Cancer in New Mexico 2019

HEALTH SCIENCES
NEW MEXICO TUMOR REGISTRY

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Cancer is a leading cause of illness, disability and death in New Mexico. In 2019, an estimated 9,330 new cases of malignant cancer will be diagnosed among New Mexico residents. This report provides information about the burden of cancer in New Mexico for policy makers, public health professionals, health care providers, researchers and others who need timely and accurate information to support a broad spectrum of cancer control activities.

THE NEW MEXICO TUMOR REGISTRY

Cancer is a reportable disease in New Mexico. The New Mexico Department of Health has identified the New Mexico Tumor Registry as its designee for conducting routine public health surveillance for cancer in the state. The New Mexico Tumor Registry is a population-based cancer registry that has served New Mexico since 1966. The Registry collaborates with health care providers and other professionals throughout the state to identify incident cancer cases through routine and systematic review of existing records such as pathology reports, medical records, radiation therapy records, hospital discharge lists, and vital records. For each new cancer case, the Registry documents selected information about each patient (e.g., age at diagnosis, sex, race/ethnicity, and place of residence), tumor characteristics (e.g., primary anatomical site, histological type, and stage of disease at diagnosis), and first course of cancer-directed therapy (e.g., surgery, chemotherapy, radiation therapy, and hormone therapy).

The New Mexico Tumor Registry is a founding member of the National Cancer Institute's Surveillance, Epidemiology and End Results (SEER) Program – a consortium of cancer registries that provide high quality cancer surveillance data for the United States. Cancer surveillance in New Mexico is conducted in accordance with prevailing standards established by the National Cancer Institute, the North American Association of Central Cancer Registries, and the American College of Surgeons.

CONTENTS

The first section of this report presents estimates of the number of new cancer cases that are expected to occur among New Mexico residents during calendar year 2019. Incidence and mortality rates are useful measures for comparing the occurrence of cancer among racial/ethnic groups while accounting for differences in the size and age-structure of each population. Therefore, the second section focuses on average annual, age-adjusted incidence and mortality rates by type of cancer, based on the most recent five-year period for which actual cancer case counts and deaths are currently available.

DATA SOURCES

Information presented in this report was compiled with records from the New Mexico Tumor Registry, the SEER Program, and National Center for Health Statistics. Denominators for incidence and mortality rate calculations were derived from U.S. Census Bureau figures.

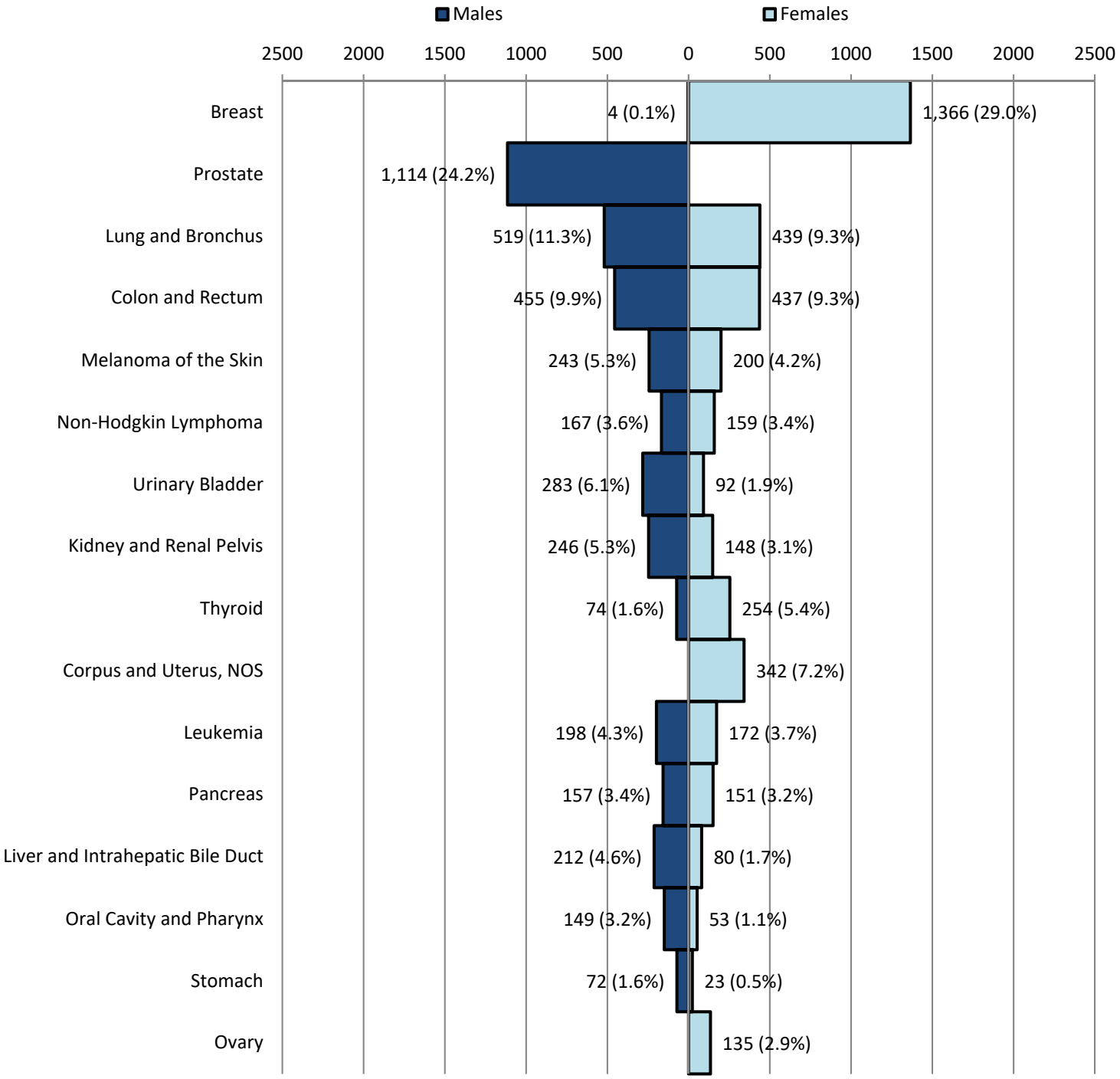
Information regarding deaths due to cancer among New Mexico residents was obtained from the National Center for Health Statistics at the Centers for Disease Control and Prevention. Death certificates issued by individual states, including New Mexico, are routinely submitted to the National Center for Health Statistics for the purpose of monitoring trends in mortality rates for the United States.

