

**Illinois Department of Public Health  
Division of Epidemiologic Studies  
Illinois State Cancer Registry**

**User Manual**

Cancer Incidence Public Dataset (29th edition), data as of November 2021, released April 2022

Illinois Data – **IL8619.dat**

County Data – **CNTY9019.dat**

ZIP code data – **ZPCD9019.dat**

Cook County with Cook suburbs and Chicago – **COOK1019.dat**

**Data Use Agreement**

By using these data, you signify your agreement to comply with the following statutorily based requirements.

The Illinois Health and Hazardous substances Registry Act (410 ILCS 525/12) provides data collected by the Illinois State Cancer Registry (ISCR) be made available to the public. However, the identification or contact of individuals is prohibited.

In an effort to exclude identifying information on individual patients, the data (e.g. age, race, Hispanic ethnicity, year of diagnosis and type of cancer) have been aggregated into categories within individual records, the number of which depends on the size of the geographic area.

These data are provided as a public service for the purpose of statistical reporting and analysis only. There should be no attempt to learn the identity of any person included in these data. If the identity of any person is discovered inadvertently, no disclosure or other use of the identity will be made.

Uses of these data do not constitute any endorsement of the users' opinion or conclusions by the Department and none should be inferred.

**Citation**

Please reference the source of these data in any published document as follows: Illinois Department of Public Health, Illinois State Cancer Registry, Public Data Set V29, 1986-2019, data as of November 2021.

## Technical Notes

The Illinois public data set is in fixed ASCII format and contains sanitized individual records of cancer incidence among Illinois residents diagnosed from 1986 through 2019. Separate files are available for the state, counties, ZIP codes, and Cook County with Cook suburbs and Chicago. Confidentiality is maintained by aggregating data within individual records into categories, the number of which depends on the size of the geographic area. Individual year of diagnosis is available for the Illinois data file. However, in the county and ZIP code files, the diagnosis year is a five-year aggregate (1990-94, 1995-99, 2000-04, 2005-09, 2010-14 and 2015-19) and five-year aggregate for Cook County with Cook suburbs and Chicago is (2010-14 and 2015-19). The following article describes the method used to measure uniqueness of the files.

*Howe HL, Lake AJ, Shen T. Method to assess Identifiability in electronic data files. Am J epidemiol 2006; doi:10.1093/aje/kwk049.*

The files include Illinois incidence data for invasive cancers only, with the exception of cancers of the bladder and carcinoma *in-situ* of the breast is provided in a separate category. Non-melanoma skin cancers, cases reported with unknown or “other” sex and cases with an unknown age are omitted.

The ASCII data files are NOT incorporated into a software program and therefore require the use of other statistical or database software packages for data analysis (spreadsheet programs such as Excel or Quattro Pro may not work since the number of cases in some of these files is too large).

Identification of cancer cases in ISCR is dependent upon reporting by hospitals, free-standing clinics, radiation treatment facilities, laboratories and physician offices as mandated by state law.

In addition, ISCR has agreements with other central cancer registries in Arkansas, California, Florida, Indiana, Iowa, Kentucky, Michigan, Minnesota (May Clinic through 2005), Missouri, Mississippi (through 2004), North Carolina, Washington, Wisconsin and Wyoming (through February 2008), to exchange cancer data. Completeness of out-of-state reporting depends upon the years of operation of these other central cancer registries, the extent of their identification of out-of-state residents, and their standards of quality (see Cancer in North America: 2011-2015, Volume Two).

<https://www.naaccr.org/cancer-in-north-america-cina-volumes>

A death certificate clearance process involving follow-back of cancer deaths, in an effort to identify missed cases, has served as an additional means of case identification since August 1993.

Cancer cases are reported continuously to central registries in accordance with statutory reporting requirements. Cancer Registries continue to revise and update data, on the basis of new information. For this reason, an updated version of previous years data is published each year (e.g. data for diagnosis year 2017 reported with this version of the public data set may differ from the last version). Users of the Illinois cancer data should be mindful of the “data as of” date.

The following completeness of case ascertainment for each year of the Illinois data and for each five- year group of the county, zip code and Cook County data was estimated using the standards developed by the North American Association of Central Cancer Registries (NAACCR) and adopted by the National Program of Cancer Registries. This method uses a sex and site-specific incidence-to-mortality ratio for whites, in order to compare the number of reported cases to the number of expected cases. This method was used for data from 1986-1994 year of diagnosis. A detailed description of the original method is in the November 1996 issue of the NAACCR Newsletter and can be located on-line. <https://narrative.naacr.org/past-narrative-issues/>

| <b>DX Year</b> | <b>Completeness</b> | <b>DX Yr Grp</b> | <b>Completeness</b> |
|----------------|---------------------|------------------|---------------------|
| 1986           | 88%                 |                  |                     |
| 1987           | 90%                 |                  |                     |
| 1988           | 87%                 |                  |                     |
| 1989           | 88%                 |                  |                     |
| 1990           | 89%                 | 1990-94          | 92%                 |
| 1991           | 88%                 |                  |                     |
| 1992           | 91%                 |                  |                     |
| 1993           | 92%                 |                  |                     |
| 1994           | 97%                 |                  |                     |

