Cancer in Utah

Incidence and Mortality Statistics through 2021



A Publication of Utah Cancer Registry

2024

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Preface

Utah Cancer Registry, Utah's statewide, population-based registry, prepares this biennial report to disseminate data on cancer in Utah. Utah Cancer Registry has been collecting cancer data for the state since 1966. Utah Administrative Code Rule R384-100 designates cancer as a reportable disease. Utah Cancer Registry, which operates at the University of Utah, performs cancer surveillance for the state of Utah on behalf of the Utah Department of Health and Human Services.

Cases reportable to Utah Cancer Registry include in situ and invasive neoplasms (with certain exceptions) as well as benign and borderline malignant brain and central nervous system tumors. The registry collects and manages data to monitor trends in cancer incidence and mortality among Utah residents, evaluate cancer prevention and control measures, and facilitate cancer research.

We thank the health care professionals and facilities throughout the state who report cancer case data to Utah Cancer Registry. We rely on the expertise of Oncology Data Specialists at Utah's hospitals and at Utah Cancer Registry who carry out the complex work of classifying, coding, editing, and consolidating cancer case records. We thank these professionals for their contributions to cancer surveillance in Utah.

We acknowledge the National Cancer Institute's Surveillance, Epidemiology and End Results program (Contract No. HHSN261201800016I), the Centers for Disease Control and Prevention's National Program of Cancer Registries (Cooperative Agreement No. NU58DP007131), University of Utah Health, and the Huntsman Cancer Institute for support of our surveillance, public health, and research activities.

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Executive Summary

In this report, we provide updated cancer statistics for the state of Utah through 2021, the most recent year available for complete analysis. We summarize the number of new cancer diagnoses and deaths for 2021 and age-adjusted incidence and mortality rates for the period 2017-2021. We also present five-year relative survival estimates for the 2020 period, the most recent year available.

Consistent with national cancer estimates and reports, in this report, we have updated our methodology so that case counts and incidence rate calculations represent invasive cases only, unless otherwise specified (e.g., when we explicitly present counts of in situ cases by cancer site). In comparing cancer data from this report to prior Cancer in Utah reports, readers are advised to recognize that prior editions included all reportable cases in incidence rates and case counts, not just invasive cases.

The data presented in this report include new cancer cases diagnosed during the first two years of the COVID-19 pandemic, 2020 and 2021. Nationwide, cancer incidence rates were lower in 2020 compared to 2019.[1] This is primarily due to lower numbers of cancers reported from March through June of 2020. In Utah, cancer incidence in April 2020 was 30% lower than in April 2019, which is a smaller decrease than was observed nationwide, where incidence of all cancers in April 2020 was 48% lower than in April 2019.[1] Although the decline in cancer incidence in Utah during this time is lower than in other states, caution must be taken when examining and interpreting cancer trends that include this time period. It is still too early for us to fully understand the long-term impact of the COVID-19 pandemic on cancer incidence, such as trends in stage at diagnosis or mortality.

Chapter 1 of this report presents tables and figures summarizing new diagnoses and deaths from cancer in Utah. Chapter 1 also summarizes cancer incidence by sex, race, and ethnicity. In 2021, the most commonly diagnosed cancers with the highest number of diagnoses in Utah included prostate, breast, melanoma of the skin, colon and rectum, and lung cancers. The cancer site resulting in the largest number of deaths in Utah in 2021 was lung cancer. Based on five-year age-adjusted incidence rates, the most common cancers were prostate, breast, melanoma of the skin, colon and rectum, and uterus cancers.

From 2017-2021, cancer incidence and mortality were higher in Utah males than Utah females. Among Utah females, breast cancer exhibited the highest age-adjusted incidence and mortality from 2017-2021. For Utah males, prostate cancer had the highest age-adjusted incidence and mortality from 2017-2021.

Overall cancer incidence for 2017-2021 varied by race and ethnicity in Utah. We present 2021 case counts and 2017-2021 incidence rates for the most common cancers by race and ethnicity in Utah, illustrating some variation in the most common cancers across race and ethnic groups. Due to restrictions on displaying statistics for small case counts and Utah's relatively small populations of American Indian or Alaska Native, Asian or Pacific Islander, and Black residents, we are unable to present incidence information for all cancer sites by race and ethnicity.

Overall, Utah's cancer incidence and mortality rates remained lower than the rest of the United States (U.S.) for 2017-2021. This is likely in part due to Utah's historically lower smoking rate compared to other states, as smoking is associated with numerous cancers and is the leading cause of lung cancer.[2] However, melanoma as well as other cancers were more common in Utah than other states.

Chapter 2 highlights two special topics. The first focuses on "early onset cancers," or cancers diagnosed in younger adults, defined as ages 20-49 years. Cancer is most often diagnosed in older adults, but recently there have been concerns about the trend of increased incidence of several cancers in younger adults. We highlight the most frequently diagnosed cancers in this younger population and how trends for adults ages 20-49 years compared to incidence trends for adults ages 50 or older. For example, while breast cancer incidence remained relatively stable from 2012-2021 for Utah females 50 or older, incidence increased in those ages 20-49 by a statistically significant 2.0% per year. Similarly, colon and rectum cancer incidence increased among younger adults but decreased in adults ages 50 or older. Also, prostate cancer decreased in older males and increased among those ages 20-49.

We highlight trends in mortality as a second special topic in Chapter 2. Using 50 years of data spanning 1972 to 2021, we show how cancer mortality rates changed over time in Utah and the U.S. In both Utah and the remaining U.S., cancer mortality has been decreasing since the early 1990s. Mortality decreased for many cancers in Utah, including breast, lung, and colon and rectum.

Appendix B provides detailed tables summarizing cancer counts, incidence and mortality rates, and cancer survival estimates by cancer site. Tables presenting counts of cancer cases and deaths (Table B.1) and incidence and mortality rates (Table B.2) overall and by sex for each cancer site expand on data covered in Chapter 1. We also present cancer incidence and mortality rates in

Utah and the remaining U.S. (Table B.3). Five-year relative survival in Utah is summarized by stage of diagnosis (Table B.4).

Table B.5 presents cancer incidence for children, adolescents, and young adults (diagnoses under age 40). As demonstrated by these data, cancer incidence in this younger population is much lower than in the population at large – the overall cancer incidence for ages under 40 was 60.1 per 100,000 population for 2017-2021 compared to 412.7 per 100,000 for all ages combined.

Tables B.6-B.7 and Figure B.1 illustrate how cancer incidence varies by geography in Utah. Utah's population is predominately concentrated in several urban counties, and many rural counties in Utah have small populations. These small populations result in smaller numbers of cancer diagnoses, which can make incidence rate calculations imprecise. Therefore, caution should be used in interpreting differences across counties. From 2017-2021, the incidence of all cancers was similar across urban and rural counties.

Tables B.8 and B.9 summarize cancer incidence and mortality, respectively, for Hispanic or Latino and non-Hispanic White individuals in Utah and the remaining U.S. Cancer incidence among non-Hispanic White Utahns is statistically significantly lower than the cancer incidence of the non-Hispanic White population elsewhere in the U.S. In contrast, cancer incidence among Hispanic or Latino Utahns is statistically significantly higher than the cancer incidence among the Hispanic or Latino population nationwide.

Data and Methods

Compiling cancer surveillance data

Utah Cancer Registry collects reports of all newly diagnosed cases of reportable neoplasms among Utah residents from health care providers statewide. This information is reported for public health purposes described and authorized under Utah Code Annotated §26B-1-202 and 26B-7-227, and by the Utah Administrative Code Rule R384-100, the Cancer Reporting Rule.[3] Reportable cancer diagnoses include invasive and in situ primary cancers and benign tumors of the brain and central nervous system. No other benign tumors are reportable. In situ cervical cancer and basal cell and squamous cell carcinomas of the skin are not reportable. Cancer case reports received from providers are consolidated, edited, and reviewed for quality assurance by Utah Cancer Registry staff.

In this report we utilized data submitted by central cancer registries participating in the National Cancer Institute's Surveillance Epidemiology and End Results (SEER) Program and/or the Centers for Disease Control and Prevention's (CDC) National Program of Cancer Registries (NPCR). These data include cancers diagnosed through the end of 2021, which were submitted to SEER and NPCR by participating registries in 2023 and made available for public use in 2024. The delay between diagnosis and data availability is due to the time needed for health care facilities and clinicians to report cases to the central registries, and for central registry staff to compile, edit, and quality assure cancer case data.

Data accessed for this report

For this report, we used the NPCR and SEER Incidence-U.S. Cancer Statistics Public Use Research Database[4] and the SEER Research Plus database[5] in the SEER*Stat statistical application software.[6] Mortality data[7] were provided in SEER*Stat by the National Center for Health Statistics (NCHS) of the CDC. Incidence and mortality rates were calculated using invasive incident cases (plus in situ bladder cases, which is standard in cancer surveillance) and deaths for the time period of January 1, 2017 through December 31, 2021, with the exception of 10-year or 50-year trends. Ten-year trends were calculated using cancers diagnosed between January 1, 2012 and December 31, 2021. Fifty-year trends include cancer deaths from January 1, 1972 through December 31, 2021.

Cancers in this report are grouped following the conventions of the SEER Program and the World Health Organization (2008 edition),[8] using primary site and histology codes defined in the International Classification of Diseases for Oncology, Third Edition (ICD-O-3).[9] Of note when assessing trends in colon and rectum cancers over time: in 2015, the SEER Program began including appendix cancers in estimates for colon and rectum cancers.[10]

The population denominators used in calculating cancer incidence and mortality rates were provided in SEER*Stat and represent the current population of the geographic area in the same years as the cancer case diagnosis or death. Population estimates were provided by the U.S. Census Bureau, except for estimates for years 2010-2019, which were provided by Woods & Poole Economics, Inc. through a contract with the National Cancer Institute.[11] The Woods & Poole methodology for producing intercensal and postcensal population counts followed previously published Census methodologies to align closely with the Census Bureau's anticipated intercensal population estimates, which were not yet available in SEER*Stat at the time this report was prepared.[11]

Relative survival among individuals diagnosed with cancer in Utah was calculated using incidence and survival data accessed in SEER*Stat's survival session using the SEER Research Plus database.[5]

We used the 2013 Rural Urban Continuum Codes (RUCC) to classify counties in Utah as rural (codes 4-10) or urban (codes 1-3), in accordance with the SEER standard definition of rural.[12]

Statistical analysis

Counts of incident cancers and cancer deaths were reported for the most recent complete year available, 2021, for the population of Utah. Cancer counts and incidence rates presented in this report include all reportable invasive cancer diagnoses and in situ bladder cases, unless otherwise noted. Cancer incidence and mortality rates were estimated for Utah compared to rates for the remainder of the 49 U.S. states and the District of Columbia. When cancer counts or incidence rates are reported by race and ethnicity, all individuals who are classified to be of Hispanic or Latino ethnicity are counted in that category regardless of their reported race. Counts or rates for White, Black or African American, Asian or Pacific Islander, and American Indian or Alaska Native populations exclude individuals identified as Hispanic or Latino.

All cancer incidence and mortality rates reported are per 100,000 population per year and are age-standardized to the 2000 U.S. standard population. Rates were calculated using the SEER*Stat statistical application software. Cancer incidence and mortality rates for specific cancer sites were estimated based on the five-year period 2017 through 2021 except in the case of ten or fifty-year trends which use data from 2012-2021 and 1972-2021 respectively. We used five years of data for rate calculations to ensure more stable estimates and reliable 95% confidence intervals for comparisons, e.g., between geographic regions and between race and ethnic groups, as single years of counts can be small and provide unstable estimates. These five-year incidence or mortality rates, not case counts, were used for ranking most common cancer diagnoses and causes of cancer deaths. Rates without overlapping 95% confidence intervals were designated as statistically significantly different from one another.

Trends in cancer incidence and mortality over time were analyzed using Joinpoint analysis, a statistical method that describes changing trends over successive segments of time by selecting the best fitting point or points where the rate increases, decreases, or remains stable. The average annual percent change for each segment is calculated and compared to the assumption that the trend is stable (APC=0%), and statistical significance is tested using the Monte Carlo Permutation method at the $p<=0.05$ level.[13,14] Rates were calculated utilizing SEER*Stat software and analyzed using the Joinpoint Regression Program.

Survival of individuals with cancer was described as relative survival, i.e. survival among individuals diagnosed with cancer compared to members of the general source population matched on race, sex, age, and geography. Because these relative survival calculations are matched on age, the relative survival estimates in this report are not age standardized. Relative survival was calculated using the Period Survival Method.[15] Period survival calculations allow for the most up-to-date survival estimates for current survival trends, using previous survival estimates to calculate longer-term survival. We reported survival based on five -year survival data. For this analysis, we used 2020 as the period cohort, so the first-year survival estimates were based on 2018-2020 cases, and two-year survival was based on 2017-2019 estimates, three-year survival was based on 2016-2018 estimates, and so on. These 1-year through 5-year estimates were then combined to produce five-year survival estimates for cases diagnosed in 2020. Confidence intervals were calculated at the 95% level. For relative survival estimates that are at or near 100%, SEER*Stat could not calculate confidence intervals.

