Cancer in Oklahoma: 2023 Annual Report

Community Outreach and Engagement Core



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OVERVIEW

The mission of the Stephenson Cancer Center (SCC) is to eliminate cancer in Oklahoma, the SCC's catchment area, and beyond. To advance this mission, the SCC fosters and supports research projects in the basic, clinical, behavioral and population sciences that specifically address cancers and cancer problems prevalent in Oklahoma.

Some SCC-sponsored intramural funding opportunities include a focus on catchment area Priority Cancers and relevant modifiable risk factors as a preference in the scoring criteria. The attached information is intended to help SCC members identify these high incidence and high mortality cancers and cancer problems.

<u>Priority Cancers and Cancer Disparities</u>: The list of Priority Cancers (pg. 4) is determined by the SCC's Community Outreach and Engagement (COE) Core, based on overall (all races) incidence and mortality rates for these cancers in the catchment area. However, it is important to note that Oklahoma's various race and ethnic groups experience disproportionate rates from many different cancers. The data found in the incidence (pgs. 10-14) and mortality tables (pgs. 15-19) in this report highlight these cancer disparities.

NCI-DESIGNATED CANCER CENTERS AND CATCHMENT AREA RELEVANT RESEARCH PROBLEMS

The National Cancer Institute (NCI) is increasingly placing an emphasis on addressing cancer problems at the community level. In 2017, the NCI established Community Outreach and Engagement (COE) as a core component of the P30 Cancer Center Support Grant (CCSG). With the following language, even greater emphasis was put on COE in the most recent version of the CCSG guidelines (2020):

"NCI Designated Cancer Centers occupy a unique role in their communities. They are expected to perform research of particular relevance to their catchment area and engage the populations within their catchment area in the research they conduct. In order to facilitate this, Centers thoroughly analyze the demographics and cancer burden of their catchment area. In addition, Centers are expected to engage communities within their catchment area to decrease their cancer burden, particularly among minority and under-represented populations.

In addition to research questions of broader applicability, cancer center research programs should conduct research that addresses relevant cancer problems in the catchment area at a level appropriate to the type of program. This includes cancer problems affecting: racial and ethnic minorities, rural residents, women, children, elderly, sexual and gender minorities, persons of low socioeconomic status, cancer sites of high incidence / mortality, environmental exposures, behavioral factor, social determinants, and other relevant problems / issues."

PRIORITY CANCERS IN OKLAHOMA

The SCC's Community Outreach and Engagement (COE) Core uses a data-driven approach to determine Priority Cancers in Oklahoma (the SCC catchment area). Three categories are employed:

- 1. The top five age-adjusted cancers based on incidence rates per 100,000 for each race / ethnic group
- 2. The top five age-adjusted cancers based on death rates per 100,000 for each race / ethnic group
- 3. The top two cancers with the greatest incidence disparity rates between Oklahoma (all races) and the US (all races)

SCC Catchment Area: Priority Cancers List

Breast (female) High incidence cancer, high mortality cancer (OK, all races)
 Prostate High incidence cancer, high mortality cancer (OK, all races)
 Lung High incidence cancer, high mortality cancer (OK, all races)
 Colorectal High incidence cancer, high mortality cancer (OK, all races)

Pancreas High mortality cancer (OK, all races)
 Uterus High incidence cancer (OK, all races)

Cervix High disparity cancer (OK, all races vs. US, all races)
 Kidney & Renal High disparity cancer (OK, all races vs. US, all races)

See Table below and Incidence (pgs. 10-14) and Mortality (pgs. 15-19) Tables for more information

Priority Cancers in Oklahoma: Incidence and Mortality Ranking and Rates

- Rank (#) among Race / Ethnicity
- Age-adjusted rate per 100,000 Residents

Priority Cancers	Statistics	All Races (US)	All Races (OK)	White (OK)	American Indian (OK)	Black (OK)	Asian (OK)	Hispanic (OK)
Breast (female)	Incidence	(1) 127.0	(1) 122.6	(1) 122.1	(1) 141.3	(2) 128.2	90.1 (1)	(1) 89.1
	Mortality	(2) 19.6	(2) 22.4	(2) 22.5	(3) 29.8	(3) 28.9	(3) 12.4	(2) 14.7
Prostate	Incidence	(2) 110.5	(2) 100.5	(2) 93.5	(2) 113.6	(1) 172.6	(2) 65.5	(2) 68.8
	Mortality	(3) 18.8	(3) 20.0	(3) 18.9	(2) 30.8	(2) 43.0	(2) 14.8	(3) 11.2

