosis Year):***

- Single variable based on SEER Summary Stage 1977, 2000, 2018, Derived
- Best stage selected based on diagnosis year
- IS, L, R, D, NA/unknown/Blank

*Extent of Disease – CS -> **Laterality:***

- Not a paired site, Right (origin of primary), Left (origin of primary), Only one side—side unspecified, Bilateral-single primary, Paired site—midline tumor, Paired site—but no information

*Multiple Primary Fields -> **Record # Recode:***

- Record # 01 for patient in database, Record # 02 for patient in database, Record # 03 for patient in database, Record # 04 for patient in database, Record # 05 for patient in database, Record # 06 for patient in database, Record # 07 or more for patient in database

*Census Tract attributes -> **Census Tract Poverty Indicator:***

- Based on % living in poverty from the American Community Survey, rolling 5 year-average
- Based on data of diagnosis
- <5%, 5-9.9%, 10-19.99%, 20%+, unknown

*Other -> **Type of Report Source:***

- DCO or autopsy only, Other

*ABSM -> **Yost Quintile (2000+, State Specific):***

- YOST based on ACS data, based on tract and quintiles based on state
- US Only
- Components include: Occupation, Unemployment, Poverty, Income, Education, Housing (price, ownership, crowding) based on American Community Survey

*County attributes 2010s -> **Metro/Non-Metro (2013 Beale):***

- Metro, Non-Metro, unknown
- US Only
- Based on Rural Urban Continue 2013

*County attributes 2000s -> **Metro/Non-Metro (2003 Beale):***

- Metro, Non-Metro, unknown
- US Only
- Based on Rural Urban Continue 2003

**Appendix A. CBTRUS site/histology groups for malignant and non-malignant brain and CNS tumors. The variable is histologic group for malignant (Table 2b) and non-malignant (Table 2c) brain and CNS tumors (based on Table 1).**

**Table 1. Central Brain Tumor Registry of the United States (CBTRUS), Brain and Central Nervous System Tumor Site Groupings**

Site	ICD-O-3 <sup>a</sup> Site Code
Cerebrum	C71.0
Frontal lobe of brain	C71.1
Temporal lobe of brain	C71.2
Parietal lobe of brain	C71.3
Occipital lobe of brain	C71.4
Ventricle	C71.5
Cerebellum	C71.6
Brain stem	C71.7
Other brain	C71.8-C71.9
Overlapping lesion of brain	C71.8
Brain, NOS	C71.9
Spinal cord and cauda equina	C72.0-C72.1
Spinal cord	C72.0
Cauda equina	C72.1
Cranial nerves	C72.2-C72.5
Olfactory nerve	C72.2
Optic nerve	C72.3
Acoustic nerve	C72.4
Cranial nerve, NOS	C72.5
Other nervous system	C72.8-C72.9
Overlapping lesion of brain and central nervous system	C72.8
Nervous system, NOS	C72.9
Meninges (cerebral & spinal)	C70.0-C70.1, C70.9
Cerebral meninges	C70.0
Spinal meninges	C70.1
Meninges, NOS	C70.9
Pituitary and craniopharyngeal duct	C75.1-C75.2
Pituitary gland	C75.1
Craniopharyngeal duct	C75.2
Pineal gland	C75.3
Olfactory tumors of the nasal cavity <sup>b</sup>	C30.0

<sup>a</sup>International Classification of Diseases for Oncology, 3rd Edition, 2000. World Health Organization, Geneva, Switzerland.

<sup>b</sup>ICD-O-3 histology codes 9522-9523 only.

Abbreviations: CBTRUS, Central Brain Tumor Registry of the United States; NOS, not otherwise specified.