Chapter 1

The Burden of Cancer in Utah

Diagnoses and Deaths

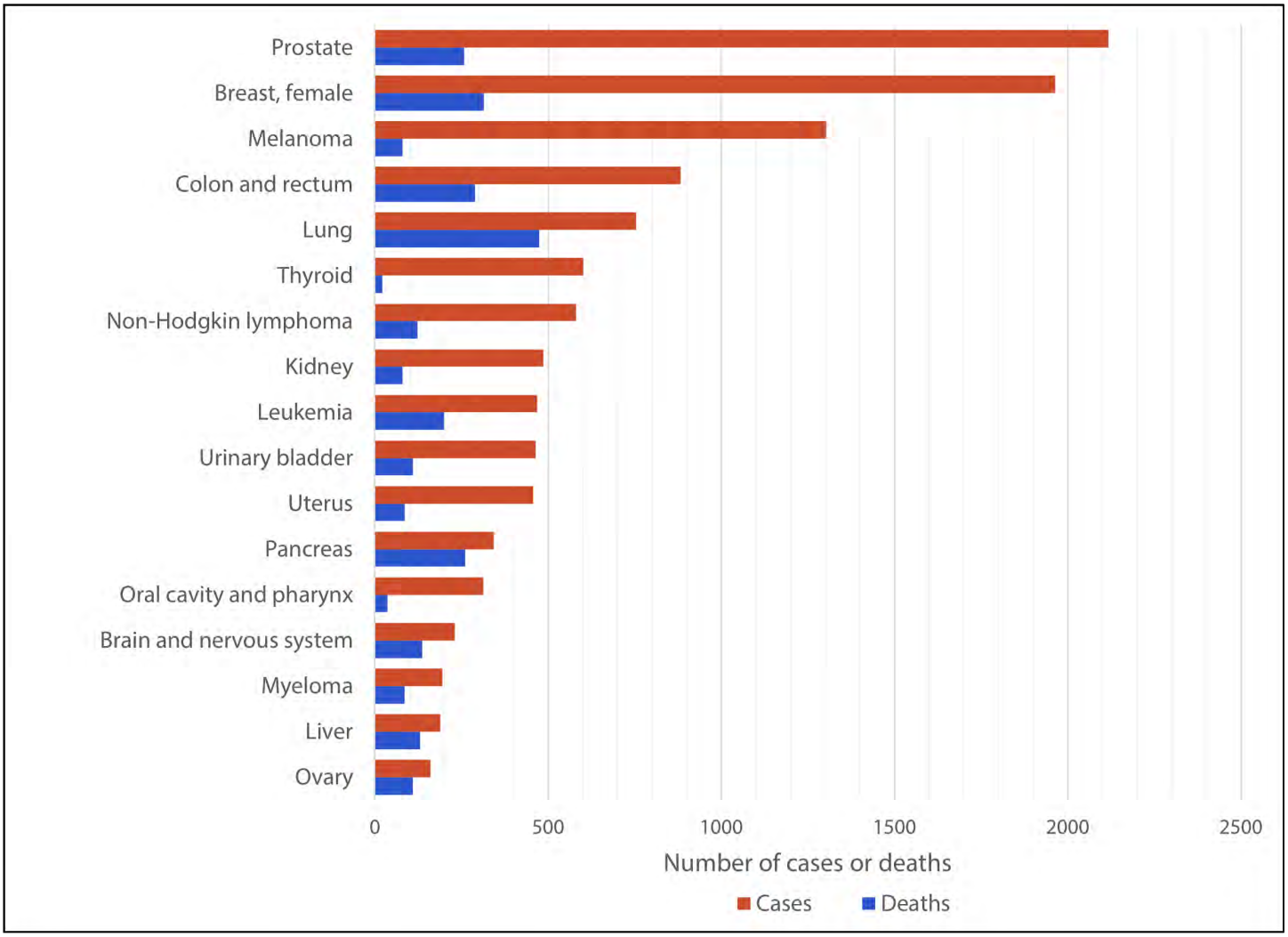


Figure 1.1 Numbers of new cancer cases and deaths for common sites, Utah 2021

- The cancer sites with the highest number of diagnoses in Utah in 2021 were prostate, breast, melanoma of the skin, colon and rectum, and lung.
- Cancer sites with high numbers of in situ diagnoses (not shown in figure, see Appendix Table B.1) included melanoma (54.2% of all 2021 melanoma diagnoses) and female breast (16.8% of 2021 diagnoses).
- Benign brain and nervous system tumors accounted for 80.8% of all brain and nervous system tumors diagnosed in 2021 (Appendix Table B.1).
- The cancer with the highest number of cancer deaths in 2021 was lung cancer
- See Appendix Table B.1 for full list of counts of new cancer cases and deaths by cancer site.

Table 1.1 The five cancers with the highest age-adjusted incidence rates in Utah[a]

Cancer Site	2017-2021 Incidence Rate[b]	2021 Case Count	
		Invasive	In Situ
All Sites	412.7	13,327	3,259
Prostate	122.3	2,117	^
Breast, Female	119.1	1,964	397
Melanoma	41.4	1,302	1,542
Colon and Rectum	29.3	882	^
Uterus	26.8	457	^

^ Counts <16 suppressed to preserve confidentiality.

[a] Ranked by age-adjusted incidence rate.

[b] Age-adjusted incidence rate for invasive cancers only.

- The overall cancer incidence rate in Utah was 412.7 per 100,000 population in 2017-2021.
- Based on incidence rates, the five most common cancers in Utah in this period were prostate, breast, melanoma, colon and rectum, and uterus cancers.

Table 1.2 The ten cancers with the highest age-adjusted incidence rates among females in Utah[a]

Cancer Site	2017-2021 Incidence Rate[b]	2021 Case Count	
		Invasive	In Situ
All Sites	384.2	6,323	1,861
Breast, female	119.1	1,964	397
Melanoma	34.3	544	608
Uterus	26.8	457	^
Thyroid	24.6	448	^
Colon and rectum	26.3	392	^
Lung	22.7	377	^
Non-Hodgkin lymphoma	14.8	233	N/A
Leukemia	11.9	200	^
Kidney	11.0	173	^
Ovary	10.1	160	^

^ Counts <16 suppressed to preserve confidentiality.
[a] Ranked by age-adjusted incidence rate.
[b] Age-adjusted incidence rate for invasive cancers only.

- The overall cancer incidence rate in Utah females for 2017 -2021 was 384.2 per 100,000 population.
- Breast cancer and melanoma were the two most frequently diagnosed cancers in Utah females.

Table 1.3 The ten cancers with the highest age-adjusted incidence rates among males in Utah[a]

Cancer Site	2017-2021 Incidence Rate[b]	2021 Case Count	
		Invasive	In Situ
All Sites	451.9	7,004	1,398
Prostate	122.3	2,117	^
Melanoma	50.4	758	934
Colon and rectum	32.5	490	^
Urinary bladder	29.6	372	^
Lung	27.6	377	^
Non-Hodgkin lymphoma	22.9	348	N/A
Kidney	20.6	313	^
Leukemia	19.0	269	^
Pancreas	13.8	185	^
Oral cavity and pharynx	13.5	226	17

^ Counts <16 suppressed to preserve confidentiality.
[a] Ranked by age-adjusted incidence rate.
[b] Age-adjusted incidence rate for invasive cancers only.

- The overall cancer incidence rate in Utah males for 2017-2021 was 451.9 per 100,000 population.
- Prostate cancer and melanoma were the two most frequently diagnosed cancers in Utah males.
- See Appendix Table B.2 for sex-specific cancer incidence and mortality rates for all cancer sites.

Table 1.4 The ten cancers with the highest age-adjusted mortality rates among females in Utah[a]

Cancer Site	2017-2021 Mortality Rate[b]	2021 Deaths
All Sites	106.7	1,696
Breast, Female	20.1	315
Lung	14.0	233
Colon and rectum	9.5	143
Pancreas	8.1	122
Ovary	6.4	110
Uterus	4.6	86
Leukemia	4.6	79
Brain and nervous system	4.0	54
Non-Hodgkin lymphoma	3.5	42
Myeloma	2.3	34

[a] Ranked by age-adjusted mortality rate.
[b] Age-adjusted.

- The overall cancer mortality rate in Utah females for 2017-2021 was 106.7 per 100,000 females, with 1,696 deaths due to cancer in 2021.
- The two leading causes of cancer death for Utah females were breast cancer and lung cancer.

Table 1.5 The ten cancers with the highest age-adjusted mortality rates among males in Utah[a]

Cancer Site	2017-2021 Mortality Rate[b]	2021 Deaths
All Sites	140.1	1,796
Prostate	22.2	257
Lung	19.0	242
Colon and rectum	11.4	146
Pancreas	11.2	139
Leukemia	8.4	120
Non-Hodgkin lymphoma	6.6	81
Urinary bladder	6.3	84
Brain and nervous system	5.6	82
Liver	5.3	92
Esophagus	4.7	51

[a] Ranked by age-adjusted mortality rate.
[b] Age-adjusted.

- The overall cancer mortality rate in Utah males for 2017-2021 was 140.1 per 100,000 males, with 1,796 deaths due to cancer in 2021.
- The two leading causes of cancer death in Utah males were prostate cancer and lung cancer.
- See Appendix Table B.2 for sex-specific cancer incidence and mortality rates for all cancer sites.

By Race and Ethnicity

Table 1.6 Cancer incidence by race and Hispanic or Latino ethnicity in Utah

Race or Ethnicity	2017-2021 Incidence Rate[a]	2021 Case Count	
		Invasive	In Situ
American Indian or Alaska Native	342.1	110	^
Asian or Pacific Islander	302.2	332	45
Black	391.3	93	18
Hispanic or Latino[b]	407.4	1,222	223
White	412.4	11,251	2,811

^ Counts <16 suppressed to preserve confidentiality.

[a] Age-adjusted incidence rate for invasive cancers only.

[b] All individuals who are classified as Hispanic or Latino in registry records are included in this category, regardless of their reported race.

- Overall cancer incidence varied by race and ethnicity in Utah, with the highest incidence observed among Utah's White population (412.4 per 100,000 population) and the lowest among the Asian or Pacific Islander population (302.2 per 100,000 population).

Table 1.7 The five cancers with the highest age-adjusted incidence rates, by race and ethnicity in Utah, 2017-2021[a]

American Indian or Alaska Native		
Site	2017-2021 Incidence Rate	2021 Count
Prostate	94.2	^
Breast, female	74.2	^
Colon and rectum	37.2	17
Kidney	30.2	^
Lung	25.1	^

Asian or Pacific Islander		
Site	2017-2021 Incidence Rate	2021 Count
Breast, female	94.4	79
Prostate	66.6	27
Uterus	36.9	20
Colon and rectum	27.6	29
Lung	25.1	20

Black		
Site	2017-2021 Incidence Rate	2021 Count
Prostate	183.7	30
Breast, female	77.4	^
Lung	35.7	^
Colon and rectum	35.3	^
Kidney	18.2	^

Hispanic or Latino[b]		
Site	2017-2021 Incidence Rate	2021 Count
Breast, female	130.0	207
Prostate	104.9	129
Colon and rectum	34.0	92
Uterus	30.0	50
Lung	27.2	73

White		
Site	2017-2021 Incidence Rate	2021 Count
Prostate	121.8	1,820
Breast, female	119.0	1,645
Melanoma	44.7	1,145
Colon and rectum	28.6	733
Uterus	25.6	373

^ Counts <16 suppressed to preserve confidentiality.

[a] Ranked by age-adjusted incidence rate.

[b] All individuals who are classified as Hispanic or Latino in registry records are included in this category, regardless of their reported race.

- Prostate and breast cancer were the two most common cancers diagnosed in Utah among all race or ethnicity groups, with colon and rectum cancer also being among the top three or four in each of these groups.
- Kidney cancer was within the top five most common cancers among Utah's American Indian or Alaska Native and Black populations and uterine cancer was among the top five most common cancers among Utah's Asian or Pacific Islander, Hispanic or Latino, and White populations.
- Melanoma was only in the top five most common cancers among the White population.

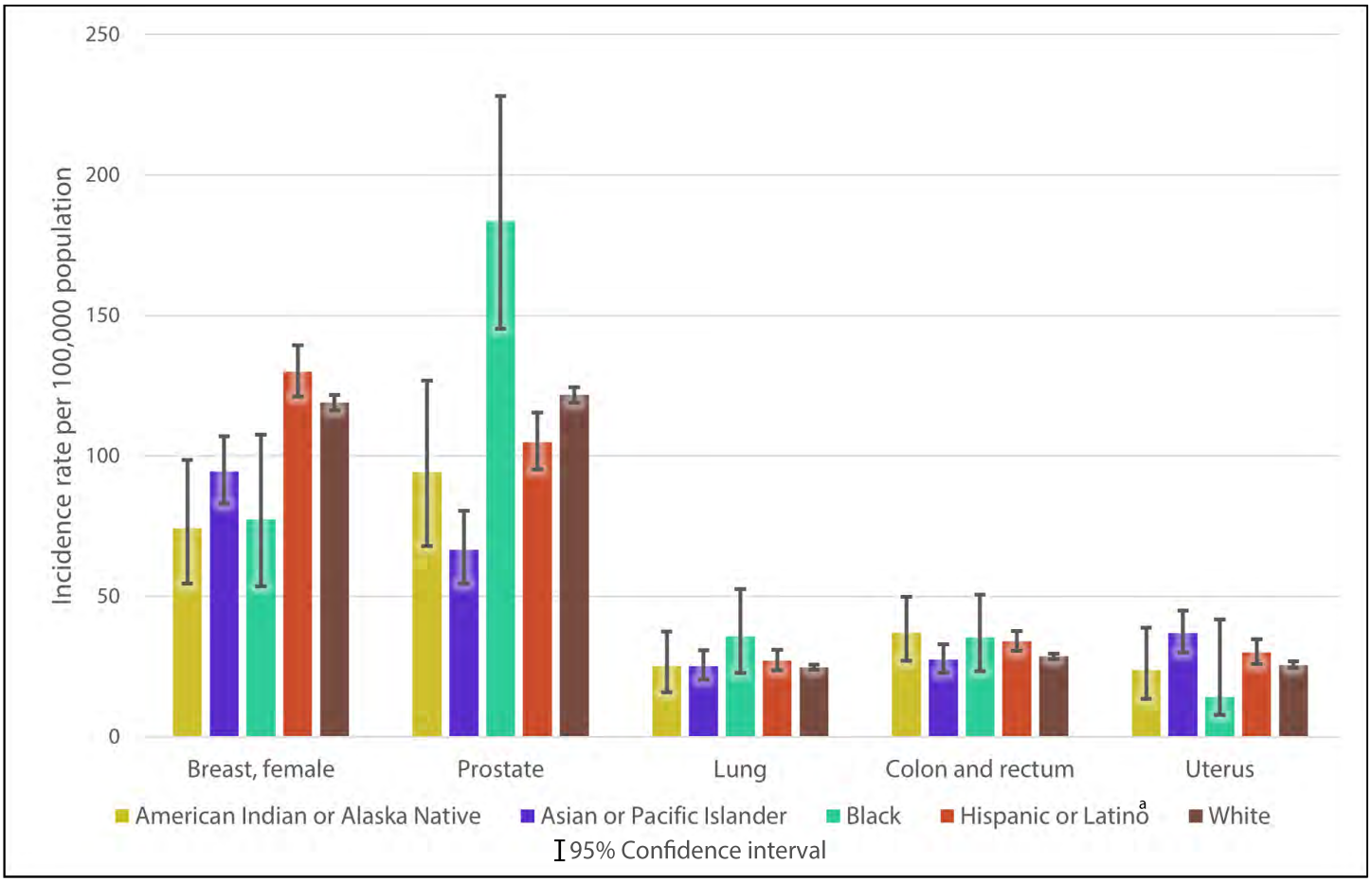


Figure 1.2 Cancer incidence in Utah for the top five incident cancer sites nationwide, by race and ethnicity 2017-2021

[a] All individuals who are classified as Hispanic or Latino in registry records are included in this category, regardless of their reported race.