Luna	Incidence	(3) 54.0	(3) 63.2	(3) 62.8	(3) 88.9	(3) 63.0	(3) 38.0	(4) 31.9
Lung	Mortality	(1) 35.0	(1) 46.5	(1) 47.8	(1) 66.2	(1) 46.4	(1) 27.5	(1) 17.5
Colorectal	Incidence	(4) 36.5	(4) 39.7	(4) 38.0	(4) 60.2	(4) 40.0	(3) 38.0	(4) 31.9
Colorectal	Mortality	(4) 13.1	(4) 16.3	(4) 16.0	(4) 28.1	(4) 21.5	(5) 8.6	(5) 9.0
Pancreas	Incidence	(13) 13.2	(14) 12.1	(14) 11.6	(16) 14.8	(7) 15.5	(14) 8.8	(10) 11.6
Pancreas	Mortality	(5) 11.1	(5) 11.1	(5) 11.1	(6) 14.5	(5) 13.8	(6) 6.8	(4) 9.3
Uterus	Incidence	(5) 27.4	(5) 24.0	(6) 23.0	(6) 32.4	(5) 26.3	(5) 16.0	(5) 23.5
oterus	Mortality	(10) 5.1	(11) 4.8	(14) 4.4	(10) 7.2	(6) 9.9	N/A	(7) 5.2
Cervix *	Incidence	(17) 7.5	(16) 9.8	(16) 9.1	(16) 15.5	(15) 8.3	(11) 10.8	(9) 11.7
Cervix "	Mortality	(18) 2.2	(15) 3.6	(15) 3.6	(13) 5.5	(13) 4.2	N/A	(11) 3.5
Kidney &	Incidence	(10) 17.2	(7) 20.7	(8) 18.9	(5) 44.3	(6) 18.3	(14) 8.8	(6) 18.9
Renal *	Mortality	(14) 3.5	(11) 4.8	(12) 4.7	(8) 8.9	(12) 4.3	N/A	(10) 4.0

^{*} Top two cancers with the greatest incidence disparity rate between Oklahoma (all races) and the US (all races)

Rank	Cancer Sites	OK Rate (all races)	US Rate (all races)	OK vs US Rate
1	Cervix	9.8	7.5	+30.7%
2	Kidney & Renal Pelvis	20.7	17.2	+20.3%

MODIFIABLE RISK FACTORS ASSOCIATED WITH PRIORITY CANCERS

Risk Factor	Oklahoma Ranking	Rationale
Tobacco Use /		Tobacco use causes over 20% of all cancers and about 30% of all cancer deaths in the United States.
Smoking	38 th / 50	Among all states in 2021, Oklahoma had the 38 th worst prevalence of current cigarette smoking. Oklahomans have high rates of tobacco-related cancers. In particular, lung cancer rates in Oklahoma remain much higher than the national average.
Obesity	47 th / 50	The combined effects of excess body weight, physical inactivity, and an unhealthy diet, including excess alcohol, cause 18% of cancer cases and 16% of cancer deaths in the United States.
Obesity	47* / 30	Among all states in 2021, Oklahoma had the 47 th worst prevalence of obesity. Oklahomans have high rates of colorectal and other obesity/overweight-related cancers. In particular, colorectal cancer rates in Oklahoma remain much higher than the national average.
Alcohol Use		Drinking alcohol increases the risk of cancer of the mouth, throat, esophagus, larynx, liver, colon and rectum, breast, and other cancers. The risk increases dramatically those who drink alcohol and also use tobacco.
Access to Health Care	48 th / 50	The ability to engage in cancer screening and treatment hinges on access to health care. Oklahoma currently ranks 48 th worst among all states on this measure. Expansion of the state Medicaid program will improve this ranking, but Oklahoma will still rank lower than most states on this measure.
Screening Behavior		Among all states in 2020: Oklahoma ranked 45 th worst on cervical cancer screening among women aged 21-65; 46 th worst on breast cancer screening among women aged 50-74; 48 th worst on colorectal cancer screening; and 39 th worst on prostate cancer screening among men aged 40 and above. (Lung cancer screening data are not yet available)
HPV	39 th / 50	Among all states in 2021, Oklahoma ranked 39 th worst on those aged 13-17 who received 2+ doses of HPV Vaccine.
Vaccination	39 / 50	Oklahoma has a high rate of HPV-attributable cancer, including cervical and oropharyngeal cancer.

Based on the identified Priority Cancers and the COE strategy, modifiable factors known to increase cancer risk were selected for SCC programs to address through research, education and community outreach. These risk factors are monitored, evaluated and prioritized in relation to ongoing and future SCC projects.

