

Mortality and Causes of Death: All cancers

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						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	All cases		25665	4081	15.9	1251	30.7	933	22.9	357	8.7	152	3.7	349	8.6	867	21.2	172	4.2
	Age at baseline	<18	5692	1092	19.2	532	48.7	149	13.6	31	2.8	18	1.6	75	6.9	242	22.2	45	4.1
		18-19	2155	263	12.2	108	41.1	45	17.1	13	4.9	6	2.3	32	12.2	46	17.5	13	4.9
		20-24	6010	808	13.4	287	35.5	156	19.3	38	4.7	21	2.6	86	10.6	189	23.4	31	3.8
		25-29	5553	791	14.2	195	24.7	186	23.5	89	11.3	37	4.7	86	10.9	164	20.7	34	4.3
		30-34	3865	609	15.8	79	13.0	203	33.3	92	15.1	34	5.6	45	7.4	121	19.9	35	5.7
		35+	2390	518	21.7	50	9.7	194	37.5	94	18.1	36	6.9	25	4.8	105	20.3	14	2.7
	Years since diagnosis	5-9	2595	1222	47.1	746	61.0	125	10.2	25	2.0	14	1.1	57	4.7	214	17.5	41	3.4
		10-14	8347	1051	12.6	317	30.2	255	24.3	83	7.9	35	3.3	112	10.7	203	19.3	46	4.4
		15-19	8210	902	11.0	112	12.4	251	27.8	117	13.0	48	5.3	108	12.0	216	23.9	50	5.5
		20+	6513	906	13.9	76	8.4	302	33.3	132	14.6	55	6.1	72	7.9	234	25.8	35	3.9
	Age at diagnosis	<1	1926	132	6.9	32	24.2	23	17.4	4	3.0	2	1.5	17	12.9	50	37.9	4	3.0
		1-4	8265	1004	12.1	315	31.4	214	21.3	58	5.8	30	3.0	92	9.2	245	24.4	50	5.0
		5-9	5785	887	15.3	295	33.3	158	17.8	57	6.4	29	3.3	93	10.5	210	23.7	45	5.1
		10-14	5445	1016	18.7	300	29.5	248	24.4	109	10.7	36	3.5	87	8.6	198	19.5	38	3.7
		15-20	4244	1042	24.6	309	29.7	290	27.8	129	12.4	55	5.3	60	5.8	164	15.7	35	3.4
	Treatment	Surgery only	2162	143	6.6	33	23.1	28	19.6	6	4.2	5	3.5	21	14.7	41	28.7	9	6.3
		Chemotherapy, no radiation	8137	629	7.7	200	31.8	132	21.0	46	7.3	19	3.0	96	15.3	114	18.1	22	3.5
		Radiation, no chemotherapy	2087	587	28.1	141	24.0	150	25.6	63	10.7	31	5.3	40	6.8	143	24.4	19	3.2
		Chemotherapy and radiation	10774	2163	20.1	703	32.5	517	23.9	176	8.1	71	3.3	147	6.8	457	21.1	92	4.3
		Unknown	2505	559	22.3	174	31.1	106	19.0	66	11.8	26	4.7	45	8.1	112	20.0	30	5.4
Males	All cases		13725	2358	17.2	761	32.3	475	20.1	211	8.9	83	3.5	257	10.9	473	20.1	98	4.2
	Age at baseline	<18	3066	659	21.5	331	50.2	87	13.2	22	3.3	10	1.5	49	7.4	136	20.6	24	3.6
		18-19	1125	155	13.8	60	38.7	26	16.8	7	4.5	4	2.6	22	14.2	27	17.4	9	5.8
		20-24	3164	478	15.1	169	35.4	79	16.5	15	3.1	12	2.5	70	14.6	113	23.6	20	4.2
		25-29	3085	477	15.5	119	24.9	109	22.9	64	13.4	17	3.6	65	13.6	84	17.6	19	4.0
		30-34	2056	337	16.4	59	17.5	89	26.4	56	16.6	21	6.2	33	9.8	62	18.4	17	5.0
		35+	1229	252	20.5	23	9.1	85	33.7	47	18.7	19	7.5	18	7.1	51	20.2	9	3.6
	Years since diagnosis	5-9	1457	740	50.8	444	60.0	70	9.5	17	2.3	8	1.1	44	5.9	133	18.0	24	3.2
		10-14	4469	635	14.2	208	32.8	141	22.2	54	8.5	19	3.0	81	12.8	107	16.9	25	3.9
		15-19	4317	507	11.7	69	13.6	121	23.9	67	13.2	26	5.1	81	16.0	113	22.3	30	5.9
		20+	3482	476	13.7	40	8.4	143	30.0	73	15.3	30	6.3	51	10.7	120	25.2	19	4.0
	Age at diagnosis	<1	983	73	7.4	19	26.0	11	15.1	1	1.4	2	2.7	15	20.5	24	32.9	1	1.4
		1-4	4327	573	13.2	191	33.3	110	19.2	34	5.9	13	2.3	64	11.2	136	23.7	25	4.4
		5-9	3263	570	17.5	191	33.5	101	17.7	38	6.7	20	3.5	63	11.1	126	22.1	31	5.4
		10-14	2881	558	19.4	168	30.1	117	21.0	61	10.9	16	2.9	65	11.6	107	19.2	24	4.3
		15-20	2271	584	25.7	192	32.9	136	23.3	77	13.2	32	5.5	50	8.6	80	13.7	17	2.9
	Treatment	Surgery only	1065	84	7.9	18	21.4	16	19.0	5	6.0	3	3.6	16	19.0	21	25.0	5	6.0
		Chemotherapy, no radiation	4287	367	8.6	116	31.6	67	18.3	31	8.4	11	3.0	69	18.8	61	16.6	12	3.3
		Radiation, no chemotherapy	1087	333	30.6	87	26.1	65	19.5	36	10.8	20	6.0	31	9.3	81	24.3	13	3.9
		Chemotherapy and radiation	5806	1215	20.9	430	35.4	274	22.6	92	7.6	35	2.9	103	8.5	234	19.3	47	3.9
		Unknown	1480	359	24.3	110	30.6	53	14.8	47	13.1	14	3.9	38	10.6	76	21.2	21	5.8
Females	All cases		11940	1723	14.4	490	28.4	458	26.6	146	8.5	69	4.0	92	5.3	394	22.9	74	4.3

CCSS data from Jan2020 data freeze, with death information as of 12/31/2017 NDI search.
Denominator for all percentages is all cases

Mortality and Causes of Death: All cancers

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						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	Age at baseline	<18	2626	433	16.5	201	46.4	62	14.3	9	2.1	8	1.8	26	6.0	106	24.5	21	4.8
		18-19	1030	108	10.5	48	44.4	19	17.6	6	5.6	2	1.9	10	9.3	19	17.6	4	3.7
		20-24	2846	330	11.6	118	35.8	77	23.3	23	7.0	9	2.7	16	4.8	76	23.0	11	3.3
		25-29	2468	314	12.7	76	24.2	77	24.5	25	8.0	20	6.4	21	6.7	80	25.5	15	4.8
		30-34	1809	272	15.0	20	7.4	114	41.9	36	13.2	13	4.8	12	4.4	59	21.7	18	6.6
		35+	1161	266	22.9	27	10.2	109	41.0	47	17.7	17	6.4	7	2.6	54	20.3	5	1.9
	Years since diagnosis	5-9	1138	482	42.4	302	62.7	55	11.4	8	1.7	6	1.2	13	2.7	81	16.8	17	3.5
		10-14	3878	416	10.7	109	26.2	114	27.4	29	7.0	16	3.8	31	7.5	96	23.1	21	5.0
		15-19	3893	395	10.1	43	10.9	130	32.9	50	12.7	22	5.6	27	6.8	103	26.1	20	5.1
		20+	3031	430	14.2	36	8.4	159	37.0	59	13.7	25	5.8	21	4.9	114	26.5	16	3.7
	Age at diagnosis	<1	943	59	6.3	13	22.0	12	20.3	3	5.1	.	.	2	3.4	26	44.1	3	5.1
		1-4	3938	431	10.9	124	28.8	104	24.1	24	5.6	17	3.9	28	6.5	109	25.3	25	5.8
		5-9	2522	317	12.6	104	32.8	57	18.0	19	6.0	9	2.8	30	9.5	84	26.5	14	4.4
		10-14	2564	458	17.9	132	28.8	131	28.6	48	10.5	20	4.4	22	4.8	91	19.9	14	3.1
		15-20	1973	458	23.2	117	25.5	154	33.6	52	11.4	23	5.0	10	2.2	84	18.3	18	3.9
	Treatment	Surgery only	1097	59	5.4	15	25.4	12	20.3	1	1.7	2	3.4	5	8.5	20	33.9	4	6.8
		Chemotherapy, no radiation	3850	262	6.8	84	32.1	65	24.8	15	5.7	8	3.1	27	10.3	53	20.2	10	3.8
		Radiation, no chemotherapy	1000	254	25.4	54	21.3	85	33.5	27	10.6	11	4.3	9	3.5	62	24.4	6	2.4
		Chemotherapy and radiation	4968	948	19.1	273	28.8	243	25.6	84	8.9	36	3.8	44	4.6	223	23.5	45	4.7
		Unknown	1025	200	19.5	64	32.0	53	26.5	19	9.5	12	6.0	7	3.5	36	18.0	9	4.5

Mortality and Causes of Death: All leukemias

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			Causes of Death																
			Deaths			Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	All cases		7872	985	12.5	364	37.0	196	19.9	58	5.9	27	2.7	97	9.8	202	20.5	41	4.2
	Age at baseline	<18	2233	433	19.4	228	52.7	65	15.0	13	3.0	7	1.6	27	6.2	74	17.1	19	4.4
		18-19	844	95	11.3	34	35.8	10	10.5	8	8.4	3	3.2	17	17.9	17	17.9	6	6.3
		20-24	1964	187	9.5	61	32.6	35	18.7	9	4.8	6	3.2	19	10.2	49	26.2	8	4.3
		25-29	1598	163	10.2	30	18.4	44	27.0	18	11.0	6	3.7	27	16.6	35	21.5	3	1.8
		30-34	837	75	9.0	8	10.7	28	37.3	7	9.3	4	5.3	6	8.0	17	22.7	5	6.7
		35+	396	32	8.1	3	9.4	14	43.8	3	9.4	1	3.1	1	3.1	10	31.3	.	.
	Years since diagnosis	5-9	980	426	43.5	270	63.4	41	9.6	9	2.1	7	1.6	15	3.5	68	16.0	16	3.8
		10-14	2637	250	9.5	77	30.8	59	23.6	17	6.8	6	2.4	34	13.6	45	18.0	12	4.8
		15-19	2439	171	7.0	10	5.8	45	26.3	17	9.9	10	5.8	33	19.3	45	26.3	11	6.4
		20+	1816	138	7.6	7	5.1	51	37.0	15	10.9	4	2.9	15	10.9	44	31.9	2	1.4
	Age at diagnosis	<1	241	18	7.5	3	16.7	8	44.4	.	.	.	.	.	.	6	33.3	1	5.6
		1-4	3709	411	11.1	150	36.5	84	20.4	24	5.8	11	2.7	41	10.0	84	20.4	17	4.1
		5-9	1924	256	13.3	91	35.5	38	14.8	15	5.9	8	3.1	33	12.9	60	23.4	11	4.3
		10-14	1311	181	13.8	70	38.7	41	22.7	11	6.1	2	1.1	15	8.3	35	19.3	7	3.9
		15-20	687	119	17.3	50	42.0	25	21.0	8	6.7	6	5.0	8	6.7	17	14.3	5	4.2
	Treatment	Surgery only	3	1	33.3	.	.	.	.	.	.	.	.	.	.	.	.	1	100.0
		Chemotherapy, no radiation	3367	241	7.2	91	37.8	41	17.0	17	7.1	6	2.5	42	17.4	37	15.4	7	2.9
		Radiation, no chemotherapy	4	1	25.0	1	100.0	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy and radiation	3762	607	16.1	218	35.9	133	21.9	31	5.1	13	2.1	46	7.6	139	22.9	27	4.4
		Unknown	736	135	18.3	54	40.0	22	16.3	10	7.4	8	5.9	9	6.7	26	19.3	6	4.4
Males	All cases		4200	571	13.6	223	39.1	103	18.0	31	5.4	15	2.6	66	11.6	109	19.1	24	4.2
	Age at baseline	<18	1219	268	22.0	145	54.1	39	14.6	11	4.1	4	1.5	16	6.0	42	15.7	11	4.1
		18-19	455	56	12.3	19	33.9	6	10.7	4	7.1	3	5.4	10	17.9	9	16.1	5	8.9
		20-24	996	102	10.2	34	33.3	17	16.7	.	.	2	2.0	15	14.7	29	28.4	5	4.9
		25-29	867	96	11.1	19	19.8	24	25.0	12	12.5	3	3.1	19	19.8	18	18.8	1	1.0
		30-34	440	33	7.5	5	15.2	10	30.3	2	6.1	3	9.1	5	15.2	6	18.2	2	6.1
		35+	223	16	7.2	1	6.3	7	43.8	2	12.5	.	.	1	6.3	5	31.3	.	.
	Years since diagnosis	5-9	557	268	48.1	167	62.3	24	9.0	7	2.6	5	1.9	9	3.4	44	16.4	12	4.5
		10-14	1414	145	10.3	48	33.1	34	23.4	10	6.9	2	1.4	20	13.8	23	15.9	8	5.5
		15-19	1254	88	7.0	4	4.5	21	23.9	5	5.7	7	8.0	25	28.4	23	26.1	3	3.4
		20+	975	70	7.2	4	5.7	24	34.3	9	12.9	1	1.4	12	17.1	19	27.1	1	1.4
	Age at diagnosis	<1	112	7	6.3	1	14.3	3	42.9	.	.	.	.	.	.	3	42.9	.	.
		1-4	1985	243	12.2	95	39.1	43	17.7	14	5.8	6	2.5	31	12.8	46	18.9	8	3.3
		5-9	1038	158	15.2	62	39.2	28	17.7	8	5.1	4	2.5	18	11.4	30	19.0	8	5.1
		10-14	647	93	14.4	35	37.6	18	19.4	4	4.3	.	.	11	11.8	21	22.6	4	4.3
		15-20	418	70	16.7	30	42.9	11	15.7	5	7.1	5	7.1	6	8.6	9	12.9	4	5.7
	Treatment	Surgery only	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy, no radiation	1689	131	7.8	43	32.8	20	15.3	10	7.6	5	3.8	27	20.6	22	16.8	4	3.1
		Radiation, no chemotherapy	3	1	33.3	1	100.0	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy and radiation	2066	352	17.0	143	40.6	72	20.5	15	4.3	5	1.4	31	8.8	71	20.2	15	4.3
		Unknown	441	87	19.7	36	41.4	11	12.6	6	6.9	5	5.7	8	9.2	16	18.4	5	5.7
Females	All cases		3672	414	11.3	141	34.1	93	22.5	27	6.5	12	2.9	31	7.5	93	22.5	17	4.1

CCSS data from Jan2020 data freeze, with death information as of 12/31/2017 NDI search.