- Nationwide, the cancers with the highest 2017-2021 age-adjusted incidence were cancers of the breast, prostate, lung, colon and rectum, and uterus.
- In Utah, the incidence of breast cancer was statistically significantly higher among Hispanic or Latino females and White females compared to American Indian or Alaska Native, Asian or Pacific Islander, and Black females.
- Prostate cancer incidence was highest among Black males in Utah.
- Incidence of lung, colon and rectum, and uterine cancers was statistically similar across race and ethnic groups.

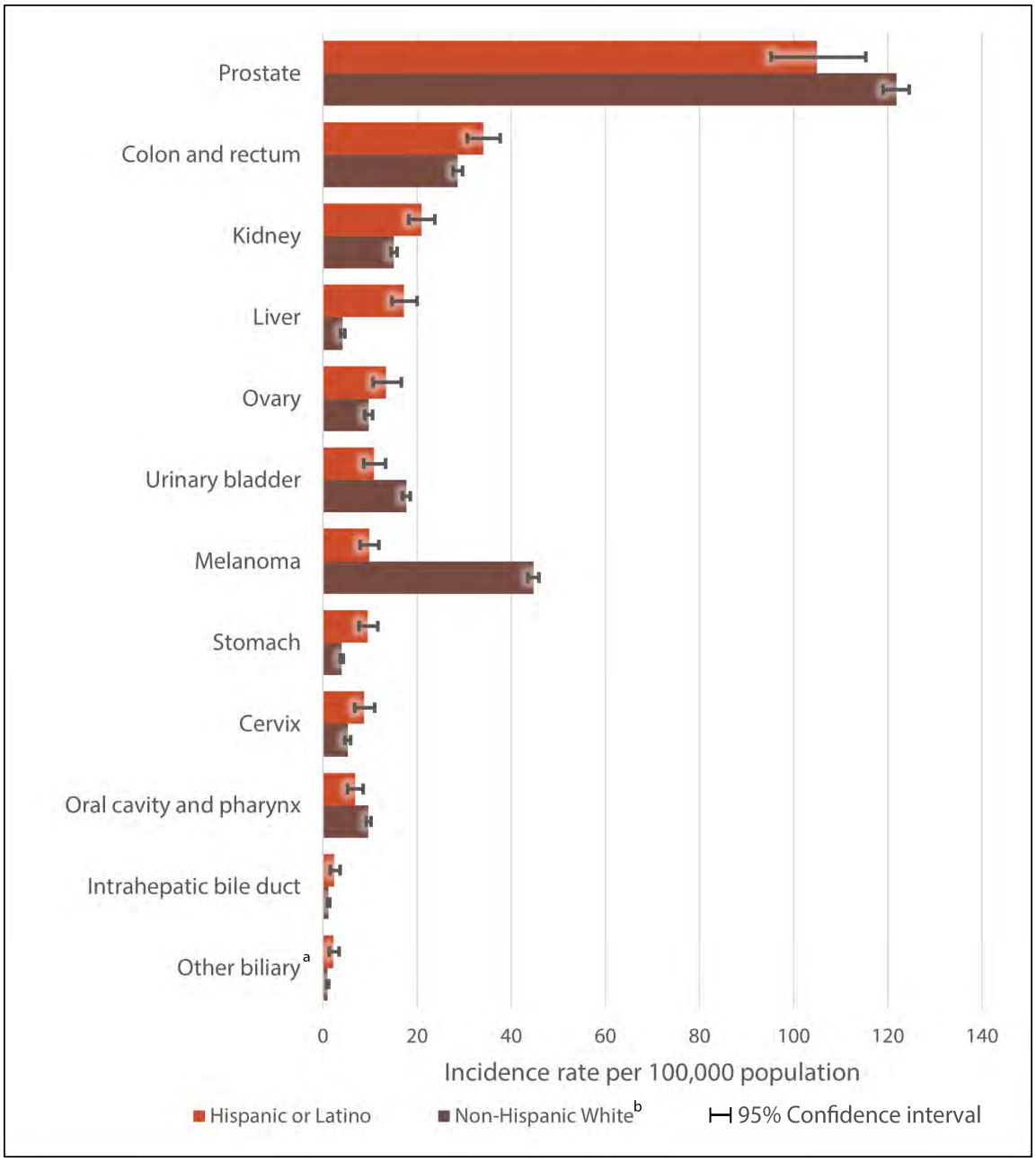


Figure 1.3 Cancer incidence for Hispanic or Latino Utahns compared to non-Hispanic White Utahns; cancer sites with statistically significant differences, 2017-2021

[a] "Other biliary" is a SEER site recode category for biliary cancers exclusive of the liver, intrahepatic bile duct, gallbladder, and pancreas, which are each treated as separate sites.

[b] All individuals who are classified as Hispanic or Latino in registry records are included in this category, regardless of their reported race.

- Hispanic or Latino Utahns experienced a statistically significantly higher incidence of colon and rectum, kidney, liver, ovary, stomach, cervix, intrahepatic bile duct, and other biliary cancers compared to non-Hispanic White Utahns.
- Incidence of prostate, bladder, melanoma, and oral cavity and pharynx cancers were statistically significantly lower in Hispanic or Latino Utahns compared to non-Hispanic White Utahns.

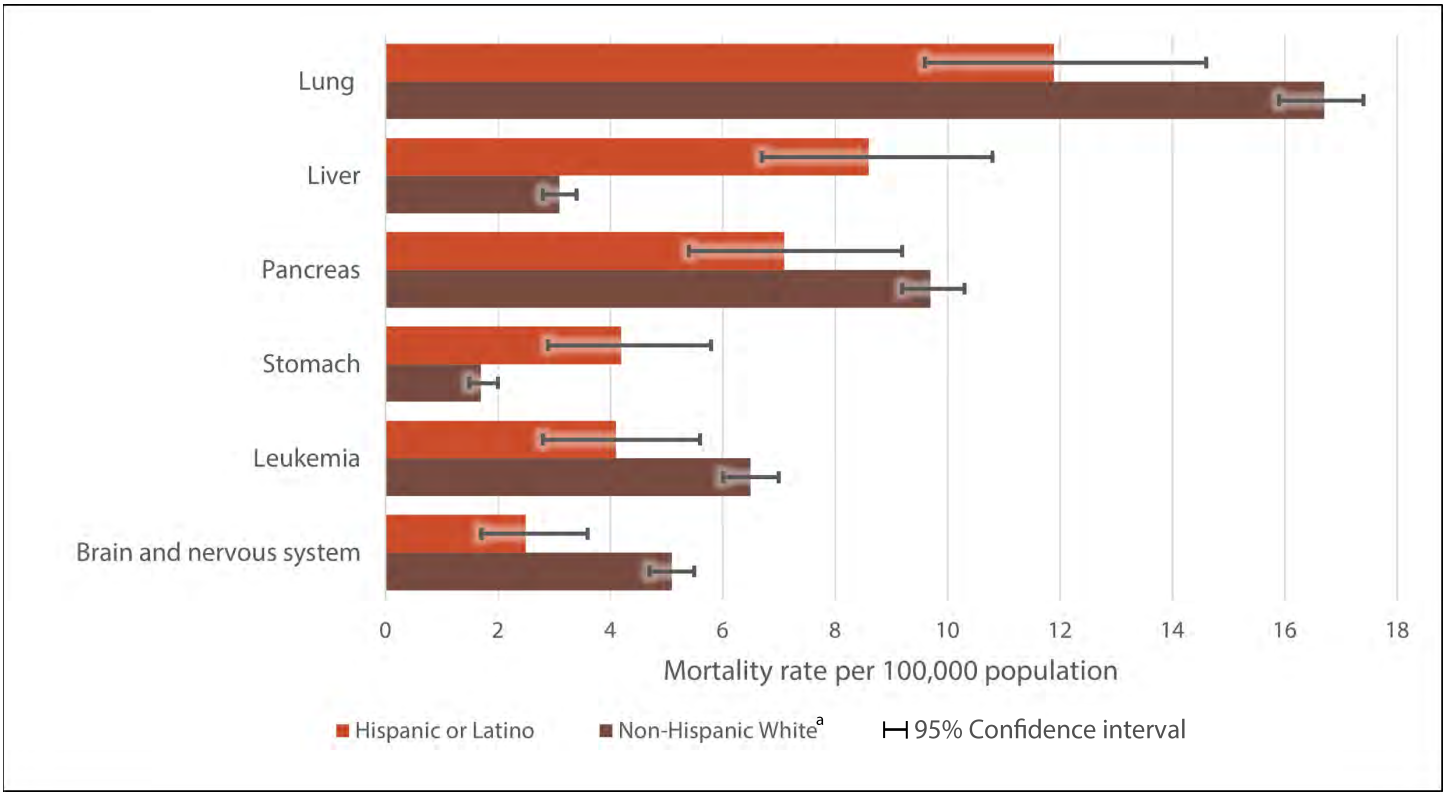


Figure 1.4 Cancer mortality among Hispanic or Latino Utahns compared to non-Hispanic White Utahns; cancer sites with statistically significant differences, 2017-2021

[a] All individuals who are classified as Hispanic or Latino in registry records are included in this category, regardless of their reported race.

- Mortality for liver and stomach cancers were statistically significantly higher among Hispanic or Latino Utahns compared to non-Hispanic White Utahns.
- Hispanic or Latino Utahns experienced statistically significantly lower mortality from lung cancer, pancreatic cancer, leukemia, and brain and other nervous system tumors compared to non-Hispanic White Utahns.

Cancer in Utah Compared to the United States

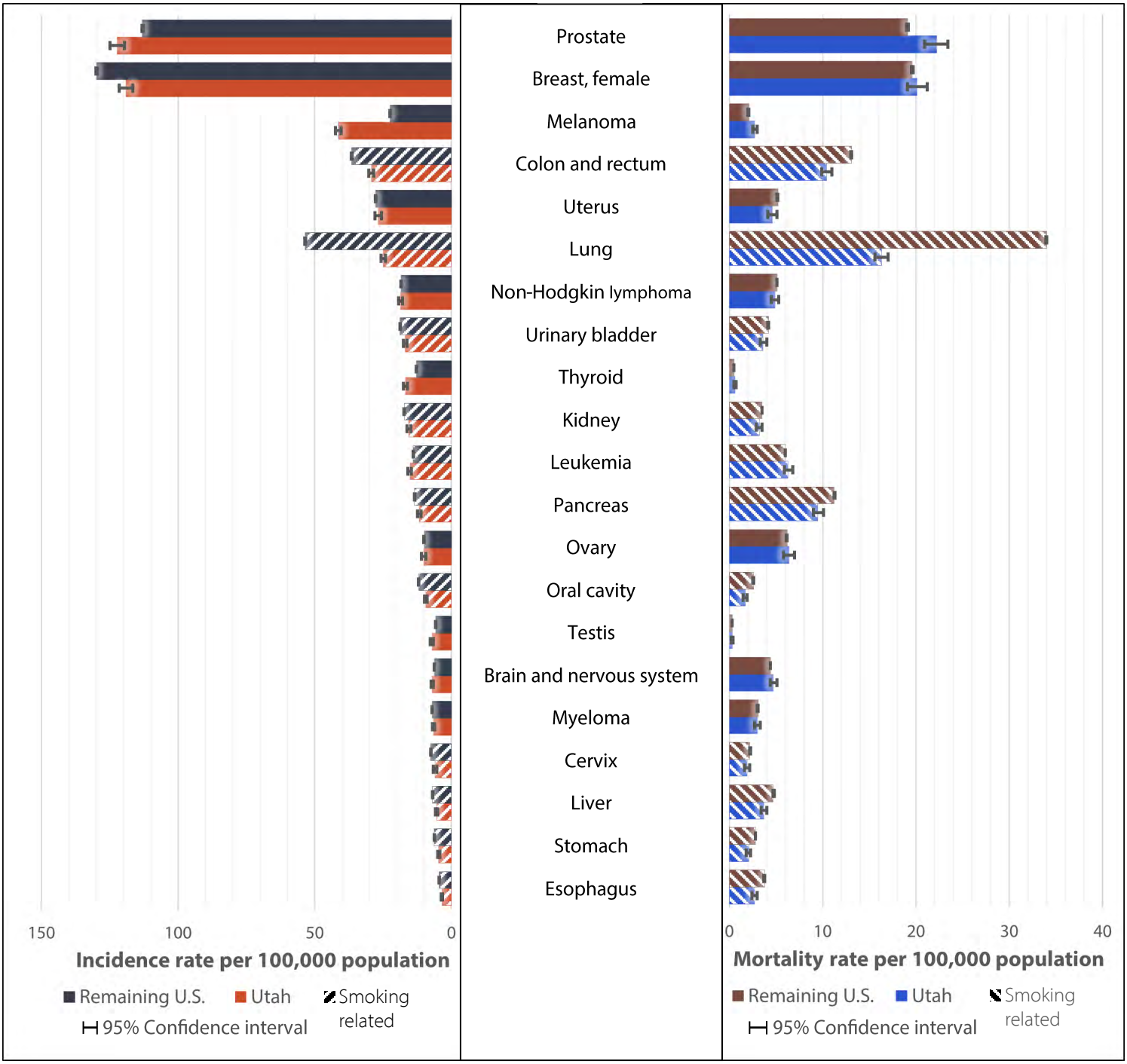


Figure 1.5 Age-adjusted incidence and mortality for smoking-related and common cancers, Utah compared to the Remaining U.S., 2017-2021

- Utah's overall cancer incidence and mortality rates were statistically significantly lower than the rest of the U.S. Utah's overall cancer incidence from 2017-2021 was 412.7 compared to 444.9 in the rest of the U.S. Utah's mortality rate was 121.1 compared to 148.6 in the remainder of the U.S. (Table B.3).
- The incidence of prostate cancer and melanoma were statistically significantly higher in Utah than the rest of the U.S. from 2017-2021. See Appendix Table B.3 for incidence and mortality rates for all cancer sites for Utah and the remaining U.S.
- Utah has historically had much lower smoking rates than other states, resulting in fewer smoking-related cancers and cancer deaths. Utah's lung cancer incidence and mortality rates for 2017-2021 were approximately half those of the remaining U.S. However, smoking rates have been declining nationwide, and over time, nationwide lung cancer incidence and mortality may become more similar to what is observed in Utah.