Estimated Number of New Cases – Description and Methods

Approximately 9,330 new cancer cases are expected to occur among New Mexico residents during calendar year 2019. These estimates were based on recent years of complete data from the New Mexico Tumor Registry. Specifically, simple linear regression techniques were applied to the annual case counts for calendar years 2012-2016 to estimate the number of cases that would be expected to be observed among New Mexico residents during calendar year 2019.

Estimated case counts for several common types of cancer – statewide – are shown in the graph on page 3. Estimated case counts for all malignant cancers (all cancers combined) are shown by county in the map on page 4. Estimated case counts for several common types of cancer by county are shown in the table on page 5.

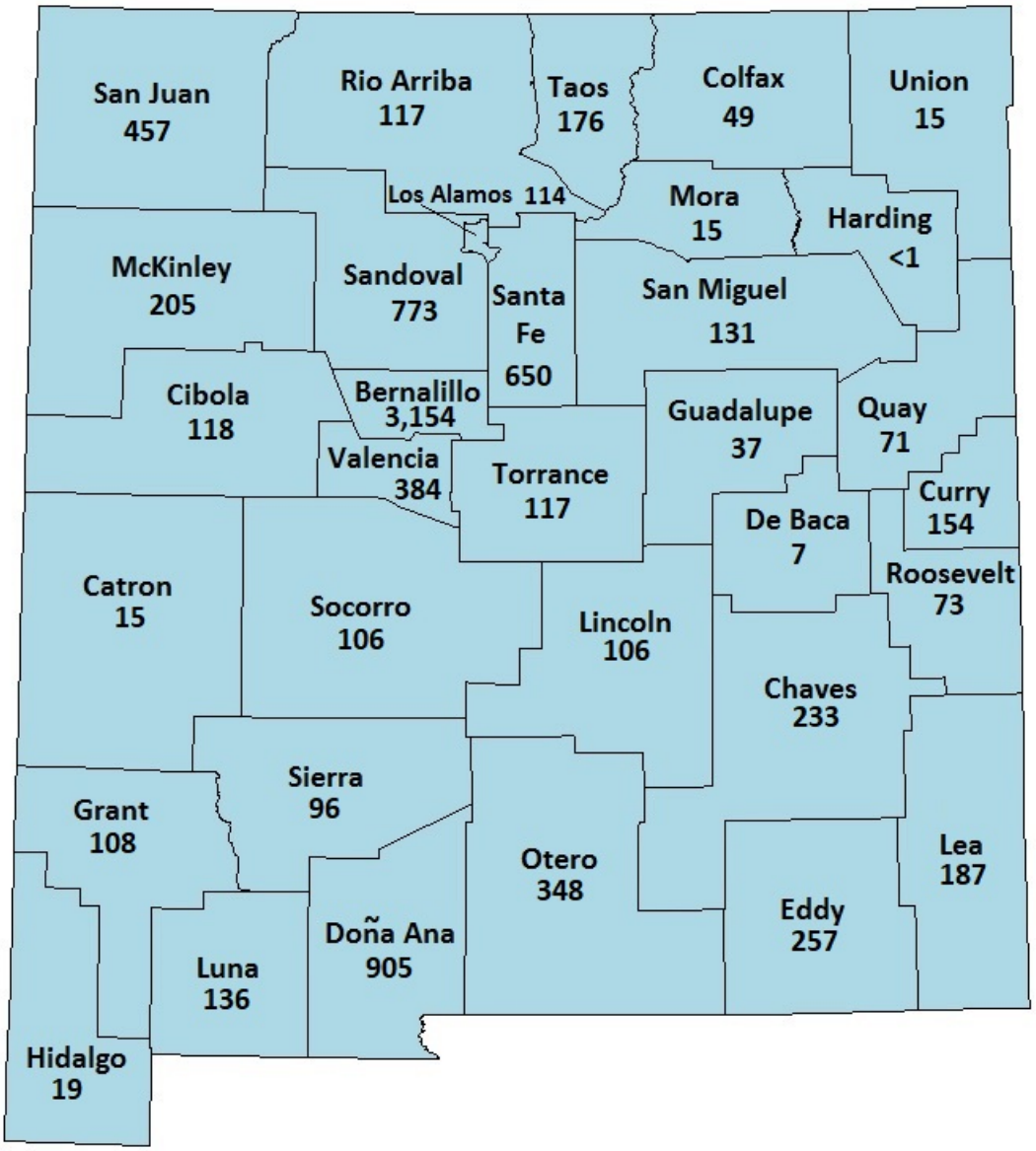
Estimated Number of New Cancer Cases – 2019
New Mexico Residents
Common Cancer Types



Estimated Number of New Cancer Cases – 2019

New Mexico Residents

All Cancers Combined



Estimated Number of New Cancer Cases – 2019

New Mexico Residents by County

Common Cancer Types

County	All Cancers Combined	Prostate	Female Breast	Lung and Bronchus	Colon and Rectum	Melanoma of the Skin	Non-Hodgkin Lymphoma	Corpus Uterus	Urinary Bladder	Thyroid
NM, Statewide	9,330	1,114	1,366	958	892	443	325	342	374	328
Bernalillo	3,154	353	457	305	244	197	102	111	154	128
Catron	15	2	<1	5	2	2	1	<1	1	<1
Chaves	233	23	23	45	18	<1	7	3	21	10
Cibola	118	12	7	13	27	7	5	6	5	4
Colfax	49	10	6	3	7	2	1	1	4	5
Curry	154	18	<1	21	33	2	6	3	<1	5
De Baca	7	<1	3	1	3	<1	1	<1	<1	1
Doña Ana	905	113	139	90	98	24	18	38	28	36
Eddy	257	20	41	37	41	6	7	4	15	2
Grant	108	3	2	22	24	11	1	6	<1	4
Guadalupe	37	1	7	4	5	<1	<1	<1	1	2
Harding	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Hidalgo	19	<1	4	5	1	<1	<1	1	<1	<1
Lea	187	19	30	30	18	<1	1	3	6	9
Lincoln	106	11	24	3	10	3	10	4	8	3
Los Alamos	114	23	23	12	14	<1	4	2	2	<1
Luna	136	9	19	27	11	4	3	11	5	<1
McKinley	205	18	31	19	29	<1	5	9	3	9
Mora	15	3	2	3	3	<1	<1	3	1	<1
Otero	348	81	26	45	29	11	5	21	4	22
Quay	71	10	9	5	8	3	6	<1	<1	<1
Rio Arriba	117	12	19	3	26	5	9	5	2	1
Roosevelt	73	2	12	10	6	5	<1	2	7	<1
Sandoval	773	100	146	35	75	62	35	22	31	23
San Juan	457	41	69	43	48	17	26	28	13	18
San Miguel	131	28	12	11	7	1	8	9	5	1
Santa Fe	650	102	115	79	48	49	35	19	28	4
Sierra	96	12	16	12	5	1	7	2	1	2
Socorro	106	2	13	10	9	4	14	10	3	7
Taos	176	18	25	6	13	19	4	9	15	6
Torrance	117	17	19	19	8	5	5	6	5	4
Union	15	2	6	2	4	<1	<1	<1	<1	1
Valencia	384	49	71	38	20	13	11	7	14	30