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Mortality and Causes of Death: All leukemias

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				Causes of Death															
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
		All cases		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	Age at baseline	<18	1014	165	16.3	83	50.3	26	15.8	2	1.2	3	1.8	11	6.7	32	19.4	8	4.8
		18-19	389	39	10.0	15	38.5	4	10.3	4	10.3	.	.	7	17.9	8	20.5	1	2.6
		20-24	968	85	8.8	27	31.8	18	21.2	9	10.6	4	4.7	4	4.7	20	23.5	3	3.5
		25-29	731	67	9.2	11	16.4	20	29.9	6	9.0	3	4.5	8	11.9	17	25.4	2	3.0
		30-34	397	42	10.6	3	7.1	18	42.9	5	11.9	1	2.4	1	2.4	11	26.2	3	7.1
		35+	173	16	9.2	2	12.5	7	43.8	1	6.3	1	6.3	.	.	5	31.3	.	.
	Years since diagnosis	5-9	423	158	37.4	103	65.2	17	10.8	2	1.3	2	1.3	6	3.8	24	15.2	4	2.5
		10-14	1223	105	8.6	29	27.6	25	23.8	7	6.7	4	3.8	14	13.3	22	21.0	4	3.8
		15-19	1185	83	7.0	6	7.2	24	28.9	12	14.5	3	3.6	8	9.6	22	26.5	8	9.6
		20+	841	68	8.1	3	4.4	27	39.7	6	8.8	3	4.4	3	4.4	25	36.8	1	1.5
	Age at diagnosis	<1	129	11	8.5	2	18.2	5	45.5	.	.	.	.	.	.	3	27.3	1	9.1
		1-4	1724	168	9.7	55	32.7	41	24.4	10	6.0	5	3.0	10	6.0	38	22.6	9	5.4
		5-9	886	98	11.1	29	29.6	10	10.2	7	7.1	4	4.1	15	15.3	30	30.6	3	3.1
		10-14	664	88	13.3	35	39.8	23	26.1	7	8.0	2	2.3	4	4.5	14	15.9	3	3.4
		15-20	269	49	18.2	20	40.8	14	28.6	3	6.1	1	2.0	2	4.1	8	16.3	1	2.0
	Treatment	Surgery only	2	1	50.0	.	.	.	.	.	.	.	.	.	.	.	.	1	100.0
		Chemotherapy, no radiation	1678	110	6.6	48	43.6	21	19.1	7	6.4	1	0.9	15	13.6	15	13.6	3	2.7
		Radiation, no chemotherapy	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy and radiation	1696	255	15.0	75	29.4	61	23.9	16	6.3	8	3.1	15	5.9	68	26.7	12	4.7
		Unknown	295	48	16.3	18	37.5	11	22.9	4	8.3	3	6.3	1	2.1	10	20.8	1	2.1

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	All cases		6615	780	11.8	299	38.3	160	20.5	40	5.1	19	2.4	80	10.3	151	19.4	31	4.0
	Age at baseline	<18	1940	375	19.3	206	54.9	57	15.2	8	2.1	6	1.6	24	6.4	59	15.7	15	4.0
		18-19	730	74	10.1	22	29.7	9	12.2	6	8.1	3	4.1	16	21.6	13	17.6	5	6.8
		20-24	1687	138	8.2	44	31.9	32	23.2	8	5.8	3	2.2	14	10.1	32	23.2	5	3.6
		25-29	1329	123	9.3	21	17.1	35	28.5	11	8.9	5	4.1	21	17.1	28	22.8	2	1.6
		30-34	649	53	8.2	4	7.5	21	39.6	5	9.4	1	1.9	5	9.4	13	24.5	4	7.5
		35+	280	17	6.1	2	11.8	6	35.3	2	11.8	1	5.9	.	.	6	35.3	.	.
	Years since diagnosis	5-9	844	350	41.5	223	63.7	39	11.1	9	2.6	5	1.4	12	3.4	49	14.0	13	3.7
		10-14	2223	193	8.7	61	31.6	47	24.4	5	2.6	5	2.6	31	16.1	34	17.6	10	5.2
		15-19	2022	119	5.9	9	7.6	32	26.9	12	10.1	6	5.0	24	20.2	30	25.2	6	5.0
		20+	1526	118	7.7	6	5.1	42	35.6	14	11.9	3	2.5	13	11.0	38	32.2	2	1.7
	Age at diagnosis	<1	133	13	9.8	3	23.1	6	46.2	.	.	.	.	.	.	4	30.8	.	.
		1-4	3298	363	11.0	140	38.6	78	21.5	17	4.7	9	2.5	35	9.6	72	19.8	12	3.3
		5-9	1691	215	12.7	77	35.8	32	14.9	13	6.0	7	3.3	30	14.0	46	21.4	10	4.7
		10-14	1026	121	11.8	46	38.0	29	24.0	7	5.8	1	0.8	10	8.3	22	18.2	6	5.0
		15-20	467	68	14.6	33	48.5	15	22.1	3	4.4	2	2.9	5	7.4	7	10.3	3	4.4
	Treatment	Chemotherapy, no radiation	2684	157	5.8	62	39.5	26	16.6	8	5.1	6	3.8	32	20.4	19	12.1	4	2.5
		Radiation, no chemotherapy	4	1	25.0	1	100.0	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy and radiation	3298	515	15.6	190	36.9	115	22.3	26	5.0	8	1.6	40	7.8	114	22.1	22	4.3
		Unknown	629	107	17.0	46	43.0	19	17.8	6	5.6	5	4.7	8	7.5	18	16.8	5	4.7
Males	All cases		3562	458	12.9	188	41.0	85	18.6	23	5.0	11	2.4	54	11.8	76	16.6	21	4.6
	Age at baseline	<18	1060	236	22.3	133	56.4	35	14.8	8	3.4	4	1.7	13	5.5	33	14.0	10	4.2
		18-19	398	47	11.8	15	31.9	6	12.8	3	6.4	3	6.4	10	21.3	6	12.8	4	8.5
		20-24	857	70	8.2	22	31.4	15	21.4	.	.	1	1.4	11	15.7	17	24.3	4	5.7
		25-29	733	72	9.8	13	18.1	18	25.0	9	12.5	2	2.8	16	22.2	13	18.1	1	1.4
		30-34	347	25	7.2	4	16.0	8	32.0	2	8.0	1	4.0	4	16.0	4	16.0	2	8.0
		35+	167	8	4.8	1	12.5	3	37.5	1	12.5	.	.	.	.	3	37.5	.	.
	Years since diagnosis	5-9	481	220	45.7	139	63.2	22	10.0	7	3.2	3	1.4	7	3.2	32	14.5	10	4.5
		10-14	1201	117	9.7	41	35.0	28	23.9	4	3.4	2	1.7	19	16.2	15	12.8	8	6.8
		15-19	1054	62	5.9	4	6.5	16	25.8	3	4.8	5	8.1	18	29.0	14	22.6	2	3.2
		20+	826	59	7.1	4	6.8	19	32.2	9	15.3	1	1.7	10	16.9	15	25.4	1	1.7
	Age at diagnosis	<1	64	5	7.8	1	20.0	2	40.0	.	.	.	.	.	.	2	40.0	.	.
		1-4	1758	217	12.3	92	42.4	41	18.9	11	5.1	6	2.8	25	11.5	36	16.6	6	2.8
		5-9	922	133	14.4	51	38.3	22	16.5	7	5.3	4	3.0	17	12.8	24	18.0	8	6.0
		10-14	525	64	12.2	25	39.1	13	20.3	3	4.7	.	.	8	12.5	11	17.2	4	6.3
		15-20	293	39	13.3	19	48.7	7	17.9	2	5.1	1	2.6	4	10.3	3	7.7	3	7.7
	Treatment	Chemotherapy, no radiation	1344	85	6.3	28	32.9	12	14.1	5	5.9	5	5.9	21	24.7	11	12.9	3	3.5
		Radiation, no chemotherapy	3	1	33.3	1	100.0	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy and radiation	1834	302	16.5	126	41.7	63	20.9	15	5.0	3	1.0	26	8.6	56	18.5	13	4.3
		Unknown	381	70	18.4	33	47.1	10	14.3	3	4.3	3	4.3	7	10.0	9	12.9	5	7.1
Females	All cases		3053	322	10.5	111	34.5	75	23.3	17	5.3	8	2.5	26	8.1	75	23.3	10	3.1
	Age at baseline	<18	880	139	15.8	73	52.5	22	15.8	.	.	2	1.4	11	7.9	26	18.7	5	3.6
		18-19	332	27	8.1	7	25.9	3	11.1	3	11.1	.	.	6	22.2	7	25.9	1	3.7

CCSS data from Jan2020 data freeze, with death information as of 12/31/2017 NDI search.

Denominator for all percentages is all cases

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
		20-24	830	68	8.2	22	32.4	17	25.0	8	11.8	2	2.9	3	4.4	15	22.1	1	1.5
		25-29	596	51	8.6	8	15.7	17	33.3	2	3.9	3	5.9	5	9.8	15	29.4	1	2.0
		30-34	302	28	9.3	.	.	13	46.4	3	10.7	.	.	1	3.6	9	32.1	2	7.1
	Years since diagnosis	35+	113	9	8.0	1	11.1	3	33.3	1	11.1	1	11.1	.	.	3	33.3	.	.
		5-9	363	130	35.8	84	64.6	17	13.1	2	1.5	2	1.5	5	3.8	17	13.1	3	2.3
		10-14	1022	76	7.4	20	26.3	19	25.0	1	1.3	3	3.9	12	15.8	19	25.0	2	2.6
		15-19	968	57	5.9	5	8.8	16	28.1	9	15.8	1	1.8	6	10.5	16	28.1	4	7.0
		20+	700	59	8.4	2	3.4	23	39.0	5	8.5	2	3.4	3	5.1	23	39.0	1	1.7
	Age at diagnosis	<1	69	8	11.6	2	25.0	4	50.0	.	.	.	.	.	.	2	25.0	.	.
		1-4	1540	146	9.5	48	32.9	37	25.3	6	4.1	3	2.1	10	6.8	36	24.7	6	4.1
		5-9	769	82	10.7	26	31.7	10	12.2	6	7.3	3	3.7	13	15.9	22	26.8	2	2.4
		10-14	501	57	11.4	21	36.8	16	28.1	4	7.0	1	1.8	2	3.5	11	19.3	2	3.5
		15-20	174	29	16.7	14	48.3	8	27.6	1	3.4	1	3.4	1	3.4	4	13.8	.	.
	Treatment	Chemotherapy, no radiation	1340	72	5.4	34	47.2	14	19.4	3	4.2	1	1.4	11	15.3	8	11.1	1	1.4
		Radiation, no chemotherapy	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy and radiation	1464	213	14.5	64	30.0	52	24.4	11	5.2	5	2.3	14	6.6	58	27.2	9	4.2
		Unknown	248	37	14.9	13	35.1	9	24.3	3	8.1	2	5.4	1	2.7	9	24.3	.	.

						Causes of Death														
					Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
				All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	All cases		927	123	13.3	30	24.4	24	19.5	14	11.4	6	4.9	12	9.8	29	23.6	8	6.5	
	Age at baseline	<18	230	35	15.2	11	31.4	5	14.3	4	11.4	1	2.9	3	8.6	8	22.9	3	8.6	
		18-19	89	13	14.6	5	38.5	1	7.7	2	15.4	.	.	1	7.7	3	23.1	1	7.7	
		20-24	199	30	15.1	9	30.0	3	10.0	1	3.3	3	10.0	2	6.7	10	33.3	2	6.7	
		25-29	200	27	13.5	4	14.8	7	25.9	7	25.9	.	.	5	18.5	3	11.1	1	3.7	
		30-34	133	12	9.0	1	8.3	5	41.7	.	.	2	16.7	.	.	3	25.0	1	8.3	
		35+	76	6	7.9	.	.	3	50.0	.	.	.	.	1	16.7	2	33.3	.	.
	Years since diagnosis	5-9	85	36	42.4	23	63.9	.	.	.	.	1	2.8	2	5.6	8	22.2	2	5.6
		10-14	319	38	11.9	7	18.4	10	26.3	10	26.3	1	2.6	3	7.9	6	15.8	1	2.6	
		15-19	323	40	12.4	.	.	11	27.5	4	10.0	4	10.0	6	15.0	10	25.0	5	12.5	
		20+	200	9	4.5	.	.	3	33.3	.	.	.	.	1	11.1	5	55.6	.	.
	Age at diagnosis	<1	93	3	3.2	.	.	2	66.7	.	.	.	.	.	.	1	33.3	.	.
		1-4	314	34	10.8	4	11.8	4	11.8	6	17.6	2	5.9	4	11.8	9	26.5	5	14.7	
		5-9	171	26	15.2	7	26.9	4	15.4	1	3.8	1	3.8	3	11.5	9	34.6	1	3.8	
		10-14	198	34	17.2	12	35.3	9	26.5	4	11.8	.	.	4	11.8	4	11.8	1	2.9	
		15-20	151	26	17.2	7	26.9	5	19.2	3	11.5	3	11.5	1	3.8	6	23.1	1	3.8	
	Treatment	Surgery only	3	1	33.3	.	.	.	.	.	.	.	.	.	.	.	.	1	100.0
		Chemotherapy, no radiation	557	52	9.3	15	28.8	8	15.4	7	13.5	.	.	8	15.4	12	23.1	2	3.8	
		Chemotherapy and radiation	295	53	18.0	11	20.8	14	26.4	4	7.5	4	7.5	3	5.7	13	24.5	4	7.5	
		Unknown	72	17	23.6	4	23.5	2	11.8	3	17.6	2	11.8	1	5.9	4	23.5	1	5.9	
Males	All cases		454	69	15.2	20	29.0	11	15.9	7	10.1	3	4.3	8	11.6	18	26.1	2	2.9	
	Age at baseline	<18	125	20	16.0	7	35.0	1	5.0	3	15.0	.	.	3	15.0	5	25.0	1	5.0	
		18-19	45	8	17.8	4	50.0	.	.	1	12.5	.	.	.	.	2	25.0	1	12.5
		20-24	95	19	20.0	6	31.6	2	10.5	.	.	1	5.3	2	10.5	8	42.1	.	.	
		25-29	90	13	14.4	2	15.4	5	38.5	3	23.1	.	.	2	15.4	1	7.7	.	.	
		30-34	64	6	9.4	1	16.7	2	33.3	.	.	2	33.3	.	.	1	16.7	.	.	
		35+	35	3	8.6	.	.	1	33.3	.	.	.	.	1	33.3	1	33.3	.	.
	Years since diagnosis	5-9	50	27	54.0	17	63.0	.	.	.	.	1	3.7	2	7.4	6	22.2	1	3.7
		10-14	159	19	11.9	3	15.8	5	26.3	6	31.6	.	.	1	5.3	4	21.1	.	.	
		15-19	149	18	12.1	.	.	5	27.8	1	5.6	2	11.1	4	22.2	5	27.8	1	5.6	
		20+	96	5	5.2	.	.	1	20.0	.	.	.	.	1	20.0	3	60.0	.	.
	Age at diagnosis	<1	40	1	2.5	.	.	1	100.0	.	.	.	.	.	.	.	.	.	.
		1-4	171	18	10.5	1	5.6	.	.	3	16.7	.	.	4	22.2	8	44.4	2	11.1	
		5-9	79	16	20.3	7	43.8	4	25.0	1	6.3	.	.	1	6.3	3	18.8	.	.	
		10-14	81	15	18.5	6	40.0	4	26.7	1	6.7	.	.	2	13.3	2	13.3	.	.	
		15-20	83	19	22.9	6	31.6	2	10.5	2	10.5	3	15.8	1	5.3	5	26.3	.	.	
	Treatment	Surgery only	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy, no radiation	269	30	11.2	8	26.7	3	10.0	5	16.7	.	.	5	16.7	9	30.0	.	.	
		Chemotherapy and radiation	145	28	19.3	10	35.7	7	25.0	.	.	1	3.6	2	7.1	6	21.4	2	7.1	
		Unknown	39	11	28.2	2	18.2	1	9.1	2	18.2	2	18.2	1	9.1	3	27.3	.	.	
Females	All cases		473	54	11.4	10	18.5	13	24.1	7	13.0	3	5.6	4	7.4	11	20.4	6	11.1	
	Age at baseline	<18	105	15	14.3	4	26.7	4	26.7	1	6.7	1	6.7	.	.	3	20.0	2	13.3	
		18-19	44	5	11.4	1	20.0	1	20.0	1	20.0	.	.	1	20.0	1	20.0	.	.	
		20-24	104	11	10.6	3	27.3	1	9.1	1	9.1	2	18.2	.	.	2	18.2	2	18.2	

CCSS data from Jan2020 data freeze, with death information as of 12/31/2017 NDI search.

