

CANCER IN IDAHO – 2023 Preliminary Data

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PREFACE

“Cancer in Idaho – 2023, Preliminary Data” provides a provisional assessment of cancer in Idaho. This preliminary report is published by the Cancer Data Registry of Idaho (CDRI) when estimated completeness exceeds 90%. These data are preliminary and subject to change. This report is a precursor to “Cancer in Idaho – 2023,” which will be the forty-seventh annual report of the Cancer Data Registry of Idaho (CDRI) and describes the state of cancer among Idaho residents, with a focus on cancer cases diagnosed during 2023. Cancer registry data can be used by public health and medical professionals, the Comprehensive Cancer Alliance for Idaho, and others to effectively plan services, appropriately allocate health resources, develop and measure prevention and intervention strategies, and identify high-risk populations in Idaho.

ACKNOWLEDGMENTS

The Idaho Hospital Association (IHA) contracts with, and receives funding from, the Idaho Department of Health and Welfare, Division of Public Health, to provide a statewide cancer surveillance system.

The statewide cancer registry database is a product of collaboration among many report sources, including hospitals, physicians, surgery centers, pathology laboratories, and other states in which Idaho residents are diagnosed or treated for cancer. Their cooperation in reporting timely, accurate, and complete cancer data is acknowledged and sincerely appreciated.

CDRI also thanks the Division of Public Health, Idaho Department of Health and Welfare, and the Comprehensive Cancer Alliance for Idaho for their continued partnership and for using CDRI data as a tool in cancer control and prevention.

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Introduction to the Cancer Data Registry of Idaho (CDRI)

Purpose of the Registry

Population-based cancer registries are essential for assessing the extent of cancer burden in a specified geographic area. The Cancer Data Registry of Idaho (CDRI) is a population-based cancer registry that collects incidence and survival data on all cancer patients who are Idaho residents and out-of-state patients who are diagnosed or treated for cancer in the state of Idaho. The goals of CDRI are to:

- ◆ determine the incidence of cancer in the state of Idaho with respect to geographic, demographic, and community characteristics;
- ◆ monitor trends and patterns of cancer incidence over time;
- ◆ identify high-risk populations;
- ◆ serve as a resource for conducting epidemiologic studies; and
- ◆ provide data to assist public health officials, hospital administrators, and physicians to effectively plan services, appropriately allocate health resources, and develop and measure prevention and intervention strategies.

CDRI works closely with the Comprehensive Cancer Alliance for Idaho (CCAI), the Idaho Comprehensive Cancer Control Program, and other organizations to lessen the burden of cancer in Idaho.

History and Funding of the Registry

CDRI was established in 1969 and became population-based in 1971. The Idaho State Legislature has provided guidelines for the establishment, requirements, and funding of the statewide cancer registry. The operations of the registry are mandated by Idaho Code 57-1703 through 57-1707. Funding is appropriated in Idaho Code 57-1701 and 63-2520, which delineates that a portion of the cigarette tax be dedicated to fund the statewide cancer registry. Through the

National Program of Cancer Registries (NPCR), additional funding has been awarded to CDRI from the Centers for Disease Control and Prevention (CDC) to enhance timely, complete, and accurate data collection, computerization, and reporting of reliable data since 1994. In May 2018, the National Cancer Institute (NCI) awarded the Idaho Hospital Association (IHA) a contract to operate CDRI as part of the Surveillance, Epidemiology and End Results (SEER) Program.

Collection of Data

Each Idaho hospital, outpatient surgery center, and pathology laboratory is responsible for the complete ascertainment and reporting of all data on cancer diagnoses and treatments provided in its facility within six months of diagnosis. Sources for identifying eligible cases include:

- ◆ hospitals;
- ◆ outpatient surgery centers;
- ◆ private pathology laboratories;
- ◆ free-standing radiation centers;
- ◆ physicians (for patients not receiving cancer diagnoses or treatment in the above sources);
- ◆ death certificates; and
- ◆ other state cancer registries reporting an Idaho resident with cancer (as negotiated).

When a cancer case is reported from more than one source, the information is consolidated into one record.

Reported cases contain the following data:

- ◆ patient demographics (including geographic place of residence at time of cancer diagnosis);
- ◆ description of cancer (including date of diagnosis, primary site, metastatic sites, histology, extent of disease, etc.);
- ◆ first course of treatment; and

- ◆ follow-up data for purpose of calculating survival rates.