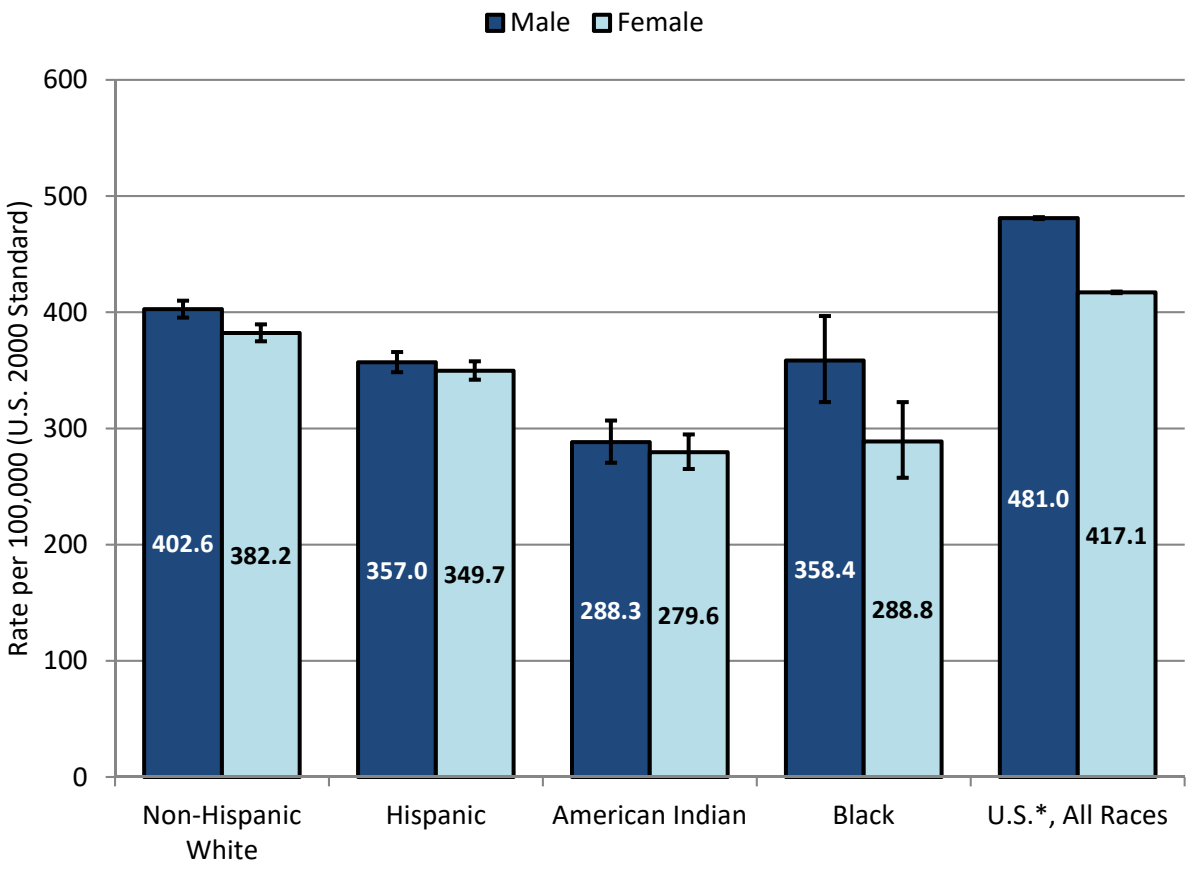
Cancer Incidence Rates – Description and Methods

The *incidence rate* is a useful tool for comparing and contrasting the occurrence of cancer among racial/ethnic groups and geographic areas. In the present context, incidence rates measure the "speed" or "velocity" at which members of the target population – New Mexico residents – are diagnosed with cancer during the specified time period.

Cancer can occur at any age, but a majority of cancer cases are diagnosed among older adults. For this reason, comparing cancer rates between two or more populations can be misleading if the underlying age distributions vary among the comparison populations. All incidence rates presented in this report were "age-adjusted" by a common statistical procedure to account for such differences. Specifically, average annual age-adjusted incidence rates were calculated by the direct method and were standardized to the age-distribution of the projected U.S. population for calendar year 2000. Incidence rates were calculated with the National Cancer Institute's SEER*Stat software system.