HIGH INCIDENCE AND HIGH MORTALITY CANCERS AND DISPARITY RATES IN OKLAHOMA

- Oklahoma Age-Adjusted Rates Compared to the US Population Rates for all Races by Cancer Site
- 5-Year Annual Average: Incidence (2016-2020), Death Rate (2016-2020)
- All Rates are per 100,000 people and adjusted to the 2000 US population

1. Highest Overall Incidence Cancers in Oklahoma:

OK Incidence Rank	Cancer Sites (all stages)	OK Rate (all races)	OK Cancer Cases	US Rate (all races)	US Cancer Cases	OK vs US Rate
1	Breast (Female) *	122.6	14,610	127.0	1,248,749	-3.5%
2	Prostate *	100.5	11,710	110.5	1,063,671	-9.0%
3	Lung & Bronchus	63.2	15,372	54.0	1,076,536	+17.0%
4	Colon & Rectum	39.7	9,100	36.5	690,104	+8.8%
5	Uterus *	24.0	2,937	27.4	284,355	-12.4%

^{*}sex-specific rate

2. Highest Overall Cancers by Death Rate in Oklahoma:

OK Mortality Rank	Cancer Sites (all stages)	OK Rate (all races)	OK Cancer Deaths	US Rate (all races)	US Cancer Deaths	OK vs US Rate
1	Lung & Bronchus	46.5	11,224	35.0	712,483	+32.9%
2	Breast (Female) *	22.4	2,812	19.6	210,505	+14.3%
3	Prostate *	20.0	1,982	18.8	156,687	+6.4%
4	Colon & Rectum	16.3	3,770	13.1	260,761	+24.4%
5	Pancreas	11.1	2,664	11.1	224,341	

^{*}sex-specific rate

3. Highest Disparities in Cancer Incidence Rate in OK Compared to US Rate (all races):

Rank	Cancer Sites	OK Rate (all races)	US Rate (all races)	OK vs US Rate
1	Cervix *	9.8	7.5	+30.7%
2	Kidney & Renal Pelvis	20.7	17.2	+20.3%
3	Lung & Bronchus	63.2	54.0	+17.0%
4	Oral Cavity & Pharynx	13.0	11.9	+009.2%
5	Colon & Rectum	39.7	36.5	+8.8%

^{*}sex-specific rate

4. Highest Disparities in Cancer Death Rate in OK Compared to US Rate (all races):

Rank	Cancer Sites	OK Rate (all races)	US Rate (all races)	OK vs US Rate
1	Cervix *	3.6	2.2	+63.6%
2	Kidney & Renal Pelvis	4.8	3.5	+37.1%
3	Lung & Bronchus	46.5	35.0	+32.9%
4	Colon & Rectum	16.3	13.1	+24.4%
5	Oral Cavity & Pharynx	3.0	2.5	+20.0%

^{*}sex-specific rate

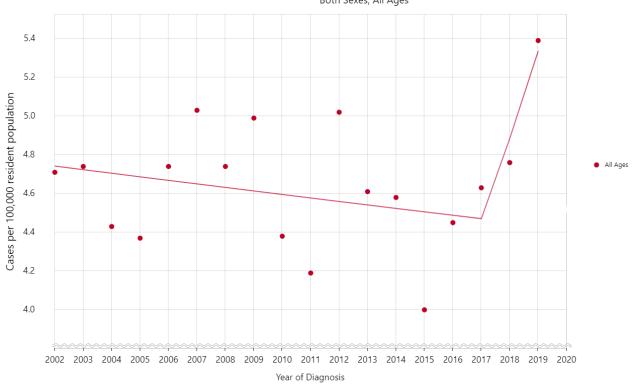
5. Cancers Most Rapidly Increasing in Incidence in Oklahoma

Estimated % annual change from 2015-2019, All Races

I. Esophagus: +4.3% annual increase (95% CI: 0.2, 7.3)

Historical Trends

Incidence, Oklahoma Esophagus, All Races (incl Hisp) Both Sexes, All Ages

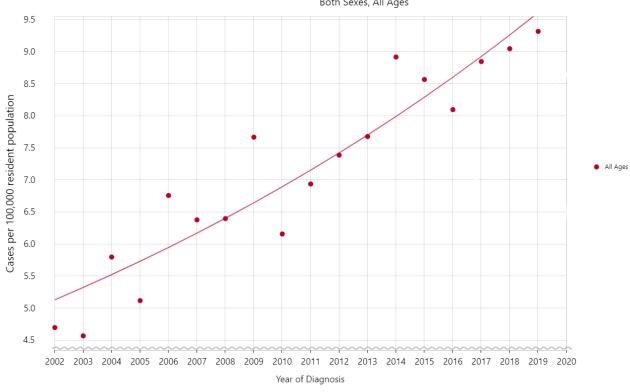


Notes: Created by statecancerprofiles.cancer.gov on 08/31/2023 9:56 am. Regression lines calculated using the Joinpoint Regression Program (Version 5.0.1)