Denominator for all percentages is all cases

						Causes of Death														
					Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
		25-29	110	14	12.7	2	14.3	2	14.3	4	28.6	.	.	3	21.4	2	14.3	1	7.1	
		30-34	69	6	8.7	.	.	3	50.0	.	.	.	.	.	.	2	33.3	1	16.7
		35+	41	3	7.3	.	.	2	66.7	.	.	.	.	.	.	1	33.3	.	.
	Years since diagnosis	5-9	35	9	25.7	6	66.7	.	.	.	.	.	.	.	.	2	22.2	1	11.1
		10-14	160	19	11.9	4	21.1	5	26.3	4	21.1	1	5.3	2	10.5	2	10.5	1	5.3	
		15-19	174	22	12.6	.	.	6	27.3	3	13.6	2	9.1	2	9.1	5	22.7	4	18.2	
		20+	104	4	3.8	.	.	2	50.0	.	.	.	.	.	.	2	50.0	.	.
	Age at diagnosis	<1	53	2	3.8	.	.	1	50.0	.	.	.	.	.	.	1	50.0	.	.
		1-4	143	16	11.2	3	18.8	4	25.0	3	18.8	2	12.5	.	.	1	6.3	3	18.8	
		5-9	92	10	10.9	.	.	.	.	.	.	1	10.0	2	20.0	6	60.0	1	10.0
		10-14	117	19	16.2	6	31.6	5	26.3	3	15.8	.	.	2	10.5	2	10.5	1	5.3	
		15-20	68	7	10.3	1	14.3	3	42.9	1	14.3	.	.	.	.	1	14.3	1	14.3
	Treatment	Surgery only	2	1	50.0	.	.	.	.	.	.	.	.	.	.	.	.	1	100.0
		Chemotherapy, no radiation	288	22	7.6	7	31.8	5	22.7	2	9.1	.	.	3	13.6	3	13.6	2	9.1	
		Chemotherapy and radiation	150	25	16.7	1	4.0	7	28.0	4	16.0	3	12.0	1	4.0	7	28.0	2	8.0	
		Unknown	33	6	18.2	2	33.3	1	16.7	1	16.7	.	.	.	.	1	16.7	1	16.7

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	All cases		4490	918	20.4	348	37.9	140	15.3	27	2.9	33	3.6	60	6.5	276	30.1	34	3.7
	Age at baseline	<18	953	295	31.0	154	52.2	18	6.1	1	0.3	3	1.0	12	4.1	98	33.2	9	3.1
		18-19	377	69	18.3	36	52.2	13	18.8	1	1.4	1	1.4	3	4.3	13	18.8	2	2.9
		20-24	1179	206	17.5	71	34.5	42	20.4	4	1.9	6	2.9	15	7.3	59	28.6	9	4.4
		25-29	1084	186	17.2	51	27.4	29	15.6	15	8.1	11	5.9	16	8.6	55	29.6	9	4.8
		30-34	623	110	17.7	27	24.5	26	23.6	4	3.6	8	7.3	10	9.1	31	28.2	4	3.6
		35+	274	52	19.0	9	17.3	12	23.1	2	3.8	4	7.7	4	7.7	20	38.5	1	1.9
	Years since diagnosis	5-9	463	267	57.7	156	58.4	15	5.6	1	0.4	2	0.7	9	3.4	76	28.5	8	3.0
		10-14	1540	275	17.9	116	42.2	45	16.4	6	2.2	9	3.3	21	7.6	66	24.0	12	4.4
		15-19	1415	213	15.1	48	22.5	46	21.6	9	4.2	11	5.2	19	8.9	71	33.3	9	4.2
		20+	1072	163	15.2	28	17.2	34	20.9	11	6.7	11	6.7	11	6.7	63	38.7	5	3.1
	Age at diagnosis	<1	218	39	17.9	17	43.6	4	10.3	.	.	1	2.6	.	.	17	43.6	.	.
		1-4	1322	252	19.1	99	39.3	30	11.9	7	2.8	5	2.0	12	4.8	87	34.5	12	4.8
		5-9	1405	273	19.4	104	38.1	43	15.8	8	2.9	8	2.9	23	8.4	77	28.2	10	3.7
		10-14	1067	229	21.5	77	33.6	45	19.7	10	4.4	9	3.9	13	5.7	66	28.8	9	3.9
		15-20	478	125	26.2	51	40.8	18	14.4	2	1.6	10	8.0	12	9.6	29	23.2	3	2.4
	Treatment	Surgery only	1272	91	7.2	23	25.3	14	15.4	4	4.4	3	3.3	13	14.3	28	30.8	6	6.6
		Chemotherapy, no radiation	355	30	8.5	15	50.0	5	16.7	.	.	.	.	2	6.7	8	26.7	.	.
		Radiation, no chemotherapy	1171	319	27.2	109	34.2	48	15.0	9	2.8	12	3.8	28	8.8	101	31.7	12	3.8
		Chemotherapy and radiation	1249	366	29.3	160	43.7	58	15.8	10	2.7	11	3.0	12	3.3	103	28.1	12	3.3
		Unknown	443	112	25.3	41	36.6	15	13.4	4	3.6	7	6.3	5	4.5	36	32.1	4	3.6
Males	All cases		2452	561	22.9	211	37.6	73	13.0	18	3.2	22	3.9	47	8.4	167	29.8	23	4.1
	Age at baseline	<18	529	175	33.1	94	53.7	9	5.1	1	0.6	3	1.7	7	4.0	57	32.6	4	2.3
		18-19	191	38	19.9	22	57.9	7	18.4	.	.	.	.	3	7.9	6	15.8	.	.
		20-24	633	131	20.7	46	35.1	22	16.8	.	.	5	3.8	13	9.9	38	29.0	7	5.3
		25-29	618	122	19.7	29	23.8	21	17.2	13	10.7	6	4.9	13	10.7	33	27.0	7	5.7
		30-34	332	65	19.6	17	26.2	8	12.3	3	4.6	5	7.7	7	10.8	21	32.3	4	6.2
		35+	149	30	20.1	3	10.0	6	20.0	1	3.3	3	10.0	4	13.3	12	40.0	1	3.3
	Years since diagnosis	5-9	263	162	61.6	92	56.8	9	5.6	.	.	1	0.6	7	4.3	49	30.2	4	2.5
		10-14	832	175	21.0	75	42.9	26	14.9	4	2.3	8	4.6	16	9.1	39	22.3	7	4.0
		15-19	772	131	17.0	29	22.1	22	16.8	7	5.3	5	3.8	17	13.0	43	32.8	8	6.1
		20+	585	93	15.9	15	16.1	16	17.2	7	7.5	8	8.6	7	7.5	36	38.7	4	4.3
	Age at diagnosis	<1	128	23	18.0	12	52.2	1	4.3	.	.	1	4.3	.	.	9	39.1	.	.
		1-4	698	146	20.9	60	41.1	15	10.3	3	2.1	3	2.1	11	7.5	49	33.6	5	3.4
		5-9	786	174	22.1	62	35.6	25	14.4	7	4.0	6	3.4	14	8.0	52	29.9	8	4.6
		10-14	570	138	24.2	48	34.8	23	16.7	7	5.1	4	2.9	10	7.2	38	27.5	8	5.8
		15-20	270	80	29.6	29	36.3	9	11.3	1	1.3	8	10.0	12	15.0	19	23.8	2	2.5
	Treatment	Surgery only	649	57	8.8	14	24.6	8	14.0	4	7.0	1	1.8	9	15.8	17	29.8	4	7.0
		Chemotherapy, no radiation	191	18	9.4	10	55.6	3	16.7	.	.	.	.	2	11.1	3	16.7	.	.
		Radiation, no chemotherapy	616	199	32.3	71	35.7	25	12.6	4	2.0	10	5.0	23	11.6	58	29.1	8	4.0
		Chemotherapy and radiation	742	217	29.2	93	42.9	31	14.3	7	3.2	9	4.1	8	3.7	61	28.1	8	3.7
		Unknown	254	70	27.6	23	32.9	6	8.6	3	4.3	2	2.9	5	7.1	28	40.0	3	4.3
Females	All cases		2038	357	17.5	137	38.4	67	18.8	9	2.5	11	3.1	13	3.6	109	30.5	11	3.1

CCSS data from Jan2020 data freeze, with death information as of 12/31/2017 NDI search.
Denominator for all percentages is all cases

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	Age at baseline	<18	424	120	28.3	60	50.0	9	7.5	.	.	.	.	5	4.2	41	34.2	5	4.2
		18-19	186	31	16.7	14	45.2	6	19.4	1	3.2	1	3.2	.	.	7	22.6	2	6.5
		20-24	546	75	13.7	25	33.3	20	26.7	4	5.3	1	1.3	2	2.7	21	28.0	2	2.7
		25-29	466	64	13.7	22	34.4	8	12.5	2	3.1	5	7.8	3	4.7	22	34.4	2	3.1
		30-34	291	45	15.5	10	22.2	18	40.0	1	2.2	3	6.7	3	6.7	10	22.2	.	.
		35+	125	22	17.6	6	27.3	6	27.3	1	4.5	1	4.5	.	.	8	36.4	.	.
	Years since diagnosis	5-9	200	105	52.5	64	61.0	6	5.7	1	1.0	1	1.0	2	1.9	27	25.7	4	3.8
		10-14	708	100	14.1	41	41.0	19	19.0	2	2.0	1	1.0	5	5.0	27	27.0	5	5.0
		15-19	643	82	12.8	19	23.2	24	29.3	2	2.4	6	7.3	2	2.4	28	34.1	1	1.2
		20+	487	70	14.4	13	18.6	18	25.7	4	5.7	3	4.3	4	5.7	27	38.6	1	1.4
	Age at diagnosis	<1	90	16	17.8	5	31.3	3	18.8	.	.	.	.	.	.	8	50.0	.	.
		1-4	624	106	17.0	39	36.8	15	14.2	4	3.8	2	1.9	1	0.9	38	35.8	7	6.6
		5-9	619	99	16.0	42	42.4	18	18.2	1	1.0	2	2.0	9	9.1	25	25.3	2	2.0
		10-14	497	91	18.3	29	31.9	22	24.2	3	3.3	5	5.5	3	3.3	28	30.8	1	1.1
		15-20	208	45	21.6	22	48.9	9	20.0	1	2.2	2	4.4	.	.	10	22.2	1	2.2
	Treatment	Surgery only	623	34	5.5	9	26.5	6	17.6	.	.	2	5.9	4	11.8	11	32.4	2	5.9
		Chemotherapy, no radiation	164	12	7.3	5	41.7	2	16.7	.	.	.	.	.	.	5	41.7	.	.
		Radiation, no chemotherapy	555	120	21.6	38	31.7	23	19.2	5	4.2	2	1.7	5	4.2	43	35.8	4	3.3
		Chemotherapy and radiation	507	149	29.4	67	45.0	27	18.1	3	2.0	2	1.3	4	2.7	42	28.2	4	2.7
		Unknown	189	42	22.2	18	42.9	9	21.4	1	2.4	5	11.9	.	.	8	19.0	1	2.4

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	All cases		2688	513	19.1	190	37.0	78	15.2	20	3.9	20	3.9	40	7.8	146	28.5	19	3.7
	Age at baseline	<18	528	152	28.8	81	53.3	8	5.3	1	0.7	2	1.3	8	5.3	45	29.6	7	4.6
		18-19	215	36	16.7	17	47.2	8	22.2	1	2.8	1	2.8	2	5.6	6	16.7	1	2.8
		20-24	713	109	15.3	38	34.9	21	19.3	3	2.8	4	3.7	8	7.3	31	28.4	4	3.7
		25-29	664	118	17.8	33	28.0	17	14.4	12	10.2	7	5.9	13	11.0	31	26.3	5	4.2
		30-34	386	69	17.9	15	21.7	18	26.1	2	2.9	5	7.2	7	10.1	20	29.0	2	2.9
		35+	182	29	15.9	6	20.7	6	20.7	1	3.4	1	3.4	2	6.9	13	44.8	.	.
	Years since diagnosis	5-9	237	125	52.7	74	59.2	6	4.8	1	0.8	2	1.6	4	3.2	32	25.6	6	4.8
		10-14	906	157	17.3	70	44.6	23	14.6	5	3.2	6	3.8	17	10.8	29	18.5	7	4.5
		15-19	831	124	14.9	28	22.6	25	20.2	6	4.8	6	4.8	12	9.7	42	33.9	5	4.0
		20+	714	107	15.0	18	16.8	24	22.4	8	7.5	6	5.6	7	6.5	43	40.2	1	0.9
	Age at diagnosis	<1	150	32	21.3	13	40.6	4	12.5	.	.	1	3.1	.	.	14	43.8	.	.
		1-4	801	140	17.5	58	41.4	15	10.7	6	4.3	3	2.1	8	5.7	43	30.7	7	5.0
		5-9	793	143	18.0	49	34.3	26	18.2	5	3.5	6	4.2	14	9.8	37	25.9	6	4.2
		10-14	641	122	19.0	39	32.0	21	17.2	8	6.6	4	3.3	10	8.2	36	29.5	4	3.3
		15-20	303	76	25.1	31	40.8	12	15.8	1	1.3	6	7.9	8	10.5	16	21.1	2	2.6
	Treatment	Surgery only	1047	66	6.3	18	27.3	10	15.2	2	3.0	2	3.0	12	18.2	18	27.3	4	6.1
		Chemotherapy, no radiation	255	25	9.8	12	48.0	5	20.0	.	.	.	.	2	8.0	6	24.0	.	.
		Radiation, no chemotherapy	730	223	30.5	79	35.4	34	15.2	8	3.6	7	3.1	20	9.0	69	30.9	6	2.7
		Chemotherapy and radiation	371	135	36.4	60	44.4	20	14.8	8	5.9	6	4.4	3	2.2	32	23.7	6	4.4
		Unknown	285	64	22.5	21	32.8	9	14.1	2	3.1	5	7.8	3	4.7	21	32.8	3	4.7
Males	All cases		1405	304	21.6	114	37.5	36	11.8	12	3.9	12	3.9	34	11.2	84	27.6	12	3.9
	Age at baseline	<18	279	90	32.3	50	55.6	4	4.4	1	1.1	2	2.2	6	6.7	23	25.6	4	4.4
		18-19	109	21	19.3	11	52.4	4	19.0	.	.	.	.	2	9.5	4	19.0	.	.
		20-24	354	61	17.2	24	39.3	8	13.1	.	.	3	4.9	7	11.5	17	27.9	2	3.3
		25-29	371	79	21.3	18	22.8	12	15.2	10	12.7	3	3.8	11	13.9	21	26.6	4	5.1
		30-34	195	38	19.5	8	21.1	6	15.8	1	2.6	3	7.9	6	15.8	12	31.6	2	5.3
		35+	97	15	15.5	3	20.0	2	13.3	.	.	1	6.7	2	13.3	7	46.7	.	.
	Years since diagnosis	5-9	125	70	56.0	41	58.6	3	4.3	.	.	1	1.4	4	5.7	18	25.7	3	4.3
		10-14	479	104	21.7	45	43.3	14	13.5	3	2.9	5	4.8	13	12.5	20	19.2	4	3.8
		15-19	422	72	17.1	19	26.4	8	11.1	5	6.9	2	2.8	11	15.3	23	31.9	4	5.6
		20+	379	58	15.3	9	15.5	11	19.0	4	6.9	4	6.9	6	10.3	23	39.7	1	1.7
	Age at diagnosis	<1	86	19	22.1	10	52.6	1	5.3	.	.	1	5.3	.	.	7	36.8	.	.
		1-4	403	80	19.9	37	46.3	5	6.3	3	3.8	1	1.3	8	10.0	22	27.5	4	5.0
		5-9	421	89	21.1	28	31.5	16	18.0	4	4.5	4	4.5	10	11.2	23	25.8	4	4.5
		10-14	328	71	21.6	23	32.4	8	11.3	5	7.0	2	2.8	8	11.3	22	31.0	3	4.2
		15-20	167	45	26.9	16	35.6	6	13.3	.	.	4	8.9	8	17.8	10	22.2	1	2.2
	Treatment	Surgery only	524	41	7.8	11	26.8	5	12.2	2	4.9	.	.	8	19.5	12	29.3	3	7.3
		Chemotherapy, no radiation	142	16	11.3	9	56.3	3	18.8	.	.	.	.	2	12.5	2	12.5	.	.
		Radiation, no chemotherapy	370	131	35.4	50	38.2	15	11.5	3	2.3	6	4.6	19	14.5	35	26.7	3	2.3
		Chemotherapy and radiation	211	80	37.9	34	42.5	9	11.3	6	7.5	5	6.3	2	2.5	20	25.0	4	5.0
		Unknown	158	36	22.8	10	27.8	4	11.1	1	2.8	1	2.8	3	8.3	15	41.7	2	5.6
Females	All cases		1283	209	16.3	76	36.4	42	20.1	8	3.8	8	3.8	6	2.9	62	29.7	7	3.3

