

Indiana Cancer Registry Annual Incidence Report





## Introduction

This report is the annual cancer incidence statistics update from the Indiana Department of Health's (IDOH's) Indiana State Cancer Registry. Pursuant to IC 16-38-2-11, IDOH must publish information from the Indiana State Cancer Registry collected in the previous calendar year. This report contains information and the latest available cancer data in Indiana. This data may be unavailable for other forms of dissemination such as data requests due to the quality assurance steps still being taken by the IDOH cancer registry team.

These numbers are preliminary because additional data for this period continues to be collected from reporting facilities and updated by registry staff. The data in this report represents information on cancers diagnosed in 2020 in Indiana residents and reported to the Indiana State Cancer Registry as of November 2023.

## **Incidence Rates**

The incidence rate for a disease is the number of newly diagnosed cases for every 100,000 people. For example, if a state has a population of one million people and 4,000 cases of cancer are diagnosed among them in a particular year, the cancer incidence rate for that year is 400. Because cancer is much more common in older people, it is misleading to compare the cancer incidence rates of two states in which the proportion of older people is much greater in one than the other. To make comparisons between states meaningful, cancer rates are age-adjusted. This means the rates are weighted according to the age distribution of the population compared with a standard population. The rates in this report are age-adjusted to the 2000 U.S. standard population.

Because of random variations, the true rate may not be the same as the calculated rate. It is possible to calculate a range of values such that there is a given probability that the true rate lies within that range. This range of values is called a confidence interval. The two endpoints of the range are called the lower confidence interval endpoint (LCI) and the upper confidence interval endpoint (UCI).

Tables 1 through 3 show the 10 most diagnosed cancers in Indiana in 2020, reflecting the number of cases diagnosed, the age-adjusted incidence rate, and the 95% confidence interval for the rate. Please note the value in the rate column may not be the true rate but indicates there is a 95% chance that the true rate lies between the values in the LCI and UCI columns.



## **In Situ and Invasive Cancers**

A tumor that is confined to the layer of cells in which it began is called in situ. A tumor that has spread beyond this point is called invasive. Incidence rates are calculated for invasive cancers only. The exclusion of in situ cases allows comparisons with national data and is based on the major differences in prognosis and treatment between in situ and invasive cancers. An exception is made for cancer of the urinary bladder. Interpreting the pathologist's description of invasion for urinary bladder tumors is difficult for coders. Since patients generally receive the same treatment for in situ and microinvasive tumors, in situ bladder tumors are traditionally included in incidence rates. Tables 1, 2, 3, 9, and 10, exclude in situ cases other than cancer of the urinary bladder. Tables 4, 5, 6, 7, and 8, divide cancers according to stage (how far they have spread) and include in situ cases when appropriate.

Table 1: The Ten Most Common Cancers For Both Sexes Combined 2020

Cancer Site	Count	Rate	LCI	UCI
Lung and Bronchus	4,488	51.3	49.7	52.8
Colorectal	2,483	30.6	29.4	31.8
Urinary Bladder	1,345	15.9	15.0	16.8
Non-Hodgkin's Lymphoma	1,311	16.2	15.3	17.1
Kidney and Renal Pelvis	1,286	15.8	14.9	16.7
Melanoma of the Skin	1,246	15.8	14.9	16.8
Pancreas	1035	12.1	11.3	12.8
Oral Cavity and Pharynx	982	12.0	11.2	12.7
Leukemias	978	12.4	11.6	13.2
Thyroid	662	9.4	8.6	10.1

Table 1 above reflects the top ten cancers that were diagnosed in 2020 in Indiana, the age-adjusted rate of each cancer in Indiana as well as the upper and lower 95% confidence intervals to show where the "true" rate lies. The same is then shown in Tables 2 and 3, for each individual sex. Figure 1 below shows the same data but allows a better view of the vast difference in the rates between these 10 cancers. These lists look much different because they include sex specific cancers such as prostate and breast cancer which are known to be among the most commoncancers. These tables and graphs detail how different cancers affect each sex at varying



levels. These tables show that of the cancers on all three top ten lists, males have higher rates than females.

It is interesting to note that thyroid cancer is in the top ten for females, but not for males while cancers of the urinary bladder and oral cavity and pharynx make the male list, but not in females.