II. Liver & Bile Duct: +3.8% annual increase (95% CI: 2.9, 4.8)

Historical Trends

Incidence, Oklahoma Liver & Bile Duct, All Races (incl Hisp) Both Sexes, All Ages



Notes: Created by statecancerprofiles.cancer.gov on 08/31/2023 10:00 am. Regression lines calculated using the Joinpoint Regression Program (Version 5.0.1)

CANCER INCIDENCE IN OKLAHOMA

Race / Ethnicity Populations in Oklahoma Rate vs. US Rate (all races) Age-Adjusted Incidence Rates per 100,000 5-Yr Annual Average (2016 - 2020)

Cancer Incidence: All Races							
Cancer Sites (all stages)	Oklahoma (all races)	US (all races)	OK (all races) vs US (all races)	OK Ranking by Incidence			
All Cancer Sites	443.4	442.3	+0.2%				
Bladder	18.4	18.9	-2.6%	8			
Brain & ONS	6.2	6.4	-3.1%	18			
Breast (Female) *	122.6	127	-3.5%	1			
Cervix *	9.8	7.5	+30.7%	16			
Childhood (<20, All Sites)	17.6	18.8	-6.4%	9			
Colon & Rectum	39.7	36.5	+8.8%	4			
Esophagus	4.8	4.5	+6.7%	21			
Kidney & Renal Pelvis	20.7	17.2	+20.3%	7			
Leukemia	13.1	13.9	-5.8%	11			
Liver & Bile Duct	8.8	8.6	+2.3%	17			
Lung & Bronchus	63.2	54.0	+17.0%	3			
Melanoma (Skin)	21.3	22.5	-5.3%	6			
Myeloma	6.2	7.0	-11.4%	18			
Non-Hodgkin Lymphoma	17.0	18.6	-8.6%	10			
Oral Cavity & Pharynx	13.0	11.9	+9.2%	12			
Ovary *	10.6	10.1	+5.0%	15			
Pancreas	12.1	13.2	-8.3%	14			
Prostate *	100.5	110.5	-9.0%	2			
Stomach	5.3	6.2	-14.5%	20			
Thyroid	12.2	13.3	-8.3%	13			
Uterus *	24.0	27.4	-12.4%	5			

^{*}sex-specific rate

Cancer Sites (all stages)	Oklahoma (NHW)	US (NHW)	US (all races)	OK (NHW) vs US (all races)	OK Ranking by Incidence
All Cancer Sites	434.1	461.9	442.3	-1.9%	
Bladder	19.3	21.5	18.9	+2.1%	7
Brain & ONS	6.4	7.2	6.4	0.0%	18
Breast (Female) *	122.1	133.3	127.0	-3.9%	1
Cervix *	9.1	7.1	7.5	+21.3%	16
Childhood (<20, All Sites)	17.8	19.9	18.8	-5.3%	9
Colon & Rectum	38.0	36.7	36.5	+4.1%	4
Esophagus	4.9	5.0	4.5	+8.9%	20
Kidney & Renal Pelvis	18.9	17.5	17.2	+9.9%	8
Leukemia	12.8	14.8	13.9	-7.9%	12
Liver & Bile Duct	7.4	7.3	8.6	-14.0%	17
Lung & Bronchus	62.8	58.5	54.0	+16.3%	3
Melanoma (Skin)	23.5	29.5	22.5	+4.4%	5
Myeloma	5.4	6.2	7.0	-22.9%	19
Non-Hodgkin Lymphoma	17.0	19.6	18.6	-8.6%	10
Oral Cavity & Pharynx	13.3	13.3	11.9	+11.8%	11
Ovary *	10.3	10.4	10.1	+2.0%	15
Pancreas	11.6	13.2	13.2	-12.1%	14
Prostate *	93.5	105.0	110.5	-15.4%	2
Stomach	4.5	5.1	6.2	-27.4%	21
Thyroid	12.0	14.2	13.3	-9.8%	13
Uterus *	23.0	27.6	27.4	-16.1%	6