CCSS data from Jan2020 data freeze, with death information as of 12/31/2017 NDI search.
Denominator for all percentages is all cases

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	Age at baseline	<18	249	62	24.9	31	50.0	4	6.5	.	.	.	.	2	3.2	22	35.5	3	4.8
		18-19	106	15	14.2	6	40.0	4	26.7	1	6.7	1	6.7	.	.	2	13.3	1	6.7
		20-24	359	48	13.4	14	29.2	13	27.1	3	6.3	1	2.1	1	2.1	14	29.2	2	4.2
		25-29	293	39	13.3	15	38.5	5	12.8	2	5.1	4	10.3	2	5.1	10	25.6	1	2.6
		30-34	191	31	16.2	7	22.6	12	38.7	1	3.2	2	6.5	1	3.2	8	25.8	.	.
		35+	85	14	16.5	3	21.4	4	28.6	1	7.1	.	.	.	.	6	42.9	.	.
	Years since diagnosis	5-9	112	55	49.1	33	60.0	3	5.5	1	1.8	1	1.8	.	.	14	25.5	3	5.5
		10-14	427	53	12.4	25	47.2	9	17.0	2	3.8	1	1.9	4	7.5	9	17.0	3	5.7
		15-19	409	52	12.7	9	17.3	17	32.7	1	1.9	4	7.7	1	1.9	19	36.5	1	1.9
		20+	335	49	14.6	9	18.4	13	26.5	4	8.2	2	4.1	1	2.0	20	40.8	.	.
	Age at diagnosis	<1	64	13	20.3	3	23.1	3	23.1	.	.	.	.	.	.	7	53.8	.	.
		1-4	398	60	15.1	21	35.0	10	16.7	3	5.0	2	3.3	.	.	21	35.0	3	5.0
		5-9	372	54	14.5	21	38.9	10	18.5	1	1.9	2	3.7	4	7.4	14	25.9	2	3.7
		10-14	313	51	16.3	16	31.4	13	25.5	3	5.9	2	3.9	2	3.9	14	27.5	1	2.0
		15-20	136	31	22.8	15	48.4	6	19.4	1	3.2	2	6.5	.	.	6	19.4	1	3.2
	Treatment	Surgery only	523	25	4.8	7	28.0	5	20.0	.	.	2	8.0	4	16.0	6	24.0	1	4.0
		Chemotherapy, no radiation	113	9	8.0	3	33.3	2	22.2	.	.	.	.	.	.	4	44.4	.	.
		Radiation, no chemotherapy	360	92	25.6	29	31.5	19	20.7	5	5.4	1	1.1	1	1.1	34	37.0	3	3.3
		Chemotherapy and radiation	160	55	34.4	26	47.3	11	20.0	2	3.6	1	1.8	1	1.8	12	21.8	2	3.6
		Unknown	127	28	22.0	11	39.3	5	17.9	1	3.6	4	14.3	.	.	6	21.4	1	3.6

					Causes of Death														
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	All cases		1040	241	23.2	104	43.2	44	18.3	3	1.2	7	2.9	9	3.7	66	27.4	8	3.3
	Age at baseline	<18	246	94	38.2	54	57.4	5	5.3	.	.	1	1.1	3	3.2	31	33.0	.	.
		18-19	83	14	16.9	10	71.4	3	21.4	.	.	.	.	.	.	1	7.1	.	.
		20-24	291	62	21.3	22	35.5	16	25.8	.	.	1	1.6	4	6.5	15	24.2	4	6.5
		25-29	252	41	16.3	10	24.4	11	26.8	1	2.4	3	7.3	2	4.9	12	29.3	2	4.9
		30-34	131	22	16.8	7	31.8	6	27.3	1	4.5	.	.	.	.	7	31.8	1	4.5
		35+	37	8	21.6	1	12.5	3	37.5	1	12.5	2	25.0	.	.	.	.	1	12.5
	Years since diagnosis	5-9	124	90	72.6	58	64.4	7	7.8	.	.	.	.	2	2.2	22	24.4	1	1.1
		10-14	355	60	16.9	26	43.3	13	21.7	.	.	1	1.7	2	3.3	17	28.3	1	1.7
		15-19	344	58	16.9	14	24.1	16	27.6	1	1.7	3	5.2	5	8.6	16	27.6	3	5.2
		20+	217	33	15.2	6	18.2	8	24.2	2	6.1	3	9.1	.	.	11	33.3	3	9.1
	Age at diagnosis	<1	28	4	14.3	1	25.0	.	.	.	.	.	.	.	.	3	75.0	.	.
		1-4	298	64	21.5	23	35.9	10	15.6	.	.	2	3.1	3	4.7	25	39.1	1	1.6
		5-9	422	94	22.3	45	47.9	13	13.8	3	3.2	1	1.1	5	5.3	24	25.5	3	3.2
		10-14	230	60	26.1	26	43.3	17	28.3	.	.	3	5.0	1	1.7	10	16.7	3	5.0
		15-20	62	19	30.6	9	47.4	4	21.1	.	.	1	5.3	.	.	4	21.1	1	5.3
	Treatment	Surgery only	8	4	50.0	1	25.0	1	25.0	.	.	.	.	.	.	1	25.0	1	25.0
		Chemotherapy, no radiation	53	2	3.8	1	50.0	.	.	.	.	.	.	.	.	1	50.0	.	.
		Radiation, no chemotherapy	208	45	21.6	16	35.6	8	17.8	1	2.2	2	4.4	1	2.2	14	31.1	3	6.7
		Chemotherapy and radiation	692	169	24.4	74	43.8	33	19.5	1	0.6	5	3.0	8	4.7	45	26.6	3	1.8
		Unknown	79	21	26.6	12	57.1	2	9.5	1	4.8	.	.	.	.	5	23.8	1	4.8
Males	All cases		632	160	25.3	68	42.5	28	17.5	3	1.9	5	3.1	6	3.8	42	26.3	8	5.0
	Age at baseline	<18	147	56	38.1	34	60.7	3	5.4	.	.	1	1.8	1	1.8	17	30.4	.	.
		18-19	47	12	25.5	8	66.7	3	25.0	.	.	.	.	.	.	1	8.3	.	.
		20-24	185	46	24.9	15	32.6	11	23.9	.	.	1	2.2	4	8.7	11	23.9	4	8.7
		25-29	157	27	17.2	6	22.2	8	29.6	1	3.7	2	7.4	1	3.7	7	25.9	2	7.4
		30-34	73	15	20.5	5	33.3	2	13.3	1	6.7	.	.	.	.	6	40.0	1	6.7
		35+	23	4	17.4	.	.	1	25.0	1	25.0	1	25.0	.	.	.	.	1	25.0
	Years since diagnosis	5-9	76	56	73.7	36	64.3	6	10.7	.	.	.	.	1	1.8	12	21.4	1	1.8
		10-14	208	41	19.7	22	53.7	7	17.1	.	.	1	2.4	1	2.4	9	22.0	1	2.4
		15-19	217	40	18.4	5	12.5	12	30.0	1	2.5	2	5.0	4	10.0	13	32.5	3	7.5
		20+	131	23	17.6	5	21.7	3	13.0	2	8.7	2	8.7	.	.	8	34.8	3	13.0
	Age at diagnosis	<1	16	3	18.8	1	33.3	.	.	.	.	.	.	.	.	2	66.7	.	.
		1-4	180	41	22.8	12	29.3	8	19.5	.	.	2	4.9	3	7.3	15	36.6	1	2.4
		5-9	267	68	25.5	31	45.6	8	11.8	3	4.4	1	1.5	3	4.4	19	27.9	3	4.4
		10-14	132	37	28.0	19	51.4	10	27.0	.	.	1	2.7	.	.	4	10.8	3	8.1
		15-20	37	11	29.7	5	45.5	2	18.2	.	.	1	9.1	.	.	2	18.2	1	9.1
	Treatment	Surgery only	5	4	80.0	1	25.0	1	25.0	.	.	.	.	.	.	1	25.0	1	25.0
		Chemotherapy, no radiation	27	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Radiation, no chemotherapy	115	32	27.8	11	34.4	5	15.6	1	3.1	1	3.1	1	3.1	10	31.3	3	9.4
		Chemotherapy and radiation	437	108	24.7	47	43.5	21	19.4	1	0.9	4	3.7	5	4.6	27	25.0	3	2.8
		Unknown	48	16	33.3	9	56.3	1	6.3	1	6.3	.	.	.	.	4	25.0	1	6.3
Females	All cases		408	81	19.9	36	44.4	16	19.8	.	.	2	2.5	3	3.7	24	29.6	.	.

CCSS data from Jan2020 data freeze, with death information as of 12/31/2017 NDI search.
Denominator for all percentages is all cases

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	Age at baseline	<18	99	38	38.4	20	52.6	2	5.3	.	.	.	.	2	5.3	14	36.8	.	.
		18-19	36	2	5.6	2	100.0	.	.	.	.	.	.	.	.	.	.	.	.
		20-24	106	16	15.1	7	43.8	5	31.3	.	.	.	.	.	.	4	25.0	.	.
		25-29	95	14	14.7	4	28.6	3	21.4	.	.	1	7.1	1	7.1	5	35.7	.	.
		30-34	58	7	12.1	2	28.6	4	57.1	.	.	.	.	.	.	1	14.3	.	.
		35+	14	4	28.6	1	25.0	2	50.0	.	.	1	25.0	.	.	.	.	.	.
	Years since diagnosis	5-9	48	34	70.8	22	64.7	1	2.9	.	.	.	.	1	2.9	10	29.4	.	.
		10-14	147	19	12.9	4	21.1	6	31.6	.	.	.	.	1	5.3	8	42.1	.	.
		15-19	127	18	14.2	9	50.0	4	22.2	.	.	1	5.6	1	5.6	3	16.7	.	.
		20+	86	10	11.6	1	10.0	5	50.0	.	.	1	10.0	.	.	3	30.0	.	.
	Age at diagnosis	<1	12	1	8.3	.	.	.	.	.	.	.	.	.	.	1	100.0	.	.
		1-4	118	23	19.5	11	47.8	2	8.7	.	.	.	.	.	.	10	43.5	.	.
		5-9	155	26	16.8	14	53.8	5	19.2	.	.	.	.	2	7.7	5	19.2	.	.
		10-14	98	23	23.5	7	30.4	7	30.4	.	.	2	8.7	1	4.3	6	26.1	.	.
		15-20	25	8	32.0	4	50.0	2	25.0	.	.	.	.	.	.	2	25.0	.	.
	Treatment	Surgery only	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy, no radiation	26	2	7.7	1	50.0	.	.	.	.	.	.	.	.	1	50.0	.	.
		Radiation, no chemotherapy	93	13	14.0	5	38.5	3	23.1	.	.	1	7.7	.	.	4	30.8	.	.
		Chemotherapy and radiation	255	61	23.9	27	44.3	12	19.7	.	.	1	1.6	3	4.9	18	29.5	.	.
		Unknown	31	5	16.1	3	60.0	1	20.0	.	.	.	.	.	.	1	20.0	.	.

						Causes of Death															
						Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
				All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Both sexes	All cases		3107	841	27.1	143	17.0	271	32.2	172	20.5	48	5.7	48	5.7	127	15.1	32	3.8		
	Age at baseline	<18	61	18	29.5	6	33.3	5	27.8	.	.	.	.	4	22.2	3	16.7	.	.		
		18-19	62	13	21.0	4	30.8	5	38.5	.	.	.	.	2	15.4	2	15.4	.	.		
		20-24	376	91	24.2	30	33.0	18	19.8	10	11.0	2	2.2	9	9.9	16	17.6	6	6.6		
		25-29	798	172	21.6	52	30.2	38	22.1	34	19.8	13	7.6	12	7.0	17	9.9	6	3.5		
		30-34	949	248	26.1	26	10.5	88	35.5	55	22.2	10	4.0	11	4.4	44	17.7	14	5.6		
		35+	861	299	34.7	25	8.4	117	39.1	73	24.4	23	7.7	10	3.3	45	15.1	6	2.0		
	Years since diagnosis	5-9	242	123	50.8	63	51.2	21	17.1	8	6.5	3	2.4	9	7.3	16	13.0	3	2.4		
		10-14	947	183	19.3	31	16.9	57	31.1	35	19.1	9	4.9	13	7.1	26	14.2	12	6.6		
		15-19	1010	228	22.6	27	11.8	83	36.4	54	23.7	11	4.8	14	6.1	33	14.5	6	2.6		
		20+	908	307	33.8	22	7.2	110	35.8	75	24.4	25	8.1	12	3.9	52	16.9	11	3.6		
	Age at diagnosis	1-4	84	10	11.9	.	.	5	50.0	1	10.0	.	.	2	20.0	1	10.0	1	10.0		
		5-9	421	83	19.7	11	13.3	23	27.7	19	22.9	4	4.8	8	9.6	12	14.5	6	7.2		
		10-14	1118	287	25.7	38	13.2	87	30.3	56	19.5	19	6.6	22	7.7	54	18.8	11	3.8		
		15-20	1484	461	31.1	94	20.4	156	33.8	96	20.8	25	5.4	16	3.5	60	13.0	14	3.0		
	Treatment	Surgery only	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy, no radiation	363	34	9.4	6	17.6	9	26.5	5	14.7	2	5.9	2	5.9	9	26.5	1	2.9		
		Radiation, no chemotherapy	651	220	33.8	17	7.7	88	40.0	52	23.6	16	7.3	10	4.5	34	15.5	3	1.4		
		Chemotherapy and radiation	1759	468	26.6	94	20.1	144	30.8	83	17.7	25	5.3	30	6.4	70	15.0	22	4.7		
		Unknown	332	119	35.8	26	21.8	30	25.2	32	26.9	5	4.2	6	5.0	14	11.8	6	5.0		
Males	All cases		1631	450	27.6	93	20.7	128	28.4	102	22.7	23	5.1	36	8.0	56	12.4	12	2.7		
	Age at baseline	<18	46	14	30.4	4	28.6	3	21.4	.	.	.	.	4	28.6	3	21.4	.	.		
		18-19	49	10	20.4	3	30.0	4	40.0	.	.	.	.	2	20.0	1	10.0	.	.		
		20-24	239	61	25.5	20	32.8	12	19.7	6	9.8	1	1.6	8	13.1	11	18.0	3	4.9		
		25-29	445	100	22.5	31	31.0	22	22.0	25	25.0	5	5.0	10	10.0	6	6.0	1	1.0		
		30-34	480	134	27.9	22	16.4	39	29.1	37	27.6	6	4.5	8	6.0	18	13.4	4	3.0		
		35+	372	131	35.2	13	9.9	48	36.6	34	26.0	11	8.4	4	3.1	17	13.0	4	3.1		
	Years since diagnosis	5-9	138	76	55.1	41	53.9	8	10.5	7	9.2	1	1.3	9	11.8	9	11.8	1	1.3		
		10-14	492	107	21.7	21	19.6	32	29.9	24	22.4	3	2.8	10	9.3	13	12.1	4	3.7		
		15-19	539	121	22.4	19	15.7	38	31.4	34	28.1	6	5.0	10	8.3	12	9.9	2	1.7		
		20+	462	146	31.6	12	8.2	50	34.2	37	25.3	13	8.9	7	4.8	22	15.1	5	3.4		
	Age at diagnosis	1-4	63	8	12.7	.	.	5	62.5	.	.	.	.	2	25.0	1	12.5	.	.		
		5-9	305	62	20.3	9	14.5	18	29.0	12	19.4	3	4.8	8	12.9	9	14.5	3	4.8		
		10-14	579	142	24.5	22	15.5	38	26.8	30	21.1	9	6.3	15	10.6	24	16.9	4	2.8		
		15-20	684	238	34.8	62	26.1	67	28.2	60	25.2	11	4.6	11	4.6	22	9.2	5	2.1		
	Treatment	Surgery only	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy, no radiation	186	18	9.7	6	33.3	4	22.2	3	16.7	.	.	2	11.1	3	16.7	.	.		
		Radiation, no chemotherapy	336	105	31.3	8	7.6	33	31.4	30	28.6	9	8.6	6	5.7	17	16.2	2	1.9		
		Chemotherapy and radiation	911	250	27.4	61	24.4	76	30.4	45	18.0	12	4.8	23	9.2	26	10.4	7	2.8		
		Unknown	197	77	39.1	18	23.4	15	19.5	24	31.2	2	2.6	5	6.5	10	13.0	3	3.9		
Females	All cases		1476	391	26.5	50	12.8	143	36.6	70	17.9	25	6.4	12	3.1	71	18.2	20	5.1		
	Age at baseline	<18	15	4	26.7	2	50.0	2	50.0	.	.	.	.	.	.	.	.	.	.
		18-19	13	3	23.1	1	33.3	1	33.3	.	.	.	.	.	.	1	33.3	.	.		