**Table 2: The Ten Most Common Cancers for Males 2020** 

Cancer Site	County	Rate	LCI	UCI
Prostate	3,266	70.7	68.3	73.2
Lung and Bronchus	2,255	56.4	54.0	58.8
Colorectal	1,271	34.0	32.0	35.9
Urinary Bladder	1,053	28.2	26.5	30.0
Leukemias	978	12.4	11.6	13.2
Kidney and Renal Pelvis	812	21.2	19.7	22.7
Non-Hodgkin's Lymphoma	730	19.5	15.3	17.1
Melanoma of the Skin	709	19.0	17.6	20.5
Oral Cavity and Pharynx	690	17.6	16.3	19.0
Pancreas	541	13.7	12.5	14.9

Prostate cancer is a male-specific cancer age-adjusted to the U.S. 2000 standard male population.



Table 3: The Ten Most Common Cancers for Females 2020

Cancer Site	Count	Rate	LCI	UCI
Breast	4,360	110.4	107.0	113.7
Lung and Bronchus	2,233	47.6	45.6	49.6
Corpus Uterus	1,647	40.7	38.6	42.7
Colorectal	1,212	27.5	25.9	29.1
Non-Hodgkin's Lymphoma	581	13.4	12.2	14.5
Melanoma of the Skin	537	13.7	12.4	14.9
Pancreas	494	10.6	9.7	11.6
Thyroid	474	13.6	12.3	14.8
Kidney and Renal Pelvis	474	11.0	10.0	12.1
Leukemias	399	9.5	8.5	10.5

Female Breast and Corpus Uterus cancers are female-specific, age-adjusted to the U.S. 2000 standard female population.

## Stage

The stage at diagnosis describes the extent or spread of cancer at the time the patient is diagnosed. While there are many ways to measure cancer stage at diagnosis, cancer registries utilize "summary staging". Stage is an important aspect of cancer diagnosis for cancers that there are early detection screening methods as the earlier the stage the more likely the cancer will be treatable and survivable. In addition to incidence and mortality data, comparisons of cancer stage at diagnosis between different races and sexes is useful in assessing access to early cancer detection and other health disparities. Summary staging is divided into the following categories.

- In Situ: The tumor is not invasive and is confined to the layer of cells in which it began.
- *Local*: The tumor has not spread beyond the primary organ.
- <u>Regional</u>: The tumor has spread to surrounding organs, tissues, or lymph nodes.
- <u>Distant</u>: The tumor has spread to other parts of the body through the blood or lymph node system.
- <u>Unknown</u>: There is not enough information to determine the stage.



Table 4: Stage at Diagnosis for All Sites, Races, and Sexes

		Total	In Situ	Local	Regional	Distant	Unknown
White Male	#	14,239	888	5,582	3,056	4,013	700
White Male %	%	100%	6.2%	39.2%	21.5%	28.2%	4.9%
White Female	#	14,965	1,342	6,459	3,068	3,505	591
write remate	%	100%	9.0%	43.2%	20.5%	23.4%	3.9%
Black Male	#	1,018	24	398	230	306	60
DIACK Male	%	100%	2.4%	39.1%	22.6%	30.1%	5.9%
Black Female	#	1,277	117	528	291	293	48
Dlack Female	%	100%	9.2%	41.3%	22.8%	22.9%	3.8%
All	#	32,192	2,434	13,239	6,785	8,264	1,470
All	%	100%	7.6%	41.1%	21.1%	25.7%	4.6%

Figure 1: All Cancer Stage at Diagnosis by Race and Sex 2020

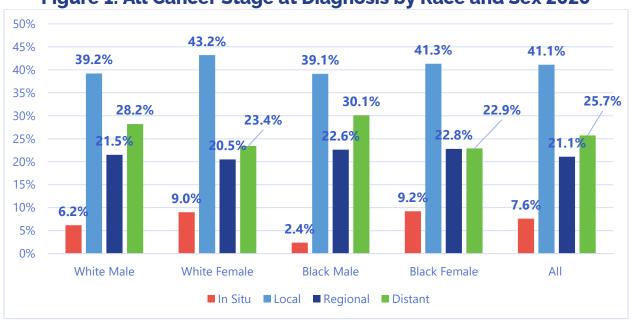


Table 5: Female Breast Cancer Stage at Diagnosis 2020

		Total	In Situ	Local	Regional	Distant	Unknown
White	#	4,640	754	2,703	896	254	33
Write	%	100%	16.3%	58.3%	19.3%	5.5%	0.7%
Black	#	463	93	227	115	26	*
Diack	%	100%	20.1%	49.0%	24.8%	5.6%	*
All Races	#	5,225	865	2,993	1,047	285	35
All Naces	%	100%	16.6%	57.3%	20.0%	5.5%	0.7%