^{*}sex-specific rate

Cancer Incidence: American Indian / Alaskan Native, non-Hispanic						
Cancer Sites (all stages)	Oklahoma (AI/AN)	US (all races)	OK (AI/AN) vs US (all races)	OK Ranking by Incidence		
All Cancer Sites	591.4	442.3	+33.7%			
Bladder	18.2	18.9	-3.7%	10		
Brain & ONS	7.7	6.4	+20.3%	20		
Breast (Female) *	141.3	127.0	+11.3%	1		
Cervix *	15.5	7.5	+106.7%	15		
Childhood (<20, All Sites)	21.2	18.8	+12.8%	8		
Colon & Rectum	60.2	36.5	+64.9%	4		
Esophagus	6.8	4.5	+51.1%	21		
Kidney & Renal Pelvis	44.3	17.2	+157.6%	5		
Leukemia	15.8	13.9	+13.7%	14		
Liver & Bile Duct	20.7	8.6	+140.7%	9		
Lung & Bronchus	88.9	54.0	+64.6%	3		
Melanoma (Skin)	17.5	22.5	-22.2%	11		
Myeloma	9.1	7.0	+30.0%	18		
Non-Hodgkin Lymphoma	21.5	18.6	+15.6%	7		
Oral Cavity & Pharynx	16.9	11.9	+42.0%	12		
Ovary *	14.2	10.1	+40.6%	17		
Pancreas	14.8	13.2	+12.1%	16		
Prostate *	113.6	110.5	+2.8%	2		
Stomach	8.0	6.2	+29.0%	19		
Thyroid	16.7	13.3	+25.6%	13		
Uterus *	32.4	27.4	+18.2%	6		

^{*}sex-specific rate

Cancer Incidence: Black, non-Hispanic						
Cancer Sites (all stages)	Oklahoma (Black)	US (Black)	US (all races)	OK (Black) vs US (all races)	OK Ranking by Incidence	
All Cancer Sites	440.7	445.9	442.3	-0.4%		
Bladder	12.3	11.3	18.9	-34.9%	9	
Brain & ONS	3.9	4.0	6.4	-39.1%	19	
Breast (Female) *	128.2	126.9	127.0	+0.9%	2	
Cervix *	8.3	8.5	7.5	+10.7%	15	
Childhood (<20, All Sites)	11.6	14.3	18.8	-38.3%	11	
Colon & Rectum	40.0	41.4	36.5	+9.6%	4	
Esophagus	3.3	3.5	4.5	-26.7%	20	
Kidney & Renal Pelvis	18.3	18.8	17.2	+6.4%	6	
Leukemia	11.0	10.8	13.9	-20.9%	12	
Liver & Bile Duct	9.7	10.2	8.6	+12.8%	13	
Lung & Bronchus	63.0	55.8	54.0	+16.7%	3	
Melanoma (Skin)		0.9	22.5	N/A	N/A	
Myeloma	14.2	14.2	7.0	+102.9%	8	
Non-Hodgkin Lymphoma	12.1	13.9	18.6	-34.9%	10	
Oral Cavity & Pharynx	8.0	8.5	11.9	-32.8%	16	
Ovary *	6.9	8.4	10.1	-31.7%	18	
Pancreas	15.5	16.1	13.2	+17.4%	7	
Prostate *	172.6	175.6	110.5	+56.2%	1	
Stomach	9.0	9.5	6.2	+45.2%	14	
Thyroid	7.4	8.0	13.3	-44.4%	17	
Uterus *	26.3	28.5	27.4	-4.0%	5	

^{*}sex-specific rate

[&]quot;." meaning data is suppressed

Cancer Incidence: Asian and Pacific Islander, non-Hispanic						
Cancer Sites (all stages)	Oklahoma (Asian)	US (Asian)	US (all races)	OK (Asian) vs US (all races)	OK Ranking by Incidence	
All Cancer Sites	303.2	290.3	442.3	-31.4%		
Bladder	5.9	8.1	18.9	-68.8%	17	
Brain & ONS	4.5	3.8	6.4	-29.7%	19	
Breast (Female) *	90.1	101.1	127.0	-29.1%	1	
Cervix *	10.8	5.9	7.5	+44.0%	11	
Childhood (<20, All Sites)	12.2	16.4	18.8	-35.1%	10	
Colon & Rectum	33.5	28.4	36.5	-8.2%	4	
Esophagus		2.1	4.5	N/A	N/A	
Kidney & Renal Pelvis	8.8	8.0	17.2	-48.8%	14 (tie)	
Leukemia	9.2	8.0	13.9	-33.8%	12	
Liver & Bile Duct	13.8	11.6	8.6	+60.5%	8 (tie)	
Lung & Bronchus	38.0	33.0	54.0	-29.6%	3	
Melanoma (Skin)		1.2	22.5	N/A	N/A	
Myeloma	4.7	3.9	7.0	-32.9%	18	
Non-Hodgkin Lymphoma	15.8	12.9	18.6	-15.1%	6	
Oral Cavity & Pharynx	7.4	8.2	11.9	-37.8%	16	
Ovary *	13.8	9.0	10.1	+36.6%	8 (tie)	
Pancreas	8.8	9.6	13.2	-33.3%	14 (tie)	
Prostate *	65.5	57.0	110.5	-40.7%	2	
Stomach	9.0	8.9	6.2	+45.2%	13	
Thyroid	14.3	14.5	13.3	+7.5%	7	
Uterus *	16.0	21.3	27.4	-41.6%	5	