Primary site, behavior, grade, and histology were coded according to the *International Classification of Diseases for Oncology, 3rd edition*.¹ Stage of disease variables were coded using SEER's *Summary Staging Manual 2018* and the *AJCC Cancer Staging System, 9th edition*.^{2,3} All other variables were coded following the rules of the North American Association of Central Cancer Registries (NAACCR), the National Cancer Institute's SEER program, and the American College of Surgeons Commission on Cancer.⁴⁻⁶ Rules for coding multiple primary cases and hematopoietic and lymphoid neoplasms were applied based on the year of diagnosis.^{7,8}

Behavior and Stage

Behavior refers to how a tumor acts within the body. Behavior is classified as follows:

- ◆ benign (tumor may grow in place without the potential for spread);
- ◆ borderline (uncertain whether benign or malignant, but low malignant potential);
- ◆ in situ (cancerous, but cells not yet grown beyond basement membrane);
- ◆ malignant (cells have invaded beyond the basement membrane).

Benign and borderline cases together may also be called "non-malignant."

Staging measures the extent of disease at the time of initial diagnosis. Summary staging attempts to group cases with similar prognoses into categories of:

- ◆ in situ (non-invasive);
- ◆ localized (cancer confined to the primary site);
- ◆ regional (direct extension of tumor to adjacent organs, tissues, or lymph nodes);
- ◆ distant (metastasis to tissues or lymph nodes remote from the primary site); or

- ◆ unstaged.

Reportable Cases

All in situ and malignant neoplasms are reportable to CDRI. The database includes all cases of carcinoma, sarcoma, melanoma, lymphoma, and leukemia diagnosed by histology/cytology, radiology, laboratory testing, clinical observation, and autopsy.

Benign tumors of the brain, meninges, spinal cord, any other part of the central nervous system, pineal gland, and pituitary gland are also reportable.

Basal and squamous cell carcinomas of the skin are excluded except when occurring on a mucous membrane.

Under Idaho Code and as recommended by NAACCR, cervix in situ cases are not currently reportable.

Confidentiality of Data

Idaho state law ensures the protection of confidential data and restricts the release of identifying data. Only aggregate data are published. The same law protects report sources from any liability for reporting confidential data to CDRI. Persons with access to confidential data are required to sign a pledge of confidentiality and are subject to penalty if they, through negligence or willful misconduct, disclose confidential data.

Quality Assurance

To assure validity and reliability of data presented, CDRI has many mechanisms in place to check data for quality and completeness. CDRI uses SEER*DMS, SEER*Edits, and GenEDITS Plus software, which apply algorithms that check the values of data fields against an encoded set of acceptable possible values. Edits include field edits, inter-field edits, and inter-record edits.

Edits check for unlikely sex/site, site/histology, and site/age combinations. Records are also routinely checked for duplicate entries using manual and probabilistic record linkage methods.

CDRI has met SEER and NPCR program standards and is recognized as a “gold standard registry” for data quality, completeness, and timeliness as designated by NAACCR. These designations allow Idaho data to be included in United States Cancer Statistics and all NAACCR volumes of “Cancer Incidence in North America.” Idaho data have been included in SEER-21/SEER-22 statistics published by NCI since April 2019.