For data from 1995-2018 the revised method was used. A detailed description of the revised method is in the Winter 2001 edition of the NAACCR Narrative and can be located on-line. <https://narrative.naacr.org/past-narrative-issues/>

|      |      |         |      |
|------|------|---------|------|
| 1995 | 100% | 1995-99 | 100% |
| 1996 | 100% |         |      |
| 1997 | 100% |         |      |
| 1998 | 100% |         |      |
| 1999 | 100% |         |      |
| 2000 | 100% | 2000-04 | 100% |
| 2001 | 100% |         |      |
| 2002 | 100% |         |      |
| 2003 | 100% |         |      |
| 2004 | 100% |         |      |
| 2005 | 100% | 2005-09 | 100% |
| 2006 | 100% |         |      |
| 2007 | 100% |         |      |
| 2008 | 100% |         |      |
| 2009 | 100% |         |      |
| 2010 | 100% | 2010-14 | 100% |
| 2011 | 100% |         |      |
| 2012 | 100% |         |      |
| 2013 | 100% |         |      |
| 2014 | 100% |         |      |
| 2015 | 100% | 2015-19 | 100% |
| 2016 | 100% |         |      |
| 2017 | 100% |         |      |
| 2018 | 100% |         |      |
| 2019 | 100% |         |      |

In addition to the estimates for completeness of case ascertainment (as of 11/21), NAACCR has developed a certification process that reviews registry data for completeness, accuracy, and timeliness of reporting. The criteria for silver and gold certification can be found on the NAACCR web site. <https://www.naacr.org/certification-criteria/>

As of November 2021, ISCR data met the criteria for gold certification for diagnosis years 1995-2019. Certification status for 2019 data will be awarded in June 2022. [NOTE: diagnosis year 1995 now meets criteria for gold certification.]

| Criteria |                |         |                             | Missing Data Fields |         |            |             |
|----------|----------------|---------|-----------------------------|---------------------|---------|------------|-------------|
| Year     | Pass Edits (%) | DCO*(%) | Unresolved Duplicates** (%) | Sex (%)             | Age (%) | County (%) | Race*** (%) |
| 1986     | ~              | ~       | ~                           | 0.0                 | 0.0     | 0.0        | 0.2         |
| 1987     | ~              | ~       | ~                           | 0.0                 | 0.0     | 0.0        | 0.2         |
| 1988     | ~              | ~       | 0.04                        | 0.0                 | 0.0     | 0.0        | 0.2         |
| 1989     | ~              | ~       | 0.04                        | 0.0                 | 0.0     | 0.0        | 0.2         |
| 1990     | 100            | ~       | 0.04                        | 0.0                 | 0.0     | 0.0        | 0.2         |
| 1991     | 100            | ~       | 0.04                        | 0.0                 | 0.0     | 0.0        | 0.5         |
| 1992     | 100            | ~       | 0.04                        | 0.0                 | 0.0     | 0.0        | 0.3         |
| 1993     | 100            | 2.2     | 0.04                        | 0.0                 | 0.0     | 0.0        | 0.2         |
| 1994     | 100            | 6.1     | 0.06                        | 0.0                 | 0.0     | 0.0        | 0.2         |
| 1995     | 100            | 2.6     | 0.03                        | 0.0                 | 0.0     | 0.0        | 0.3         |
| 1996     | 100            | 1.8     | 0.02                        | 0.0                 | 0.0     | 0.0        | 0.4         |
| 1997     | 100            | 1.8     | 0.09                        | 0.0                 | 0.0     | 0.0        | 0.5         |
| 1998     | 100            | 1.5     | 0.03                        | 0.0                 | 0.0     | 0.0        | 0.7         |
| 1999     | 100            | 1.8     | 0.02                        | 0.0                 | 0.0     | 0.0        | 0.7         |
| 2000     | 100            | 2.3     | 0.03                        | 0.0                 | 0.0     | 0.0        | 0.8         |
| 2001     | 100            | 2.4     | 0.00                        | 0.0                 | 0.0     | 0.0        | 0.7         |
| 2002     | 100            | 2.6     | 0.00                        | 0.0                 | 0.0     | 0.0        | 0.8         |
| 2003     | 100            | 1.5     | 0.02                        | 0.0                 | 0.0     | 0.0        | 0.9         |
| 2004     | 100            | 1.7     | 0.01                        | 0.0                 | 0.0     | 0.0        | 0.8         |
| 2005     | 100            | 1.9     | 0.00                        | 0.0                 | 0.0     | 0.0        | 1.0         |
| 2006     | 100            | 2.0     | 0.00                        | 0.0                 | 0.0     | 0.0        | 0.8         |
| 2007     | 100            | 1.2     | 0.00                        | 0.0                 | 0.0     | 0.0        | 0.8         |
| 2008     | 100            | 1.6     | 0.07                        | 0.0                 | 0.0     | 0.0        | 0.9         |
| 2009     | 100            | 1.6     | 0.03                        | 0.0                 | 0.0     | 0.0        | 1.0         |
| 2010     | 100            | 1.8     | 0.03                        | 0.0                 | 0.0     | 0.0        | 1.0         |
| 2011     | 100            | 1.8     | 0.00                        | 0.0                 | 0.0     | 0.0        | 1.2         |
| 2012     | 100            | 0.9     | 0.02                        | 0.0                 | 0.0     | 0.0        | 1.1         |
| 2013     | 100            | 1.0     | 0.02                        | 0.0                 | 0.0     | 0.0        | 0.9         |
| 2014     | 100            | 2.1     | 0.02                        | 0.0                 | 0.0     | 0.0        | 1.0         |
| 2015     | 100            | 2.1     | 0.02                        | 0.0                 | 0.0     | 0.0        | 1.0         |
| 2016     | 100            | 2.0     | 0.09                        | 0.0                 | 0.0     | 0.0        | 0.9         |
| 2017     | 100            | 2.0     | 0.06                        | 0.0                 | 0.0     | 0.0        | 0.8         |
| 2018     | 100            | 1.4     | 0.07                        | 0.0                 | 0.0     | 0.0        | 1.5         |
| 2019     | 100            | 1.0     | 0.02                        | 0.0                 | 0.0     | 0.0        | 1.8         |