**Table 2b. Central Brain Tumor Registry of the United States (CBTRUS), Brain and Central Nervous System Tumor Malignant Histologies<sup>a</sup>**

Histology	ICD-O-3 <sup>b</sup> Histology Code <sup>c</sup>
<b>Tumors of Neuroepithelial Tissue</b>	
Filicytic astrocytoma*	9421/1 [Included with malignant tumors], 9425/3 <sup>d</sup>
Diffuse astrocytoma*	9400/3, 9410/3, 9411/3, 9420/3
Anaplastic astrocytoma*	9401/3
Unique astrocytoma variants*	9381/3, 9424/3
Glioblastoma*	9440/3, 9441/3, 9442/3
Oligodendroglioma*	9450/3
Anaplastic oligodendroglioma*	9451/3, 9460/3
Oligoastrocytic tumors*	9382/3
Ependymal tumors*	9391/3, 9392/3, 9393/3
Glioma malignant, NOS*	9380/3, 9431/1, 9432/1 [Included with malignant tumors]
Choroid plexus tumors	9390/3
Other neuroepithelial tumors*	9423/3, 9430/3
Neuronal and mixed neuronal-glioma tumors*	8680/3, 8693/3, 9505/3, 9522/3, 9523/3
Tumors of the pineal region	9362/3, 9395/3 <sup>e</sup>
Embryonal tumors	8963/3, 9364/3, 9470/3, 9471/3, 9472/3, 9473/3, 9474/3, 9480/3, 9490/3, 9500/3, 9501/3, 9502/3, 9508/3
<b>Tumors of Cranial and Spinal Nerves</b>	
Nerve sheath tumors	9540/3, 9560/3, 9561/3, 9571/3
<b>Tumors of Meninges</b>	
Meningioma	9530/3, 9538/3, 9539/3
Mesenchymal tumors	8800/3, 8801/3, 8802/3, 8803/3, 8804/3, 8805/3, 8806/3, 8810/3, 8815/3, 8830/3, 8850/3, 8851/3, 8852/3, 8853/3, 8854/3, 8857/3, 8890/3, 8900/3, 8901/3, 8902/3, 8910/3, 8912/3, 8920/3, 8921/3, 8990/3, 9040/3, 9150/3, 9170/3, 9180/3, 9260/3
Primary melanocytic lesions	8720/3, 8728/3, 8770/3, 8771/3
Other neoplasms related to the meninges	9220/3, 9231/3, 9240/3, 9243/3, 9370/3, 9371/3, 9372/3
<b>Lymphomas and Hemopoietic Neoplasms</b>	
Lymphoma	9590/3, 9591/3, 9596/3, 9650/3, 9651/3, 9652/3, 9653/3, 9654/3, 9655/3, 9659/3, 9661/3, 9662/3, 9663/3, 9664/3, 9665/3, 9667/3, 9670/3, 9671/3, 9673/3, 9675/3, 9680/3, 9684/3, 9687/3, 9690/3, 9691/3, 9695/3, 9698/3, 9699/3, 9701/3, 9702/3, 9705/3, 9714/3, 9719/3, 9728/3, 9729/3
Other hemopoietic neoplasms	9727/3, 9731/3, 9733/3, 9734/3, 9740/3, 9741/3, 9750/3, 9754/3, 9755/3, 9756/3, 9757/3, 9758/3, 9760/3, 9823/3, 9826/3, 9827/3, 9832/3, 9837/3, 9860/3, 9861/3, 9866/3, 9930/3
<b>Germ Cell Tumors and Cysts</b>	
Germ cell tumors, cysts and heterotopias	8020/3, 8440/3, 9060/3, 9061/3, 9064/3, 9065/3, 9070/3, 9071/3, 9072/3, 9080/3, 9081/3, 9082/3, 9083/3, 9084/3, 9085/3, 9100/3, 9101/3
<b>Tumors of Sellar Region</b>	
Tumors of the pituitary	8140/3, 8246/3, 8260/3, 8270/3, 8272/3, 8280/3, 8281/3, 8290/3, 8300/3, 8310/3, 8323/3
<b>Unclassified Tumors</b>	
Hemangioma	9120/3, 9130/3, 9133/3, 9140/3
Neoplasm, unspecified	8000/3, 8001/3, 8002/3, 8003/3, 8004/3, 8005/3, 8010/3, 8021/3
All other	8320/3, 8710/3, 8711/3, 8811/3, 8840/3, 8896/3, 8980/3, 9503/3, 9580/3

<sup>a</sup>Includes all the histologies listed in the standard definition of reportable brain tumors from the Consensus Conference on Brain Tumor Definitions.

<sup>b</sup>International Classification of Diseases for Oncology, 3rd Edition, 2000. World Health Organization, Geneva, Switzerland.

