

USA, Michigan, NH White (1998-2012)

	Number of cases							Percentage				Incidence rates per million person-years								MV % 0-19	DCO % 0-19		
	Age group							0-14		0-19		Age-specific					Cumulative						
	0	1-4	5-9	10-14	15-19	0-14	0-19	All	Group	All	Group	0	1-4	5-9	10-14	15-19	0-14	ASR	0-19			0-14	0-19
I LEUKAEMIA	87	531	294	230	226	1142	1368	29.3	100.0	23.0	100.0	66.6	97.7	40.1	29.0	27.5	56.8	50.2	804	941	97.3	0.3	
a. Lymphoid	27	450	251	141	113	869	982	22.3	76.1	16.5	71.8	20.7	82.8	34.3	17.8	13.8	43.6	36.9	614	683	98.6	0.2	
b. Acute myeloid	36	60	30	58	65	184	249	4.7	16.1	4.2	18.2	27.6	11.0	4.1	7.3	7.9	9.0	8.7	128	168	97.6	0.4	
c. CMD	6	7	2	11	28	26	54	0.7	2.3	0.9	3.9	4.6	1.3	0.3	1.4	3.4	1.2	1.7	18	35	83.3	1.9	
d. MDS & other	12	11	7	13	9	43	52	1.1	3.8	0.9	3.8	9.2	2.0	1.0	1.6	1.1	2.1	1.9	30	35	88.5	0.0	
e. Unspecified	6	3	4	7	11	20	31	0.5	1.8	0.5	2.3	4.6	0.6	0.5	0.9	1.3	0.9	1.0	14	21	93.5	0.0	
II LYMPHOMA & RELATED	24	63	121	215	498	423	921	10.9	100.0	15.5	100.0	18.4	11.6	16.5	27.1	60.6	18.2	27.7	282	586	98.7	0.2	
a. Hodgkin	0	2	25	102	336	129	465	3.3	30.5	7.8	50.5	-	0.4	3.4	12.8	40.9	4.9	13.0	83	287	99.8	0.0	
b. Non-Hodgkin except BL	12	26	45	73	128	156	284	4.0	36.9	4.8	30.8	9.2	4.8	6.1	9.2	15.6	6.8	8.8	105	183	98.9	0.0	
c. Burkitt (BL)	0	13	35	25	20	73	93	1.9	17.3	1.6	10.1	-	2.4	4.8	3.1	2.4	3.2	3.0	49	61	100.0	0.0	
d. Lymphoreticular	11	17	4	11	8	43	51	1.1	10.2	0.9	5.5	8.4	3.1	0.5	1.4	1.0	2.2	1.9	30	35	92.2	0.0	
e. Unspecified	1	5	12	4	6	22	28	0.6	5.2	0.5	3.0	0.8	0.9	1.6	0.5	0.7	1.0	1.0	15	19	85.7	7.1	
III CNS NEOPLASMS †	75	272	280	299	276	926	1202	23.8	100.0	20.2	100.0	57.4	50.0	38.2	37.6	33.6	43.2	41.0	637	805	82.9	0.2	
a. Ependymoma	13	28	17	26	19	84	103	2.2	9.1	1.7	8.6	10.0	5.2	2.3	3.3	2.3	4.1	3.7	58	70	93.2	0.0	
b. Astrocytoma	20	124	107	144	101	395	496	10.1	42.7	8.4	41.3	15.3	22.8	14.6	18.1	12.3	18.2	16.9	270	332	87.5	0.2	
c. CNS embryonal	10	59	69	40	29	178	207	4.6	19.2	3.5	17.2	7.7	10.9	9.4	5.0	3.5	8.5	7.4	123	141	99.5	0.0	
d. Other gliomas	7	39	44	39	40	129	169	3.3	13.9	2.8	14.1	5.4	7.2	6.0	4.9	4.9	6.0	5.7	89	113	59.2	0.0	