~not applicable

\*DCO follow-back not started until end of 1993 reporting year

\*\*NAACCR's duplicate protocol was run for each year at the time of data submission for registry certification\*\*\*race 98 "other unspecified" for diagnosis year 1991+ is included with unknown to be compatible with national reporting

## Cancer coding changes during 2001-2019

Several definitional changes occurred in some histology and behavior codes in ICD-O-3 that affected the inclusion and exclusion of reportable cancers diagnosed beginning in 2001. The changes predominately affected leukemias, lymphomas and cancer of the ovary. One category of change between ICD-O-2 and ICD-O-3 is the manner in which leukemias and lymphomas are classified and coded. Although conversion of histology codes from ICD-O-2 to ICD-O-3 for cases diagnosed prior to 2001 will help to minimize these differences, some minor differences may still exist, particularly with respect to some relatively rare lymphocytic cancers that can be coded to either leukemia or lymphoma.

Starting with ICD-O-3, several myelodysplastic diseases and syndromes are considered malignant, and therefore are now reportable for cases diagnosed in 2001 and later and are included in these data. Leukemias that represent a disease progression from one of the myelodysplastic diseases or syndromes diagnosed in 2001 and forward are no longer reportable.

For pediatric cancers, differences in incidence rates may be due to changes between the second and third edition of the International Classification of Childhood Cancers (ICCC). Two changes in the ICCC-3 classification are main contributors to this change. 1) Burkitt lymphoma and unspecified lymphoma, which were separated from non-Hodgkin lymphoma previously are combined with non-Hodgkin lymphoma; 2) Some lymphomas, which were grouped in the miscellaneous lymphoreticular neoplasms previously, are now included in the non-Hodgkin lymphoma category.

Pilocytic astrocytoma is considered to have uncertain behavior in the published version of ICD-O-3 but is reportable as a malignant cancer in North America. Including the childhood astrocytomas in the category of malignant brain tumors may introduce differences between childhood brain cancer rates in North America compared to other areas of the world that may not include these tumors as malignant.

In addition, mesothelioma and Kaposi's sarcoma cases are reported as separate categories. This change has little or no impact on most rates for specific cancers.

### Coding Changes for 2010 cases

SEER Site recode ICD-O-3/WHO2008 – Used for cases diagnosed 2010 and based on ICD-O-3, updated for hematopoietic codes based on WHO Classification of Tumours of Haematopoietic and Lymphoid Tissues (2008).

<http://seer.cancer.gov/tools/heme>

If you have questions about the dataset, please contact:

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## File Layout for State file IL8619.dat (number of records 2,096,624)

Record Format (all fields are numeric).

| Data Field                    | Positions | Length |
|-------------------------------|-----------|--------|
| sex code                      | 1-1       | 1      |
| diagnosis year                | 2-5       | 4      |
| report source                 | 6-6       | 1      |
| stage of disease at diagnosis | 7-7       | 1      |
| histology (4-digit code)      | 8-11      | 4      |
| behavior code                 | 12-12     | 1      |
| SEER groups                   | 13-17     | 5      |
| pediatric codes level 1       | 18-19     | 2      |
| pediatric codes level 2       | 20-22     | 3      |
| 5-yr age at diagnosis group   | 23-24     | 2      |
| race group code               | 25-25     | 1      |
| Hispanic code                 | 26-26     | 1      |
| method of diagnosis code      | 27-27     | 1      |

### Codes for Data fields

#### Sex code

|   |        |
|---|--------|
| 1 | male   |
| 2 | female |

#### Diagnosis Year

|      |      |
|------|------|
| 1986 | 2001 |
| 1987 | 2002 |
| 1988 | 2003 |
| 1989 | 2004 |
| 1990 | 2005 |
| 1991 | 2006 |
| 1992 | 2007 |
| 1993 | 2008 |
| 1994 | 2009 |
| 1995 | 2010 |
| 1996 | 2011 |
| 1997 | 2012 |
| 1998 | 2013 |
| 1999 | 2014 |
| 2000 | 2015 |
|      | 2016 |
|      | 2017 |
|      | 2018 |
|      | 2019 |

### **Report Source**

- 1 hospital or clinic
- 2 radiation treatment centers/medical oncology centers
- 3 laboratory only
- 4 physician's office
- 5 nursing home or hospice
- 6 autopsy only
- 7 death certificate only
- 8 other hospital out-patient units/surgery

### **Stage of disease at diagnosis**

- 0 in situ
- 1 localized
- 2 regional
- 3 distant
- 9 unknown, unstaged, or unspecified

### **Histology (4-digit code)**

**NOTE:** Although cases diagnosed in 1986 and 2000 were reported with The International Classification of Diseases for Oncology Version 2 (ICD-O-2) codes 2, and cases diagnosed between 2001-2019, were reported with version 3 (ICD-O-3) codes3, all cases were converted to version 3 codes and grouped according to site group definitions established by the SEER program of the National Cancer Institute (NCI) and also used by NAACCR. These standardized classification schemes allow direct comparisons of Illinois data with international, national and state publications. Kaposi's sarcoma and mesothelioma are classified as separate site groups. This change has a little or no impact on cancer incidence rates for a few specific cancers, compared to using the previous site grouping method.