^{*}sex-specific rate

[&]quot;." meaning data is suppressed

Cancer Incidence: Hispanic (any race)						
Cancer Sites (all stages)	Oklahoma (Hispanic)	US (Hispanic)	US (all races)	OK (Hispanic) vs US (all races)	OK Ranking by Incidence	
All Cancer Sites	322.9	339.6	442.3	-27.0%		
Bladder	8.2	10.3	18.9	-56.6%	15	
Brain & ONS	5.0	5.1	6.4	-21.9%	20	
Breast (Female) *	89.1	95.6	127.0	-29.8%	1	
Cervix *	11.7	9.3	7.5	+56.0%	9	
Childhood (<20, All Sites)	16.6	18.4	18.8	-11.7%	7	
Colon & Rectum	34.1	32.0	36.5	-6.6%	3	
Esophagus	2.8	2.7	4.5	-37.8%	21	
Kidney & Renal Pelvis	18.9	16.9	17.2	+9.9%	6	
Leukemia	10.8	11.1	13.9	-22.3%	11	
Liver & Bile Duct	10.6	13.4	8.6	+23.3%	13	
Lung & Bronchus	31.9	27.7	54.0	-40.9%	4	
Melanoma (Skin)	8.2	4.5	22.5	-63.6%	15	
Myeloma	5.5	6.6	7.0	-21.4%	19	
Non-Hodgkin Lymphoma	12.9	17.0	18.6	-30.6%	8	
Oral Cavity & Pharynx	6.5	7.1	11.9	-45.4%	18	
Ovary *	8.5	9.5	10.1	-15.8%	14	
Pancreas	11.6	11.8	13.2	-12.1%	10	
Prostate *	68.8	83.7	110.5	-37.7%	2	
Stomach	7.5	9.1	6.2	+21.0%	17	
Thyroid	10.8	13.0	13.3	-18.8%	11	
Uterus *	23.5	24.8	27.4	-14.2%	5	

^{*}sex-specific rate

CANCER DEATH RATES IN OKLAHOMA

Race / Ethnicity Populations in Oklahoma Rate vs. US Rate (all races) Age-Adjusted Death Rates per 100,000 5-Yr Annual Average (2016 - 2020)

Cancer Death Rates: All Races						
Cancer Sites (all stages)	Oklahoma (all races)	US (all races)	OK vs US (all races)	OK Ranking by Death Rate		
All Cancer Sites	175.2	149.4	+17.3%			
Bladder	4.7	4.2	+11.9%	13		
Brain & ONS	4.9	4.4	+11.4%	10		
Breast (Female) *	22.4	19.6	+14.3%	2		
Cervix *	3.6	2.2	+63.6%	15		
Childhood (<20, All Sites)	2.6	2.2	+18.2%	18 (tie)		
Colon & Rectum	16.3	13.1	+24.4%	4		
Esophagus	4.1	3.8	+7.9%	14		
Kidney & Renal Pelvis	4.8	3.5	+37.1%	11 (tie)		
Leukemia	7.1	6.0	+18.3%	8		
Liver & Bile Duct	7.4	6.6	+12.1%	6		
Lung & Bronchus	46.5	35	+32.9%	1		
Melanoma (Skin)	2.5	2.1	+19.0%	20		
Myeloma	3.3	3.1	+6.5%	16		
Non-Hodgkin Lymphoma	6.0	5.1	+17.6%	9		
Oral Cavity & Pharynx	3.0	2.5	+20.0%	17		
Ovary *	7.3	6.3	+15.9%	7		
Pancreas	11.1	11.1	0.0%	5		
Prostate *	20.0	18.8	+6.4%	3		
Stomach	2.6	2.8	-7.1%	18 (tie)		
Thyroid	0.5	0.5	0.0%	21		
Uterus *	4.8	5.1	-5.9%	11 (tie)		

