

### OFFICE OF STATE EPIDEMIOLOGY

**Nevada Central Cancer Registry** 

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#### **BACKGROUND AND PURPOSE**

This report presents a detailed visual analysis of lung cancer temporal and spatial trends in Nevada, from 2015 to 2021, using data tables and graphs to highlight key patterns and comparisons. Despite a discrete reduction in the observed lung cancer incidence and mortality, it remains a significant public health concern in Nevada, contributing heavily to cancer-related morbidity and mortality. In 2021 the state's lung cancer age-adjusted incidence rate of 43.7 per 100,000 people, ranked the 14<sup>th</sup> highest nationally, while the screening rate was among the lowest in the country at just 1.4%, ranking at 47<sup>th</sup> out of 51 (including all U.S. states and the District of Columbia).

This report compares Nevada's lung cancer data to national averages, illustrating regional variations influenced by demographics, risk factors, access to healthcare, and screening practices. Data limitations, such as the inherent lag in cancer reporting, are noted to provide context for the presented findings.

This visual report aims to convey the impact of environmental factors, public health interventions, and screening practices on lung cancer outcomes in Nevada. By focusing exclusively on graphical representations, the report underscores trends in incidence and mortality, offering a foundation for evidence-based public health strategies targeting prevention, early detection, and intervention.

### **DATA SOURCES**

American Lung Association

The American Lung Association, a leading organization dedicated to lung health improvement and disease prevention, provided the national lung cancer statistics cited in this report. These data are derived from the December 2023 submission by the North American Association of Central Cancer Registries (NAACCR), ensuring comprehensive and up-to-date national statistics on lung cancer incidence and mortality.

#### Office of Analytics

The Office of Analytics (OOA) within Nevada's Division of Public and Behavioral Health, supplied the state-specific lung cancer incidence and mortality data used in this report, particularly all the tables and graphs. The OOA serves as a centralized source of data for the Department of Health and Human Services (DHHS) programs, as well as for government leaders, legislators, and other stakeholders, offering reliable health statistics for informed decision-making.



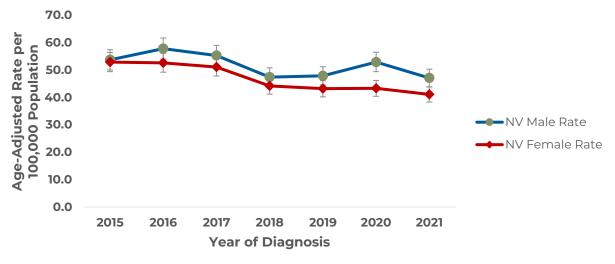
## LUNG CANCER INCIDENCE IN NEVADA, AGE-ADJUSTED, YEARS 2015-2021

Year	2015	2016	2017	2018	2019	2020	2021
Nevada	53.2	55	52.8	45.5	45.2	47.6	43.7
Nevaua	(50.7-55.8)	(52.4-57.5)	(50.4-55.3)	(43.2-47.7)	(43.0-47.4)	(45.4-49.9)	(41.6-45.8)

### **NEVADA INCIDENCE BY SEX, BY YEAR, 2015-2021**

Sex	2015	2016	2017	2018	2019	2020	2021
	53.7	57.8	55.3	47.4	47.9	52.9	47.1
Nevada Male						(49.4-	(43.8-
Rate	(50-57.4)	(54-61.7)	(51.6-59)	(44-50.8)	(44.6-51.2)	56.5)	50.3)
	52.9	52.6	51.1	44.2	43.2	43.3	41.1
Nevada	(49.4-		(47.8-			(40.4-	(38.3-
Female Rate	56.4)	(49.2-56.1)	54.5)	(41.2-47.3)	(40.2-46.1)	46.2)	43.9)