Statewide cancer incidence rates for all cancers combined by race/ethnic group and sex are shown in the graph on page 7. Incidence rates for several common types of cancer are shown by race/ethnic group in the tables on page 8 (males) and 9 (females).

All Cancers Combined
Average Annual Age-Adjusted Incidence Rates
New Mexico Residents, 2012-2016



* Data are from 21 SEER Program Registries

Average Annual Age-Adjusted Incidence Rates*
Common Cancer Types – Males
New Mexico Residents, 2012-2016

Primary Cancer Type	New Mexico				United States**
	Non-Hispanic White	Hispanic	American Indian	Black	All Races
All Cancers Combined	402.6 (3.7)	357.0 (4.4)	288.3 (9.2)	358.4 (18.7)	481.0 (0.4)
Prostate	83.0 (1.6)	72.0 (2.0)	50.3 (4.0)	106.6 (9.5)	109.5 (0.2)
Lung and Bronchus	52.1 (1.3)	39.1 (1.5)	17.0 (2.4)	59.3 (8.4)	63.0 (0.2)
Colon and Rectum	33.7 (1.1)	43.1 (1.5)	47.2 (3.6)	28.0 (5.3)	44.2 (0.1)
Urinary Bladder	31.6 (1.0)	18.1 (1.0)	8.0 (1.7)	23.4 (5.3)	35.2 (0.1)
Melanoma of the Skin	31.2 (1.1)	4.4 (0.5)	5.1 (1.2)	1.7 (1.7)	28.8 (0.1)
Kidney and Renal Pelvis	16.6 (0.8)	20.5 (1.0)	29.6 (2.8)	16.9 (3.7)	22.1 (0.1)
Non-Hodgkin Lymphoma	19.0 (0.8)	16.6 (1.0)	8.0 (1.5)	10.4 (2.8)	23.9 (0.1)
Leukemia	16.6 (0.8)	13.1 (0.8)	9.8 (1.6)	10.1 (3.0)	18.1 (0.1)
Oral Cavity and Pharynx	17.0 (0.8)	10.0 (0.7)	6.0 (1.2)	8.0 (2.5)	17.0 (0.1)
Liver and Intrahepatic Bile Duct	8.7 (0.5)	25.7 (1.1)	19.1 (2.2)	8.3 (2.4)	13.6 (0.1)
Pancreas	12.5 (0.6)	12.6 (0.8)	12.2 (2.1)	16.2 (4.3)	14.6 (0.1)
Stomach	5.9 (0.5)	10.5 (0.8)	15.5 (2.2)	6.5 (2.3)	10.0 (0.1)
Thyroid	8.1 (0.6)	7.1 (0.6)	5.9 (1.1)	3.4 (1.6)	8.0 (0.1)
Esophagus	7.2 (0.5)	6.2 (0.6)	3.0 (0.9)	6.1 (2.7)	7.3 (0.1)
Testis	6.7 (0.6)	6.3 (0.5)	7.5 (1.2)	2.7 (1.4)	5.9 (0.0)
Myeloma	6.4 (0.5)	7.3 (0.6)	8.0 (1.6)	10.3 (3.0)	8.7 (0.1)
Brain and Other Nervous System	7.4 (0.6)	5.5 (0.5)	2.4 (0.8)	2.0 (1.2)	7.5 (0.1)
Larynx	4.5 (0.4)	3.7 (0.5)	1.8 (0.7)	2.3 (1.4)	5.2 (0.0)
Soft Tissue including Heart	3.7 (0.4)	3.9 (0.5)	4.1 (1.1)	4.9 (2.3)	4.2 (0.0)
Gallbladder and Other Biliary	2.5 (0.3)	4.9 (0.5)	6.3 (1.4)	3.7 (2.2)	3.2 (0.0)

* Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population; Standard errors are presented in parentheses
** Data are from 21 SEER Program Registries

Average Annual Age-Adjusted Incidence Rates*
Common Cancer Types – Females
New Mexico Residents, 2012-2016