e. Other specified	19	20	40	45	80	124	204	3.2	13.4	3.4	17.0	14.6	3.7	5.5	5.7	9.7	5.6	6.6	85	133	73.5	0.0	
f. Unspecified CNS	6	2	3	5	7	16	23	0.4	1.7	0.4	1.9	4.6	0.4	0.4	0.6	0.9	0.8	0.8	11	15	43.5	4.3	
IV NEUROBLASTOMA	117	156	29	15	9	317	326	8.1	100.0	5.5	100.0	89.6	28.7	4.0	1.9	1.1	17.5	13.8	232	237	95.7	0.3	
a. (Ganglio)neuroblastoma	116	156	28	14	6	314	320	8.1	99.1	5.4	98.2	88.9	28.7	3.8	1.8	0.7	17.4	13.6	230	233	95.9	0.3	
b. Peripheral nervous	1	0	1	1	3	3	6	0.1	0.9	0.1	1.8	0.8	-	0.1	0.1	0.4	0.1	0.2	2	4	83.3	0.0	
V RETINOBLASTOMA	45	47	3	0	0	95	95	2.4	100.0	1.6	100.0	34.5	8.6	0.4	-	-	5.4	4.2	70	70	75.8	0.0	
VI RENAL TUMOURS	28	127	47	13	12	215	227	5.5	100.0	3.8	100.0	21.4	23.4	6.4	1.6	1.5	11.4	9.2	155	163	99.1	0.0	
a. Nephroblastoma	26	124	42	7	1	199	200	5.1	92.6	3.4	88.1	19.9	22.8	5.7	0.9	0.1	10.7	8.3	144	145	100.0	0.0	
b. Renal carcinoma	2	2	3	6	11	13	24	0.3	6.0	0.4	10.6	1.5	0.4	0.4	0.8	1.3	0.6	0.8	9	15	100.0	0.0	
c. Unspecified	0	1	2	0	0	3	3	0.1	1.4	0.1	1.3	-	0.2	0.3	-	-	0.1	0.1	2	2	33.3	0.0	
VII HEPATIC TUMOURS	19	27	5	2	8	53	61	1.4	100.0	1.0	100.0	14.6	5.0	0.7	0.3	1.0	2.9	2.5	39	44	100.0	0.0	
a. Hepatoblastoma	19	26	3	1	2	49	51	1.3	92.5	0.9	83.6	14.6	4.8	0.4	0.1	0.2	2.8	2.2	36	37	100.0	0.0	
b. Hepatic carcinoma	0	1	2	1	6	4	10	0.1	7.5	0.2	16.4	-	0.2	0.3	0.1	0.7	0.2	0.3	3	6	100.0	0.0	
c. Unspecified	0	0	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VIII BONE TUMOURS	0	7	30	122	140	159	299	4.1	100.0	5.0	100.0	-	1.3	4.1	15.4	17.0	6.2	8.6	102	188	99.0	0.3	
a. Osteosarcoma	0	1	17	71	76	89	165	2.3	56.0	2.8	55.2	-	0.2	2.3	8.9	9.3	3.4	4.7	57	103	99.4	0.0	
b. Chondrosarcoma	0	0	0	3	7	3	10	0.1	1.9	0.2	3.3	-	-	-	0.4	0.9	0.1	0.3	2	6	100.0	0.0	
c. Ewing & related	0	5	13	42	45	60	105	1.5	37.7	1.8	35.1	-	0.9	1.8	5.3	5.5	2.4	3.1	39	66	99.0	0.0	
d. Other specified	0	1	0	5	10	6	16	0.2	3.8	0.3	5.4	-	0.2	-	0.6	1.2	0.2	0.5	4	10	100.0	0.0	
e. Unspecified	0	0	0	1	2	1	3	0.0	0.6	0.1	1.0	-	-	-	0.1	0.2	0.0	0.1	1	2	66.7	33.3	
IX SOFT TISSUE SARCOMA	24	68	52	97	133	241	374	6.2	100.0	6.3	100.0	18.4	12.5	7.1	12.2	16.2	11.1	12.3	165	246	99.5	0.0	
a. Rhabdomyosarcoma	7	52	27	27	29	113	142	2.9	46.9	2.4	38.0	5.4	9.6	3.7	3.4	3.5	5.6	5.1	79	97	100.0	0.0	