CCSS data from Jan2020 data freeze, with death information as of 12/31/2017 NDI search.

Denominator for all percentages is all cases

				Causes of Death															
			Deaths			Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
		All cases	N	%		N	%	N	%	N	%	N	%	N	%	N	%	N	%
		20-24	137	30	21.9	10	33.3	6	20.0	4	13.3	1	3.3	1	3.3	5	16.7	3	10.0
		25-29	353	72	20.4	21	29.2	16	22.2	9	12.5	8	11.1	2	2.8	11	15.3	5	6.9
		30-34	469	114	24.3	4	3.5	49	43.0	18	15.8	4	3.5	3	2.6	26	22.8	10	8.8
		35+	489	168	34.4	12	7.1	69	41.1	39	23.2	12	7.1	6	3.6	28	16.7	2	1.2
	Years since diagnosis	5-9	104	47	45.2	22	46.8	13	27.7	1	2.1	2	4.3	.	.	7	14.9	2	4.3
		10-14	455	76	16.7	10	13.2	25	32.9	11	14.5	6	7.9	3	3.9	13	17.1	8	10.5
		15-19	471	107	22.7	8	7.5	45	42.1	20	18.7	5	4.7	4	3.7	21	19.6	4	3.7
		20+	446	161	36.1	10	6.2	60	37.3	38	23.6	12	7.5	5	3.1	30	18.6	6	3.7
	Age at diagnosis	1-4	21	2	9.5	.	.	.	.	1	50.0	.	.	.	.	.	.	1	50.0
		5-9	116	21	18.1	2	9.5	5	23.8	7	33.3	1	4.8	.	.	3	14.3	3	14.3
		10-14	539	145	26.9	16	11.0	49	33.8	26	17.9	10	6.9	7	4.8	30	20.7	7	4.8
		15-20	800	223	27.9	32	14.3	89	39.9	36	16.1	14	6.3	5	2.2	38	17.0	9	4.0
	Treatment	Surgery only	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy, no radiation	177	16	9.0	.	.	5	31.3	2	12.5	2	12.5	.	.	6	37.5	1	6.3
		Radiation, no chemotherapy	315	115	36.5	9	7.8	55	47.8	22	19.1	7	6.1	4	3.5	17	14.8	1	0.9
		Chemotherapy and radiation	848	218	25.7	33	15.1	68	31.2	38	17.4	13	6.0	7	3.2	44	20.2	15	6.9
		Unknown	135	42	31.1	8	19.0	15	35.7	8	19.0	3	7.1	1	2.4	4	9.5	3	7.1

			Causes of Death																
			Deaths			Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	All cases		2116	255	12.1	33	12.9	63	24.7	34	13.3	14	5.5	33	12.9	61	23.9	17	6.7
	Age at baseline	<18	214	41	19.2	12	29.3	6	14.6	2	4.9	2	4.9	4	9.8	11	26.8	4	9.8
		18-19	132	17	12.9	5	29.4	5	29.4	1	5.9	1	5.9	1	5.9	3	17.6	1	5.9
		20-24	469	47	10.0	8	17.0	10	21.3	3	6.4	1	2.1	11	23.4	13	27.7	1	2.1
		25-29	569	61	10.7	4	6.6	15	24.6	12	19.7	2	3.3	8	13.1	16	26.2	4	6.6
		30-34	483	48	9.9	1	2.1	15	31.3	8	16.7	4	8.3	7	14.6	8	16.7	5	10.4
		35+	249	41	16.5	3	7.3	12	29.3	8	19.5	4	9.8	2	4.9	10	24.4	2	4.9
	Years since diagnosis	5-9	146	56	38.4	22	39.3	11	19.6	1	1.8	1	1.8	7	12.5	11	19.6	3	5.4
		10-14	672	58	8.6	6	10.3	16	27.6	7	12.1	1	1.7	7	12.1	18	31.0	3	5.2
		15-19	730	75	10.3	2	2.7	16	21.3	14	18.7	7	9.3	12	16.0	17	22.7	7	9.3
		20+	568	66	11.6	3	4.5	20	30.3	12	18.2	5	7.6	7	10.6	15	22.7	4	6.1
	Age at diagnosis	<1	15	4	26.7	.	.	.	.	.	.	.	.	.	.	3	75.0	1	25.0
		1-4	344	30	8.7	4	13.3	8	26.7	4	13.3	3	10.0	3	10.0	6	20.0	2	6.7
		5-9	648	73	11.3	10	13.7	14	19.2	8	11.0	3	4.1	13	17.8	19	26.0	6	8.2
		10-14	675	78	11.6	11	14.1	19	24.4	14	17.9	2	2.6	13	16.7	14	17.9	5	6.4
		15-20	434	70	16.1	8	11.4	22	31.4	8	11.4	6	8.6	4	5.7	19	27.1	3	4.3
	Treatment	Surgery only	16	3	18.8	.	.	1	33.3	.	.	1	33.3	.	.	.	.	1	33.3
		Chemotherapy, no radiation	1075	62	5.8	8	12.9	12	19.4	7	11.3	3	4.8	11	17.7	17	27.4	4	6.5
		Radiation, no chemotherapy	38	17	44.7	2	11.8	4	23.5	2	11.8	2	11.8	1	5.9	5	29.4	1	5.9
		Chemotherapy and radiation	766	136	17.8	20	14.7	37	27.2	17	12.5	8	5.9	16	11.8	30	22.1	8	5.9
		Unknown	221	37	16.7	3	8.1	9	24.3	8	21.6	.	.	5	13.5	9	24.3	3	8.1
Males	All cases		1438	179	12.4	22	12.3	40	22.3	23	12.8	8	4.5	31	17.3	42	23.5	13	7.3
	Age at baseline	<18	148	30	20.3	8	26.7	5	16.7	.	.	1	3.3	4	13.3	9	30.0	3	10.0
		18-19	97	10	10.3	2	20.0	3	30.0	1	10.0	.	.	1	10.0	2	20.0	1	10.0
		20-24	304	34	11.2	7	20.6	6	17.6	3	8.8	1	2.9	10	29.4	6	17.6	1	2.9
		25-29	405	44	10.9	2	4.5	10	22.7	8	18.2	2	4.5	8	18.2	11	25.0	3	6.8
		30-34	319	35	11.0	1	2.9	10	28.6	5	14.3	3	8.6	6	17.1	7	20.0	3	8.6
		35+	165	26	15.8	2	7.7	6	23.1	6	23.1	1	3.8	2	7.7	7	26.9	2	7.7
	Years since diagnosis	5-9	111	38	34.2	14	36.8	7	18.4	.	.	.	.	7	18.4	8	21.1	2	5.3
		10-14	457	39	8.5	4	10.3	11	28.2	2	5.1	1	2.6	6	15.4	13	33.3	2	5.1
		15-19	480	52	10.8	1	1.9	10	19.2	10	19.2	5	9.6	12	23.1	8	15.4	6	11.5
		20+	390	50	12.8	3	6.0	12	24.0	11	22.0	2	4.0	6	12.0	13	26.0	3	6.0
	Age at diagnosis	<1	5	2	40.0	.	.	.	.	.	.	.	.	.	.	2	100.0	.	.
		1-4	232	24	10.3	3	12.5	7	29.2	3	12.5	2	8.3	3	12.5	4	16.7	2	8.3
		5-9	452	54	11.9	7	13.0	9	16.7	7	13.0	2	3.7	12	22.2	12	22.2	5	9.3
		10-14	464	56	12.1	7	12.5	10	17.9	11	19.6	1	1.8	12	21.4	11	19.6	4	7.1
		15-20	285	43	15.1	5	11.6	14	32.6	2	4.7	3	7.0	4	9.3	13	30.2	2	4.7
	Treatment	Surgery only	13	2	15.4	.	.	1	50.0	.	.	1	50.0	.	.	.	.	.	.
		Chemotherapy, no radiation	727	51	7.0	7	13.7	9	17.6	5	9.8	2	3.9	11	21.6	13	25.5	4	7.8
		Radiation, no chemotherapy	28	13	46.4	1	7.7	3	23.1	2	15.4	.	.	1	7.7	5	38.5	1	7.7
		Chemotherapy and radiation	511	85	16.6	13	15.3	23	27.1	8	9.4	5	5.9	14	16.5	17	20.0	5	5.9
		Unknown	159	28	17.6	1	3.6	4	14.3	8	28.6	.	.	5	17.9	7	25.0	3	10.7
Females	All cases		678	76	11.2	11	14.5	23	30.3	11	14.5	6	7.9	2	2.6	19	25.0	4	5.3

CCSS data from Jan2020 data freeze, with death information as of 12/31/2017 NDI search.

Denominator for all percentages is all cases

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	Age at baseline	<18	66	11	16.7	4	36.4	1	9.1	2	18.2	1	9.1	.	.	2	18.2	1	9.1
		18-19	35	7	20.0	3	42.9	2	28.6	.	.	1	14.3	.	.	1	14.3	.	.
		20-24	165	13	7.9	1	7.7	4	30.8	.	.	.	.	1	7.7	7	53.8	.	.
		25-29	164	17	10.4	2	11.8	5	29.4	4	23.5	.	.	.	.	5	29.4	1	5.9
		30-34	164	13	7.9	.	.	5	38.5	3	23.1	1	7.7	1	7.7	1	7.7	2	15.4
		35+	84	15	17.9	1	6.7	6	40.0	2	13.3	3	20.0	.	.	3	20.0	.	.
	Years since diagnosis	5-9	35	18	51.4	8	44.4	4	22.2	1	5.6	1	5.6	.	.	3	16.7	1	5.6
		10-14	215	19	8.8	2	10.5	5	26.3	5	26.3	.	.	1	5.3	5	26.3	1	5.3
		15-19	250	23	9.2	1	4.3	6	26.1	4	17.4	2	8.7	.	.	9	39.1	1	4.3
		20+	178	16	9.0	.	.	8	50.0	1	6.3	3	18.8	1	6.3	2	12.5	1	6.3
	Age at diagnosis	<1	10	2	20.0	.	.	.	.	.	.	.	.	.	.	1	50.0	1	50.0
		1-4	112	6	5.4	1	16.7	1	16.7	1	16.7	1	16.7	.	.	2	33.3	.	.
		5-9	196	19	9.7	3	15.8	5	26.3	1	5.3	1	5.3	1	5.3	7	36.8	1	5.3
		10-14	211	22	10.4	4	18.2	9	40.9	3	13.6	1	4.5	1	4.5	3	13.6	1	4.5
		15-20	149	27	18.1	3	11.1	8	29.6	6	22.2	3	11.1	.	.	6	22.2	1	3.7
	Treatment	Surgery only	3	1	33.3	.	.	.	.	.	.	.	.	.	.	.	.	1	100.0
		Chemotherapy, no radiation	348	11	3.2	1	9.1	3	27.3	2	18.2	1	9.1	.	.	4	36.4	.	.
		Radiation, no chemotherapy	10	4	40.0	1	25.0	1	25.0	.	.	2	50.0	.	.	.	.	.	.
		Chemotherapy and radiation	255	51	20.0	7	13.7	14	27.5	9	17.6	3	5.9	2	3.9	13	25.5	3	5.9
		Unknown	62	9	14.5	2	22.2	5	55.6	.	.	.	.	.	.	2	22.2	.	.