\*Cases are suppressed due to low numbers



**Table 6: Prostate Cancer Stage at Diagnosis 2020** 

		Total	Local	Regional	Distant	Unknown
White	#	2,860	2,049	440	285	86
write	%	100%	71.6%	15.4%	10.0%	3.0%
Black	#	320	220	46	41	13
Diack	%	100%	68.8%	14.4%	12.8%	4.1%
All Races	#	3,266	2,319	494	330	123
All Races	%	100%	71.0%	15.1%	10.1%	3.8%

Table 7: Lung Cancer Stage at Diagnosis by Race and Sex 2020

		Total	In Situ	Local	Regional	Distant	Unknown
White Male	#	2107	*	486	459	1,113	49
Write Male	%	100%	*	23.1%	21.8%	52.8%	2.3%
White Female	#	2052	*	546	475	985	46
white remate	%	100%	*	26.6%	23.1%	48.0%	2.2%
Black Male	#	125	*	19	34	72	*
Diack Male	%	100%	*	15.2%	27.2%	57.6%	*
Black Female	#	155	0	46	38	71	*
DidCK Female	%	100%	0%	29.7%	24.5%	45.8%	*
All	#	4499	9	1103	1011	2269	107
All	%	100%	0.2%	24.5%	22.5%	50.4%	2.4%

<sup>\*</sup>In Situ and Unknown Stages suppressed due to small numbers

Table 8: Colorectal Cancer Stage at Diagnosis by Race and Sex 2020

	rable of color colar carried chage at Diagnosis by Rabe and Cox 2020										
		Total	In Situ	Local	Regional	Distant	Unknown				
White Male	#	867	26	258	371	184	28				
Write Male	%	100%	3.0%	29.8%	42.8%	21.2%	3.2%				
White Female	#	882	14	278	347	202	41				
white remate	%	100%	1.6%	31.5%	39.3%	22.9%	4.6%				
Black Male	#	69	*	20	29	20	*				
DidCK Male	%	100%	*	29.0%	42.0%	29.0%	*				
Black Female	#	75	*	22	31	22	*				
DIACK FEITIALE	%	100%	*	29.3%	41.3%	29.3%	*				
All	#	1929	44	586	790	433	76				
All	%	100%	2.3%	30.4%	41.0%	22.4%	3.9%				

<sup>\*</sup>Cases are suppressed due to low numbers



Table 9: Counts and Rates for Selected Cancers by Sex and Race 2020

D. II. C.	All R	aces	Wh	nite	E	Black		
Both Sexes	Count	Rate	Count	Rate	Count	Rate		
All Sites	29,758	361.0	26,975	362.7	2,154	336.1*		
Lung and Bronchus	4,488	51.3	4,158	52.2	289	45.8		
Colorectal	2,483	30.6	2,241	30.6	204	32.6		
Mala	All R	aces	Wh	nite	E	Black		
Male	Count	Rate	Count	Rate	Count	Rate		
All Sites	14,642	376.4	13,351	377.5	994	357.1		
Prostate	3,266	70.7	2,860	67.4	320	101.4*		
Lung and Bronchus	2,255	56.4	2,107	57.3	129	50.3		
Colorectal	1,271	34.0	1,149	33.8	105	39.8		
Famala	All R	aces	Wh	nite	Black			
Female	Count	Rate	Count	Rate	Count	Rate		
All Sites	15,115	353.2	13,623	355.5	1,160	324.8		
Breast	4,360	110.4	3,886	109.9	370	110.7		
Lung and Bronchus	2,233	47.6	2,051	48.5	160	43.7		
Colorectal	1,212	27.5	1092	27.5	99	27.3		