ICD-O-3 for specific codes see:

Fritz A, Percy C, Jack A, Shanmugaratnam K, Sobin L, Parkin D, Whelan S. International Classification of Diseases for Oncology, 3<sup>rd</sup> ed Geneva: World Health Organization; 2000.

### **Behavior code (5<sup>th</sup> digit of morphology code)**

- 2 in-situ
- 3 malignant

### **SEER Groups**

The recode, primary site code and morphology codes used to categorize cancer incidence into the following SEER groups can be found on the SEER web site. <http://seer.cancer.gov/siterecode/>

- 20010 lip
- 20020 tongue
- 20030 salivary gland
- 20040 floor of mouth
- 20050 gum & other mouth
- 20060 nasopharynx
- 20070 tonsil

20080 oropharynx  
20090 hypopharynx  
20100 other oral cavity & pharynx  
21010 esophagus  
21020 stomach  
21030 small intestine  
21041 cecum  
21042 appendix  
21043 ascending colon  
21044 hepatic flexure  
21045 transverse colon  
21046 splenic flexure  
21047 descending colon  
21048 sigmoid colon  
21049 large intestine NOS  
21051 rectosigmoid junction  
21052 rectum  
21060 anus, anal canal, anorectum  
21071 liver  
21072 intrahepatic bile duct  
21080 gallbladder  
21090 other biliary  
21100 pancreas  
21110 retroperitoneum  
21120 peritoneum, omentum, mesentery  
21130 other digestive organs  
22010 nose, nasal cavity, middle ear  
22020 larynx  
22030 lung & bronchus  
22050 pleura  
22060 trachea, mediastinum, other respiratory organs  
23000 bones & joints  
24000 soft tissue including heart  
25010 melanoma of skin  
25020 other non-epithelial skin  
26000 breast  
27010 cervix uteri  
27020 corpus uteri  
27030 uterus NOS  
27040 ovary  
27050 vagina  
27060 vulva  
27070 other female genital organs  
28010 prostate  
28020 testis  
28030 penis  
28040 other male genital organs  
29010 urinary bladder  
29020 kidney & renal pelvis  
29030 ureter  
29040 other urinary organs

30000 eye & orbit  
31010 brain  
31040 cranial nerves other nervous system  
32010 thyroid  
32020 other endocrine including thymus  
33011 hodgkin lymphoma - nodal  
33012 hodgkin lymphoma - extranodal  
33041 non-hodgkin lymphoma - nodal  
33042 non-hodgkin lymphoma - extranodal  
34000 myeloma  
35011 acute lymphocytic leukemia  
35012 chronic lymphocytic leukemia  
35013 other lymphocytic leukemia  
35021 acute myeloid leukemia  
35022 chronic myeloid leukemia  
35023 other myeloid/monocytic leukemia  
35031 acute monocytic leukemia  
35041 other acute leukemia  
35043 aleukemic, subleukemic & NOS  
36010 mesothelioma  
36020 kaposi sarcoma  
37000 miscellaneous

#### **Pediatric codes level 1 (ICCC ICD-0-3)**

**NOTE:**The following article describes the current method used to group pediatric cancer: Steliarova-Foucher E, Stiller C, Lacour B, Kaatsch P. International classification of Childhood Cancer, Third Edition. Cancer. 2005;103:1457-67

1 I Leukemias, myeloproliferative diseases, and myelodysplastic diseases  
2 II Lymphomas and reticuloendothelial neoplasms  
3 III Central nervous system and miscellaneous intracranial & intraspinal neoplasms  
4 IV Neuroblastoma and other peripheral nervous cell tumors  
5 V Retinoblastoma  
6 VI Renal tumors  
7 VII Hepatic tumors  
8 VIII Malignant bone tumors  
9 IX Soft tissue and other extraosseous sarcomas  
10 X Germ cell tumors, trophoblastic tumors, and neoplasms of gonads  
11 XI Other malignant epithelial neoplasms and malignant melanomas  
12 XII Other and unspecified malignant neoplasms  
98 pediatric case (aged 0-19) not classified by ICC3  
99 not pediatric case (age > 19)

#### **Pediatric codes level 2 (ICCC ICD-O-3)**

11 I(a) Lymphoid leukemias  
12 I(b) Acute myeloid leukemias  
13 I(c) Chronic myeloproliferative diseases  
14 I(d) Myelodysplastic syndrome and other myeloproliferative diseases  
15 I(e) Unspecified and other specified leukemias  
21 II(a) Hodgkin lymphomas  
22 II(b) Non-Hodgkin lymphomas (except Burkitt lymphoma)