## **NEVADA INCIDENCE BY SEX, BY YEAR, 2015-2021**

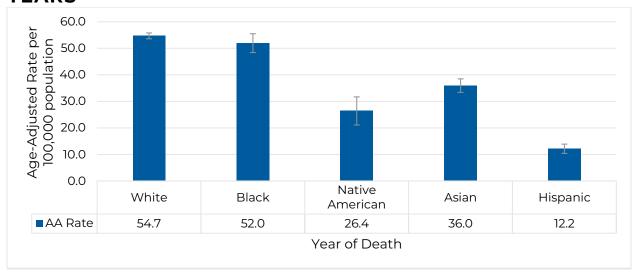




## NEVADA LUNG CANCER INCIDENCE BY RACE/ETHNICITY, 2015-2021

Race/Ethnicity	2015	2016	2017	2018	2019	2020	2021
	61.8	63.6	61.8	53.2	52.7	54.2	51.7
		(60.3-			(49.8-		(48.9-
White	(58.6-65)	66.8)	(58.6-65)	(50.3-56.1)	55.5)	(51.3-57.1)	54.5)
	53.7	61.5	57.2	50.2	46.8	58.6	47.4
	(43.9-		(47.3-				
Black	63.5)	(51.2-71.9)	67.2)	(41.3-59.2)	(38-55.5)	(49.1-68.2)	(39-55.8)
American	39.1	35.9	35.1	24.7	21.4	19.7	32.2
Indian / Native							
Alaskan	(17.8-60.3)	(15.6-56.2)	(15.2-54.9)	(9.4-39.9)	(7.4-35.3)	(6.8-32.6)	(14.7-49.7)
	43.8	40.4	34.3	32.9	38	42.4	31.9
Asian / Pacific		(32.9-	(27.7-			(35.4-	
Islander	(35.9-51.6)	47.9)	40.9)	(26.5-39.2)	(31.4-44.6)	49.4)	(26-37.9)
	8.3	11.9	14.4	10.4	11.5	13.9	10.9
Hispanic	(5.3-11.2)	(8.2-15.5)	(10.6-18.2)	(7.2-13.5)	(8.3-14.7)	(10.5-17.4)	(7.9-13.9)

# NEVADA INCIDENCE BY RACE/ETHNICITY, COMBINED YEARS





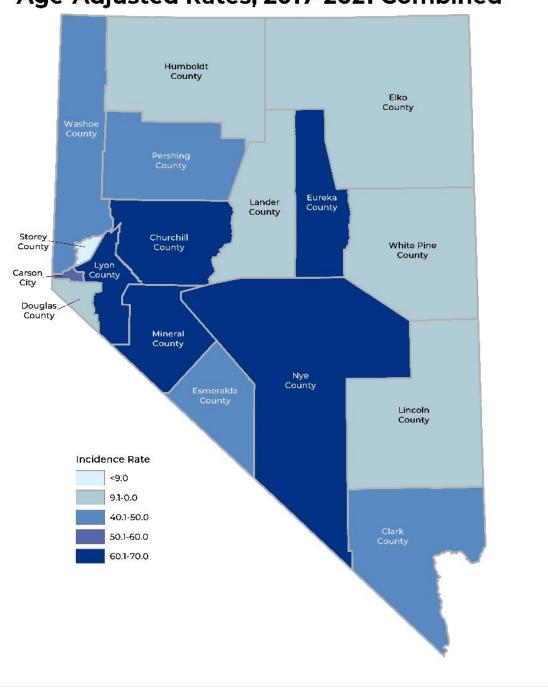
## **NEVADA INCIDENCE BY COUNTY, YEARS COMBINED**

County	Count	AA Rate	
Carson City	247	57.3	
Curson City	2-17	(50.2-64.5)	
Churchill	106	64.1	
Criarcrini	100	(51.9-76.3)	
Clark	5,678	46.6	
	2,010	(45.4-47.8)	
Douglas	172	34.5	
		(29.4-39.7)	
Elko	95	35	
		(28-42.1)	
Esmeralda	4	44.3	
		(0.9-87.8)	
Eureka	8	60.4	
		(18.6-102.3)	
Humboldt	37	39.7	
		(26.9-52.5)	
Lander	16	39.3	
		(20-58.5)	
Lincoln	14	32.8	
		(15.6-49.9)	
Lyon	263	61.6	
		(54.2-69.1)	
Mineral	23	62.8	
		(37.2-88.5)	
Nye	338	69.2	
		(61.8-76.6)	
Pershing	18	45.3	
		(24.4-66.3)	
Storey	4	8.9	
		(0.2-17.6)	
Washoe	1,266	45	
		(42.5-47.4)	
White Pine	25	31.3	
		(19.1-43.6)	
Nevada	8,327	46.9	
		(45.9-47.9)	