<sup>c</sup>See the CBTRUS website for additional information about the specific histology codes included in each group: <http://www.cbtrus.org>.

<sup>d</sup>All or some of this histology is included in the CBTRUS definition of gliomas, including ICD-O-3 histology codes 9380-9384, 9391-9460. Abbreviations: CBTRUS, Central Brain Tumor Registry of the United States; NOS, not otherwise specified.

**Table 2c. Central Brain Tumor Registry of the United States (CBTRUS), Brain and Central Nervous System Tumor Non-Malignant Histologies<sup>a</sup>**

Histology	ICD-O-3 <sup>b</sup> Histology Code <sup>c</sup>
<b>Tumors of Neuroepithelial Tissue</b>	
Unique astrocytoma variants*	9384/1
Ependymal tumors*	9383/1, 9394/1
Choroid plexus	9390/0,1
Other neuroepithelial tumors	9363/0, 9444/1
Neuronal and mixed neuronal-glia tumors*	8680/0,1, 8681/1, 8690/1, 8693/1, 9412/1, 9413/0, 9442/1, 9492/0 (excluding site C75.1), 9493/0, 9505/1, 9506/1, 9509/1
Tumors of the pineal region	9360/1, 9361/1
Embryonal tumors	9490/0
<b>Tumors of Cranial and Spinal Nerves</b>	
Nerve sheath tumors	9540/0,1, 9541/0, 9550/0, 9560/0,1, 9570/0, 9571/0
Other tumors of cranial and spinal nerves	9562/0
<b>Tumors of Meninges</b>	
Meningioma	9530/0,1, 9531/0, 9532/0, 9533/0, 9534/0, 9537/0, 9538/1, 9539/1
Mesenchymal tumors	8324/0, 8800/0, 8810/0, 8815/0, 8824/0,1, 8830/0,1, 8831/0, 8835/1, 8836/1, 8850/0,1, 8851/0, 8852/0, 8854/0, 8857/0, 8861/0, 8870/0, 8880/0, 8890/0,1, 8897/1, 8900/0, 8920/1, 8935/0,1, 8990/0,1, 9040/0, 9136/1, 9150/0,1, 9170/0, 9180/0, 9210/0, 9241/0, 9373/0
Primary melanocytic lesions	8728/0,1, 8770/0, 8771/0
Other neoplasms related to the meninges	9161/1, 9220/0,1, 9535/0
<b>Lymphomas and Hemopoietic Neoplasms</b>	
Other hemopoietic neoplasms	9740/1, 9751/1, 9752/1, 9753/1, 9766/1, 9970/1
<b>Germ Cell Tumors and Cysts</b>	
Germ cell tumors, cysts and heterotopias	8440/0, 9080/0,1, 9084/0
<b>Tumors of Sellar Region</b>	
Tumors of the pituitary	8040/0,1, 8140/0,1, 8146/0, 8260/0, 8270/0, 8271/0, 8272/0, 8280/0, 8281/0, 8290/0, 8300/0, 8310/0, 8323/0, 9492/0 (site C75.1 only), 9582/0
Craniopharyngioma	9350/1, 9351/1, 9352/1
<b>Unclassified Tumors</b>	
Hemangioma	9120/0, 9121/0, 9122/0, 9123/0, 9125/0, 9130/0,1, 9131/0, 9133/1
Neoplasm, unspecified	8000/0,1, 8001/0,1, 8005/0, 8010/0
All other	8452/1, 8711/0, 8713/0, 8811/0, 8840/0, 9173/0, 9580/0

<sup>a</sup>Includes all the histologies listed in the standard definition of reportable brain tumors from the Consensus Conference on Brain Tumor Definition.

<sup>b</sup>International Classification of Diseases for Oncology, 3rd Edition, 2000. World Health Organization, Geneva, Switzerland.

<sup>c</sup>See the CBTRUS website for additional information about the specific histology codes included in each group: <http://www.cbtrus.org>.

\*All or some of this histology is included in the CBTRUS definition of gliomas, including ICD-O-3 histology codes 9380-9384, 9391-9460.

Abbreviations: CBTRUS, Central Brain Tumor Registry of the United States; NOS, not otherwise specified.