23 II(c) Burkitt lymphoma  
 24 II(d) Miscellaneous lymphoreticular neoplasms  
 25 II(e) Unspecified lymphomas  
 31 III(a) Ependymomas and choroid plexus tumor  
 32 III(b) Astrocytomas  
 33 III(c) Intracranial and intraspinal embryonal tumors  
 34 III(d) Other gliomas  
 35 III(e) Other specified intracranial and intraspinal neoplasms  
 36 III(f) Unspecified intracranial and intraspinal neoplasms  
 41 IV(a) Neuroblastoma and ganglioneuroblastoma  
 42 IV(b) Other peripheral nervous cell tumors  
 50 V Retinoblastoma  
 61 VI(a) Nephroblastoma and other nonepithelial renal tumors  
 62 VI(b) Renal carcinomas  
 63 VI(c) Unspecified malignant renal tumors  
 71 VII(a) Hepatoblastoma  
 72 VII(b) Hepatic carcinomas  
 73 VII(c) Unspecified malignant hepatic tumors  
 81 VIII(a) Osteosarcomas  
 82 VIII(b) Chondrosarcomas  
 83 VIII(c) Ewing tumor and related sarcomas of bone  
 84 VIII(d) Other specified malignant bone tumors  
 85 VIII(e) Unspecified malignant bone tumors  
 91 IX(a) Rhabdomyosarcomas  
 92 IX(b) Fibrosarcomas, peripheral nerve sheath tumors & other fibrous neoplasms  
 93 IX(c) Kaposi sarcoma  
 94 IX(d) Other specified soft tissue sarcomas  
 95 IX(e) Unspecified soft tissue sarcomas  
 101 X(a) Intracranial and intraspinal germ cell tumors  
 102 X(b) Malignant extracranial and extragonadal germ cell tumors  
 103 X(c) Malignant gonadal germ cell tumors  
 104 X(d) Gonadal carcinomas  
 105 X(e) Other and unspecified malignant gonadal tumors  
 111 XI(a) Adrenocortical carcinomas  
 112 XI(b) Thyroid carcinomas  
 113 XI(c) Nasopharyngeal carcinomas  
 114 XI(d) Malignant melanomas  
 115 XI(e) Skin carcinomas  
 116 XI(f) Other and unspecified carcinomas  
 121 XII(a) Other specified malignant tumors  
 122 XII(b) Other unspecified malignant tumors  
 998 pediatric case (aged 0-19) not classified in ICC3  
 999 not pediatric case (age > 19)

**5-yr age at diagnosis groups**

|   |       |
|---|-------|
| 0 | <1    |
| 1 | 1-4   |
| 2 | 5-9   |
| 3 | 10-14 |
| 4 | 15-19 |
| 5 | 20-24 |

|    |       |
|----|-------|
| 6  | 25-29 |
| 7  | 30-34 |
| 8  | 35-39 |
| 9  | 40-44 |
| 10 | 45-49 |
| 11 | 50-54 |
| 12 | 55-59 |
| 13 | 60-64 |
| 14 | 65-69 |
| 15 | 70-74 |
| 16 | 75-79 |
| 17 | 80-84 |
| 18 | 85+   |

**Race group code**

|   |  |
|---|--|
| 1 | white  |
| 2 | black  |
| 3 | other*   |
| 9 | unknown (includes race code 98 “other unspecified” for diagnosis years 1991+ to be compatible with national reporting of race) |

\*other race includes Asian-American, Pacific Islanders, American Indians, Alaska Natives, and all other races. In order to improve the quality of cancer surveillance data on American Indians the race has been enhanced with a linkage to the Indian Health Services patient registration database. This linkage identifies cancer cases among American Indians who were misclassified as non-Indians in the registry database.

**Hispanic code**

|   |   |
|---|---|
| 0 | non-Hispanic (including unknown)                          |
| 1 | Hispanic*   |
| 9 | Hispanic data not available for diagnosis years 1986-1989 |

\*Hispanic ethnicity was enhanced according to the NAACCR Hispanic Identification algorithm (NHIA). NHIA is a generally reliable method to enhance the ethnic identification of Latino population in the United States.

*Howe HL. Evaluation of NHIA Submission for 1997-2001. Springfield, Ill.: North American Association of Central Cancer Registries, October 2004*

*Schenke N and Gentleman JF On judging the significance of differences by examining the overlap between confidence intervals. The American Statistician 2001;55:186-186.*

**Method of Diagnosis Code**

|   |   |
|---|---|
| 1 | positive histology  |
| 2 | positive exfoliative cytology, no positive histology                            |
| 3 | positive histology & positive immunophenotyping and/or positive genetic studies |
| 4 | positive microscopic confirmation, method not specified                         |
| 5 | positive laboratory test or marker study  |
| 6 | direct visualization without microscopic confirmation                           |
| 7 | radiography & other imaging techniques without microscopic confirmation         |
| 8 | clinical diagnosis only (other than 5,6 or 7)                                   |
| 9 | unknown whether or not microscopically confirmed                                |