b. Fibrosarcoma	9	4	3	12	18	28	46	0.7	11.6	0.8	12.3	6.9	0.7	0.4	1.5	2.2	1.3	1.5	19	30	100.0	0.0	
c. Kaposi sarcoma	1	0	0	0	0	1	1	0.0	0.4	0.0	0.3	0.8	-	-	-	-	0.1	0.0	1	1	100.0	0.0	
d. Other specified	6	10	18	45	62	79	141	2.0	32.8	2.4	37.7	4.6	1.8	2.5	5.7	7.5	3.4	4.3	52	90	99.3	0.0	
e. Unspecified	1	2	4	13	24	20	44	0.5	8.3	0.7	11.8	0.8	0.4	0.5	1.6	2.9	0.8	1.3	13	28	97.7	0.0	
X GERM CELL TUMOURS	27	18	15	53	245	113	358	2.9	100.0	6.0	100.0	20.7	3.3	2.0	6.7	29.8	5.2	10.7	77	226	97.5	0.0	
a. CNS germ cell ‡	4	0	8	18	18	30	48	0.8	26.5	0.8	13.4	3.1	-	1.1	2.3	2.2	1.2	1.5	20	31	87.5	0.0	
b. Other extragonadal	17	8	0	2	6	27	33	0.7	23.9	0.6	9.2	13.0	1.5	-	0.3	0.7	1.5	1.3	20	23	100.0	0.0	
c. Gonadal germ cell	5	10	6	24	201	45	246	1.2	39.8	4.1	68.7	3.8	1.8	0.8	3.0	24.5	2.0	7.1	30	153	99.6	0.0	
d. Gonadal carcinoma	1	0	1	6	16	8	24	0.2	7.1	0.4	6.7	0.8	-	0.1	0.8	1.9	0.3	0.7	5	15	91.7	0.0	
e. Unspecified gonadal	0	0	0	3	4	3	7	0.1	2.7	0.1	2.0	-	-	-	0.4	0.5	0.1	0.2	2	4	100.0	0.0	
XI CARCINOMA & MELANOMA	23	16	31	127	489	197	686	5.1	100.0	11.6	100.0	17.6	2.9	4.2	16.0	59.5	8.2	19.8	130	428	99.6	0.0	
a. Adrenocortical	0	5	1	1	2	7	9	0.2	3.6	0.2	1.3	-	0.9	0.1	0.1	0.2	0.4	0.3	5	6	100.0	0.0	
b. Thyroid	2	2	7	62	172	73	245	1.9	37.1	4.1	35.7	1.5	0.4	1.0	7.8	20.9	2.8	6.9	47	151	100.0	0.0	
c. Nasopharyngeal	0	0	0	2	3	2	5	0.1	1.0	0.1	0.7	-	-	-	0.3	0.4	0.1	0.1	1	3	100.0	0.0	
d. Melanoma	7	7	12	38	198	64	262	1.6	32.5	4.4	38.2	5.4	1.3	1.6	4.8	24.1	2.7	7.5	42	163	99.6	0.0	
e. Skin carcinoma	0	0	0	0	3	0	3	-	-	0.1	0.4	-	-	-	-	0.4	-	0.1	-	2	2	100.0	0.0
f. Other & unspecified	14	2	11	24	111	51	162	1.3	25.9	2.7	23.6	10.7	0.4	1.5	3.0	13.5	2.3	4.8	34	102	98.8	0.0	
XII OTHER & UNSPECIFIED	6	4	1	2	7	13	20	0.3	100.0	0.3	100.0	4.6	0.7	0.1	0.3	0.9	0.7	0.7	9	14	60.0	20.0	
a. Other specified	2	0	1	0	5	3	8	0.1	23.1	0.1	40.0	1.5	-	0.1	-	0.6	0.2	0.3	2	5	87.5	0.0	
b. Other unspecified	4	4	0	2	2	10	12	0.3	76.9	0.2	60.0	3.1	0.7	-	0.3	0.2	0.5	0.5	7	8	41.7	33.3	
TOTAL	475	1336	908	1175	2043	3894	5937	100.0	100.0	100.0	100.0	363.8	245.8	123.9	147.9	248.8	186.9	200.8	2703	3946	94.6	0.2	