Chapter 2

Special Topics

Early Onset Cancers

Cancer is most often diagnosed in older adults. However, there is concern about the trend of increased incidence of some specific cancers in younger populations.[16] In this section, we present statistics on early onset cancer diagnoses, defined as cancers diagnosed in adults ages 20-49.

Table 2.1 The ten cancers with the highest age-adjusted incidence rates in adults ages 20-49 in Utah, 2017-2021[a]

Cancer Site	2017-2021 Incidence Rate[a]	2021 Case Count	
		Invasive	In Situ
All Sites	160.1	2,146	430
Breast, female	67.0	442	100
Melanoma	22.7	267	312
Thyroid	21.4	320	^
Testis	13.7	98	^
Colon and rectum	13.5	175	^
Uterus	11.1	63	^
Cervix	7.7	51	N/A
Kidney	6.2	90	^
Non-Hodgkin lymphoma	5.8	78	N/A
Ovary	5.6	32	^

^ Counts <16 suppressed to preserve confidentiality.
[a] Ranked by age-adjusted incidence rate.
[b] Age-adjusted incidence rate for invasive cancers only.

- The overall incidence of all cancer sites among adults ages 20-49 in Utah was 160.1 per 100,000 population for 2017-2021.
- The most common cancers diagnosed among adults ages 20-49 differed somewhat from those diagnosed in older populations. For example, testicular cancer is the fourth most diagnosed cancer among adults 20-49 but is less common among older adults. Thyroid cancer is the third most common cancer among younger adults but is the sixth most common cancer among Utahns of all ages.

Table 2.2 The five cancers with the highest age-adjusted incidence rates in adults ages 20-49, by race and ethnicity in Utah, 2017-2021[a]

American Indian or Alaska Native			
Site	2017-2021 Incidence Rate[b]	2021 Count	2021 Population
Breast, female	46.6	^	7,705
Kidney	17.2	^	7,705
Uterus	16.3	^	15,511
Testis	15.1	^	15,511
Thyroid	12.2	^	7,705

Asian or Pacific Islander			
Site	2017-2021 Incidence Rate[b]	2021 Count	2021 Population
Breast, female	66.6	22	34,291
Uterus	26.8	^	34,291
Thyroid	17.9	16	68,009
Colon and rectum	12.2	^	68,009
Ovary	11.3	^	34,291

Black			
Site	2017-2021 Incidence Rate[b]	2021 Count	2021 Population
Breast, female	32.9	^	9,766
Uterus	21.7	^	9,766
Cervix	11.3	^	9,766
Prostate	9.1	^	14,732
Colon and rectum	8.7	^	24,498

Hispanic or Latino			
Site	2017-2021 Incidence Rate[b]	2021 Count	2021 Population
Breast, female	77.0	68	104,032
Thyroid	20.4	48	219,391
Uterus	13.3	^	104,032
Testis	13.2	22	115,359
Cervix	13.1	16	104,032

White			
Site	2017-2021 Incidence Rate[b]	2021 Count	2021 Population
Breast, female	65.8	339	539,041
Melanoma	26.4	226	1,103,737
Thyroid	22.0	248	1,103,737
Testis	14.3	69	564,696
Colon and rectum	13.7	137	1,103,737

^ Counts <16 suppressed to preserve confidentiality.

[a] Ranked by age-adjusted incidence rate.

[b] Age-adjusted incidence rate for invasive cancers only.

- Breast cancer was the most common cancer diagnosis among individuals ages 20-49 regardless of race.
- There is some variation in what cancer sites are among the five most common by race and ethnicity in individuals ages 20-49. However, caution should be used in interpreting these data as there are many small counts of incident cancers when presenting data by race and ethnicity in Utah. Most of these incidence rates have wide confidence intervals and therefore we are unable to draw conclusions about differences across race and ethnic groups in Utah.

Table 2.3 2017-2021 incidence and 2012-2021 annual percent change (APC) trends for the cancers with the highest age-adjusted incidence rates among adults ages 20-49 in Utah, ages 20-49 compared to ages 50+

Site	20-49 Age Group		50+ Age Group	
	2017-2021 Incidence Rate	2012-2021 APC (%)	2017-2021 Incidence Rate	2012-2021 APC (%)
All Sites	160.1	0.8	1,218.3	0.0
Breast, female	67.0	2.0*	324.9	0.3
Melanoma	22.7	0.2	113.4	1.4*
Thyroid	21.4	-0.7	25.6	-2.5
Testis	13.7	-0.3	2.9	~
Colon and rectum	13.5	3.0*	83.8	-1.9*
Uterus	11.1	-0.9	79.4	0.6
Cervix	7.7	2.9*	9.5	4.6
Kidney	6.2	4.1*	45.7	1.3
Non-Hodgkin lymphoma	5.8	1.0	56.3	-0.4
Ovary	5.6	-1.6	26.9	-2.4
Brain and nervous system	4.7	0.2	14.6	-0.2
Leukemia	4.4	0.0	42.9	0.2
Prostate	4.0	-4.1*	436.0	1.4*
Hodgkin lymphoma	3.2	1.6	2.4	~
Oral cavity and pharynx	2.9	-2.0	29.3	0.6
Lung	2.4	~	86.1	-2.3*
Soft tissue including heart	1.9	2.1	7.6	-0.8

* Statistically significant.
~ Statistic could not be calculated.

- The annual percent change estimates indicate that for some cancer sites, cancer trends vary by age group.
- Breast cancer incidence exhibited a statistically significant 2.0% annual increase from 2012 to 2021 for the 20-49 age group but held stable for older adults.
- Colon and rectum cancer exhibited a statistically significant 3.0% annual increase in incidence from 2012 to 2021 among adults ages 20-49, whereas in adults ages 50 or older, colorectal cancer incidence decreased by a statistically significant 1.9% per year.
- Prostate cancer was decreased at a statistically significant 4.1% annually among younger adults, but was increased in adults 50 or older by a statistically significant 1.4% annually.
- Kidney cancer increased at a statistically significant 4.1% annually among younger adults, but among aged 50 or older the increase of 1.3% annually was not statistically significant.

Trends in Mortality Over 50 Years

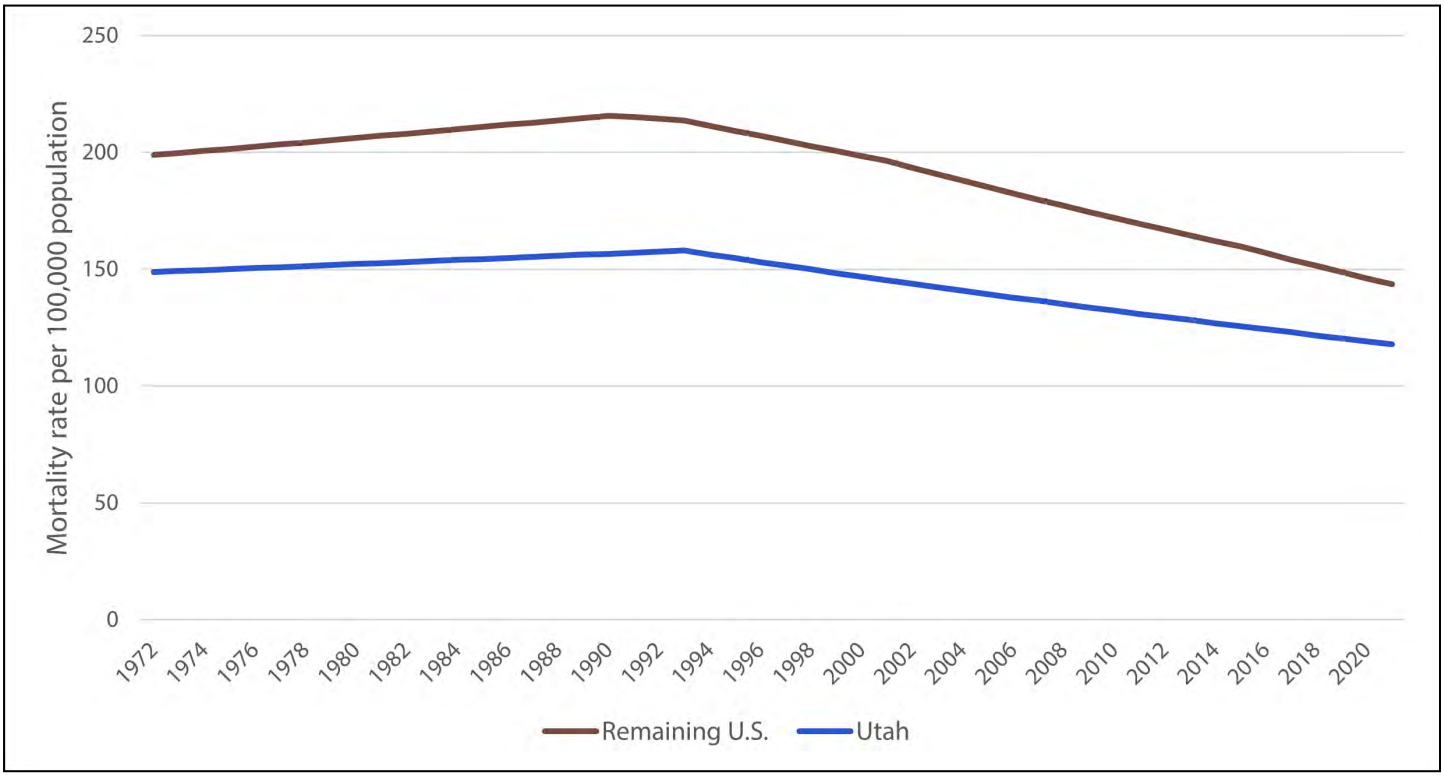


Figure 2.1 Cancer mortality trends in Utah and the remaining U.S., 1972-2021, all sites combined

- Age-adjusted cancer mortality increased slightly from 1972 through 1993 in Utah at a statistically significant 0.3% per year before starting to decline at a statistically significant rate of 1.0% per year through 2021.
- Similarly, overall cancer mortality in the remaining U.S. began a statistically significant 1.1% annual downward trend in the early 1990s, decreased by 1.5% per year between 2001 and 2015, and decreased by 1.8% per year between 2016 and 2021.
- The U.S. mortality rate is decreasing at a statistically significantly higher rate than the Utah mortality rate.

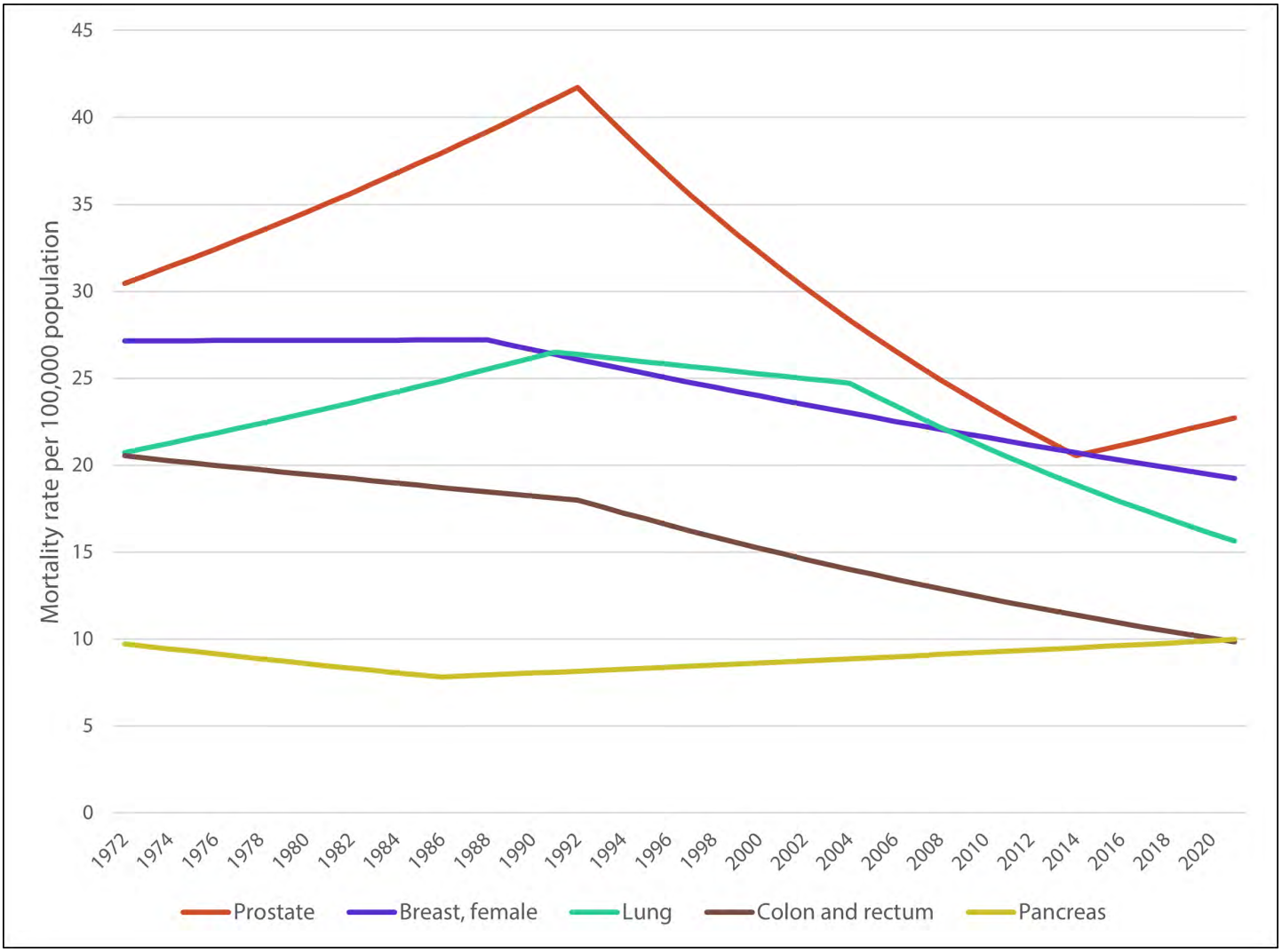


Figure 2.2 Cancer mortality trends from 1972 through 2021 in Utah for sites with highest 2021 mortality

- Prostate cancer demonstrated a statistically significant 1.6% increase per year through 1991. More recently prostate cancer mortality trends are not statistically significant.
- Most recent trends indicate statistically significant decreasing mortality from breast, lung, and colon and rectum cancers in Utah, which is similar to patterns observed elsewhere in the U.S.
- Pancreatic cancer mortality has been increasing at a statistically significant 0.7% per year in Utah, whereas the nationwide trend is not statistically significant.