						Causes of Death													
			Deaths			Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
		All cases	N	%		N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	All cases	2276	178	7.8		37	20.8	43	24.2	10	5.6	4	2.2	25	14.0	50	28.1	9	5.1
	Age at baseline	<18	835	74	8.9	22	29.7	15	20.3	6	8.1	.	.	10	13.5	18	24.3	3	4.1
		18-19	306	11	3.6	3	27.3	.	.	.	.	.	.	4	36.4	3	27.3	1	9.1
		20-24	669	43	6.4	6	14.0	11	25.6	2	4.7	2	4.7	8	18.6	13	30.2	1	2.3
		25-29	374	41	11.0	6	14.6	13	31.7	2	4.9	1	2.4	3	7.3	13	31.7	3	7.3
		30-34	74	6	8.1	.	.	1	16.7	.	.	1	16.7	.	.	3	50.0	1	16.7
		35+	18	3	16.7	.	.	3	100.0	.	.	.	.	.	.	.	.	.	.
	Years since diagnosis	5-9	178	42	23.6	24	57.1	6	14.3	2	4.8	.	.	3	7.1	6	14.3	1	2.4
		10-14	740	43	5.8	5	11.6	11	25.6	3	7.0	.	.	10	23.3	13	30.2	1	2.3
		15-19	760	39	5.1	6	15.4	5	12.8	3	7.7	2	5.1	7	17.9	12	30.8	4	10.3
		20+	598	54	9.0	2	3.7	21	38.9	2	3.7	2	3.7	5	9.3	19	35.2	3	5.6
	Age at diagnosis	<1	330	19	5.8	6	31.6	2	10.5	1	5.3	.	.	2	10.5	8	42.1	.	.
		1-4	1396	105	7.5	13	12.4	30	28.6	7	6.7	3	2.9	19	18.1	27	25.7	6	5.7
		5-9	469	37	7.9	9	24.3	8	21.6	2	5.4	1	2.7	3	8.1	12	32.4	2	5.4
		10-14	58	11	19.0	5	45.5	2	18.2	.	.	.	.	1	9.1	2	18.2	1	9.1
		15-20	23	6	26.1	4	66.7	1	16.7	.	.	.	.	.	.	1	16.7	.	.
	Treatment	Surgery only	34	2	5.9	.	.	.	.	.	.	.	.	.	.	2	100.0	.	.
		Chemotherapy, no radiation	869	26	3.0	6	23.1	3	11.5	.	.	.	.	6	23.1	10	38.5	1	3.8
		Radiation, no chemotherapy	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy and radiation	1155	122	10.6	29	23.8	36	29.5	7	5.7	4	3.3	14	11.5	27	22.1	5	4.1
		Unknown	214	28	13.1	2	7.1	4	14.3	3	10.7	.	.	5	17.9	11	39.3	3	10.7
Males	All cases	1021	84	8.2		18	21.4	15	17.9	5	6.0	1	1.2	14	16.7	26	31.0	5	6.0
	Age at baseline	<18	405	40	9.9	13	32.5	7	17.5	5	12.5	.	.	6	15.0	9	22.5	.	.
		18-19	127	5	3.9	.	.	.	.	.	.	.	.	2	40.0	2	40.0	1	20.0
		20-24	285	19	6.7	3	15.8	2	10.5	.	.	.	.	4	21.1	10	52.6	.	.
		25-29	166	17	10.2	2	11.8	6	35.3	.	.	.	.	2	11.8	4	23.5	3	17.6
		30-34	30	3	10.0	.	.	.	.	.	.	1	33.3	.	.	1	33.3	1	33.3
		35+	8	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	Years since diagnosis	5-9	80	22	27.5	13	59.1	4	18.2	2	9.1	.	.	2	9.1	1	4.5	.	.
		10-14	334	24	7.2	3	12.5	4	16.7	2	8.3	.	.	6	25.0	9	37.5	.	.
		15-19	336	14	4.2	1	7.1	.	.	1	7.1	.	.	3	21.4	6	42.9	3	21.4
		20+	271	24	8.9	1	4.2	7	29.2	.	.	1	4.2	3	12.5	10	41.7	2	8.3
	Age at diagnosis	<1	168	11	6.5	3	27.3	1	9.1	.	.	.	.	2	18.2	5	45.5	.	.
		1-4	629	45	7.2	5	11.1	10	22.2	4	8.9	.	.	9	20.0	15	33.3	2	4.4
		5-9	194	22	11.3	6	27.3	4	18.2	1	4.5	1	4.5	2	9.1	6	27.3	2	9.1
		10-14	21	4	19.0	2	50.0	.	.	.	.	.	.	1	25.0	.	.	1	25.0
		15-20	9	2	22.2	2	100.0	.	.	.	.	.	.	.	.	.	.	.	.
	Treatment	Surgery only	18	1	5.6	.	.	.	.	.	.	.	.	.	.	1	100.0	.	.
		Chemotherapy, no radiation	395	12	3.0	4	33.3	1	8.3	.	.	.	.	3	25.0	4	33.3	.	.
		Chemotherapy and radiation	500	55	11.0	13	23.6	13	23.6	3	5.5	1	1.8	7	12.7	15	27.3	3	5.5
		Unknown	108	16	14.8	1	6.3	1	6.3	2	12.5	.	.	4	25.0	6	37.5	2	12.5
Females	All cases	1255	94	7.5		19	20.2	28	29.8	5	5.3	3	3.2	11	11.7	24	25.5	4	4.3
	Age at baseline	<18	430	34	7.9	9	26.5	8	23.5	1	2.9	.	.	4	11.8	9	26.5	3	8.8
		18-19	179	6	3.4	3	50.0	.	.	.	.	.	.	2	33.3	1	16.7	.	.

CCSS data from Jan2020 data freeze, with death information as of 12/31/2017 NDI search.

Denominator for all percentages is all cases

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
		20-24	384	24	6.3	3	12.5	9	37.5	2	8.3	2	8.3	4	16.7	3	12.5	1	4.2
		25-29	208	24	11.5	4	16.7	7	29.2	2	8.3	1	4.2	1	4.2	9	37.5	.	.
		30-34	44	3	6.8	.	.	1	33.3	.	.	.	.	.	.	2	66.7	.	.
		35+	10	3	30.0	.	.	3	100.0	.	.	.	.	.	.	.	.	.	.
	Years since diagnosis	5-9	98	20	20.4	11	55.0	2	10.0	.	.	.	.	1	5.0	5	25.0	1	5.0
		10-14	406	19	4.7	2	10.5	7	36.8	1	5.3	.	.	4	21.1	4	21.1	1	5.3
		15-19	424	25	5.9	5	20.0	5	20.0	2	8.0	2	8.0	4	16.0	6	24.0	1	4.0
		20+	327	30	9.2	1	3.3	14	46.7	2	6.7	1	3.3	2	6.7	9	30.0	1	3.3
	Age at diagnosis	<1	162	8	4.9	3	37.5	1	12.5	1	12.5	.	.	.	.	3	37.5	.	.
		1-4	767	60	7.8	8	13.3	20	33.3	3	5.0	3	5.0	10	16.7	12	20.0	4	6.7
		5-9	275	15	5.5	3	20.0	4	26.7	1	6.7	.	.	1	6.7	6	40.0	.	.
		10-14	37	7	18.9	3	42.9	2	28.6	.	.	.	.	.	.	2	28.6	.	.
		15-20	14	4	28.6	2	50.0	1	25.0	.	.	.	.	.	.	1	25.0	.	.
	Treatment	Surgery only	16	1	6.3	.	.	.	.	.	.	.	.	.	.	1	100.0	.	.
		Chemotherapy, no radiation	474	14	3.0	2	14.3	2	14.3	.	.	.	.	3	21.4	6	42.9	1	7.1
		Radiation, no chemotherapy	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy and radiation	655	67	10.2	16	23.9	23	34.3	4	6.0	3	4.5	7	10.4	12	17.9	2	3.0
		Unknown	106	12	11.3	1	8.3	3	25.0	1	8.3	.	.	1	8.3	5	41.7	1	8.3

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
				All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
Both sexes	All cases		1948	185	9.5	74	40.0	35	18.9	6	3.2	8	4.3	22	11.9	35	18.9	5	2.7
	Age at baseline	<18	957	111	11.6	58	52.3	15	13.5	1	0.9	5	4.5	10	9.0	19	17.1	3	2.7
		18-19	237	14	5.9	2	14.3	4	28.6	1	7.1	.	.	3	21.4	3	21.4	1	7.1
		20-24	540	39	7.2	10	25.6	7	17.9	3	7.7	2	5.1	6	15.4	10	25.6	1	2.6
		25-29	170	14	8.2	2	14.3	7	50.0	1	7.1	.	.	1	7.1	3	21.4	.	.
		30-34	36	3	8.3	.	.	1	33.3	.	.	1	33.3	1	33.3	.	.	.	.
		35+	8	4	50.0	2	50.0	1	25.0	.	.	.	.	1	25.0	.	.	.	.
	Years since diagnosis	5-9	161	75	46.6	57	76.0	4	5.3	.	.	.	.	2	2.7	9	12.0	3	4.0
		10-14	609	44	7.2	11	25.0	11	25.0	1	2.3	5	11.4	7	15.9	9	20.5	.	.
		15-19	640	30	4.7	3	10.0	8	26.7	4	13.3	2	6.7	6	20.0	6	20.0	1	3.3
		20+	538	36	6.7	3	8.3	12	33.3	1	2.8	1	2.8	7	19.4	11	30.6	1	2.8
	Age at diagnosis	<1	989	40	4.0	6	15.0	7	17.5	1	2.5	1	2.5	12	30.0	11	27.5	2	5.0
		1-4	761	86	11.3	26	30.2	24	27.9	5	5.8	5	5.8	5	5.8	19	22.1	2	2.3
		5-9	149	42	28.2	29	69.0	2	4.8	.	.	2	4.8	4	9.5	4	9.5	1	2.4
		10-14	30	8	26.7	5	62.5	1	12.5	.	.	.	.	1	12.5	1	12.5	.	.
		15-20	19	9	47.4	8	88.9	1	11.1	.	.	.	.	.	.	.	.	.	.
	Treatment	Surgery only	545	15	2.8	2	13.3	1	6.7	2	13.3	1	6.7	6	40.0	3	20.0	.	.
		Chemotherapy, no radiation	559	23	4.1	7	30.4	3	13.0	1	4.3	1	4.3	5	21.7	5	21.7	1	4.3
		Radiation, no chemotherapy	139	11	7.9	2	18.2	7	63.6	.	.	.	.	1	9.1	1	9.1	.	.
		Chemotherapy and radiation	531	109	20.5	55	50.5	17	15.6	3	2.8	4	3.7	4	3.7	24	22.0	2	1.8
		Unknown	174	27	15.5	8	29.6	7	25.9	.	.	2	7.4	6	22.2	2	7.4	2	7.4
Males	All cases		950	97	10.2	41	42.3	17	17.5	3	3.1	4	4.1	18	18.6	12	12.4	2	2.1
	Age at baseline	<18	479	59	12.3	32	54.2	10	16.9	1	1.7	2	3.4	7	11.9	6	10.2	1	1.7
		18-19	104	8	7.7	1	12.5	1	12.5	1	12.5	.	.	3	37.5	2	25.0	.	.
		20-24	272	20	7.4	6	30.0	2	10.0	1	5.0	1	5.0	6	30.0	3	15.0	1	5.0
		25-29	78	5	6.4	1	20.0	3	60.0	.	.	.	.	.	.	1	20.0	.	.
		30-34	14	3	21.4	.	.	1	33.3	.	.	1	33.3	1	33.3	.	.	.	.
		35+	3	2	66.7	1	50.0	.	.	.	.	.	.	1	50.0	.	.	.	.
	Years since diagnosis	5-9	76	37	48.7	30	81.1	3	8.1	.	.	.	.	.	.	3	8.1	1	2.7
		10-14	303	24	7.9	7	29.2	5	20.8	1	4.2	3	12.5	6	25.0	2	8.3	.	.
		15-19	308	19	6.2	3	15.8	4	21.1	2	10.5	.	.	6	31.6	4	21.1	.	.
		20+	263	17	6.5	1	5.9	5	29.4	.	.	1	5.9	6	35.3	3	17.6	1	5.9
	Age at diagnosis	<1	514	25	4.9	3	12.0	5	20.0	1	4.0	1	4.0	10	40.0	4	16.0	1	4.0
		1-4	343	38	11.1	13	34.2	11	28.9	2	5.3	1	2.6	4	10.5	7	18.4	.	.
		5-9	74	27	36.5	19	70.4	1	3.7	.	.	2	7.4	3	11.1	1	3.7	1	3.7
		10-14	13	4	30.8	3	75.0	.	.	.	.	.	.	1	25.0	.	.	.	.
		15-20	6	3	50.0	3	100.0	.	.	.	.	.	.	.	.	.	.	.	.
	Treatment	Surgery only	261	8	3.1	1	12.5	.	.	1	12.5	1	12.5	5	62.5	.	.	.	.
		Chemotherapy, no radiation	277	12	4.3	4	33.3	1	8.3	.	.	1	8.3	5	41.7	1	8.3	.	.
		Radiation, no chemotherapy	63	4	6.3	1	25.0	2	50.0	.	.	.	.	1	25.0	.	.	.	.
		Chemotherapy and radiation	259	57	22.0	30	52.6	11	19.3	2	3.5	1	1.8	3	5.3	9	15.8	1	1.8
		Unknown	90	16	17.8	5	31.3	3	18.8	.	.	1	6.3	4	25.0	2	12.5	1	6.3
Females	All cases		998	88	8.8	33	37.5	18	20.5	3	3.4	4	4.5	4	4.5	23	26.1	3	3.4

CCSS data from Jan2020 data freeze, with death information as of 12/31/2017 NDI search.
Denominator for all percentages is all cases

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	Age at baseline	<18	478	52	10.9	26	50.0	5	9.6	.	.	3	5.8	3	5.8	13	25.0	2	3.8
		18-19	133	6	4.5	1	16.7	3	50.0	.	.	.	.	.	.	1	16.7	1	16.7
		20-24	268	19	7.1	4	21.1	5	26.3	2	10.5	1	5.3	.	.	7	36.8	.	.
		25-29	92	9	9.8	1	11.1	4	44.4	1	11.1	.	.	1	11.1	2	22.2	.	.
		30-34	22	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		35+	5	2	40.0	1	50.0	1	50.0	.	.	.	.	.	.	.	.	.	.
	Years since diagnosis	5-9	85	38	44.7	27	71.1	1	2.6	.	.	.	.	2	5.3	6	15.8	2	5.3
		10-14	306	20	6.5	4	20.0	6	30.0	.	.	2	10.0	1	5.0	7	35.0	.	.
		15-19	332	11	3.3	.	.	4	36.4	2	18.2	2	18.2	.	.	2	18.2	1	9.1
		20+	275	19	6.9	2	10.5	7	36.8	1	5.3	.	.	1	5.3	8	42.1	.	.
	Age at diagnosis	<1	475	15	3.2	3	20.0	2	13.3	.	.	.	.	2	13.3	7	46.7	1	6.7
		1-4	418	48	11.5	13	27.1	13	27.1	3	6.3	4	8.3	1	2.1	12	25.0	2	4.2
		5-9	75	15	20.0	10	66.7	1	6.7	.	.	.	.	1	6.7	3	20.0	.	.
		10-14	17	4	23.5	2	50.0	1	25.0	.	.	.	.	.	.	1	25.0	.	.
		15-20	13	6	46.2	5	83.3	1	16.7	.	.	.	.	.	.	.	.	.	.
	Treatment	Surgery only	284	7	2.5	1	14.3	1	14.3	1	14.3	.	.	1	14.3	3	42.9	.	.
		Chemotherapy, no radiation	282	11	3.9	3	27.3	2	18.2	1	9.1	.	.	.	.	4	36.4	1	9.1
		Radiation, no chemotherapy	76	7	9.2	1	14.3	5	71.4	.	.	.	.	.	.	1	14.3	.	.
		Chemotherapy and radiation	272	52	19.1	25	48.1	6	11.5	1	1.9	3	5.8	1	1.9	15	28.8	1	1.9
		Unknown	84	11	13.1	3	27.3	4	36.4	.	.	1	9.1	2	18.2	.	.	1	9.1