† includes 228 non-malignant ‡ includes 3 non-malignant

Please consult the quality indicators for this registry

USA, Michigan, NH White (1998-2012)

	Males										M/F ratio		Females											
	Number of cases in age groups										0-14	0-19	Number of cases in age groups										0-14	0-19
	0	1-4	5-9	10-14	15-19	0-14	0-19	ASR per million	0-14	0-19			0	1-4	5-9	10-14	15-19	0-14	0-19	ASR per million	0-14	0-19		
I LEUKAEMIA	49	304	175	114	121	642	763	62.7	55.0	1.3	1.3	38	227	119	116	105	500	605	50.7	45.2				
a. Lymphoid	14	264	146	68	68	492	560	48.5	41.2	1.3	1.3	13	186	105	73	45	377	422	38.4	32.3				
b. Acute myeloid	18	33	21	31	32	103	135	9.7	9.2	1.3	1.2	18	27	9	27	33	81	114	8.1	8.2				
c. CMD	5	3	2	6	14	16	30	1.5	1.9	1.6	1.3	1	4	0	5	14	10	24	1.0	1.5				
d. MDS & other	7	4	4	5	3	20	23	1.9	1.7	0.9	0.8	5	7	3	8	6	23	29	2.3	2.1				
e. Unspecified	5	0	2	4	4	11	15	1.0	1.0	1.2	0.9	1	3	2	3	7	9	16	0.9	1.1				
II LYMPHOMA & RELATED	14	38	89	139	277	280	557	23.3	32.9	2.0	1.5	10	25	32	76	221	143	364	12.7	22.3				
a. Hodgkin	0	1	20	55	174	76	250	5.7	13.7	1.4	1.2	0	1	5	47	162	53	215	4.1	12.3				
b. Non-Hodgkin except BL	6	13	29	55	82	103	185	8.5	11.0	1.9	1.9	6	13	16	18	46	53	99	5.0	6.5				
c. Burkitt (BL)	0	12	27	20	18	59	77	5.1	4.9	4.2	4.8	0	1	8	5	2	14	16	1.2	1.1				
d. Lymphoreticular	7	10	3	6	2	26	28	2.6	2.1	1.5	1.2	4	7	1	5	6	17	23	1.8	1.7				
e. Unspecified	1	2	10	3	1	16	17	1.4	1.1	2.7	1.5	0	3	2	1	5	6	11	0.6	0.8				
III CNS NEOPLASMS †	33	149	161	165	144	508	652	45.9	43.3	1.2	1.2	42	123	119	134	132	418	550	40.3	38.7				
a. Ependymoma	6	17	9	11	11	43	54	4.1	3.8	1.0	1.1	7	11	8	15	8	41	49	4.0	3.5				
b. Astrocytoma	11	60	58	74	59	203	262	18.2	17.2	1.1	1.1	9	64	49	70	42	192	234	18.3	16.5				
c. CNS embryonal	4	37	45	26	15	112	127	10.3	8.8	1.7	1.6	6	22	24	14	14	66	80	6.5	5.8				
d. Other gliomas	6	23	21	26	18	76	94	6.9	6.3	1.4	1.3	1	16	23	13	22	53	75	5.1	5.2				
e. Other specified	4	11	25	26	37	66	103	5.7	6.4	1.1	1.0	15	9	15	19	43	58	101	5.6	6.8				
f. Unspecified CNS	2	1	3	2	4	8	12	0.7	0.8	1.0	1.1	4	1	0	3	3	8	11	0.8	0.8				
IV NEUROBLASTOMA	52	80	14	9	7	155	162	16.6	13.3	1.0	1.0	65	76	15	6	2	162	164	18.4	14.4				
a. (Ganglio)neuroblastoma	51	80	13	9	5	153	158	16.4	13.0	1.0	1.0	65	76	15	5	1	161	162	18.3	14.3				
b. Peripheral nervous	1	0	1	0	2	2	4	0.2	0.3	2.0	2.0	0	0	0	1	1	1	2	0.1	0.1				
V RETINOBLASTOMA	21	27	2	0	0	50	50	5.5	4.3	1.1	1.1	24	20	1	0	0	45	45	5.3	4.1				
VI RENAL TUMOURS	17	59	12	9	3	97	100	10.2	8.1	0.8	0.8	11	68	35	4	9	118	127	12.8	10.4				
a. Nephroblastoma	16	58	11	5	1	90	91	9.6	7.5	0.8	0.8	10	66	31	2	0	109	109	11.9	9.2				
b. Renal carcinoma	1	0	1	4	2	6	8	0.5	0.5	0.9	0.5	1	2	2	2	9	7	16	0.7	1.0				
c. Unspecified	0	1	0	0	0	1	1	0.1	0.1	0.5	0.5	0	0	2	0	0	2	2	0.2	0.1				
VII HEPATIC TUMOURS	14	13	4	2	3	33	36	3.5	2.9	1.6	1.4	5	14	1	0	5	20	25	2.3	2.1				
a. Hepatoblastoma	14	13	3	1	0	31	31	3.4	2.6	1.7	1.6	5	13	0	0	2	18	20	2.1	1.8				
b. Hepatic carcinoma	0	0	1	1	3	2	5	0.2	0.3	1.0	1.0	0	1	1	0	3	2	5	0.2	0.3				