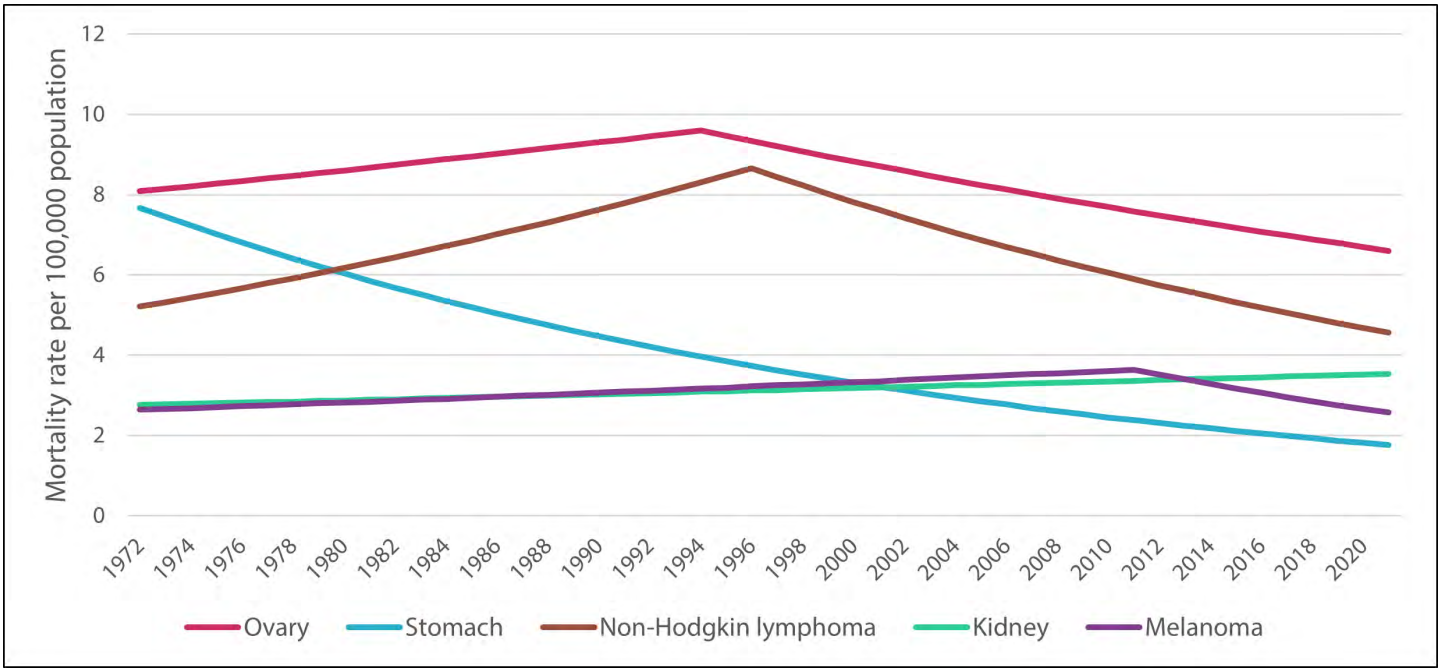


Figure 2.3 Cancer mortality trends from 1972 through 2021 in Utah for sites exhibiting the largest annual percent change trends

- Ovarian cancer, non-Hodgkin lymphoma, and melanoma have experienced recent statistically significant decreasing mortality trends after previously increasing (melanoma, non-Hodgkin lymphoma) or holding stable (ovarian cancer).
- Stomach cancer mortality steadily decreased by a statistically significant 3.0% annually between 1972 and 2021.
- Kidney cancer mortality increased from 1972 through 2021 by 0.5% annually, a statistically significant increase. In contrast, in the remainder of the U.S., most recent trends indicate a statistically significant decrease in kidney cancer mortality.

Appendix A

Definitions and Abbreviations

Age-adjusted or age-standardized
Age-adjustment or age-standardization is a statistical technique applied to allow for comparison of disease rates between populations with different age distributions. Age-standardized rates and age-adjusted rate differences provided in this report are based on the 2000 U.S. standard population.

Annual percent change or annual average percent change
The annual percent change indicates the percent increase or decrease in a cancer incidence or mortality rate per year over a stated time period. It is calculated by fitting a straight line to the natural logarithm of the incidence or mortality rate for each year.

Benign
A tumor or growth that does not exhibit potential to invade beyond the tissue of origin. Benign tumors are included in cancer registry data only if occurring in the brain or central nervous system.

CI
Confidence interval. The range of possible variation in an estimate due to chance. The width of the confidence interval reflects the degree of certainty or stability of an estimate such as a cancer incidence rate, with wider confidence intervals indicating uncertainty or instability of the rate. A value falling outside the 95% confidence interval is unlikely to be different from the estimate due to chance.

Distant stage
Cancer that has spread from the original (primary) site to distant organs or distant lymph nodes. Also known as distant metastasis.

Incident or incidence
Incident cancer refers to newly diagnosed disease. Surveillance of cancer is based on the incidence rate, which is the number of newly diagnosed or incident cancer cases in a specified year, in a defined population at risk for the disease.

In situ
Cancer that is confined to the layer of cells in which it began. The cancerous growth or tumor exhibits malignant appearance of the cells, indicating potential to invade, but it has not spread to surrounding tissue.

Invasive
Cancer that has spread beyond the layer of tissue in which it developed and is growing into surrounding tissues. Includes local, regional, and distant stage cancers.

Local stage
Cancer that is invasive but is confined entirely to the organ in which it began, without evidence of spread.

Malignant
Cancerous cells that exhibit the ability to invade or spread to other tissues of the body.

Mortality
The occurrence of deaths from a disease in a specified time period within a defined population. In this report, we report cancer-specific mortality.

Neoplasm
An abnormal growth of cells. Neoplasms may be benign or malignant.

NPCR
National Program of Cancer Registries of the Centers for Disease Control and Prevention. NPCR was established by Congress in 1992 and funds central cancer registries in 46 U.S. states, the District of Columbia, Puerto Rico, the U.S. Pacific Island Jurisdictions, and the U.S. Virgin Islands.

Primary Cancer
Cancer in the part of the body where it first began. Recurrence of the same cancer or spread of the cancer to another body site is not considered a new cancer and is not counted as a primary cancer for cancer surveillance purposes.

Regional stage
Cancer that has spread beyond the original (primary) site to nearby lymph nodes or organs and tissues.

Relative survival
A measure denoting the survival of individuals diagnosed with cancer compared to the general population, matched by age, sex, race, and geography. It is a ratio of the number of cancer cases who survive to the number of comparable general population members who survive.

SEER
The Surveillance, Epidemiology, and End Results Program of the National Cancer Institute. The SEER Program was founded in 1973 and collects data on cancer cases from Utah and various other central cancer registries in the U.S.

Stage
A measure of cancer progression, detailing the degree to which the cancer has advanced. Stage at diagnosis is reported to cancer registries. Stage is based on the size of the tumor, whether lymph nodes contain cancer, and whether the cancer has spread from the original site to other parts of the body. Cancer staging in this report are all based on the SEER Summary Stage variable. Stages referenced in this report include in situ, local, regional, distant, and unstaged.

Statistically significant
A statistically significant finding is one in which an observed change or difference is likely not due to chance.

Unstaged
Cancer for which there is not enough information to assign a stage at diagnosis.

Appendix B

Data Tables

Table B.1-i New cancer cases and deaths from cancer in Utah by cancer site and sex, 2021

Cancer Sites		Male and Female		
		Cancer Cases		Deaths
		In Situ[a]	Invasive	
All Sites	All Sites	3,259	13,327	3,492
Bones and joints	Bones and joints	N/A	37	16
Brain and nervous system	Brain and nervous system	974	231	136
Breast	Breast, female	397	1,964	315
	Breast, male	^	^	^
Digestive system	Esophagus	^	116	66
	Stomach	^	149	59
	Small intestine	^	101	^
	Colon and rectum	^	882	289
	Anus, anal canal and anorectum	^	48	^
	Liver	N/A	189	131
	Intrahepatic bile duct	^	38	43
	Gallbladder	^	26	^
	Other biliary	^	35	^
	Pancreas	^	343	261
	Retroperitoneum	N/A	19	^
	Peritoneum, omentum and mesentery	N/A	^	^
	Other digestive organs	^	19	16
Endocrine system	Thyroid	^	601	22
	Other endocrine including thymus	241	67	^
Eye and orbit	Eye and orbit	^	44	^
Female genital system	Cervix	N/A	101	29
	Uterus	^	457	86
	Ovary	^	160	110
	Vagina	^	^	^
	Vulva	17	42	^
	Other female genital organs	^	29	^
Leukemia	Leukemia	N/A	469	199
Lymphoma	Hodgkin lymphoma	N/A	83	^
	Non-Hodgkin lymphoma	N/A	581	123

^ Counts <16 suppressed to preserve confidentiality.

[a] Includes benign brain and nervous system tumors.

Table B.1-ii New cancer cases and deaths from cancer in Utah by cancer site and sex, 2021

Cancer Sites		Male and Female		
		Cancer Cases		Deaths
		In Situ[a]	Invasive	
Male genital system	Prostate	^	2,117	257
	Testis	^	123	^
	Penis	^	^	^
	Other male genital organs	^	^	^
Miscellaneous	Miscellaneous	^	397	281
Myeloma	Myeloma	N/A	195	86
Oral cavity and pharynx	Oral cavity and pharynx	27	313	36
Respiratory system	Nose, nasal cavity and middle ear	^	16	^
	Larynx	^	45	^
	Lung	^	754	475
	Pleura	N/A	^	^
	Trachea, mediastinum and other respiratory organs	^	^	^
Skin, excluding basal and squamous	Melanoma	1,542	1,302	80
	Non-melanoma skin	^	77	35
Soft tissue including heart	Soft tissue including heart	N/A	103	40
Urinary system	Urinary bladder	N/A	464	110
	Kidney	^	486	79
	Ureter	^	^	^
	Other urinary organs	^	^	^
Kaposi sarcoma	Kaposi sarcoma	N/A	^	-

^ Counts <16 suppressed to preserve confidentiality.

[a] Includes benign brain and nervous system tumors.

Table B.1-iii New cancer cases and deaths from cancer in Utah by cancer site and sex, 2021

Cancer Sites		Male			Female		
		Cancer Cases		Deaths	Cancer Cases		Deaths
		In Situ[a]	Invasive		In Situ[a]	Invasive	
All Sites	All Sites	1,398	7,004	1,796	1,861	6,323	1,696
Bones and joints	Bones and joints	N/A	18	^	N/A	19	^
Brain and nervous system	Brain and nervous system	316	143	82	658	88	54
Breast	Breast, female	N/A	N/A	N/A	397	1,964	315
	Breast, male	^	^	^	N/A	N/A	N/A
Digestive system	Esophagus	^	99	51	^	17	^
	Stomach	^	79	38	^	70	21
	Small intestine	^	51	^	^	50	^
	Colon and rectum	^	490	146	^	392	143
	Anus, anal canal and anorectum	^	17	^	^	31	^
	Liver	N/A	125	92	N/A	64	39
	Intrahepatic bile duct	^	21	17	^	17	26
	Gallbladder	^	^	^	^	18	^
	Other biliary	^	17	^	^	18	^
	Pancreas	^	185	139	^	158	122
	Retroperitoneum	N/A	^	^	N/A	^	^
	Peritoneum, omentum and mesentery	N/A	^	^	N/A	^	^
	Other digestive organs	^	^	^	^	^	^
Endocrine system	Thyroid	^	153	^	^	448	^
	Other endocrine including thymus	98	28	^	143	39	^
Eye and orbit	Eye and orbit	^	28	^	^	16	^
Female genital system	Cervix	N/A	N/A	N/A	N/A	101	29
	Uterus	N/A	N/A	N/A	^	457	86
	Ovary	N/A	N/A	N/A	^	160	110
	Vagina	N/A	N/A	N/A	^	^	^
	Vulva	N/A	N/A	N/A	17	42	^
	Other female genital organs	N/A	N/A	N/A	^	29	^
Leukemia	Leukemia	N/A	269	120	N/A	200	79
Lymphoma	Hodgkin lymphoma	N/A	48	^	N/A	35	^
	Non-Hodgkin lymphoma	N/A	348	81	N/A	233	42

^ Counts <16 suppressed to preserve confidentiality.

[a] Includes benign brain and nervous system tumors.

Table B.1-iv New cancer cases and deaths from cancer in Utah by cancer site and sex, 2021

Cancer Sites		Male			Female		
		Cancer Cases		Deaths	Cancer Cases		Deaths
		In Situ[a]	Invasive		In Situ[a]	Invasive	
Male genital system	Prostate	^	2,117	257	N/A	N/A	N/A
	Testis	^	123	^	N/A	N/A	N/A
	Penis	^	^	^	N/A	N/A	N/A
	Other male genital organs	^	^	^	N/A	N/A	N/A
Miscellaneous	Miscellaneous	^	223	141	^	174	140
Myeloma	Myeloma	N/A	118	52	N/A	77	34
Oral cavity and pharynx	Oral cavity and pharynx	17	226	27	^	87	^
Respiratory system	Nose, nasal cavity and middle ear	^	^	^	^	^	^
	Larynx	^	34	^	^	^	^
	Lung	^	377	242	^	377	233
	Pleura	N/A	^	^	N/A	^	^
	Trachea, mediastinum and other respiratory organs	^	^	^	^	^	^
Skin, excluding basal and squamous	Melanoma	934	758	44	608	544	36
	Non-melanoma skin	^	54	27	^	23	^
Soft tissue including heart	Soft tissue including heart	N/A	57	20	N/A	46	20
Urinary system	Urinary bladder	N/A	372	84	N/A	92	26
	Kidney	^	313	50	^	173	29
	Ureter	^	^	^	^	^	^
	Other urinary organs	^	^	^	^	^	^
Kaposi sarcoma	Kaposi sarcoma	N/A	^	-	N/A	^	-

^ Counts <16 suppressed to preserve confidentiality.