Primary Cancer Type	New Mexico				United States**
	Non-Hispanic White	Hispanic	American Indian	Black	All Races
All Cancers Combined	382.2 (3.7)	349.7 (4.0)	279.6 (7.5)	288.8 (16.4)	417.1 (0.4)
Breast	123.0 (2.1)	104.8 (2.2)	62.4 (3.5)	90.4 (9.2)	127.5 (0.2)
Lung and Bronchus	42.0 (1.1)	28.4 (1.2)	10.5 (1.5)	36.6 (5.9)	48.9 (0.1)
Colon and Rectum	27.8 (1.0)	30.6 (1.2)	31.4 (2.6)	29.1 (5.3)	33.9 (0.1)
Corpus and Uterus, NOS	24.3 (0.9)	22.4 (1.0)	26.6 (2.3)	17.4 (4.0)	27.5 (0.1)
Thyroid	24.9 (1.2)	25.9 (1.1)	15.4 (1.7)	11.5 (3.3)	23.3 (0.1)
Non-Hodgkin Lymphoma	14.4 (0.7)	13.4 (0.8)	12.1 (1.6)	6.3 (2.2)	16.2 (0.1)
Melanoma of the Skin	19.6 (0.9)	4.5 (0.5)	4.3 (0.9)	1.0 (1.0)	17.5 (0.1)
Ovary	11.9 (0.7)	12.0 (0.7)	13.2 (1.6)	6.9 (2.5)	11.4 (0.1)
Kidney and Renal Pelvis	8.7 (0.6)	13.1 (0.8)	15.1 (1.7)	9.3 (2.8)	10.9 (0.1)
Leukemia	11.6 (0.7)	10.0 (0.7)	6.8 (1.1)	10.5 (3.2)	10.9 (0.1)
Pancreas	9.7 (0.5)	11.3 (0.7)	8.1 (1.3)	9.8 (3.1)	11.5 (0.1)
Cervix Uteri	7.0 (0.6)	9.1 (0.7)	7.9 (1.3)	2.9 (1.7)	7.3 (0.0)
Urinary Bladder	7.7 (0.5)	5.2 (0.5)	3.7 (0.9)	3.7 (1.9)	8.7 (0.0)
Stomach	3.2 (0.3)	6.9 (0.6)	7.8 (1.3)	7.8 (2.6)	5.3 (0.0)
Oral Cavity and Pharynx	4.9 (0.4)	4.4 (0.5)	2.0 (0.6)	3.2 (1.6)	6.4 (0.0)
Liver and Intrahepatic Bile Duct	3.2 (0.3)	7.0 (0.6)	10.7 (1.5)	7.8 (2.7)	4.7 (0.0)
Brain and Other Nervous System	5.6 (0.5)	3.5 (0.4)	2.9 (0.7)	3.5 (1.8)	5.4 (0.0)
Myeloma	3.6 (0.3)	4.8 (0.5)	6.5 (1.2)	10.1 (2.8)	5.6 (0.0)
Soft Tissue including Heart	2.7 (0.3)	3.1 (0.4)	3.3 (0.8)	0.0 (-)	2.9 (0.0)
Gallbladder and Other Biliary	1.9 (0.2)	4.4 (0.5)	7.2 (1.3)	0.8 (0.8)	3.0 (0.0)

* Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population; Standard errors are presented in parentheses
** Data are from 21 SEER Program Registries
- Statistic could not be calculated