**File Layout for county file CNTY9019.dat** (number of records 1,915,167)

**Record Format (all fields are numeric)**

| <b>Data Field</b>             | <b>Positions</b> | <b>Length</b> |
|-------------------------------|------------------|---------------|
| sex code                      | 1-1              | 1             |
| diagnosis year group          | 2-2              | 1             |
| county at diagnosis code      | 3-5              | 3             |
| report source                 | 6-6              | 1             |
| stage of disease at diagnosis | 7-7              | 1             |
| cancer site group codes       | 8-9              | 2             |
| age at diagnosis group code   | 10-10            | 1             |
| race group code               | 11-11            | 1             |
| Hispanic code                 | 12-12            | 1             |

**Codes for data fields**

**Sex code**

- 1 male
- 2 female

**Diagnosis Year group (5yr groups)**

- 1 1990-1994
- 2 1995-1999
- 3 2000-2004
- 4 2005-2009
- 5 2010-2014
- 6 2015-2019

**County at diagnosis code with race and Hispanic availability**

- 1 Adams all race only
- 3 Alexander all race only
- 5 Bond all race only
- 7 Boone all race only
- 9 Brown all race only
- 11 Bureau all race only
- 13 Calhoun all race only
- 15 Carroll all race only
- 17 Cass all race only
- 19 Champaign all race, white, black
- 21 Christian all race only
- 23 Clark all race only
- 25 Clay all race only
- 27 Clinton all race only
- 29 Coles all race only

|     |            |   |
|-----|------------|---|
| 31  | Cook       | all race, white, black, other and Hispanic/non-Hispanic |
| 33  | Crawford   | all race only   |
| 35  | Cumberland | all race only   |
| 37  | DeKalb     | all race only   |
| 39  | DeWitt     | all race only   |
| 41  | Douglas    | all race only   |
| 43  | DuPage     | all race, white, black, other and Hispanic/non-Hispanic |
| 45  | Edgar      | all race only   |
| 47  | Edwards    | all race only   |
| 49  | Effingham  | all race only   |
| 51  | Fayette    | all race only   |
| 53  | Ford       | all race only   |
| 55  | Franklin   | all race only   |
| 57  | Fulton     | all race only   |
| 59  | Gallatin   | all race only   |
| 61  | Greene     | all race only   |
| 63  | Grundy     | all race only   |
| 65  | Hamilton   | all race only   |
| 67  | Hancock    | all race only   |
| 69  | Hardin     | all race only   |
| 71  | Henderson  | all race only   |
| 73  | Henry      | all race only   |
| 75  | Iroquois   | all race only   |
| 77  | Jackson    | all race only   |
| 79  | Jasper     | all race only   |
| 81  | Jefferson  | all race only   |
| 83  | Jersey     | all race only   |
| 85  | JoDaviess  | all race only   |
| 87  | Johnson    | all race only   |
| 89  | Kane       | all race, white, black and Hispanic/non-Hispanic        |
| 91  | Kankakee   | all race, white, black                                  |
| 93  | Kendall    | all race only   |
| 95  | Knox       | all race only   |
| 97  | Lake       | all race, white, black, other and Hispanic/non-Hispanic |
| 99  | LaSalle    | all race only   |
| 101 | Lawrence   | all race only   |
| 103 | Lee        | all race only   |
| 105 | Livingston | all race only   |
| 107 | Logan      | all race only   |
| 109 | McDonough  | all race only   |
| 111 | McHenry    | all race only   |
| 113 | McLean     | all race only   |
| 115 | Macon      | all race, white, black                                  |
| 117 | Macoupin   | all race only   |
| 119 | Madison    | all race, white, black                                  |
| 121 | Marion     | all race only   |
| 123 | Marshall   | all race only   |
| 125 | Mason      | all race only   |

|     |             |  |
|-----|-------------|--|
| 127 | Massac      | all race only                                    |
| 129 | Menard      | all race only                                    |
| 131 | Mercer      | all race only                                    |
| 133 | Monroe      | all race only                                    |
| 135 | Montgomery  | all race only                                    |
| 137 | Morgan      | all race only                                    |
| 139 | Moultrie    | all race only                                    |
| 141 | Ogle        | all race only                                    |
| 143 | Peoria      | all race, white, black                           |
| 145 | Perry       | all race only                                    |
| 147 | Piatt       | all race only                                    |
| 149 | Pike        | all race only                                    |
| 151 | Pope        | all race only                                    |
| 153 | Pulaski     | all race only                                    |
| 155 | Putnam      | all race only                                    |
| 157 | Randolph    | all race only                                    |
| 159 | Richland    | all race only                                    |
| 161 | Rock Island | all race, white, black                           |
| 163 | St Clair    | all race, white, black                           |
| 165 | Saline      | all race only                                    |
| 167 | Sangamon    | all race, white, black                           |
| 169 | Schuyler    | all race only                                    |
| 171 | Scott       | all race only                                    |
| 173 | Shelby      | all race only                                    |
| 175 | Stark       | all race only                                    |
| 177 | Stephenson  | all race only                                    |
| 179 | Tazewell    | all race only                                    |
| 181 | Union       | all race only                                    |
| 183 | Vermilion   | all race, white, black                           |
| 185 | Wabash      | all race only                                    |
| 187 | Warren      | all race only                                    |
| 189 | Washington  | all race only                                    |
| 191 | Wayne       | all race only                                    |
| 193 | White       | all race only                                    |
| 195 | Whiteside   | all race only                                    |
| 197 | Will        | all race, white, black and Hispanic/non-Hispanic |
| 199 | Williamson  | all race only                                    |
| 201 | Winnebago   | all race, white, black                           |
| 203 | Woodford    | all race only                                    |