^{*}sex-specific rate

Cancer Death Rates: White, Non-Hispanic (NHW)						
Cancer Sites (all stages)	Oklahoma (NHW)	US (NHW)	US (all races)	OK (NHW) vs US (all races)	OK Ranking by Death Rate	
All Cancer Sites	175.2	149.4	149.4	+17.3%		
Bladder	5.0	4.6	4.2	+19.0%	11	
Brain & ONS	5.4	5.1	4.4	+22.7%	10	
Breast (Female) *	22.5	19.7	19.6	+14.8%	2	
Cervix *	3.6	2.0	2.2	+63.6%	15	
Childhood (<20, All Sites)	2.6	2.1	2.2	+18.2%	19	
Colon & Rectum	16.0	13.1	13.1	+22.1%	4	
Esophagus	4.5	4.3	3.8	+18.4%	13	
Kidney & Renal Pelvis	4.7	3.6	3.5	+34.3%	12	
Leukemia	7.4	6.4	6.0	+23.3%	6 (tie)	
Liver & Bile Duct	6.7	5.9	6.6	+1.5%	8	
Lung & Bronchus	47.8	38.0	35.0	+36.6%	1	
Melanoma (Skin)	2.8	2.7	2.1	+33.3%	18	
Myeloma	3.0	2.9	3.1	-3.2%	17	
Non-Hodgkin Lymphoma	6.2	5.4	5.1	+21.6%	9	
Oral Cavity & Pharynx	3.2	2.7	2.5	+28.0%	16	
Ovary *	7.4	6.7	6.3	+17.5%	6 (tie)	
Pancreas	11.1	11.2	11.1	0.0%	5	
Prostate *	18.9	17.8	18.8	+0.5%	3	
Stomach	2.2	2.1	2.8	-21.4%	20	
Thyroid	0.5	0.5	0.5	0.0%	21	
Uterus *	4.4	4.6	5.1	-13.7%	14	

^{*}sex-specific rate

Cancer Death Rates: American Indian / Alaskan Native, non-Hispanic						
Cancer Sites (all stages)	OK (AI/AN)†	US (all races)	OK (AI/AN) vs US (all races)	OK Ranking by Death Rate		
All Cancer Sites	256.7	149.4	+71.8%			
Bladder	5.1	4.2	+21.4%	15		
Brain & ONS	5.2	4.4	+18.2%	14		
Breast (Female) *	29.8	19.6	+52.0%	3		
Cervix *	5.5	2.2	+150.0%	13		
Childhood (<20, All Sites)	3.2	2.2	+45.5%	18		
Colon & Rectum	28.1	13.1	+114.5%	4		
Esophagus	4.9	3.8	+28.9%	17		
Kidney & Renal Pelvis	8.9	3.5	+154.3%	8		
Leukemia	7.0	6.0	+16.7%	11		
Liver & Bile Duct	15.0	6.6	+127.3%	5		
Lung & Bronchus	66.2	35.0	+89.1%	1		
Melanoma (Skin)	2.3	2.1	+9.5%	20		
Myeloma	5.7	3.1	+83.9%	12		
Non-Hodgkin Lymphoma	8.2	5.1	+60.8%	9		
Oral Cavity & Pharynx	3.1	2.5	+24.0%	19		
Ovary *	10.7	6.3	+69.8%	7		
Pancreas	14.5	11.1	+30.6%	6		
Prostate *	30.8	18.8	+63.8%	2		
Stomach	5.0	2.8	+78.6%	16		
Thyroid	0.6	0.5	+20.0%	21		
Uterus *	7.2	5.1	+41.2%	10		

^{*}sex-specific rate

[†]AI/AN death rates in OK are Indian Health Services (IHS) linked due to racial misclassification in this population. Rates obtained from the Oklahoma Central Cancer Registry and Center for Health Statistics Vital Statistics.

Cancer Death Rates: Black, non-Hispanic						
Cancer Sites (all stages)	Oklahoma (Black)	US (Black)	US (all races)	OK (Black) vs US (all races)	OK Ranking by Death Rate	
All Cancer Sites	194.5	174.7	149.4	+30.2%		
Bladder	3.7	3.4	4.2	-11.9%	15	
Brain & ONS	3.5	2.8	4.4	-20.5%	16	
Breast (Female) *	28.9	27.6	19.6	+47.4%	3	
Cervix *	4.2	3.3	2.2	+90.9%	13	
Childhood (<20, All Sites)		2.3	2.2	N/A	N/A	
Colon & Rectum	21.5	17.6	13.1	+64.1%	4	
Esophagus	2.9	2.9	3.8	-23.7%	17	
Kidney & Renal Pelvis	4.3	3.4	3.5	+22.9%	12	
Leukemia	5.8	5.3	6.0	-3.3%	10	
Liver & Bile Duct	7.7	8.3	6.6	+16.7%	7	
Lung & Bronchus	46.4	37.2	35.0	+32.6%	1	
Melanoma (Skin)		0.3	2.1	N/A	N/A	
Myeloma	6.4	5.9	3.1	+106.5%	8	
Non-Hodgkin Lymphoma	4.0	3.9	5.1	-21.6%	14	
Oral Cavity & Pharynx	2.8	2.5	2.5	+12.0%	18	
Ovary *	6.0	5.7	6.3	-4.8%	9	
Pancreas	13.8	13.6	11.1	+24.3%	5	
Prostate *	43.0	37.5	18.8	+128.7%	2	
Stomach	5.2	5.0	2.8	+85.7%	11	
Thyroid		0.5	0.5	N/A	N/A	
Uterus *	9.9	9.1	5.1	+94.1%	6	