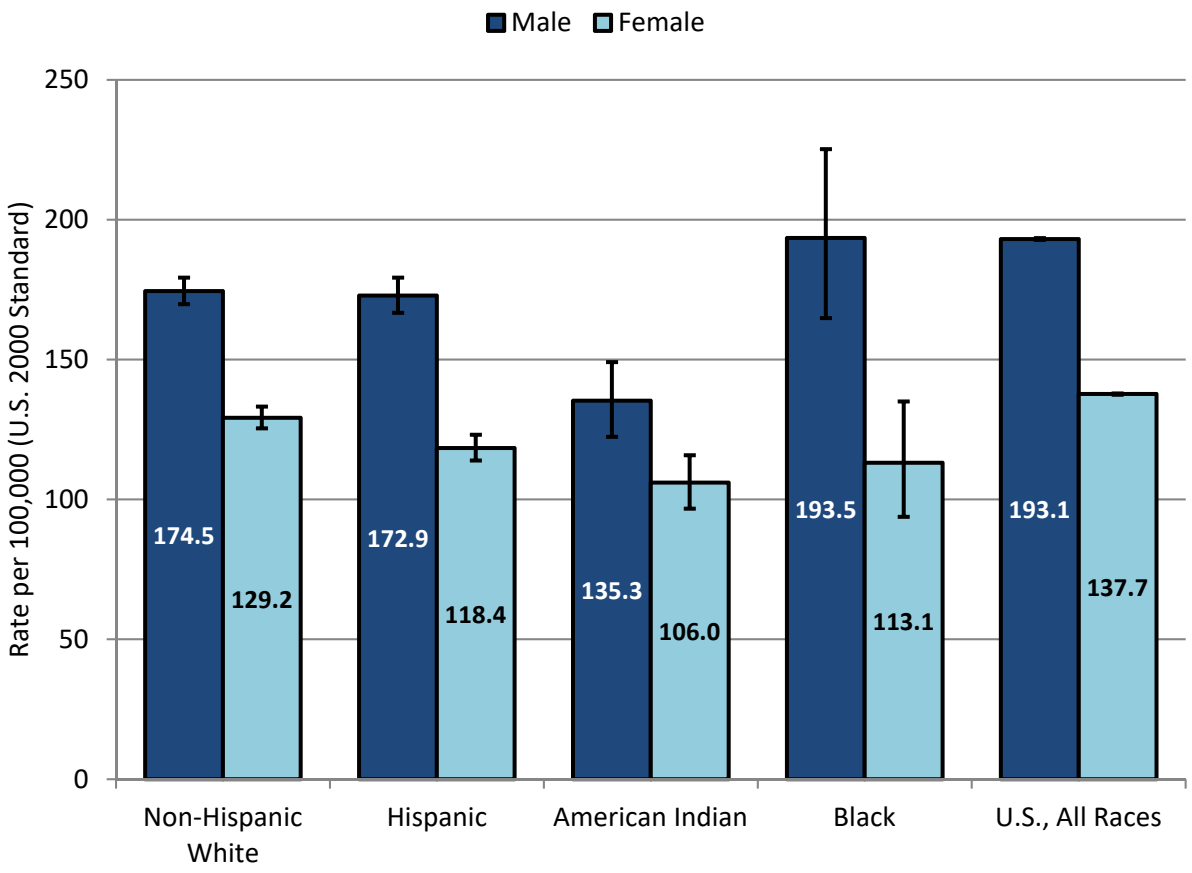
Cancer Mortality Rates – Description and Methods

Mortality rates are analogous to the incidence rates that were described in the previous section of this report. In contrast to incidence rates, however, deaths due to a specific cancer serve as the numerator in mortality rates. Thus, mortality rates measure the "speed" or "velocity" at which members of the target population – New Mexico residents – died from cancer during the specified time period.

As with incidence rates, average annual age-adjusted mortality rates were calculated by the direct method and were standardized to the age-distribution of the projected US population for calendar year 2000. The mortality rates were calculated for the time period 2012-2016 since these are the most recent years of data currently available from the National Center for Health Statistics. Mortality rates were also calculated with the National Cancer Institute's SEER*Stat software system.

Statewide cancer mortality rates for all cancers combined by race/ethnic group and sex are shown in the graph on page 11. Mortality rates for several common types of cancer are shown by race/ethnic group in the tables on page 12 (males) and 13 (females).

All Cancers Combined
Average Annual Age-Adjusted Mortality Rates
New Mexico Residents, 2012-2016



Average Annual Age-Adjusted Mortality Rates*