[a] Includes benign brain and nervous system tumors.

Table B.2-i Cancer incidence and mortality rates in Utah by cancer site and sex, 2017-2021

Cancer Sites		Male and Female			
		Incidence per 100,000 population		Mortality per 100,000 population	
		Rate	95% CI	Rate	95% CI
All Sites	All Sites	412.7	(409.3-416.1)	121.1	(119.2-122.9)
Bones and joints	Bones and joints	1.2	(1.1-1.4)	0.5	(0.4-0.6)
Brain and nervous system	Brain and nervous system	7.1	(6.6-7.5)	4.7	(4.4-5.1)
Breast	Breast, female	119.1	(116.6-121.6)	20.1	(19.1-21.2)
	Breast, male	1.0	(0.8-1.3)	^	^
Digestive system	Esophagus	3.5	(3.2-3.8)	2.7	(2.4-3.0)
	Stomach	4.7	(4.3-5.0)	2.1	(1.8-2.3)
	Small intestine	2.6	(2.4-2.9)	0.4	(0.3-0.5)
	Colon and rectum	29.3	(28.4-30.2)	10.4	(9.9-11.0)
	Anus, anal canal and anorectum	1.4	(1.2-1.6)	0.2	(0.1-0.3)
	Liver	5.4	(5.0-5.8)	3.7	(3.4-4.0)
	Intrahepatic bile duct	1.3	(1.1-1.5)	1.5	(1.3-1.7)
	Gallbladder	1.0	(0.8-1.1)	0.4	(0.3-0.5)
	Other biliary	1.1	(0.9-1.3)	0.3	(0.3-0.5)
	Pancreas	11.8	(11.2-12.4)	9.5	(9.0-10.1)
	Retroperitoneum	0.5	(0.4-0.7)	0.1	(0.1-0.2)
	Peritoneum, omentum and mesentery	0.4	(0.3-0.5)	0.2	(0.1-0.3)
	Other digestive organs	0.7	(0.6-0.9)	0.4	(0.3-0.5)
Endocrine system	Thyroid	16.8	(16.1-17.5)	0.6	(0.5-0.7)
	Other endocrine including thymus	1.0	(0.8-1.1)	0.3	(0.2-0.4)
Eye and orbit	Eye and orbit	1.0	(0.9-1.2)	0.1	(0.1-0.2)
Female genital system	Cervix	6.0	(5.4-6.6)	1.9	(1.6-2.2)
	Uterus	26.8	(25.6-28.0)	4.6	(4.1-5.1)
	Ovary	10.1	(9.4-10.9)	6.4	(5.8-7.0)
	Vagina	0.6	(0.4-0.8)	^	^
	Vulva	2.2	(1.9-2.6)	0.3	(0.2-0.4)
	Other female genital organs	1.9	(1.6-2.2)	0.5	(0.4-0.7)
Leukemia	Leukemia	15.2	(14.6-15.9)	6.3	(5.9-6.8)
Lymphoma	Hodgkin lymphoma	2.4	(2.2-2.6)	^	^
	Non-Hodgkin lymphoma	18.6	(17.9-19.4)	4.9	(4.5-5.3)

^ Estimates derived from counts <16 suppressed to preserve confidentiality.

Table B.2-ii Cancer incidence and mortality rates in Utah by cancer site and sex, 2017-2021

Cancer Sites		Male and Female			
		Incidence per 100,000 population		Mortality per 100,000 population	
		Rate	95% CI	Rate	95% CI
Male genital system	Prostate	122.3	(119.7-124.9)	22.2	(20.9-23.4)
	Testis	7.1	(6.6-7.7)	0.3	(0.2-0.4)
	Penis	0.6	(0.4-0.8)	^	^
	Other male genital organs	0.5	(0.3-0.7)	^	^
Miscellaneous	Miscellaneous	13.0	(12.4-13.6)	10.2	(9.7-10.8)
Myeloma	Myeloma	6.6	(6.2-7.0)	3.0	(2.7-3.3)
Oral cavity and pharynx	Oral cavity and pharynx	9.4	(8.9-9.9)	1.7	(1.5-1.9)
Respiratory system	Nose, nasal cavity and middle ear	0.6	(0.5-0.7)	^	^
	Larynx	1.3	(1.1-1.5)	0.4	(0.3-0.5)
	Lung	24.9	(24.1-25.7)	16.3	(15.6-17)
	Pleura	^	^	^	^
	Trachea, mediastinum and other respiratory organs	0.2	(0.1-0.2)	^	^
Skin, excluding basal and squamous	Melanoma	41.4	(40.3-42.5)	2.7	(2.5-3.0)
	Non-melanoma skin	2.8	(2.6-3.1)	0.9	(0.7-1.1)
Soft tissue including heart	Soft tissue including heart	3.3	(3.0-3.6)	1.3	(1.1-1.5)
Urinary system	Urinary bladder	16.9	(16.2-17.6)	3.6	(3.3-4.0)
	Kidney	15.6	(14.9-16.2)	3.2	(2.9-3.5)
	Ureter	0.3	(0.2-0.4)	^	^
	Other urinary organs	0.4	(0.7-1.0)	0.2	(0.1-0.2)
Kaposi sarcoma	Kaposi sarcoma	0.1	(0.1-0.2)	-	-

^ Estimates derived from counts <16 suppressed to preserve confidentiality.

Table B.2-iii Cancer incidence and mortality rates in Utah by cancer site and sex, 2017-2021

Cancer Sites		Male				Female			
		Incidence per 100,000 population		Mortality per 100,000 population		Incidence per 100,000 population		Mortality per 100,000 population	
		Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
All Sites	All Sites	451.9	(446.8-457.1)	140.1	(137.1-143.1)	384.2	(379.7-388.8)	106.7	(104.3-109.1)
Bones and joints	Bones and joints	1.4	(1.1-1.7)	0.6	(0.4-0.8)	1.1	(0.9-1.3)	0.3	(0.2-0.5)
Brain and nervous system	Brain and nervous system	8.3	(7.7-9.0)	5.6	(5.0-6.2)	5.9	(5.4-6.5)	4.0	(3.5-4.5)
Breast	Breast, female	N/A	N/A	N/A	N/A	119.1	(116.6-121.6)	20.1	(19.1-21.2)
	Breast, male	1.0	(0.8-1.3)	^	^	N/A	N/A	N/A	N/A
Digestive system	Esophagus	6.0	(5.5-6.7)	4.7	(4.2-5.2)	1.1	(0.9-1.3)	0.8	(0.6-1.1)
	Stomach	6.4	(5.8-7.0)	2.8	(2.4-3.2)	3.2	(2.8-3.6)	1.4	(1.2-1.8)
	Small intestine	3.0	(2.6-3.5)	0.5	(0.3-0.7)	2.3	(1.9-2.7)	0.3	(0.2-0.5)
	Colon and rectum	32.5	(31.1-33.9)	11.4	(10.6-12.3)	26.3	(25.1-27.5)	9.5	(8.8-10.2)
	Anus, anal canal and anorectum	1.0	(0.8-1.3)	^	^	1.8	(1.5-2.1)	0.2	(0.1-0.3)
	Liver	7.8	(7.2-8.5)	5.3	(4.8-5.9)	3.2	(2.8-3.6)	2.2	(1.9-2.6)
	Intrahepatic bile duct	1.3	(1.1-1.7)	1.5	(1.2-1.8)	1.3	(1.0-1.6)	1.5	(1.3-1.8)
	Gallbladder	0.6	(0.4-0.9)	0.4	(0.2-0.5)	1.3	(1.0-1.6)	0.4	(0.3-0.6)
	Other biliary	1.2	(0.9-1.5)	0.4	(0.3-0.6)	1.0	(0.8-1.3)	0.3	(0.2-0.4)
	Pancreas	13.8	(12.9-14.8)	11.2	(10.4-12.1)	10.0	(9.3-10.7)	8.1	(7.4-8.8)
	Retroperitoneum	0.6	(0.4-0.8)	^	^	0.5	(0.3-0.7)	^	^
	Peritoneum, omentum and mesentery	^	^	^	^	0.7	(0.5-0.9)	0.3	(0.2-0.5)
	Other digestive organs	0.8	(0.6-1.1)	0.4	(0.3-0.6)	0.6	(0.5-0.8)	0.4	(0.3-0.6)
Endocrine system	Thyroid	9.3	(8.6-10.0)	0.7	(0.5-0.9)	24.6	(23.5-25.8)	0.5	(0.3-0.7)
	Other endocrine including thymus	1.0	(0.8-1.2)	0.4	(0.3-0.6)	1.0	(0.8-1.2)	^	^
Eye and orbit	Eye and orbit	1.2	(1.0-1.5)	^	^	0.9	(0.7-1.1)	^	^
Female genital system	Cervix	N/A	N/A	N/A	N/A	6.0	(5.4-6.6)	1.9	(1.6-2.2)
	Uterus	N/A	N/A	N/A	N/A	26.8	(25.6-28.0)	4.6	(4.1-5.1)
	Ovary	N/A	N/A	N/A	N/A	10.1	(9.4-10.9)	6.4	(5.8-7.0)
	Vagina	N/A	N/A	N/A	N/A	0.6	(0.4-0.8)	^	^
	Vulva	N/A	N/A	N/A	N/A	2.2	(1.9-2.6)	0.3	(0.2-0.4)
	Other female genital organs	N/A	N/A	N/A	N/A	1.9	(1.6-2.2)	0.5	(0.4-0.7)
Leukemia	Leukemia	19.0	(18.0-20.1)	8.4	(7.7-9.2)	11.9	(11.2-12.8)	4.6	(4.1-5.1)
Lymphoma	Hodgkin lymphoma	2.6	(2.3-3.0)	^	^	2.2	(1.9-2.5)	^	^
	Non-Hodgkin lymphoma	22.9	(21.8-24.1)	6.6	(6.0-7.3)	14.8	(14.0-15.8)	3.5	(3.0-3.9)

^ Estimates derived from counts <16 suppressed to preserve confidentiality.

Table B.2-iv Cancer incidence and mortality rates in Utah by cancer site and sex, 2017-2021

Cancer Sites		Male				Female			
		Incidence per 100,000 population		Mortality per 100,000 population		Incidence per 100,000 population		Mortality per 100,000 population	
		Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
Male genital system	Prostate	122.3	(119.7-124.9)	22.2	(20.9-23.4)	N/A	N/A	N/A	N/A
	Testis	7.1	(6.6-7.7)	0.3	(0.2-0.4)	N/A	N/A	N/A	N/A
	Penis	0.6	(0.4-0.8)	^	^	N/A	N/A	N/A	N/A
	Other male genital organs	0.5	(0.3-0.7)	^	^	N/A	N/A	N/A	N/A
Miscellaneous	Miscellaneous	15.3	(14.4-16.3)	12.0	(11.1-12.9)	11.0	(10.3-11.8)	8.8	(8.2-9.6)
Myeloma	Myeloma	8.6	(7.9-9.4)	3.9	(3.4-4.5)	4.8	(4.3-5.4)	2.3	(2.0-2.7)
Oral cavity and pharynx	Oral cavity and pharynx	13.5	(12.6-14.4)	2.3	(1.9-2.7)	5.6	(5-6.1)	1.2	(0.9-1.4)
Respiratory system	Nose, nasal cavity and middle ear	0.8	(0.6-1.0)	^	^	0.4	(0.3-0.6)	^	^
	Larynx	2.2	(1.8-2.6)	0.7	(0.5-0.9)	0.5	(0.4-0.7)	^	^
	Lung	27.6	(26.3-28.9)	19.0	(17.9-20.1)	22.7	(21.7-23.9)	14.0	(13.1-14.9)
	Pleura	^	^	^	^	^	^	^	^
	Trachea, mediastinum and other respiratory organs	0.2	(0.1-0.4)	^	^	^	^	^	^
Skin, excluding basal and squamous	Melanoma	50.4	(48.6-52.1)	3.8	(3.3-4.3)	34.3	(33.0-35.7)	1.9	(1.6-2.2)
	Non-melanoma skin	3.9	(3.4-4.4)	1.6	(1.3-2.0)	2.0	(1.7-2.4)	0.3	(0.2-0.5)
Soft tissue including heart	Soft tissue including heart	4.1	(3.6-4.6)	1.4	(1.1-1.7)	2.6	(2.3-3.0)	1.2	(1.0-1.5)
Urinary system	Urinary bladder	29.6	(28.2-31.0)	6.3	(5.6-6.9)	6.0	(5.5-6.6)	1.6	(1.3-1.9)
	Kidney	20.6	(19.5-21.7)	4.4	(3.9-4.9)	11.0	(10.2-11.8)	2.2	(1.8-2.5)
	Ureter	0.5	(0.3-0.7)	^	^	0.2	(0.1-0.4)	^	^
	Other urinary organs	1.3	(1.0-1.6)	^	^	0.4	(0.3-0.6)	^	^
Kaposi sarcoma	Kaposi sarcoma	0.3	(0.2-0.4)	-	-	^	^	-	-

^ Estimates derived from counts <16 suppressed to preserve confidentiality.