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	All cases		1756	309	17.6	91	29.4	84	27.2	16	5.2	5	1.6	27	8.7	63	20.4	23	7.4
	Age at baseline	<18	341	75	22.0	22	29.3	21	28.0	6	8.0	.	.	6	8.0	15	20.0	5	6.7
		18-19	125	19	15.2	10	52.6	5	26.3	.	.	1	5.3	1	5.3	1	5.3	1	5.3
		20-24	425	75	17.6	31	41.3	14	18.7	2	2.7	1	1.3	8	10.7	14	18.7	5	6.7
		25-29	392	61	15.6	17	27.9	15	24.6	2	3.3	1	1.6	7	11.5	14	23.0	5	8.2
		30-34	297	45	15.2	7	15.6	15	33.3	5	11.1	1	2.2	3	6.7	11	24.4	3	6.7
		35+	176	34	19.3	4	11.8	14	41.2	1	2.9	1	2.9	2	5.9	8	23.5	4	11.8
	Years since diagnosis	5-9	182	79	43.4	49	62.0	10	12.7	1	1.3	.	.	2	2.5	14	17.7	3	3.8
		10-14	521	84	16.1	28	33.3	23	27.4	4	4.8	1	1.2	8	9.5	15	17.9	5	6.0
		15-19	540	73	13.5	8	11.0	23	31.5	5	6.8	2	2.7	9	12.3	18	24.7	8	11.0
		20+	513	73	14.2	6	8.2	28	38.4	6	8.2	2	2.7	8	11.0	16	21.9	7	9.6
	Age at diagnosis	<1	124	12	9.7	.	.	2	16.7	2	16.7	.	.	3	25.0	5	41.7	.	.
		1-4	560	93	16.6	20	21.5	30	32.3	7	7.5	2	2.2	9	9.7	16	17.2	9	9.7
		5-9	397	52	13.1	12	23.1	15	28.8	2	3.8	1	1.9	3	5.8	14	26.9	5	9.6
		10-14	346	71	20.5	28	39.4	19	26.8	3	4.2	.	.	7	9.9	11	15.5	3	4.2
		15-20	329	81	24.6	31	38.3	18	22.2	2	2.5	2	2.5	5	6.2	17	21.0	6	7.4
	Treatment	Surgery only	171	22	12.9	6	27.3	7	31.8	.	.	.	.	2	9.1	6	27.3	1	4.5
		Chemotherapy, no radiation	359	48	13.4	11	22.9	13	27.1	3	6.3	.	.	7	14.6	8	16.7	6	12.5
		Radiation, no chemotherapy	63	13	20.6	8	61.5	1	7.7	.	.	1	7.7	.	.	1	7.7	2	15.4
		Chemotherapy and radiation	971	190	19.6	49	25.8	53	27.9	13	6.8	4	2.1	17	8.9	41	21.6	13	6.8
		Unknown	192	36	18.8	17	47.2	10	27.8	.	.	.	.	1	2.8	7	19.4	1	2.8
Males	All cases		949	172	18.1	50	29.1	47	27.3	11	6.4	3	1.7	16	9.3	33	19.2	12	7.0
	Age at baseline	<18	192	45	23.4	13	28.9	12	26.7	3	6.7	.	.	4	8.9	9	20.0	4	8.9
		18-19	66	11	16.7	5	45.5	3	27.3	.	.	1	9.1	.	.	1	9.1	1	9.1
		20-24	242	44	18.2	16	36.4	8	18.2	2	4.5	1	2.3	5	11.4	9	20.5	3	6.8
		25-29	207	34	16.4	10	29.4	10	29.4	2	5.9	.	.	4	11.8	7	20.6	1	2.9
		30-34	158	25	15.8	5	20.0	8	32.0	4	16.0	.	.	2	8.0	4	16.0	2	8.0
		35+	84	13	15.5	1	7.7	6	46.2	.	.	1	7.7	1	7.7	3	23.1	1	7.7
	Years since diagnosis	5-9	100	48	48.0	24	50.0	8	16.7	1	2.1	.	.	2	4.2	11	22.9	2	4.2
		10-14	288	44	15.3	18	40.9	11	25.0	2	4.5	1	2.3	5	11.4	4	9.1	3	6.8
		15-19	281	41	14.6	6	14.6	14	34.1	3	7.3	1	2.4	4	9.8	8	19.5	5	12.2
		20+	280	39	13.9	2	5.1	14	35.9	5	12.8	1	2.6	5	12.8	10	25.6	2	5.1
	Age at diagnosis	<1	52	5	9.6	.	.	1	20.0	.	.	.	.	3	60.0	1	20.0	.	.
		1-4	330	60	18.2	13	21.7	17	28.3	6	10.0	1	1.7	4	6.7	12	20.0	7	11.7
		5-9	224	31	13.8	7	22.6	8	25.8	2	6.5	1	3.2	2	6.5	9	29.0	2	6.5
		10-14	186	39	21.0	15	38.5	11	28.2	3	7.7	.	.	4	10.3	5	12.8	1	2.6
		15-20	157	37	23.6	15	40.5	10	27.0	.	.	1	2.7	3	8.1	6	16.2	2	5.4
	Treatment	Surgery only	74	10	13.5	2	20.0	3	30.0	.	.	.	.	2	20.0	2	20.0	1	10.0
		Chemotherapy, no radiation	211	25	11.8	6	24.0	7	28.0	1	4.0	.	.	4	16.0	4	16.0	3	12.0
		Radiation, no chemotherapy	32	6	18.8	4	66.7	.	.	.	.	1	16.7	.	.	.	.	1	16.7
		Chemotherapy and radiation	521	110	21.1	28	25.5	30	27.3	10	9.1	2	1.8	10	9.1	24	21.8	6	5.5
		Unknown	111	21	18.9	10	47.6	7	33.3	.	.	.	.	.	.	3	14.3	1	4.8
Females	All cases		807	137	17.0	41	29.9	37	27.0	5	3.6	2	1.5	11	8.0	30	21.9	11	8.0

CCSS data from Jan2020 data freeze, with death information as of 12/31/2017 NDI search.
Denominator for all percentages is all cases

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Age at baseline	<18	149	30	20.1	9	30.0	9	30.0	3	10.0	.	.	2	6.7	6	20.0	1	3.3	
	18-19	59	8	13.6	5	62.5	2	25.0	.	.	.	.	1	12.5	.	.	.	.
	20-24	183	31	16.9	15	48.4	6	19.4	.	.	.	.	3	9.7	5	16.1	2	6.5
	25-29	185	27	14.6	7	25.9	5	18.5	.	.	1	3.7	3	11.1	7	25.9	4	14.8	
	30-34	139	20	14.4	2	10.0	7	35.0	1	5.0	1	5.0	1	5.0	7	35.0	1	5.0	
	35+	92	21	22.8	3	14.3	8	38.1	1	4.8	.	.	1	4.8	5	23.8	3	14.3	
Years since diagnosis	5-9	82	31	37.8	25	80.6	2	6.5	.	.	.	.	.	.	3	9.7	1	3.2
	10-14	233	40	17.2	10	25.0	12	30.0	2	5.0	.	.	3	7.5	11	27.5	2	5.0	
	15-19	259	32	12.4	2	6.3	9	28.1	2	6.3	1	3.1	5	15.6	10	31.3	3	9.4	
	20+	233	34	14.6	4	11.8	14	41.2	1	2.9	1	2.9	3	8.8	6	17.6	5	14.7	
Age at diagnosis	<1	72	7	9.7	.	.	1	14.3	2	28.6	.	.	.	.	4	57.1	.	.
	1-4	230	33	14.3	7	21.2	13	39.4	1	3.0	1	3.0	5	15.2	4	12.1	2	6.1	
	5-9	173	21	12.1	5	23.8	7	33.3	.	.	.	.	1	4.8	5	23.8	3	14.3
	10-14	160	32	20.0	13	40.6	8	25.0	.	.	.	.	3	9.4	6	18.8	2	6.3
	15-20	172	44	25.6	16	36.4	8	18.2	2	4.5	1	2.3	2	4.5	11	25.0	4	9.1	
Treatment	Surgery only	97	12	12.4	4	33.3	4	33.3	.	.	.	.	.	.	4	33.3	.	.
	Chemotherapy, no radiation	148	23	15.5	5	21.7	6	26.1	2	8.7	.	.	3	13.0	4	17.4	3	13.0	
	Radiation, no chemotherapy	31	7	22.6	4	57.1	1	14.3	.	.	.	.	.	.	1	14.3	1	14.3
	Chemotherapy and radiation	450	80	17.8	21	26.3	23	28.8	3	3.8	2	2.5	7	8.8	17	21.3	7	8.8	
	Unknown	81	15	18.5	7	46.7	3	20.0	.	.	.	.	1	6.7	4	26.7	.	.

					Causes of Death														
			Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown		
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	All cases		2100	410	19.5	161	39.3	101	24.6	34	8.3	13	3.2	37	9.0	53	12.9	11	2.7
	Age at baseline	<18	98	45	45.9	30	66.7	4	8.9	2	4.4	1	2.2	2	4.4	4	8.9	2	4.4
		18-19	72	25	34.7	14	56.0	3	12.0	2	8.0	.	.	1	4.0	4	16.0	1	4.0
		20-24	388	120	30.9	70	58.3	19	15.8	5	4.2	1	0.8	10	8.3	15	12.5	.	.
		25-29	568	93	16.4	33	35.5	25	26.9	5	5.4	3	3.2	12	12.9	11	11.8	4	4.3
		30-34	566	74	13.1	10	13.5	29	39.2	13	17.6	5	6.8	7	9.5	7	9.5	3	4.1
		35+	408	53	13.0	4	7.5	21	39.6	7	13.2	3	5.7	5	9.4	12	22.6	1	1.9
	Years since diagnosis	5-9	243	154	63.4	105	68.2	17	11.0	3	1.9	1	0.6	10	6.5	14	9.1	4	2.6
		10-14	681	114	16.7	43	37.7	33	28.9	10	8.8	4	3.5	12	10.5	11	9.6	1	0.9
		15-19	676	73	10.8	8	11.0	25	34.2	11	15.1	3	4.1	8	11.0	14	19.2	4	5.5
		20+	500	69	13.8	5	7.2	26	37.7	10	14.5	5	7.2	7	10.1	14	20.3	2	2.9
	Age at diagnosis	<1	9	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		1-4	89	17	19.1	3	17.6	3	17.6	3	17.6	1	5.9	1	5.9	5	29.4	1	5.9
		5-9	372	71	19.1	29	40.8	15	21.1	3	4.2	2	2.8	6	8.5	12	16.9	4	5.6
		10-14	840	151	18.0	66	43.7	34	22.5	15	9.9	4	2.6	15	9.9	15	9.9	2	1.3
		15-20	790	171	21.6	63	36.8	49	28.7	13	7.6	6	3.5	15	8.8	21	12.3	4	2.3
	Treatment	Surgery only	119	9	7.6	2	22.2	5	55.6	.	.	.	.	.	.	2	22.2	.	.
		Chemotherapy, no radiation	1190	165	13.9	56	33.9	46	27.9	13	7.9	7	4.2	21	12.7	20	12.1	2	1.2
		Radiation, no chemotherapy	17	6	35.3	2	33.3	2	33.3	.	.	.	.	.	.	1	16.7	1	16.7
		Chemotherapy and radiation	581	165	28.4	78	47.3	39	23.6	12	7.3	2	1.2	8	4.8	23	13.9	3	1.8
		Unknown	193	65	33.7	23	35.4	9	13.8	9	13.8	4	6.2	8	12.3	7	10.8	5	7.7
Males	All cases		1084	244	22.5	103	42.2	52	21.3	18	7.4	7	2.9	29	11.9	28	11.5	7	2.9
	Age at baseline	<18	48	28	58.3	22	78.6	2	7.1	1	3.6	.	.	1	3.6	1	3.6	1	3.6
		18-19	36	17	47.2	8	47.1	2	11.8	1	5.9	.	.	1	5.9	4	23.5	1	5.9
		20-24	193	67	34.7	37	55.2	10	14.9	3	4.5	1	1.5	9	13.4	7	10.4	.	.
		25-29	299	59	19.7	25	42.4	13	22.0	4	6.8	1	1.7	9	15.3	4	6.8	3	5.1
		30-34	283	39	13.8	9	23.1	13	33.3	5	12.8	2	5.1	4	10.3	5	12.8	1	2.6
		35+	225	34	15.1	2	5.9	12	35.3	4	11.8	3	8.8	5	14.7	7	20.6	1	2.9
	Years since diagnosis	5-9	132	89	67.4	63	70.8	7	7.9	.	.	1	1.1	8	9.0	8	9.0	2	2.2
		10-14	349	77	22.1	32	41.6	18	23.4	9	11.7	1	1.3	12	15.6	4	5.2	1	1.3
		15-19	347	41	11.8	6	14.6	12	29.3	5	12.2	2	4.9	4	9.8	9	22.0	3	7.3
		20+	256	37	14.5	2	5.4	15	40.5	4	10.8	3	8.1	5	13.5	7	18.9	1	2.7
	Age at diagnosis	<1	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		1-4	47	9	19.1	2	22.2	2	22.2	2	22.2	.	.	.	.	2	22.2	1	11.1
		5-9	190	42	22.1	19	45.2	8	19.0	1	2.4	1	2.4	4	9.5	7	16.7	2	4.8
		10-14	401	82	20.4	36	43.9	17	20.7	6	7.3	2	2.4	11	13.4	8	9.8	2	2.4
		15-20	442	111	25.1	46	41.4	25	22.5	9	8.1	4	3.6	14	12.6	11	9.9	2	1.8
	Treatment	Surgery only	48	6	12.5	1	16.7	4	66.7	.	.	.	.	.	.	1	16.7	.	.
		Chemotherapy, no radiation	611	100	16.4	36	36.0	22	22.0	12	12.0	3	3.0	15	15.0	11	11.0	1	1.0
		Radiation, no chemotherapy	9	5	55.6	1	20.0	2	40.0	.	.	.	.	.	.	1	20.0	1	20.0
		Chemotherapy and radiation	296	89	30.1	49	55.1	18	20.2	2	2.2	.	.	7	7.9	11	12.4	2	2.2
		Unknown	120	44	36.7	16	36.4	6	13.6	4	9.1	4	9.1	7	15.9	4	9.1	3	6.8
Females	All cases		1016	166	16.3	58	34.9	49	29.5	16	9.6	6	3.6	8	4.8	25	15.1	4	2.4

CCSS data from Jan2020 data freeze, with death information as of 12/31/2017 NDI search.
Denominator for all percentages is all cases

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
	Age at baseline	<18	50	17	34.0	8	47.1	2	11.8	1	5.9	1	5.9	1	5.9	3	17.6	1	5.9
		18-19	36	8	22.2	6	75.0	1	12.5	1	12.5	.	.	.	.	.	.	.	.
		20-24	195	53	27.2	33	62.3	9	17.0	2	3.8	.	.	1	1.9	8	15.1	.	.
		25-29	269	34	12.6	8	23.5	12	35.3	1	2.9	2	5.9	3	8.8	7	20.6	1	2.9
		30-34	283	35	12.4	1	2.9	16	45.7	8	22.9	3	8.6	3	8.6	2	5.7	2	5.7
		35+	183	19	10.4	2	10.5	9	47.4	3	15.8	.	.	.	.	5	26.3	.	.
	Years since diagnosis	5-9	111	65	58.6	42	64.6	10	15.4	3	4.6	.	.	2	3.1	6	9.2	2	3.1
		10-14	332	37	11.1	11	29.7	15	40.5	1	2.7	3	8.1	.	.	7	18.9	.	.
		15-19	329	32	9.7	2	6.3	13	40.6	6	18.8	1	3.1	4	12.5	5	15.6	1	3.1
		20+	244	32	13.1	3	9.4	11	34.4	6	18.8	2	6.3	2	6.3	7	21.9	1	3.1
	Age at diagnosis	<1	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		1-4	42	8	19.0	1	12.5	1	12.5	1	12.5	1	12.5	1	12.5	3	37.5	.	.
		5-9	182	29	15.9	10	34.5	7	24.1	2	6.9	1	3.4	2	6.9	5	17.2	2	6.9
		10-14	439	69	15.7	30	43.5	17	24.6	9	13.0	2	2.9	4	5.8	7	10.1	.	.
		15-20	348	60	17.2	17	28.3	24	40.0	4	6.7	2	3.3	1	1.7	10	16.7	2	3.3
	Treatment	Surgery only	71	3	4.2	1	33.3	1	33.3	.	.	.	.	.	.	1	33.3	.	.
		Chemotherapy, no radiation	579	65	11.2	20	30.8	24	36.9	1	1.5	4	6.2	6	9.2	9	13.8	1	1.5
		Radiation, no chemotherapy	8	1	12.5	1	100.0	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy and radiation	285	76	26.7	29	38.2	21	27.6	10	13.2	2	2.6	1	1.3	12	15.8	1	1.3
		Unknown	73	21	28.8	7	33.3	3	14.3	5	23.8	.	.	1	4.8	3	14.3	2	9.5