**Report Source**

- 1 hospital or clinic
- 2 radiation treatment centers/medical oncology centers
- 3 laboratory only
- 4 physician's office
- 5 nursing home or hospice
- 6 autopsy only
- 7 death certificate only
- 8 other hospital out-patient units/surgery

**Stage of disease at diagnosis**

- 0 in-situ
- 1 localized
- 2 regional
- 3 distant metastases/systemic disease
- 9 Unknown, unstaged or unspecified

**Cancer site group (based on SEER group codes)**

- 1 oral cavity & pharynx (20010-20100)
- 2 esophagus (21010)
- 3 stomach (21020)
- 4 colorectal (21041-21052)
- 5 liver (21071)
- 6 pancreas (21100)
- 7 lung & bronchus (22030)
- 8 bone (23000)
- 9 melanomas (25010)
- 10 breast-invasive only (26000, behavior code 3)
- 11 cervix (27010)
- 12 uterus (27020-27030)
- 13 ovary (27040)
- 14 prostate (28010)
- 15 testis (28020)
- 16 bladder (29010)
- 17 kidney (29020)
- 18 nervous system (31010-31040)
- 19 Hodgkin's lymphomas (33011-33012)
- 20 non-Hodgkin's lymphomas (33041-33042)
- 21 myelomas (34000)
- 22 leukemias (35011-35043)
- 23 all other sites  
(21030,21060,21072,21080,21090,21110,21120,21130,22010,22020,22050,22060,  
24000,25020,27050,27060,27070,28030,8040,29030,29040,30000,32010,32020,  
36010,36020,37000)
- 24 breast-in-situ only (26000, behavior code 2)

**Age at diagnosis group code**

- 1 < 5
- 2 5-14
- 3 15-34
- 4 35-44
- 5 45-54
- 6 55-64
- 7 65-74
- 8 75+

**Race group code**

- 1 white
- 2 black
- 3 other\*
- 9 unknown (includes unknown race, race code 98 'other unspecified' for diagnosis yrs. 1991+, or race suppressed)

\* other race includes Asian-American, Pacific Islanders, American Indians, Alaskan Natives, and all other races. In order to improve the quality of cancer surveillance data on American Indians the race has been enhanced with a linkage to the Indian Health Services patient registration database. This linkage identifies cancer cases among American Indians who were misclassified as non-Indians in the registry database.

**NOTE:** Data for white residents, black residents and residents of all other races, are not available for every county (see list of counties above). Fifteen counties have sufficiently large black populations and three counties had sufficiently large other populations to allow meaningful statistics for the race group. For the remaining counties, race data are suppressed, therefore, you must use the state file to obtain a rate by race for Illinois.

**Hispanic codes**

- 1 Hispanic\*
- 0 non-Hispanic (including unknown for appropriate counties)
- 9 Hispanic data suppressed or not available for diagnosis years 1989-1993

**NOTE:** Five counties have sufficiently large Hispanic populations (see list of counties above) to allow for meaningful statistics for the ethnicity group. For the remaining counties, Hispanic data are suppressed, therefore, you must use the state file to obtain a rate by Hispanic ethnicity for Illinois

\*Hispanic ethnicity was enhanced according to the NAACCR Hispanic identification algorithm (NHIA). NHIA is a generally reliable method to enhance the ethnic identification of the Latino population in the United States.

*Howe HL. Evaluation of NHIA Submission for 1997-2001. Springfield, Ill.: North American Association of Central Cancer Registries, October 2004.*

*Schenke N and Gentleman JF On judging the significance of differences by examining the overlap between confidence intervals. The American Statistician 2001;55:182-186.*

**NOTE:** As noted above, some data for race and Hispanic ethnicity in the county file have been suppressed. Therefore, to compare county race or ethnicity data with IL you will need to obtain the state data from the IL8619 file.

## File Layout for ZIP code file ZPCD9019.dat (number of records 1,914,982)

Record format (all fields numeric)

| Data Field                                | Positions | Length |
|---|-----------|--------|
| sex code                                  | 1-1       | 1      |
| diagnosis year group (5yr groups)         | 2-2       | 1      |
| zip code at diagnosis                     | 3-7       | 5      |
| stage of disease at diagnosis             | 8-8       | 1      |
| cancer site groups                        | 9-10      | 2      |
| age at diagnosis group code               | 11-11     | 1      |
| latitude to the centroid of the zip code  | 12-24     | 13.7   |
| longitude to the centroid of the zip code | 25-37     | 13.7   |

### Codes for data fields

#### Sex code

|   |        |
|---|--------|
| 1 | Male   |
| 2 | Female |

#### Diagnosis Year Group (5yr groups)

|   |           |
|---|-----------|
| 1 | 1990-1994 |
| 2 | 1995-1999 |
| 3 | 2000-2004 |
| 4 | 2005-2009 |
| 5 | 2010-2014 |
| 6 | 2015-2019 |

#### Zip code at diagnosis

Valid Illinois Zip codes

#### Stage of disease at diagnosis

|   |                                     |
|---|-------------------------------------|
| 0 | in-situ                             |
| 1 | localized                           |
| 2 | regional                            |
| 3 | distant metastases/systemic disease |
| 9 | Unknown, unstaged or unspecified    |