\*Statistically significantly higher or lower than All Races p < 0.05



**Table 10: Counts and Rates for Select Sites by County 2020** 

1000		Sites	Female		Prost		Lur		Color	ectal
County	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate
Indiana	29,758	361.0	4,360	110.1	3,266	70.7	4,490	51.3	2,483	30.6
Adams	79	182.2*	15	72.4U	15	60.4	٨	٨	6	13.5U
Allen	784	180.2*	111	53.5 <sup>*</sup>	102	44.1*	94	20.3*	39	8.9*
Bartholomew	397	381.0*	67	132.9	44	77.3	55	49.0	33	32.2
Benton	59	519.5*	5	91.6U	٨	٨	11	97.1U	6	56.1U
Blackford	80	458.0*	7	78.2U	٨	٨	16	82.0U	9	62.2U
Boone	256	321.7	45	120.7	21	45.2*	30	35.7	25	31.3
Brown	70	263.2*	9	76.0U	9	54.3U	10	38.6U	7	25.5U
Carroll	95	332.2	16	120.1U	14	81.0U	20	64.6	6	18.6U
Cass	126	239.2*	12	49.9U	9	29.0U	22	40.8	13	23.5U
Clark	748	499.0*	113	150.0*	53	67.0	111	68.2*	48	31.4
Clay	147	411.5	13	86.3U	19	93.4U	28	69.1	14	39.3U
Clinton	189	472.8*	28	145.8	15	64.7U	24	54.3	24	60.5*
Crawford	63	402.0	7	115.3U	5	56.7U	14	73.7U	6	42.3U
Daviess	120	312.5	8	37.5U	20	92.9	19	48.3U	11	30.0U
Dearborn	338	490.5*	40	129.0	38	93.9	60	80.3*	30	47.4*
Decatur	152	438.3*	21	117.8	18	96.7U	28	75.3 <sup>*</sup>	15	45.7U
DeKalb	139	249.4*	23	82.3	12	42.6U	19	29.1U	16	30.4U
Delaware	626	448.3*	81	124.6	68	89.0	103	67.4*	57	39.4
Dubois	269	470.3*	37	137.5	51	156.2*	38	62.2	15	28.0U
Elkhart	881	378.2*	118	105.8	78	58.7	144	57.9	67	28.7
Fayette	156	502.7*	12	91.9U	15	76.4U	30	87.3*	24	73.6*
Floyd	300	297.7*	45	96.2	22	38.7*	61	55.7	29	27.0
Fountain	125	508.2*	15	149.1U	12	81.9U	24	89.5*	12	47.4U
Franklin	87	274.9*	8	51.3U	14	76.9U	12	33.3U	6	17.3U
Fulton	67	237.7*	5	45.0U	12	70.6U	12	36.6U	10	44.6U



Gibson	177	400.3*	23	122.2	23	88.6	34	69.7	11	28.0U
Grant	339	371.5	35	77.7*	34	69.8	60	60.2	22	26.5
Greene	190	402.7*	21	94.7	26	17.7	27	58.0	16	32.2U
Hamilton	1203	324.2*	249	133.2	150	71.1	96	26.9*	101	27.0
Hancock	402	400.5*	86	174.8*	32	53.6	58	55.1	18	19.0U
Harrison	98	194.8*	16	70.5U	11	37.8U	12	20.5U	10	20.9U
Hendricks	690	349.9	139	143.2*	82	74.8	80	40.7*	54	27.1
Henry	305	458.4*	55	180.9*	23	61.5	53	76.9*	31	43.6
Howard	470	418.6*	77	137.4	37	60.0	71	58.1	51	46.0*
Huntington	118	246.7*	19	88.9U	11	38.8U	18	33.4U	8	13.8U
Jackson	235	430.0*	34	134.8	16	51.9U	33	55.6	21	41.3
Jasper	185	408.9	35	172.2	17	64.9U	28	56.9	18	40.7U
Jay	100	380.6	10	81.5U	10	65.0U	16	60.9U	7	24.4U
Jefferson	232	519.2*	31	150.1	22	85.4	49	102.0*	19	43.6U
Jennings	127	347.3	18	116.6U	6	27.8U	29	73.5	14	41.0U
Johnson	759	408.1*	116	124.6	48	47·5*	119	61.0	54	29.6
Knox	223	458.8*	30	131.2	19	67.0U	42	76.4*	18	33.5U
Kosciusko	307	297.7*	46	99.6	32	53.9	47	43.3	34	33.0
LaGrange	109	257.4*	20	102.3	5	18.7U	14	31.5U	13	31.0U
Lake	2,406	388.5*	391	128.8	316	91.4*	308	46.1	242	39.4*
LaPorte	586	396.5*	73	109.5	61	68.5	117	<b>72.9</b> *	57	39.8
Lawrence	308	475.1*	44	142.6	29	73.2	47	62.0	29	45.3
Madison	612	351.0	82	97.6	67	65.6	101	55.0	38	22.3
Marion	3,821	377.7*	606	118.1	316	60.6*	597	57.5 <sup>*</sup>	280	28.7
Marshall	156	262.8*	20	72.9	15	41.9U	27	39.8	16	26.9U
Martin	61	434.7*	8	160.4U	12	.42.5U	٨	٨	6	36.9U
Miami	160	348.4	20	95.7	15	57.2U	20	43.0	9	19.5U
Monroe	552	365.5	74	96.8	78	91.9*	74	47.0	47	30.1
Montgomery	178	337.9	35	148.0	21	67.7	28	50.3	18	35.0U