2023 Idaho Cancer Incidence Rates by Sex (Preliminary)

Primary Site	Total			Male			Female		
	Rate	Cases	Pop	Rate	Cases	Pop	Rate	Cases	Pop
All Sites	426.3	10,276	1,964,726	454.5	5,381	988,459	405.7	4,895	976,267
Bladder	19.3	488	1,964,726	33.6	403	988,459	6.6	85	976,267
Brain - malignant	6.7	148	1,964,726	8.6	93	988,459	4.8	55	976,267
Brain and other CNS - non-malignant	17.5	397	1,964,726	12.3	133	988,459	22.4	264	976,267
Breast	68	1,597	1,964,726	0.6	9	988,459	133	1,588	976,267
Breast - in situ	13.9	317	1,964,726	0	0	988,459	27.6	317	976,267
Cervix	-	-	-	-	-	-	5.2	49	976,267
Colorectal	33.5	765	1,964,726	36.4	404	988,459	30.7	361	976,267
Corpus Uteri	-	-	-	-	-	-	24	298	976,267
Esophagus	5.2	133	1,964,726	8.5	106	988,459	2.1	27	976,267
Hodgkin Lymphoma	1.8	37	1,964,726	2	21	988,459	1.7	16	976,267
Kidney and Renal Pelvis	17.5	411	1,964,726	21.9	253	988,459	13.3	158	976,267
Larynx	1.7	43	1,964,726	2.9	35	988,459	0.6	8	976,267
Leukemia	14.9	355	1,964,726	20.1	232	988,459	10.3	123	976,267
Liver and Bile Duct	7.6	194	1,964,726	10.2	129	988,459	5.2	65	976,267
Lung and Bronchus	41	1,054	1,964,726	43.6	527	988,459	38.8	527	976,267
Melanoma of the Skin	30	689	1,964,726	36.2	408	988,459	24.7	281	976,267
Myeloma	5.9	147	1,964,726	7.3	86	988,459	4.5	61	976,267
Non-Hodgkin Lymphoma	16.6	401	1,964,726	19.5	227	988,459	13.9	174	976,267
Oral Cavity and Pharynx	13	317	1,964,726	18.6	225	988,459	7.9	92	976,267
Ovary	-	-	-	-	-	-	10	120	976,267
Pancreas	15	367	1,964,726	17.1	199	988,459	13.2	168	976,267
Prostate	-	-	-	109.8	1,410	988,459	-	-	-
Stomach	4.6	106	1,964,726	6	66	988,459	3.4	40	976,267
Testis	-	-	-	7.1	66	988,459	-	-	-
Thyroid	11.5	228	1,964,726	6.9	70	988,459	16.2	158	976,267
Pediatric Age 0 to 19	15.8	85	529,926	14.9	41	268,666	16.7	44	261,260

Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130) standard.

All Sites category includes additional primary sites not listed.

Grey shading on "Pediatric Age 0 to 19" denotes different underlying population, i.e. ages 0-19, than other primary sites displayed elsewhere in the table.

2023 Idaho Cancer Incidence Counts by Behavior (Preliminary)

Primary Site	In situ	Malignant
All Sites	1,543	10,055
Bladder	221	267
Brain	0	148
Breast	317	1,597
Cervix	0	49
Colorectal	18	765
Corpus Uteri	5	298
Esophagus	1	133
Hodgkin Lymphoma	0	37
Kidney and Renal Pelvis	16	411
Larynx	2	43
Leukemia	0	355
Liver and Bile Duct	0	194
Lung and Bronchus	1	1,054
Melanoma of the Skin	855	689
Myeloma	0	147
Non-Hodgkin Lymphoma	0	401
Oral Cavity and Pharynx	17	317
Ovary	2	120
Pancreas	3	367
Prostate	0	1,410
Stomach	0	106
Testis	0	66
Thyroid	0	228
Pediatric Age 0 to 19	1	85

All Sites category includes additional primary sites not listed.

Grey shading on "Pediatric Age 0 to 19" denotes different underlying population, i.e. ages 0–19, than other primary sites displayed elsewhere in the table.

2023 Idaho Cancer Incidence Counts by SEER Summary Stage (Preliminary)

Primary Site	In situ	Localized	Regional	Distant	Unstaged
All Sites	1,543	5,030	1,933	2,588	504
Bladder	221	195	24	34	14
Brain	0	121	14	4	9
Breast	317	1,130	376	79	12
Cervix	0	22	20	6	1
Colorectal	18	266	270	183	46
Corpus Uteri	5	200	62	25	11
Esophagus	1	26	40	53	14
Hodgkin Lymphoma	0	6	8	23	0
Kidney and Renal Pelvis	16	293	54	55	9
Larynx	2	24	16	2	1
Leukemia	0	0	0	348	7
Liver and Bile Duct	0	76	49	56	13
Lung and Bronchus	1	315	194	510	35
Melanoma of the Skin	855	592	57	29	11
Myeloma	0	0	0	142	5
Non-Hodgkin Lymphoma	0	102	44	226	29
Oral Cavity and Pharynx	17	102	157	30	28
Ovary	2	17	14	81	8
Pancreas	3	87	83	183	14
Prostate	0	992	212	159	47
Stomach	0	56	13	29	8
Testis	0	43	14	6	3
Thyroid	0	136	81	6	5
Pediatric Age 0 to 19	1	37	11	32	5

All Sites category includes additional primary sites not listed. Grey shading on "Pediatric Age 0 to 19" denotes different underlying population, i.e. ages 0–19, than other primary sites displayed elsewhere in the table.