#### Cancer site group (based on cancer groups at county level)

|    |   |
|----|---|
| 1  | oral cavity & pharynx (1)   |
| 2  | colorectal (4)  |
| 3  | lung & bronchus (7)   |
| 4  | breast-invasive female (10 for females only)                          |
| 5  | cervix (11)   |
| 6  | prostate (14)   |
| 7  | urinary system (16,17)  |
| 8  | central nervous system (18)   |
| 9  | leukemias and lymphomas(19,20,22)                                     |
| 10 | all other cancers (2,3,5,6,8,9,12,13,15,21,and 23 (10 for males only) |
| 11 | breast-in-situ female (24 for females only)                           |

**NOTE:** Due to very small numbers of cases, male breast in-situ cases have been omitted from the file (N=185 for all years combined 1990-2019)

**Age at diagnosis group code**

|   |       |
|---|-------|
| 1 | 0-14  |
| 2 | 15-44 |
| 3 | 45-64 |
| 4 | 65+   |

**NOTE:** Zip code data are 100% complete with 99.9% accuracy. Please note the latitude and longitude provided are coded to the centroid of the zip code, not to a street-level address and are expressed in decimal degrees. Data were geocoded with MapMarker V31 using coordinate system North American Datum of 1983 (NAD83).

The following website has a utility available that will convert decimal degrees to degrees, minutes and seconds:

<https://www.fcc.gov/media/radio/dms-decimal>

**Latitude** to the centroid of the zip code

**Longitude** to the centroid of the zip code

## File Layout for COOK1019.dat (number of records 268,897)

Record format (all fields are numeric)

| Data Field                    | Positions | Length |
|-------------------------------|-----------|--------|
| sex code                      | 1-1       | 1      |
| diagnosis year group          | 2-2       | 1      |
| Cook county part              | 3-3       | 1      |
| report source                 | 4-4       | 1      |
| stage of disease at diagnosis | 5-5       | 1      |
| cancer site group             | 6-7       | 2      |
| age at diagnosis group code   | 8-8       | 1      |
| race group code               | 9-9       | 1      |
| Hispanic code                 | 10-10     | 1      |

### Codes for Data fields

#### Sex code

- 1 male
- 2 female

#### Diagnosis year group

- 1 2010-2014
- 2 2015-2019

#### Cook County Part

- 1 Chicago
- 2 Cook Suburbs

#### Report Source

- 1 hospital or clinic
- 2 radiation treatment centers/medical oncology centers
- 3 laboratory only
- 4 physician's office
- 5 nursing home or hospice
- 6 autopsy only
- 7 death certificate only
- 8 other hospital, out-patient units/surgery

#### Stage of disease at diagnosis

- 0 in-situ
- 1 localized
- 2 regional
- 3 distant metastases/systemic disease
- 9 Unknown, unstaged or unspecified

**Cancer Site Group (based on SEER group codes)**

- 1 oral cavity & pharynx (20010-20100)
- 2 esophagus (21010)
- 3 stomach (21020)
- 4 colorectal (21041-21052)
- 5 liver (21071)
- 6 pancreas (21100)
- 7 lung & bronchus (22030)
- 8 bone (23000)
- 9 melanomas (25010)
- 10 breast-invasive only (26000, behavior code 3)
- 11 cervix (27010)
- 12 uterus (27020-27030)
- 13 ovary (27040)
- 14 prostate (28010)
- 15 testis (28020)
- 16 bladder (29010)
- 17 kidney (29020)
- 18 nervous system (31010-31040)
- 19 Hodgkin's lymphomas (33011-33012)
- 20 non-Hodgkin's lymphomas (33041-33042)
- 21 myelomas (34000)
- 22 leukemias (35011-35043)
- 23 all other sites (21030,21060,21072,21080,21090,21110,  
21120,21130,22010,22020,22050,22060, 24000,25020,27050,27060,27070,28030,  
28040,29030,29040,30000,32010,32020, 36010,36020,37000)
- 24 breast-in-situ only (26000, behavior code 2)

**Age at diagnosis group code**

- 1 <5
- 2 5-14
- 3 15-34
- 4 35-44
- 5 45-54
- 6 55-64
- 7 65-74
- 8 75 +

**Race group code**

- 1 white
- 2 black
- 3 other\*
- 9 unknown (includes unknown race and race code 98 'other unspecified' to be compatible with national reporting of race)

\* other race includes Asian-American, Pacific Islanders, American Indians, Alaska Natives, and all other races. In order to improve the quality of cancer surveillance data on American Indians the race has been enhanced with a linkage to the Indian Health Services patient registration database. This linkage identifies cancer cases among American Indians who were misclassified as non-Indians in the registry database.

**Hispanic codes**

- 1 Hispanic \*
- 0 non-Hispanic (includes unknown)

\*Hispanic ethnicity was enhanced according to the NAACCR Hispanic Identification Algorithm (NHIA). NHIA is a generally reliable method to enhance the ethnic identification of the Latino population in the United States.

*Howe HL. Evaluation of NHIA Submission for 1997-2001. Springfield, Ill.: North American Association of Central Cancer Registries, October 2004*

*Schenke N and Gentleman JF On judging the significance of differences by examining the overlap between confidence intervals. The American Statistician 2001;55:182-186*