Table B.3-i Cancer incidence and mortality rates in Utah and the remaining U.S. by cancer site, 2017-2021

Cancer Sites		Utah				Remaining U.S.			
		Incidence per 100,000 population		Mortality per 100,000 population		Incidence per 100,000 population		Mortality per 100,000 population	
		Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
All Sites	All Sites	412.7	(409.3-416.1)	121.1	(119.2-122.9)	444.9	(444.5-445.2)	148.6	(148.4-148.8)
Bones and joints	Bones and joints	1.2	(1.1-1.4)	0.5	(0.4-0.6)	1.0	(1.0-1.0)	0.5	(0.5-0.5)
Brain and nervous system	Brain and nervous system	7.1	(6.6-7.5)	4.7	(4.4-5.1)	6.3	(6.3-6.3)	4.4	(4.4-4.4)
Breast	Breast, female	119.1	(116.6-121.6)	20.1	(19.1-21.2)	129.8	(129.6-130.1)	19.6	(19.5-19.7)
	Breast, male	1.0	(0.8-1.3)	^	^	1.3	(1.2-1.3)	0.3	(0.3-0.3)
Digestive system	Esophagus	3.5	(3.2-3.8)	2.7	(2.4-3.0)	4.5	(4.5-4.6)	3.8	(3.7-3.8)
	Stomach	4.7	(4.3-5.0)	2.1	(1.8-2.3)	6.3	(6.3-6.4)	2.8	(2.8-2.8)
	Small intestine	2.6	(2.4-2.9)	0.4	(0.3-0.5)	2.6	(2.6-2.6)	0.4	(0.4-0.4)
	Colon and rectum	29.3	(28.4-30.2)	10.4	(9.9-11.0)	36.5	(36.4-36.6)	13.1	(13.0-13.1)
	Anus, anal canal and anorectum	1.4	(1.2-1.6)	0.2	(0.1-0.3)	2.0	(2.0-2.1)	0.3	(0.3-0.3)
	Liver	5.4	(5.0-5.8)	3.7	(3.4-4.0)	6.9	(6.9-7.0)	4.7	(4.7-4.8)
	Intrahepatic bile duct	1.3	(1.1-1.5)	1.5	(1.3-1.7)	1.7	(1.7-1.7)	1.9	(1.9-1.9)
	Gallbladder	1.0	(0.8-1.1)	0.4	(0.3-0.5)	1.1	(1.1-1.1)	0.5	(0.5-0.5)
	Other biliary	1.1	(0.9-1.3)	0.3	(0.3-0.5)	1.7	(1.6-1.7)	0.5	(0.5-0.5)
	Pancreas	11.8	(11.2-12.4)	9.5	(9.0-10.1)	13.5	(13.5-13.6)	11.2	(11.2-11.3)
	Retroperitoneum	0.5	(0.4-0.7)	0.1	(0.1-0.2)	0.4	(0.4-0.4)	0.1	(0.1-0.1)
	Peritoneum, omentum and mesentery	0.4	(0.3-0.5)	0.2	(0.1-0.3)	0.5	(0.5-0.5)	0.3	(0.3-0.3)
	Other digestive organs	0.7	(0.6-0.9)	0.4	(0.3-0.5)	0.7	(0.7-0.7)	0.4	(0.4-0.4)
Endocrine system	Thyroid	16.8	(16.1-17.5)	0.6	(0.5-0.7)	12.9	(12.8-12.9)	0.5	(0.5-0.5)
	Other endocrine including thymus	1.0	(0.8-1.1)	0.3	(0.2-0.4)	0.9	(0.9-0.9)	0.3	(0.3-0.3)
Eye and orbit	Eye and orbit	1.0	(0.9-1.2)	0.1	(0.1-0.2)	0.8	(0.8-0.8)	0.1	(0.1-0.1)
Female genital system	Cervix	6.0	(5.4-6.6)	1.9	(1.6-2.2)	7.6	(7.5-7.6)	2.2	(2.2-2.3)
	Uterus	26.8	(25.6-28.0)	4.6	(4.1-5.1)	27.8	(27.7-27.9)	5.2	(5.1-5.2)
	Ovary	10.1	(9.4-10.9)	6.4	(5.8-7.0)	10.0	(10.0-10.1)	6.2	(6.1-6.2)
	Vagina	0.6	(0.4-0.8)	^	^	0.6	(0.6-0.7)	0.2	(0.2-0.2)
	Vulva	2.2	(1.9-2.6)	0.3	(0.2-0.4)	2.7	(2.7-2.7)	0.6	(0.6-0.6)
	Other female genital organs	1.9	(1.6-2.2)	0.5	(0.4-0.7)	2.0	(2.0-2.1)	0.5	(0.4-0.5)
Leukemia	Leukemia	15.2	(14.6-15.9)	6.3	(5.9-6.8)	14.1	(14.0-14.1)	6.0	(6.0-6.0)
Lymphoma	Hodgkin lymphoma	2.4	(2.2-2.6)	^	^	2.5	(2.5-2.5)	0.3	(0.3-0.3)
	Non-Hodgkin lymphoma	18.6	(17.9-19.4)	4.9	(4.5-5.3)	18.5	(18.4-18.6)	5.1	(5.1-5.1)

^ Estimates derived from counts <16 suppressed to preserve confidentiality.

Table B.3-ii Cancer incidence and mortality rates in Utah and the remaining U.S. by cancer site, 2017-2021

Cancer Sites		Utah				Remaining U.S.			
		Incidence per 100,000 population		Mortality per 100,000 population		Incidence per 100,000 population		Mortality per 100,000 population	
		Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
Male genital system	Prostate	122.3	(119.7-124.9)	22.2	(20.9-23.4)	113.1	(112.8-113.3)	19.1	(19.0-19.2)
	Testis	7.1	(6.6-7.7)	0.3	(0.2-0.4)	5.7	(5.7-5.8)	0.3	(0.3-0.3)
	Penis	0.6	(0.4-0.8)	^	^	0.9	(0.8-0.9)	0.2	(0.2-0.2)
	Other male genital organs	0.5	(0.3-0.7)	^	^	0.2	(0.2-0.2)	0.0	(0.0-0.0)
Miscellaneous	Miscellaneous	13.0	(12.4-13.6)	10.2	(9.7-10.8)	16.4	(16.4-16.5)	11.4	(11.3-11.4)
Myeloma	Myeloma	6.6	(6.2-7.0)	3.0	(2.7-3.3)	7.1	(7.1-7.1)	3.1	(3.0-3.1)
Oral cavity and pharynx	Oral cavity and pharynx	9.4	(8.9-9.9)	1.7	(1.5-1.9)	12.0	(12.0-12.1)	2.6	(2.5-2.6)
Respiratory system	Nose, nasal cavity and middle ear	0.6	(0.5-0.7)	^	^	0.7	(0.7-0.7)	0.1	(0.1-0.1)
	Larynx	1.3	(1.1-1.5)	0.4	(0.3-0.5)	2.9	(2.9-2.9)	0.9	(0.9-0.9)
	Lung	24.9	(24.1-25.7)	16.3	(15.6-17.0)	53.5	(53.4-53.6)	34.0	(33.9-34.0)
	Pleura	^	^	^	^	0.0	(0.0-0.0)	0.1	(0.1-0.1)
	Trachea, mediastinum and other respiratory organs	0.2	(0.1-0.2)	^	^	0.2	(0.2-0.2)	0.1	(0.1-0.1)
Skin, excluding basal and squamous	Melanoma	41.4	(40.3-42.5)	2.7	(2.5-3.0)	22.5	(22.5-22.6)	2.1	(2.0-2.1)
	Non-melanoma skin	2.8	(2.6-3.1)	0.9	(0.7-1.1)	1.7	(1.7-1.7)	1.1	(1.0-1.1)
Soft tissue including heart	Soft tissue including heart	3.3	(3.0-3.6)	1.3	(1.1-1.5)	3.3	(3.3-3.3)	1.3	(1.3-1.3)
Urinary system	Urinary bladder	16.9	(16.2-17.6)	3.6	(3.3-4.0)	18.8	(18.8-18.9)	4.2	(4.1-4.2)
	Kidney	15.6	(14.9-16.2)	3.2	(2.9-3.5)	17.3	(17.3-17.4)	3.5	(3.5-3.5)
	Ureter	0.3	(0.2-0.4)	^	^	0.5	(0.5-0.5)	0.1	(0.1-0.1)
	Other urinary organs	0.4	(0.3-0.5)	0.2	(0.1-0.2)	0.4	(0.4-0.4)	0.1	(0.1-0.1)
Kaposi sarcoma	Kaposi sarcoma	0.1	(0.1-0.2)	-	-	0.3	(0.3-0.3)	-	-

^ Estimates derived from counts <16 suppressed to preserve confidentiality.

- Data not provided by the National Center for Health Statistics

Table B.4-i Five-year relative survival in Utah, by cancer site and stage at diagnosis, 2020 period[a]

Cancer Sites		All Stages of Diagnosis[b]		
		Cases (2020)	Relative Survival (%)	95% CI
All Sites	All Sites	9,370	76.2	(75.6-76.8)
Bones and joints	Bones and joints	34	73.4	(62.4-81.7)
Brain and nervous system	Brain and nervous system	185	40.7	(36.4-44.9)
Breast	Breast, female	1,382	91.8	(90.5-92.9)
	Breast, male	^	65.0	(36.5-83.2)
Digestive system	Esophagus	85	25.6	(19.2-32.4)
	Stomach	99	31.0	(25.2-36.9)
	Small intestine	38	82.2	(72.6-88.7)
	Colon and rectum	652	67.0	(64.6-69.4)
	Anus, anal canal and anorectum	31	80.3	(68.8-88.0)
	Liver	123	24.8	(20.4-29.4)
	Intrahepatic bile duct	40	7.5	(3.0-14.7)
	Gallbladder	24	19.3	(10.6-30.0)
	Other biliary	19	21.3	(12.2-32.1)
	Pancreas	281	12.8	(10.1-15.9)
	Retroperitoneum	^	46.8	(28.2-63.4)
	Peritoneum, omentum and mesentery	^	41.8	(20.6-61.9)
	Other digestive organs	17	13.8	(5.7-25.5)
Endocrine system	Thyroid	414	99.0	(98.1-99.5)
	Other endocrine including thymus	20	69.5	(54.9-80.2)
Eye and orbit	Eye and orbit	19	76.4	(61.5-86.2)
Female genital system	Cervix	84	69.5	(62.5-75.5)
	Uterus	365	86.2	(83.3-88.7)
	Ovary	130	49.1	(43.6-54.3)
	Vagina	^	37.7	(13.9-61.8)
	Vulva	17	65.7	(50.1-77.5)
	Other female genital organs	^	54.0	(40.2-66.0)
Leukemia	Leukemia	327	72.4	(68.9-75.7)
Lymphoma	Hodgkin lymphoma	75	94.5	(89.6-97.1)
	Non-Hodgkin lymphoma	439	79.2	(76.2-82.0)
Male genital system	Prostate	1,534	97.2	(95.6-98.2)
	Testis	96	96.1	(92.9-97.9)
	Penis	^	81.2	(34.3-96.0)
	Other male genital organs	^	100.0*	+
Miscellaneous	Miscellaneous	282	44.9	(40.6-49.0)
Myeloma	Myeloma	158	64.3	(58.5-69.6)
Oral cavity and pharynx	Oral cavity and pharynx	201	77.2	(72.8-80.9)
Respiratory system	Nose, nasal cavity and middle ear	^	72.8	(52.2-85.6)
	Larynx	28	68.2	(55.3-78.1)
	Lung	451	29.0	(26.5-31.6)
	Pleura	^	+	+
	Trachea, mediastinum and other respiratory organs	^	84.8	(51.0-96.0)
Skin, excluding basal and squamous	Melanoma	839	96.2	(94.4-97.4)
	Non-melanoma skin	46	87.2	(76.8-93.1)
Soft tissue including heart	Soft tissue including heart	79	73.7	(66.5-79.6)
Urinary system	Urinary bladder	318	80.5	(76.5-83.9)
	Kidney	336	77.7	(74.3-80.7)
	Ureter	^	40.9	(15.6-65.1)
	Other Urinary	^	46	(25.7-64.1)
Kaposi sarcoma	Kaposi sarcoma	^	100.0*	+

^ Counts <16 suppressed to preserve confidentiality.

* The relative cumulative survival is over 100 percent and has been adjusted

+ The statistic could not be calculated

[a] Survival among individuals diagnosed with cancer compared to matched members of the source population

[b] Overall survival estimates include cases with unknown stage at diagnosis

Table B.4-ii Five-year relative survival in Utah, by cancer site and stage at diagnosis, 2020 period[a]

Cancer Sites		Local		
		Cases (2020)	Relative Survival (%)	95% CI
All Sites	All Sites	4,796	94.2	(93.5-94.8)
Bones and joints	Bones and joints	^	93.0	(68.4-98.6)
Brain and nervous system	Brain and nervous system	151	46.1	(41.1-50.9)
Breast	Breast, female	855	100.0*	(0.0-100.0)
	Breast, male	^	86.5	(28-98.4)
Digestive system	Esophagus	^	54.2	(35.2-69.8)
	Stomach	28	61.6	(47.8-72.7)
	Small intestine	^	91.5	(66.9-98.1)
	Colon and rectum	221	94.3	(90.9-96.5)
	Anus, anal canal and anorectum	^	90.3	(70.8-97.1)
	Liver	64	36.9	(29.9-43.9)
	Intrahepatic bile duct	^	18.7	(5.2-38.6)
	Gallbladder	^	100.0*	+
	Other biliary	^	38.3	(9.5-67.6)
	Pancreas	51	45.7	(35.8-55.0)
	Retroperitoneum	^	62.5	(31.0-82.8)
	Peritoneum, omentum and mesentery	^	71.7	(5.7-96.2)
	Other digestive organs	^	+	+
Endocrine system	Thyroid	263	99.9*	(98.3-100.0)
	Other endocrine including thymus	^	81.4	(48.9-94.3)
Eye and orbit	Eye and orbit	^	78.5	(60.3-89.1)
Female genital system	Cervix	31	87.9	(78.9-93.2)
	Uterus	266	96.0	(92.9-97.8)
	Ovary	23	94.6	(80.4-98.6)
	Vagina	^	66.7	(24.9-88.9)
	Vulva	^	78.8	(56.2-90.6)
	Other female genital organs	^	100.0*	+
Leukemia	Leukemia	^	+	+
Lymphoma	Hodgkin lymphoma	18	91.1	(69.9-97.6)
	Non-Hodgkin lymphoma	114	91.6	(87.1-94.5)
Male genital system	Prostate	1,132	100.0*	+
	Testis	69	100.0*	+
	Penis	^	85.4	(15.7-98.7)
	Other male genital organs	^	100.0*	+
Miscellaneous	Miscellaneous	^	91.3	(49.3-98.8)
Myeloma	Myeloma	^	95.0	(19.0-99.8)
Oral cavity and pharynx	Oral cavity and pharynx	82	95.6	(85.4-98.7)
Respiratory system	Nose, nasal cavity and middle ear	^	92.8	(3.1-99.8)
	Larynx	^	80.5	(61.5-90.8)
	Lung	108	66.8	(60.1-72.6)
	Pleura	^	+	+
	Trachea, mediastinum and other respiratory organs	^	100.0*	+
Skin, excluding basal and squamous	Melanoma	729	100.0*	+
	Non-melanoma skin	37	90.3	(78.0-95.9)
Soft tissue including heart	Soft tissue including heart	49	83.3	(74.1-89.5)
Urinary system	Urinary bladder	120	77.9	(70.7-83.5)
	Kidney	239	91.7	(87.9-94.3)
	Ureter	^	66.7	(13.9-92.0)
	Other Urinary	^	100	+
Kaposi sarcoma	Kaposi sarcoma	^	100.0*	+

^ Counts <16 suppressed to preserve confidentiality.