c. Unspecified	0	0	0	0	0	0	0	-	-	-	-	0	0	0	0	0	0	0	-	-				
VIII BONE TUMOURS	0	2	11	67	85	80	165	5.9	9.1	1.0	1.2	0	5	19	55	55	79	134	6.4	8.1				
a. Osteosarcoma	0	0	6	36	46	42	88	3.1	4.8	0.9	1.1	0	1	11	35	30	47	77	3.7	4.6				
b. Chondrosarcoma	0	0	0	3	4	3	7	0.2	0.4	-	2.3	0	0	0	0	3	0	3	-	0.2				
c. Ewing & related	0	1	5	25	29	31	60	2.3	3.3	1.1	1.3	0	4	8	17	16	29	45	2.5	2.8				
d. Other specified	0	1	0	3	5	4	9	0.3	0.5	2.0	1.3	0	0	0	2	5	2	7	0.2	0.4				
e. Unspecified	0	0	0	0	1	0	1	-	0.1	0.0	0.5	0	0	0	1	1	1	2	0.1	0.1				
IX SOFT TISSUE SARCOMA	14	42	28	51	70	135	205	12.3	13.3	1.3	1.2	10	26	24	46	63	106	169	9.9	11.2				
a. Rhabdomyosarcoma	3	32	15	18	20	68	88	6.5	6.1	1.5	1.6	4	20	12	9	9	45	54	4.6	4.1				
b. Fibrosarcoma	5	3	0	3	8	11	19	1.1	1.3	0.6	0.7	4	1	3	9	10	17	27	1.5	1.8				
c. Kaposi sarcoma	1	0	0	0	0	1	1	0.1	0.1	-	-	0	0	0	0	0	0	0	-	-				
d. Other specified	5	7	10	24	28	46	74	3.9	4.5	1.4	1.1	1	3	8	21	34	33	67	2.8	4.1				
e. Unspecified	0	0	3	6	14	9	23	0.7	1.3	0.8	1.1	1	2	1	7	10	11	21	1.0	1.3				
X GERM CELL TUMOURS	12	10	3	25	198	50	248	4.5	14.0	0.8	2.3	15	8	12	28	47	63	110	5.9	7.2				
a. CNS germ cell ‡	1	0	3	14	16	18	34	1.4	1.9	1.5	2.4	3	0	5	4	2	12	14	1.1	1.0				
b. Other extragonadal	7	2	0	2	2	11	13	1.2	1.0	0.7	0.7	10	6	0	0	4	16	20	1.9	1.7				
c. Gonadal germ cell	4	8	0	8	180	20	200	1.9	11.1	0.8	4.3	1	2	6	16	21	25	46	2.1	2.8				
d. Gonadal carcinoma	0	0	0	0	0	0	0	-	-	0.0	0.0	1	0	1	6	16	8	24	0.7	1.4				
e. Unspecified gonadal	0	0	0	1	0	1	1	0.1	0.1	0.5	0.2	0	0	0	2	4	2	6	0.2	0.3				
XI CARCINOMA & MELANOMA	13	12	17	38	138	80	218	7.0	12.8	0.7	0.5	10	4	14	89	351	117	468	9.6	27.2				
a. Adrenocortical	0	3	1	0	2	4	6	0.4	0.4	1.3	2.0	0	2	0	1	0	3	3	0.3	0.2				
b. Thyroid	0	1	3	14	22	18	40	1.4	2.2	0.3	0.2	2	1	4	48	150	55	205	4.3	11.8				
c. Nasopharyngeal	0	0	0	2	2	2	4	0.1	0.2	-	4.0	0	0	0	0	1	0	1	-	0.1				
d. Melanoma	5	6	8	12	60	31	91	2.8	5.3	0.9	0.5	2	1	4	26	138	33	171	2.7	9.8				
e. Skin carcinoma	0	0	0	0	2	0	2	-	0.1	-	2.0	0	0	0	0	1	0	1	-	0.1				
f. Other & unspecified	8	2	5	10	50	25	75	2.3	4.4	1.0	0.9	6	0	6	14	61	26	87	2.3	5.2				
XII OTHER & UNSPECIFIED	4	1	1	1	3	7	10	0.7	0.7	1.2	1.0	2	3	0	1	4	6	10	0.7	0.7				
a. Other specified	1	0	1	0	2	2	4	0.2	0.3	2.0	1.0	1	0	0	0	3	1	4	0.1	0.3				
b. Other unspecified	3	1	0	1	1	5	6	0.5	0.5	1.0	1.0	1	3	0	1	1	5	6	0.5	0.5				
TOTAL	243	737	517	620	1049	2117	3166	198.2	209.6	1.2	1.1	232	599	391	555	994	1777	2771	175.0	191.7				

† includes 110 non-malignant in males and 118 non-malignant in females ‡ includes 1 non-malignant in males and 2 non-malignant in females

Please consult the quality indicators for this registry

USA, Michigan, NH White (1998-2012)

	Age group	Males	Females
Person-years	0	669 479	636 070
	1-4	2 785 974	2 649 660
	5-9	3 762 896	3 563 114
	10-14	4 083 361	3 859 574
	15-19	4 218 031	3 994 335
Total	0-14	11 301 710	10 708 418
	0-19	15 519 741	14 702 753
Average annual population	0-14	753 447	713 895
	0-19	1 034 649	980 184

Please consult the quality indicators for this registry