## NEVADA AGE-ADJUSTED RATES PER 100K POPULATION, BY COUNTY

Lung & Bronchus Cancer Incidence by County, Age-Adjusted Rates, 2017-2021 Combined





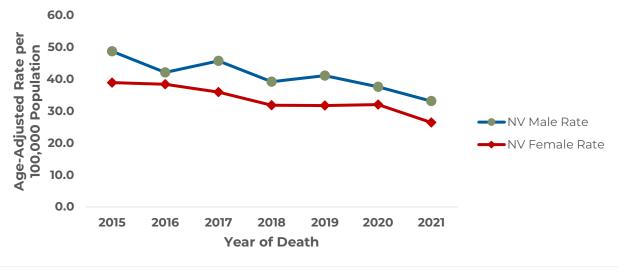
## **NEVADA INCIDENCE BY AGE GROUPS, YEARS COMBINED**

			Carson	
Age Group	Clark	Washoe	City	Rural
	0	0	0	0
>20	(0-0.1)	(0-0)	(O-O)	(O-O)
	0.9	0.5	1.5	0.8
20-39	(0.6-1.2)	(O-1)	(0-4.5)	(0-1.7)
	36.3	41.4	56.3	53.6
	(34.4-	(36.7-	(40.8-	(46.9-
40-64	38.3)	46.1)	71.7)	60.3)
	255.8	244.4	295.6	272.4
	(246.8-	(226.7-	(246.1-	(251.4-
65-79	264.7)	262.2)	345.1)	293.4)
	378.6	348.3	398.9	346.7
	(356.8-	(303.7-	(296.2-	(301.9-
80+	400.4)	392.8)	501.6)	391.5)
	49.8	54	87.8	76.9
	(48.5-		(76.8-	(72.4-
All Ages	51.1)	(51.1-57)	98.7)	81.4)

### **NEVADA LUNG CANCER MORTALITY, 2017-2021**

Year	2015	2016	2017	2018	2019	2020	2021
Novada	43.4	40.1	40.4	35.1	35.8	34.7	29.4
Nevada	(41.0-45.7)	(37.9-42.3)	(38.2- 42.6)	(33.1-37.0)	(33.8-37.8)	(32.7-36.6)	(27.6-31.1)

## **LUNG CANCER MORTALITIY BY SEX BY YEAR, 2017-2021**

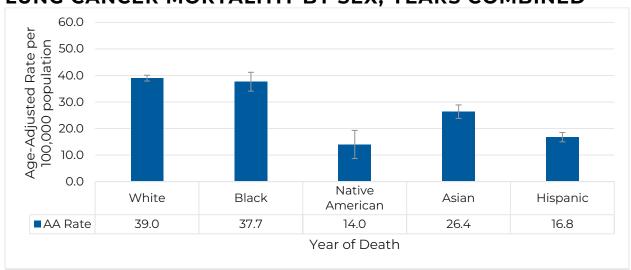




### **NEVADA MORTALITY BY SEX, YEARS COMBINED**

			Carson	
Gender	Clark	Washoe	City	Rural
	40.7	33.6	55.6	36.2
	(39.0-	(30.4-	(44.0-	(32.7-
Male	42.4)	36.8)	67.1)	39.8)
	33.2	26.6	29.5	29
	(31.8-	(24.0-	(23.1-	(25.9-
Female	34.6)	29.3)	35.8)	32.0)
	36.5	29.7	38.6	32.5
	(35.5-	(27.7-	(32.8-	(30.2-
All Genders	37.6)	31.8)	44.3)	34.9)