Common Cancer Types – Males
New Mexico Residents, 2012-2016

Primary Cancer Type	New Mexico				United States
	Non-Hispanic White	Hispanic	American Indian	Black	All Races
All Cancers Combined	174.5 (2.4)	172.9 (3.2)	135.3 (6.7)	193.5 (15.2)	193.1 (0.2)
Prostate	19.7 (0.8)	19.7 (1.1)	19.8 (2.8)	35.0 (6.9)	19.2 (0.1)
Lung and Bronchus	40.2 (1.1)	30.5 (1.4)	13.0 (2.1)	44.1 (7.3)	51.6 (0.1)
Colon and Rectum	14.8 (0.7)	19.7 (1.1)	19.2 (2.5)	19.7 (5.1)	16.9 (0.0)
Urinary Bladder	7.8 (0.5)	5.8 (0.6)	3.6 (1.2)	-	7.6 (0.0)
Melanoma of the Skin	5.5 (0.4)	1.1 (0.3)	-	-	3.7 (0.0)
Non-Hodgkin Lymphoma	5.7 (0.4)	6.2 (0.6)	4.3 (1.2)	-	7.3 (0.0)
Kidney and Renal Pelvis	5.1 (0.4)	6.1 (0.6)	12.1 (1.9)	-	5.5 (0.0)
Leukemia	8.1 (0.5)	7.3 (0.7)	3.7 (1.1)	-	8.8 (0.0)
Oral Cavity and Pharynx	4.1 (0.4)	3.2 (0.4)	-	-	3.9 (0.0)
Liver and Intrahepatic Bile Duct	7.0 (0.5)	19.7 (1.0)	10.9 (1.7)	9.0 (3.0)	9.6 (0.0)
Pancreas	11.0 (0.6)	11.1 (0.8)	10.3 (1.9)	14.2 (4.0)	12.6 (0.0)
Stomach	2.5 (0.3)	5.9 (0.6)	12.0 (2.0)	-	4.2 (0.0)
Esophagus	7.2 (0.5)	4.8 (0.5)	-	-	7.1 (0.0)
Brain and Other Nervous System	5.3 (0.5)	3.5 (0.4)	-	-	5.4 (0.0)
Thyroid	0.7 (0.2)	0.7 (0.2)	-	-	0.5 (0.0)
Myeloma	3.2 (0.3)	3.9 (0.5)	-	-	4.2 (0.0)
Testis	-	-	-	-	0.3 (0.0)
Larynx	1.3 (0.2)	1.8 (0.3)	-	-	1.8 (0.0)
Soft Tissue including Heart	1.8 (0.3)	1.2 (0.3)	-	-	1.5 (0.0)
Gallbladder and Other Biliary	0.9 (0.2)	2.0 (0.3)	-	-	0.9 (0.0)

* Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population; Standard errors are presented in parentheses
- Statistic could not be calculated due to fewer than 10 cases

Average Annual Age-Adjusted Mortality Rates*
Common Cancer Types – Females
New Mexico Residents, 2012-2016

Primary Cancer Type	New Mexico				United States
	Non-Hispanic White	Hispanic	American Indian	Black	All Races
All Cancers Combined	129.2 (2.0)	118.4 (2.3)	106.0 (4.8)	113.1 (10.3)	137.7 (0.1)
Breast	21.3 (0.8)	16.9 (0.9)	12.1 (1.6)	21.9 (4.6)	20.6 (0.0)
Lung and Bronchus	32.0 (0.9)	19.4 (1.0)	8.1 (1.4)	21.3 (4.5)	34.4 (0.1)
Colon and Rectum	10.4 (0.6)	12.2 (0.8)	10.2 (1.5)	12.8 (3.4)	11.9 (0.0)
Corpus and Uterus, NOS	4.2 (0.4)	3.1 (0.4)	6.0 (1.1)	-	4.7 (0.0)
Thyroid	0.5 (0.1)	0.8 (0.2)	-	-	0.5 (0.0)
Non-Hodgkin Lymphoma	4.0 (0.3)	4.1 (0.4)	4.4 (1.0)	-	4.4 (0.0)
Melanoma of the Skin	2.4 (0.3)	0.7 (0.2)	-	-	1.5 (0.0)
Ovary	8.0 (0.5)	7.2 (0.6)	9.6 (1.4)	-	7.0 (0.0)
Kidney and Renal Pelvis	2.4 (0.3)	2.8 (0.4)	4.8 (1.1)	-	2.3 (0.0)
Leukemia	4.2 (0.4)	4.0 (0.4)	-	-	4.9 (0.0)
Pancreas	8.4 (0.5)	9.6 (0.7)	6.4 (1.2)	-	9.6 (0.0)
Cervix Uteri	1.7 (0.3)	2.5 (0.4)	3.1 (0.8)	-	2.3 (0.0)
Urinary Bladder	2.1 (0.2)	2.1 (0.3)	-	-	2.1 (0.0)
Stomach	1.4 (0.2)	4.2 (0.4)	5.3 (1.1)	-	2.3 (0.0)
Oral Cavity and Pharynx	1.3 (0.2)	1.3 (0.2)	-	-	1.3 (0.0)
Liver and Intrahepatic Bile Duct	3.2 (0.3)	6.2 (0.5)	8.0 (1.4)	-	3.9 (0.0)
Brain and Other Nervous System	3.7 (0.4)	2.3 (0.3)	2.6 (0.7)	-	3.6 (0.0)
Myeloma	2.0 (0.2)	3.0 (0.4)	3.8 (0.9)	-	2.7 (0.0)
Soft Tissue including Heart	1.2 (0.2)	0.7 (0.2)	-	-	1.2 (0.0)
Gallbladder and Other Biliary	0.9 (0.2)	2.1 (0.3)	3.5 (0.9)	-	1.1 (0.0)

* Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population; Standard errors are presented in parentheses
- Statistic could not be calculated due to fewer than 10 cases