^{*}sex-specific rate

[&]quot;." meaning data is suppressed

Cancer Death Rates: Asian and Pacific Islander, non-Hispanic					
Cancer Sites (all stages)	Oklahoma (Asian)	US (Asian)	US (all races)	OK (Asian) vs US (all races)	OK Ranking by Death Rate
All Cancer Sites	110.5	94.5	149.4	-26.0%	
Bladder		1.7	4.2	N/A	N/A
Brain & ONS		2.3	4.4	N/A	N/A
Breast (Female) *	12.4	11.7	19.6	-36.7%	3
Cervix *		1.6	2.2	N/A	N/A
Childhood (<20, All Sites)		2.0	2.2	N/A	N/A
Colon & Rectum	8.6	9.1	13.1	-34.4%	5
Esophagus		1.5	3.8	N/A	N/A
Kidney & Renal Pelvis		1.6	3.5	N/A	N/A
Leukemia	4.2	3.4	6.0	-30.0%	9
Liver & Bile Duct	12.3	8.4	6.6	+86.4%	4
Lung & Bronchus	27.5	19.8	35.0	-21.4%	1
Melanoma (Skin)		0.3	2.1	N/A	N/A
Myeloma		1.5	3.1	N/A	N/A
Non-Hodgkin Lymphoma	5.7	3.6	5.1	+11.8%	7
Oral Cavity & Pharynx		2.0	2.5	N/A	N/A
Ovary *		4.4	6.3	N/A	N/A
Pancreas	6.8	7.5	11.1	-38.7%	6
Prostate *	14.8	8.6	18.8	-21.3%	2
Stomach	4.7	4.6	2.8	+67.9%	8
Thyroid		0.6	0.5	N/A	N/A
Uterus *		3.5	5.1	N/A	N/A

^{*}sex-specific rate

[&]quot;." meaning data is suppressed

Cancer Death Rates: Hispanic (any race)						
Cancer Sites (all stages)	Oklahoma (Hispanic)	US (Hispanic)	US (all races)	OK (Hispanic) vs US (all races)	OK Ranking by Death Rate	
All Cancer Sites	105.0	108.2	149.4	-29.7%		
Bladder		2.3	4.2	N/A	N/A	
Brain & ONS	2.1	3.1	4.4	-52.3%	16 (tie)	
Breast (Female) *	14.7	13.7	19.6	-25.2%	2	
Cervix *	3.5	2.5	2.2	+59.1%	11	
Childhood (<20, All Sites)	2.5	2.3	2.2	+13.6%	15	
Colon & Rectum	9.0	10.7	13.1	-31.3%	5	
Esophagus	2.1	1.9	3.8	-44.7%	16 (tie)	
Kidney & Renal Pelvis	4.0	3.3	3.5	+14.3%	10	
Leukemia	4.5	4.3	6.0	-25.0%	9	
Liver & Bile Duct	8.7	9.2	6.6	+31.8%	6	
Lung & Bronchus	17.5	15.4	35.0	-50.0%	1	
Melanoma (Skin)		0.6	2.1	N/A	N/A	
Myeloma	2.7	2.6	3.1	-12.9%	14	
Non-Hodgkin Lymphoma	3.4	4.5	5.1	-33.3%	12	
Oral Cavity & Pharynx		1.5	2.5	N/A	N/A	
Ovary *	4.6	4.9	6.3	-27.0%	8	
Pancreas	9.3	8.8	11.1	-16.2%	4	
Prostate *	11.2	15.3	18.8	-40.4%	3	
Stomach	3.0	4.8	2.8	+7.1%	13	
Thyroid		0.6	0.5	N/A	N/A	
Uterus *	5.2	4.3	5.1	+2.0%	7	

^{*}sex-specific rate

[&]quot;." meaning data is suppressed

Data Sources:

Oklahoma State Department of Health (OSDH), Center for Health Statistics, Health Care Information, Vital Statistics (2016-2020), on Oklahoma Statistics on Health Available for Everyone (OK2SHARE). https://www.health.state.ok.us/stats/Registries/cancer/Final/mortality.shtml

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U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on 2022 submission data (1999-2020): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; www.cdc.gov/cancer/dataviz.

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