2023 Idaho Malignant Cancer Incidence Rates by Age (Preliminary)

Age at Diagnosis	Rate	Cases	Pop
00-04 years	15.9	18	113,383
05-09 years	14.7	19	128,907
10-14 years	7.3	10	136,658
15-19 years	25.2	38	150,978
20-24 years	34.3	45	131,089
25-29 years	53.4	67	125,473
30-34 years	85.2	110	129,058
35-39 years	129.1	165	127,857
40-44 years	214.7	278	129,511
45-49 years	337.7	387	114,584
50-54 years	482.8	532	110,194
55-59 years	706.8	761	107,665
60-64 years	1,020.80	1,207	118,239
65-69 years	1,480.90	1,662	112,228
70-74 years	1,938.90	1,799	92,785
75-79 years	2,245.00	1,493	66,504
80-84 years	2,520.20	988	39,203
85+ years	2,292.00	697	30,410

Rates are per 100,000.

2023 Idaho Cancer Mortality Rates by Sex (Final)

Cause of Death	Total			Male			Female		
	Rate	Deaths	Pop	Rate	Deaths	Pop	Rate	Deaths	Pop
All Causes of Death	732.2	16,448	1,964,726	834.3	8,761	988,459	636.3	7,687	976,267
All Malignant Cancers	138.8	3,330	1,964,726	160.8	1,816	988,459	120.6	1,514	976,267
Bladder	4	94	1,964,726	6.7	70	988,459	1.9	24	976,267
Brain and Other Nervous System	5.4	131	1,964,726	6.2	75	988,459	4.7	56	976,267
Breast	9.5	222	1,964,726	0.2	2	988,459	18	220	976,267
Cervix	-	-	-	-	-	-	1.2	14	976,267
Colorectal	12.6	283	1,964,726	14.4	155	988,459	10.9	128	976,267
Corpus Uteri	-	-	-	-	-	-	2.5	32	976,267
Esophagus	4.3	108	1,964,726	7.3	88	988,459	1.6	20	976,267
Hodgkin Lymphoma	0.2	5	1,964,726	0.3	5	988,459	0	0	976,267
Kidney	3.6	89	1,964,726	5.3	58	988,459	2.3	31	976,267
Larynx	0.8	18	1,964,726	1.2	13	988,459	0.4	5	976,267
Leukemia	5.9	139	1,964,726	7.7	85	988,459	4.5	54	976,267
Liver and Bile Duct	6.4	166	1,964,726	8.3	106	988,459	4.8	60	976,267
Lung and Bronchus	25.2	627	1,964,726	27.9	330	988,459	22.8	297	976,267
Melanoma of the Skin	2.7	65	1,964,726	3.4	41	988,459	2	24	976,267
Myeloma	3	72	1,964,726	3.5	40	988,459	2.5	32	976,267
Non-Hodgkin Lymphoma	4.4	105	1,964,726	6.5	72	988,459	2.6	33	976,267
Oral Cavity and Pharynx	2.6	65	1,964,726	3.5	43	988,459	1.7	22	976,267
Ovary	-	-	-	-	-	-	5.4	69	976,267
Pancreas	11.1	274	1,964,726	12.7	146	988,459	9.6	128	976,267
Prostate	-	-	-	22.6	235	988,459	-	-	-
Stomach	1.3	29	1,964,726	1.4	15	988,459	1.3	14	976,267
Testis	-	-	-	0.6	6	988,459	-	-	-
Thyroid	0.4	8	1,964,726	0.3	3	988,459	0.5	5	976,267

Data source: Bureau of Vital Records and Health Statistics (BVRHS), Idaho Department of Health and Welfare, 2023.

Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130) standard.

Cause of death categories are based on SEER cause of death recodes (<http://seer.cancer.gov/codrecodes/>), which differ from official BVRHS cancer mortality categories. Death counts may differ from official BVRHS statistics due to late filings.

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