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	All cases		740	182	24.6	85	46.7	36	19.8	18	9.9	2	1.1	11	6.0	25	13.7	5	2.7
	Age at baseline	<18	63	27	42.9	17	63.0	2	7.4	2	7.4	.	.	1	3.7	4	14.8	1	3.7
		18-19	36	18	50.0	10	55.6	3	16.7	2	11.1	.	.	.	.	2	11.1	1	5.6
		20-24	170	57	33.5	35	61.4	9	15.8	3	5.3	.	.	2	3.5	8	14.0	.	.
		25-29	204	37	18.1	18	48.6	7	18.9	2	5.4	.	.	3	8.1	5	13.5	2	5.4
		30-34	164	26	15.9	5	19.2	7	26.9	5	19.2	2	7.7	4	15.4	2	7.7	1	3.8
		35+	103	17	16.5	.	.	8	47.1	4	23.5	.	.	1	5.9	4	23.5	.	.
	Years since diagnosis	5-9	105	77	73.3	53	68.8	8	10.4	3	3.9	.	.	3	3.9	7	9.1	3	3.9
		10-14	247	49	19.8	25	51.0	12	24.5	4	8.2	.	.	2	4.1	5	10.2	1	2.0
		15-19	223	30	13.5	6	20.0	4	13.3	6	20.0	1	3.3	4	13.3	8	26.7	1	3.3
		20+	165	26	15.8	1	3.8	12	46.2	5	19.2	1	3.8	2	7.7	5	19.2	.	.
	Age at diagnosis	<1	5	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		1-4	55	12	21.8	3	25.0	1	8.3	3	25.0	.	.	.	.	5	41.7	.	.
		5-9	186	43	23.1	18	41.9	9	20.9	3	7.0	1	2.3	5	11.6	6	14.0	1	2.3
		10-14	277	70	25.3	36	51.4	14	20.0	6	8.6	1	1.4	2	2.9	9	12.9	2	2.9
		15-20	217	57	26.3	28	49.1	12	21.1	6	10.5	.	.	4	7.0	5	8.8	2	3.5
	Treatment	Surgery only	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy, no radiation	211	18	8.5	7	38.9	2	11.1	5	27.8	.	.	3	16.7	1	5.6	.	.
		Radiation, no chemotherapy	2	1	50.0	1	100.0	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy and radiation	462	134	29.0	67	50.0	30	22.4	9	6.7	2	1.5	5	3.7	19	14.2	2	1.5
		Unknown	64	29	45.3	10	34.5	4	13.8	4	13.8	.	.	3	10.3	5	17.2	3	10.3
Males	All cases		385	97	25.2	53	54.6	15	15.5	7	7.2	.	.	7	7.2	12	12.4	3	3.1
	Age at baseline	<18	27	12	44.4	10	83.3	.	.	1	8.3	.	.	.	.	1	8.3	.	.
		18-19	20	13	65.0	7	53.8	2	15.4	1	7.7	.	.	.	.	2	15.4	1	7.7
		20-24	87	29	33.3	17	58.6	6	20.7	1	3.4	.	.	2	6.9	3	10.3	.	.
		25-29	105	20	19.0	14	70.0	1	5.0	1	5.0	.	.	2	10.0	1	5.0	1	5.0
		30-34	90	15	16.7	5	33.3	3	20.0	2	13.3	.	.	2	13.3	2	13.3	1	6.7
		35+	56	8	14.3	.	.	3	37.5	1	12.5	.	.	1	12.5	3	37.5	.	.
	Years since diagnosis	5-9	55	37	67.3	28	75.7	4	10.8	.	.	.	.	1	2.7	3	8.1	1	2.7
		10-14	121	31	25.6	20	64.5	4	12.9	3	9.7	.	.	2	6.5	1	3.2	1	3.2
		15-19	122	18	14.8	5	27.8	1	5.6	3	16.7	.	.	3	16.7	5	27.8	1	5.6
		20+	87	11	12.6	.	.	6	54.5	1	9.1	.	.	1	9.1	3	27.3	.	.
	Age at diagnosis	<1	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		1-4	29	7	24.1	2	28.6	1	14.3	2	28.6	.	.	.	.	2	28.6	.	.
		5-9	92	22	23.9	10	45.5	4	18.2	1	4.5	.	.	3	13.6	4	18.2	.	.
		10-14	146	34	23.3	21	61.8	5	14.7	1	2.9	.	.	1	2.9	4	11.8	2	5.9
		15-20	116	34	29.3	20	58.8	5	14.7	3	8.8	.	.	3	8.8	2	5.9	1	2.9
	Treatment	Chemotherapy, no radiation	111	11	9.9	4	36.4	1	9.1	4	36.4	.	.	1	9.1	1	9.1	.	.
		Radiation, no chemotherapy	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy and radiation	236	70	29.7	42	60.0	12	17.1	2	2.9	.	.	4	5.7	8	11.4	2	2.9
		Unknown	37	16	43.2	7	43.8	2	12.5	1	6.3	.	.	2	12.5	3	18.8	1	6.3
Females	All cases		355	85	23.9	32	37.6	21	24.7	11	12.9	2	2.4	4	4.7	13	15.3	2	2.4
	Age at baseline	<18	36	15	41.7	7	46.7	2	13.3	1	6.7	.	.	1	6.7	3	20.0	1	6.7

CCSS data from Jan2020 data freeze, with death information as of 12/31/2017 NDI search.
Denominator for all percentages is all cases

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
		18-19	16	5	31.3	3	60.0	1	20.0	1	20.0	.	.	.	.	.	.	.	.
		20-24	83	28	33.7	18	64.3	3	10.7	2	7.1	.	.	.	.	5	17.9	.	.
		25-29	99	17	17.2	4	23.5	6	35.3	1	5.9	.	.	1	5.9	4	23.5	1	5.9
		30-34	74	11	14.9	.	.	4	36.4	3	27.3	2	18.2	2	18.2	.	.	.	.
		35+	47	9	19.1	.	.	5	55.6	3	33.3	.	.	.	.	1	11.1	.	.
	Years since diagnosis	5-9	50	40	80.0	25	62.5	4	10.0	3	7.5	.	.	2	5.0	4	10.0	2	5.0
		10-14	126	18	14.3	5	27.8	8	44.4	1	5.6	.	.	.	.	4	22.2	.	.
		15-19	101	12	11.9	1	8.3	3	25.0	3	25.0	1	8.3	1	8.3	3	25.0	.	.
		20+	78	15	19.2	1	6.7	6	40.0	4	26.7	1	6.7	1	6.7	2	13.3	.	.
	Age at diagnosis	<1	3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		1-4	26	5	19.2	1	20.0	.	.	1	20.0	.	.	.	.	3	60.0	.	.
		5-9	94	21	22.3	8	38.1	5	23.8	2	9.5	1	4.8	2	9.5	2	9.5	1	4.8
		10-14	131	36	27.5	15	41.7	9	25.0	5	13.9	1	2.8	1	2.8	5	13.9	.	.
		15-20	101	23	22.8	8	34.8	7	30.4	3	13.0	.	.	1	4.3	3	13.0	1	4.3
	Treatment	Surgery only	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy, no radiation	100	7	7.0	3	42.9	1	14.3	1	14.3	.	.	2	28.6	.	.	.	.
		Radiation, no chemotherapy	1	1	100.0	1	100.0	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy and radiation	226	64	28.3	25	39.1	18	28.1	7	10.9	2	3.1	1	1.6	11	17.2	.	.
		Unknown	27	13	48.1	3	23.1	2	15.4	3	23.1	.	.	1	7.7	2	15.4	2	15.4

					Causes of Death														
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Both sexes	All cases		1257	217	17.3	73	33.6	61	28.1	16	7.4	10	4.6	26	12.0	26	12.0	5	2.3
	Age at baseline	<18	29	17	58.6	13	76.5	2	11.8	.	.	.	.	1	5.9	.	.	1	5.9
		18-19	30	6	20.0	4	66.7	.	.	.	.	.	.	1	16.7	1	16.7	.	.
		20-24	198	61	30.8	35	57.4	8	13.1	2	3.3	1	1.6	8	13.1	7	11.5	.	.
		25-29	344	52	15.1	14	26.9	17	32.7	3	5.8	3	5.8	9	17.3	5	9.6	1	1.9
		30-34	373	45	12.1	3	6.7	21	46.7	8	17.8	3	6.7	3	6.7	5	11.1	2	4.4
		35+	283	36	12.7	4	11.1	13	36.1	3	8.3	3	8.3	4	11.1	8	22.2	1	2.8
	Years since diagnosis	5-9	131	73	55.7	52	71.2	7	9.6	.	.	1	1.4	7	9.6	5	6.8	1	1.4
		10-14	397	62	15.6	16	25.8	21	33.9	6	9.7	3	4.8	10	16.1	6	9.7	.	.
		15-19	422	40	9.5	1	2.5	19	47.5	5	12.5	2	5.0	4	10.0	6	15.0	3	7.5
		20+	307	42	13.7	4	9.5	14	33.3	5	11.9	4	9.5	5	11.9	9	21.4	1	2.4
	Age at diagnosis	1-4	25	3	12.0	.	.	2	66.7	.	.	.	.	1	33.3	.	.	.	.
		5-9	168	27	16.1	11	40.7	5	18.5	.	.	1	3.7	1	3.7	6	22.2	3	11.1
		10-14	533	77	14.4	29	37.7	18	23.4	9	11.7	3	3.9	13	16.9	5	6.5	.	.
		15-20	531	110	20.7	33	30.0	36	32.7	7	6.4	6	5.5	11	10.0	15	13.6	2	1.8
	Treatment	Surgery only	86	7	8.1	1	14.3	4	57.1	.	.	.	.	.	.	2	28.6	.	.
		Chemotherapy, no radiation	955	143	15.0	48	33.6	43	30.1	8	5.6	6	4.2	18	12.6	18	12.6	2	1.4
		Radiation, no chemotherapy	10	3	30.0	1	33.3	2	66.7	.	.	.	.	.	.	.	.	.	.
		Chemotherapy and radiation	83	30	36.1	11	36.7	8	26.7	3	10.0	.	.	3	10.0	4	13.3	1	3.3
		Unknown	123	34	27.6	12	35.3	4	11.8	5	14.7	4	11.8	5	14.7	2	5.9	2	5.9
Males	All cases		647	139	21.5	48	34.5	34	24.5	11	7.9	7	5.0	22	15.8	14	10.1	3	2.2
	Age at baseline	<18	20	16	80.0	12	75.0	2	12.5	.	.	.	.	1	6.3	.	.	1	6.3
		18-19	12	3	25.0	1	33.3	.	.	.	.	.	.	1	33.3	1	33.3	.	.
		20-24	95	37	38.9	20	54.1	3	8.1	2	5.4	1	2.7	7	18.9	4	10.8	.	.
		25-29	183	36	19.7	11	30.6	11	30.6	3	8.3	1	2.8	7	19.4	2	5.6	1	2.8
		30-34	178	21	11.8	2	9.5	9	42.9	3	14.3	2	9.5	2	9.5	3	14.3	.	.
		35+	159	26	16.4	2	7.7	9	34.6	3	11.5	3	11.5	4	15.4	4	15.4	1	3.8
	Years since diagnosis	5-9	74	49	66.2	35	71.4	2	4.1	.	.	1	2.0	7	14.3	3	6.1	1	2.0
		10-14	209	44	21.1	10	22.7	14	31.8	6	13.6	1	2.3	10	22.7	3	6.8	.	.
		15-19	210	21	10.0	1	4.8	9	42.9	2	9.5	2	9.5	1	4.8	4	19.0	2	9.5
		20+	154	25	16.2	2	8.0	9	36.0	3	12.0	3	12.0	4	16.0	4	16.0	.	.
	Age at diagnosis	1-4	14	1	7.1	.	.	1	100.0	.	.	.	.	.	.	.	.	.	.
		5-9	84	19	22.6	9	47.4	3	15.8	.	.	1	5.3	1	5.3	3	15.8	2	10.5
		10-14	245	45	18.4	15	33.3	10	22.2	5	11.1	2	4.4	10	22.2	3	6.7	.	.
		15-20	304	74	24.3	24	32.4	20	27.0	6	8.1	4	5.4	11	14.9	8	10.8	1	1.4
	Treatment	Surgery only	30	4	13.3	.	.	3	75.0	.	.	.	.	.	.	1	25.0	.	.
		Chemotherapy, no radiation	488	86	17.6	31	36.0	20	23.3	8	9.3	3	3.5	14	16.3	9	10.5	1	1.2
		Radiation, no chemotherapy	6	3	50.0	1	33.3	2	66.7	.	.	.	.	.	.	.	.	.	.
		Chemotherapy and radiation	44	19	43.2	7	36.8	6	31.6	.	.	.	.	3	15.8	3	15.8	.	.
		Unknown	79	27	34.2	9	33.3	3	11.1	3	11.1	4	14.8	5	18.5	1	3.7	2	7.4
Females	All cases		610	78	12.8	25	32.1	27	34.6	5	6.4	3	3.8	4	5.1	12	15.4	2	2.6
	Age at baseline	<18	9	1	11.1	1	100.0	.	.	.	.	.	.	.	.	.	.	.	.
		18-19	18	3	16.7	3	100.0	.	.	.	.	.	.	.	.	.	.	.	.

CCSS data from Jan2020 data freeze, with death information as of 12/31/2017 NDI search.
Denominator for all percentages is all cases

						Causes of Death													
				Deaths		Recurrence		Subsequent malignancy		Cardiac causes		Pulmonary causes		External causes		Other causes		Unknown	
			All cases	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
		20-24	103	24	23.3	15	62.5	5	20.8	.	.	.	.	1	4.2	3	12.5	.	.
		25-29	161	16	9.9	3	18.8	6	37.5	.	.	2	12.5	2	12.5	3	18.8	.	.
		30-34	195	24	12.3	1	4.2	12	50.0	5	20.8	1	4.2	1	4.2	2	8.3	2	8.3
		35+	124	10	8.1	2	20.0	4	40.0	.	.	.	.	.	.	4	40.0	.	.
	Years since diagnosis	5-9	57	24	42.1	17	70.8	5	20.8	.	.	.	.	.	.	2	8.3	.	.
		10-14	188	18	9.6	6	33.3	7	38.9	.	.	2	11.1	.	.	3	16.7	.	.
		15-19	212	19	9.0	.	.	10	52.6	3	15.8	.	.	3	15.8	2	10.5	1	5.3
		20+	153	17	11.1	2	11.8	5	29.4	2	11.8	1	5.9	1	5.9	5	29.4	1	5.9
	Age at diagnosis	1-4	11	2	18.2	.	.	1	50.0	.	.	.	.	1	50.0	.	.	.	.
		5-9	84	8	9.5	2	25.0	2	25.0	.	.	.	.	.	.	3	37.5	1	12.5
		10-14	288	32	11.1	14	43.8	8	25.0	4	12.5	1	3.1	3	9.4	2	6.3	.	.
		15-20	227	36	15.9	9	25.0	16	44.4	1	2.8	2	5.6	.	.	7	19.4	1	2.8
	Treatment	Surgery only	56	3	5.4	1	33.3	1	33.3	.	.	.	.	.	.	1	33.3	.	.
		Chemotherapy, no radiation	467	57	12.2	17	29.8	23	40.4	.	.	3	5.3	4	7.0	9	15.8	1	1.8
		Radiation, no chemotherapy	4	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
		Chemotherapy and radiation	39	11	28.2	4	36.4	2	18.2	3	27.3	.	.	.	.	1	9.1	1	9.1
		Unknown	44	7	15.9	3	42.9	1	14.3	2	28.6	.	.	.	.	1	14.3	.	.