Morgan	449	472.3*	60	134.7	38	67.9	84	84.7*	37	41.2
Newton	69	322.8	14	143.3U	٨	^	13	60.4U	6	24.5U
Noble	175	283.2*	28	91.2	15	38.4*	18	26.7U	18	26.8U
Ohio	42	466.4	6	148.1U	٨	٨	6	54.4U	٨	٨
Orange	129	453.8*	11	78.6U	9	52.2U	22	71.5	9	34.5U
Owen	143	477.4*	14	98.5U	20	102.4	13	44.0U	9	26.1U
Parke	90	379.2	13	99.6U	13	95.5U	13	49.4U	6	24.2U
Perry	79	305.6	13	133.4U	13	74.1U	11	38.6U	٨	٨
Pike	71	389.4	10	106.2U	10	99.0U	15	80.0U	7	33.0U
Porter	845	380.5	126	118.7	89	67.7	114	49.5	73	33.7
Posey	109	299.4	11	68.3U	26	125.9	10	27.6U	8	21.8U
Pulaski	75	404.1	6	89.4U	٨	٨	16	79.6U	8	46.2U
Putnam	202	434.6*	24	107.3	24	86.8	28	54.6	16	35.5U
Randolph	133	380.4	25	147.4	10	47.4U	19	48.5U	10	27.1U
Ripley	109	276.6*	15	81.7U	17	76.8U	19	46.5U	8	19.1U
Rush	96	419.8	10	78.2U	12	90.5U	11	43.4U	11	51.7U
St. Joseph	1065	324.6*	128	84.8*	119	64.8	176	50.1	93	29.3
Scott	83	263.9*	12	82.1U	٨	^	25	71.0	10	35.3U
Shelby	250	419.5*	27	101.8	30	88.2	42	67.3	20	31.8U
Spencer	117	394.8	15	108.5U	19	l18.5U	28	85.0*	6	17.3U
Starke	98	291.6*	11	81.6U	9	46.4U	23	59.9	10	25.8U
Steuben	97	180.9*	14	60.2U	17	48.1U	15	25.8U	٨	۸
Sullivan	113	411.0	11	94.4U	12	73.5U	24	80.4*	13	50.0U
Switzerland	41	277.5	8	100.5U	۸	٨	٨	٨	6	44.3U
Tippecanoe	695	378.8	91	104.1	102	103.4	96	52.4	63	35.0
Tipton	82	384.6	9	74.9U	13	93.2U	11	41.9U	11	55.0U
Union	51	528.6*	٨	^	6	99.7U	11	95.5U	8	83.9U
Vanderburgh	831	353.7	87	76.8	159	125.5*	131	52.3	49	22.1
Vermillion	93	413.9	14	127.7U	12	89.7U	17	68.6U	8	41.6U



Vigo	557	424.7*	83	125.3	68	95.3 <sup>*</sup>	83	59.6	50	37.5
Wabash	137	27.5	30	148.8	11	41.7U	28	59.5	10	19.0U
Warren	41	328.5	٨	^	٨	٨	9	65.5U	٨	٨
Warrick	256	294.7*	35	88.2	49	102.8	30	33.2*	16	17.5U
Washington	98	258.0*	18	111.2U	9	38.4U	25	60.0	6	17.6U
Wayne	439	483.7*	46	97.2	58	114.5	68	70.1*	53	59.8
Wells	48	127.3*	٨	^	8	41.0U	٨	٨	٨	^
White	150	421.6	25	155.5	26	119.2	15	37.7U	10	28.5U
Whitley	138	301.0*	24	116.6	16	64.5U	15	30.1U	10	21.2U



<sup>^</sup> Count suppressed if fewer than 5 cases. U Rates are unstable when less than 20 cases and thus are suppressed

<sup>\*</sup>Statistically significant p < 0.0