## LUNG CANCER MORTALITIY BY SEX, YEARS COMBINED

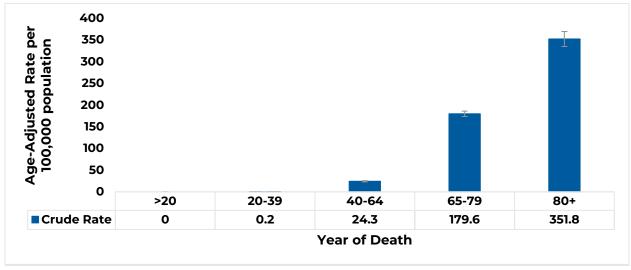




# NEVADA MORTALITY BY RACE/ETHNICITY, YEARS COMBINED

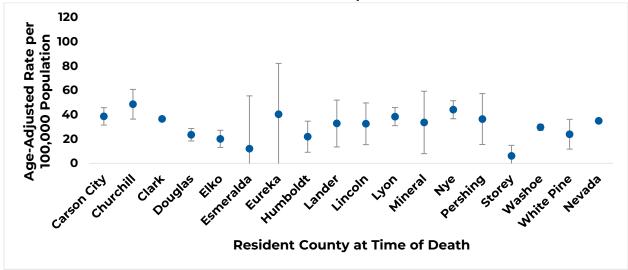
Race/Ethnicity	Clark	Washoe	Carson City	Rural
	42.1	32.8	40.3	34.1
White	(40.7- 43.6)	(30.4- 35.2)	(34-46.5)	(31.6-36.7)
	37.6	28.2	65.5	59.2 (20.5-
Black	(34-41.2)	(13.4-43)	(0-156.2)	97.8)
American Indian / Native	26.9	3.0	0.0	9.4
Alaskan	(14.8-39)	(0-9)	(0-0)	(2.4-16.4)
Asian / Pacific	27.2 (24.4-	17.3	45.9	29.4
Islander	`29.9)	(10.9-23.7)	(0-97.9)	(12.8-46)
	17.1	12.4	23.7	19.1
Hispanic	(15.1-19.1)	(7.9-16.8)	(2.9-44.6)	(12.3-26)
	36.5	29.7	38.6 (32.8-	32.5 (30.2-
All Races	(35.5-37.6)	(27.7-31.8)	44.3)	34.9)

# LUNG CANCER MORTALITIY BY AGE GROUP, YEARS COMBINED





### **NEVADA MORTALITY BY COUNTY, YEARS COMBINED**





#### CONCLUSION

This report highlights the public health challenge posed by lung cancer in Nevada from 2015 to 2021, through a comprehensive visual analysis of trends in incidence and mortality. The findings underscore Nevada's high national ranking in lung cancer incidence, which is 14<sup>th</sup> in the nation.

The regional variations in lung cancer trends illustrated in this report reflect the differences in behavioral risk factors, demographics, environmental exposures, and systemic barriers to healthcare access, including the availability of screening programs. Nevada's disparities compared to national averages emphasize the need for more targeted public health interventions, including increased access to lung cancer screening, enhanced awareness campaigns, and initiatives to mitigate risk factors such as tobacco smoking, vaping and environmental pollutants.

Efforts to reduce lung cancer mortality in Nevada must be multifaceted, addressing early detection and screening accessibility, environmental health risks, preventative interventions, and the social and cultural norms present in various communities. Public health actions should be tailored to Nevada's diverse population, considering factors like attitudes toward smoking and community-specific health beliefs that may influence cancer prevention and screening participation. Through coordinated public health actions to reduce tobacco smoking and vaping rates, focusing on early detection, reducing exposure to environmental carcinogens, strengthening public health infrastructure, and respecting cultural contexts - Nevada can work towards lowering lung cancer incidence and improving survival outcomes for its residents.



#### FOR MORE INFORMATION CONTACT

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#### **RECOMMENDED CITATION:**

Office of Analytics. Department of Health and Human Services. Lung Cancer in Nevada, 2015-2021. Carson City, Nevada. August 2024

For more information on this report, please contact data@dhhs.nv.gov

American Lung Association. State of Lung Cancer - Nevada. American Lung Association website. Updated November 2024. Accessed November 27, 2024. https://www.lung.org/research/state-of-lung-cancer/states/nevada

#### Acknowledgments:

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Office of Analytics

Department of Health and Human Services

State of Nevada