* The relative cumulative survival is over 100 percent and has been adjusted

+ The statistic could not be calculated

[a] Survival among individuals diagnosed with cancer compared to matched members of the source population

Table B.4-iii Five-year relative survival in Utah, by cancer site and stage at diagnosis, 2020 period[a]

Cancer Sites		Regional or Distant		
		Cases (2020)	Relative Survival (%)	95% CI
All Sites	All Sites	4,031	57.0	(56.0-58.0)
Bones and joints	Bones and joints	19	63.6	(48.6-75.2)
Brain and nervous system	Brain and nervous system	32	20.5	(13.7-28.3)
Breast	Breast, female	510	78.1	(75.5-80.4)
	Breast, male	^	54.8	(23.9-77.7)
Digestive system	Esophagus	65	19.5	(13.1-26.9)
	Stomach	66	18.0	(12.3-24.6)
	Small intestine	25	80.2	(68.3-88.0)
	Colon and rectum	407	52.5	(49.2-55.7)
	Anus, anal canal and anorectum	20	65.1	(47.6-78.1)
	Liver	50	13.5	(8.7-19.4)
	Intrahepatic bile duct	27	3.7	(0.6-11.7)
	Gallbladder	22	14.2	(6.6-24.6)
	Other biliary	^	14.8	(6.7-26.0)
	Pancreas	218	5.5	(3.6-8.0)
	Retroperitoneum	^	35.5	(14.6-57.2)
	Peritoneum, omentum and mesentery	^	47.0	(24.9-66.4)
	Other digestive organs	^	13.8	(5.6-25.7)
Endocrine system	Thyroid	151	96.2	(92.6-98.1)
	Other endocrine including thymus	^	63.1	(46.1-76.1)
Eye and orbit	Eye and orbit	^	46.6	(12.1-75.9)
Female genital system	Cervix	48	54.8	(44.4-64.1)
	Uterus	88	59.1	(51.8-65.6)
	Ovary	101	40.1	(34.2-46.0)
	Vagina	^	22.8	(3.1-53.4)
	Vulva	^	39.7	(18.2-60.5)
	Other female genital organs	^	51.3	(36.8-64.0)
Leukemia	Leukemia	326	72.2	(68.7-75.5)
Lymphoma	Hodgkin lymphoma	56	94.8	(89.3-97.5)
	Non-Hodgkin lymphoma	308	75.4	(71.5-78.8)
Male genital system	Prostate	299	80.8	(77.2-83.9)
	Testis	27	84.0	(74.0-90.4)
	Penis	^	47.7	(0.6-89.8)
	Other male genital organs	^	100.0*	+
Miscellaneous	Miscellaneous	170	60.8	(54.9-66.3)
Myeloma	Myeloma	156	63.1	(57.1-68.5)
Oral cavity and pharynx	Oral cavity and pharynx	110	67.5	(61.8-72.5)
Respiratory system	Nose, nasal cavity and middle ear	^	57.9	(33.2-76.2)
	Larynx	16	49.7	(32.0-65.0)
	Lung	333	18.1	(15.7-20.7)
	Pleura	^	+	+
	Trachea, mediastinum and other respiratory organs	^	80.1	(40.8-94.7)
Skin, excluding basal and squamous	Melanoma	98	65.4	(58.9-71.1)
	Non-melanoma skin	^	58.9	(27.8-80.3)
Soft tissue including heart	Soft tissue including heart	28	58.6	(46.6-68.9)
Urinary system	Urinary bladder	45	22.5	(13.7-32.6)
	Kidney	92	48.8	(42.2-55.2)
	Ureter	^	19.1	(1.1-54.6)
	Other Urinary	^	19.7	(4.8-42.1)
Kaposi sarcoma	Kaposi sarcoma	^	+	+

^ Counts <16 suppressed to preserve confidentiality.

* The relative cumulative survival is over 100 percent and has been adjusted

+ The statistic could not be calculated

[a] Survival among individuals diagnosed with cancer compared to matched members of the source population

Table B.5-i Cancer incidence rates among children, adolescents, and young adults (under 40) in Utah, all reportable diagnoses, 2017-2021

Cancer Sites		Males and Females under 40	
		Incidence per 100,000 population	
		Rate	95% CI
All Sites	All Sites	60.1	(58.6-61.7)
Bones and joints	Bones and joints	0.9	(0.7-1.1)
Brain and nervous system	Brain and nervous system	3.8	(3.4-4.2)
Breast	Breast, female	12.6	(11.5-13.7)
	Breast, male	^	^
Digestive system	Esophagus	^	^
	Stomach	0.4	(0.3-0.6)
	Small intestine	0.3	(0.2-0.5)
	Colon and rectum	3.7	(3.3-4.1)
	Anus, anal canal and anorectum	^	^
	Liver	0.3	(0.2-0.4)
	Intrahepatic bile duct	^	^
	Gallbladder	^	^
	Other biliary	^	^
	Pancreas	0.4	(0.3-0.6)
	Retroperitoneum	^	^
	Peritoneum, omentum and mesentery	^	^
	Other digestive organs	^	^
Endocrine system	Thyroid	9.8	(9.1-10.4)
	Other endocrine including thymus	0.6	(0.5-0.8)
Eye and orbit	Eye and orbit	0.4	(0.3-0.5)
Female genital system	Cervix	2.9	(2.4-3.5)
	Uterus	3.0	(2.5-3.6)
	Ovary	2.1	(1.7-2.6)
	Vagina	^	^
	Vulva	^	^
	Other female genital organs	^	^
Leukemia	Leukemia	4.1	(3.7-4.5)
Lymphoma	Hodgkin lymphoma	2.4	(2.1-2.7)
	Non-Hodgkin lymphoma	2.7	(2.4-3.1)
Male genital system	Prostate	^	^
	Testis	8.8	(8.0-9.7)
	Penis	^	^
	Other male genital organs	^	^
Miscellaneous	Miscellaneous	1.3	(1.1-1.5)
Myeloma	Myeloma	0.2	(0.1-0.3)
Oral cavity and pharynx	Oral cavity and pharynx	0.7	(0.6-0.9)
Respiratory system	Nose, nasal cavity and middle ear	^	^
	Larynx	^	^
	Lung	0.7	(0.5-0.8)
	Pleura	^	^
	Trachea, mediastinum and other respiratory organs	^	^
Skin, excluding basal and squamous	Melanoma	7.6	(7.0-8.2)
	Non-melanoma skin	0.4	(0.3-0.6)
Soft tissue including heart	Soft tissue including heart	1.4	(1.1-1.6)
Urinary system	Urinary bladder	0.4	(0.2-0.5)
	Kidney	1.9	(1.6-2.2)
	Ureter	^	^
	Other urinary organs	^	^
Kaposi sarcoma	Kaposi sarcoma	^	^

^ Estimates derived from counts <16 suppressed to preserve confidentiality.

Table B.5-ii Cancer incidence rates among children, adolescents, and young adults (under 40) in Utah, all reportable diagnoses, 2017-2021

Cancer Sites		Males under 40		Females under 40	
		Incidence per 100,000 population		Incidence per 100,000 population	
		Rate	95% CI	Rate	95% CI
All Sites	All Sites	47.1	(45.2-49.1)	73.8	(71.3-76.4)
Bones and joints	Bones and joints	1.0	(0.8-1.3)	0.8	(0.6-1.1)
Brain and nervous system	Brain and nervous system	4.1	(3.6-4.7)	3.4	(2.9-4.0)
Breast	Breast, female	N/A	N/A	12.6	(11.5-13.7)
	Breast, male	^	^	N/A	N/A
Digestive system	Esophagus	^	^	^	^
	Stomach	0.4	(0.3-0.7)	0.4	(0.2-0.6)
	Small intestine	^	^	0.3	(0.2-0.6)
	Colon and rectum	3.6	(3.1-4.2)	3.9	(3.3-4.5)
	Anus, anal canal and anorectum	^	^	^	^
	Liver	^	^	0.4	(0.2-0.6)
	Intrahepatic bile duct	^	^	^	^
	Gallbladder	^	^	^	^
	Other biliary	^	^	^	^
	Pancreas	0.4	(0.3-0.7)	0.4	(0.2-0.6)
	Retroperitoneum	^	^	^	^
	Peritoneum, omentum and mesentery	^	^	^	^
	Other digestive organs	^	^	^	^
Endocrine system	Thyroid	3.6	(3.1-4.2)	16.2	(15.1-17.5)
	Other endocrine including thymus	0.6	(0.4-0.8)	0.7	(0.5-1.0)
Eye and orbit	Eye and orbit	0.4	(0.2-0.6)	0.4	(0.3-0.6)
Female genital system	Cervix	N/A	N/A	2.9	(2.4-3.5)
	Uterus	N/A	N/A	3.0	(2.5-3.6)
	Ovary	N/A	N/A	2.1	(1.7-2.6)
	Vagina	N/A	N/A	^	^
	Vulva	N/A	N/A	^	^
	Other female genital organs	N/A	N/A	^	^
Leukemia	Leukemia	4.3	(3.7-4.9)	3.8	(3.3-4.4)
Lymphoma	Hodgkin lymphoma	2.3	(1.9-2.8)	2.5	(2.1-3.0)
	Non-Hodgkin lymphoma	3.4	(2.9-4.0)	2.0	(1.6-2.5)
Male genital system	Prostate	^	^	N/A	N/A
	Testis	8.8	(8.0-9.7)	N/A	N/A
	Penis	^	^	N/A	N/A
	Other male genital organs	^	^	N/A	N/A
Miscellaneous	Miscellaneous	1.3	(1.0-1.7)	1.2	(0.9-1.6)
Myeloma	Myeloma	^	^	^	^
Oral cavity and pharynx	Oral cavity and pharynx	0.8	(0.6-1.2)	0.6	(0.4-0.9)
Respiratory system	Nose, nasal cavity and middle ear	^	^	^	^
	Larynx	^	^	^	^
	Lung	0.6	(0.4-0.8)	0.7	(0.5-1)
	Pleura	^	^	^	^
	Trachea, mediastinum and other respiratory organs	^	^	^	^
Skin, excluding basal and squamous	Melanoma	5.5	(4.9-6.3)	9.7	(8.8-10.7)
	Non-melanoma skin	^	^	0.5	(0.3-0.8)
Soft tissue including heart	Soft tissue including heart	1.4	(1.1-1.8)	1.3	(1-1.7)
Urinary system	Urinary bladder	0.3	(0.2-0.6)	0.4	(0.2-0.6)
	Kidney	1.8	(1.4-2.2)	1.9	(1.6-2.4)
	Ureter	^	^	^	^
	Other urinary organs	^	^	^	^
Kaposi sarcoma	Kaposi sarcoma	^	^	^	^

^ Estimates derived from counts <16 suppressed to preserve confidentiality.

Table B.6 Cancer in Utah counties: population and cancer counts, 2021

County		Cancer Cases (2021)		Incidence per 100,000 population (2017-2021)		Population
		In Situ[a]	Invasive	Rate	95% CI	
State	**Utah**	**3,316**	**13,327**	**412.7**	**(409.4-416.1)**	**3,339,113**
Urban	Box Elder	104	250	406.4	(382.7-431.1)	59,693
	Cache	167	484	431.1	(412.9-449.9)	137,429
	Davis	352	1,485	428.0	(417.6-438.6)	367,446
	Juab	^	45	446.8	(390.5-508.8)	12,192
	Morgan	^	52	412.3	(360.9-469.0)	12,667
	Salt Lake	1,217	4,814	405.3	(399.8-410.8)	1,186,440
	Tooele	26	288	441.4	(416.7-467.2)	76,734
	Utah	562	1,983	393.0	(384.5-401.6)	685,806
	Washington	195	1,217	433.9	(421.5-446.6)	191,476
	Weber	257	1,112	421.7	(410.2-433.6)	266,588
Rural	Beaver	^	36	451.2	(381.3-530.1)	7,203
	Carbon	^	121	449.4	(411.3-490.2)	20,361
	Daggett	^	^	456.7	(307.1-667.9)	977
	Duchesne	^	95	475.0	(431.1-522.0)	19,806
	Emery	^	41	368.5	(320.0-422.6)	9,963
	Garfield	^	33	386.6	(319.6-464.4)	5,149
	Grand	^	47	377.3	(329.6-430.4)	9,665
	Iron	41	237	419.2	(394.1-445.5)	60,522
	Kane	^	71	471.0	(412.9-535.9)	7,999
	Millard	^	72	392.9	(348.6-441.6)	13,175
	Piute	^	^	348.8	(233.6-506.1)	1,482
	Rich	^	^	350.7	(262.4-461.0)	2,581
	San Juan	^	55	345.0	(303.6-390.5)	14,476
	Sanpete	21	130	386.2	(354.4-420.1)	29,138
	Sevier	^	87	407.3	(371.8-445.4)	21,918
	Summit	83	235	466.8	(437.6-497.6)	43,168
	Uintah	^	120	369.2	(339.6-400.7)	36,232
	Wasatch	50	172	407.2	(376.0-440.4)	36,260
	Wayne	^	20	412.6	(319.3-527.6)	2,567

^ Counts <16 suppressed to preserve confidentiality.

[a] Includes benign brain and nervous system tumors.

Figure B.1 Cancer incidence in Utah by county, 2017-2021

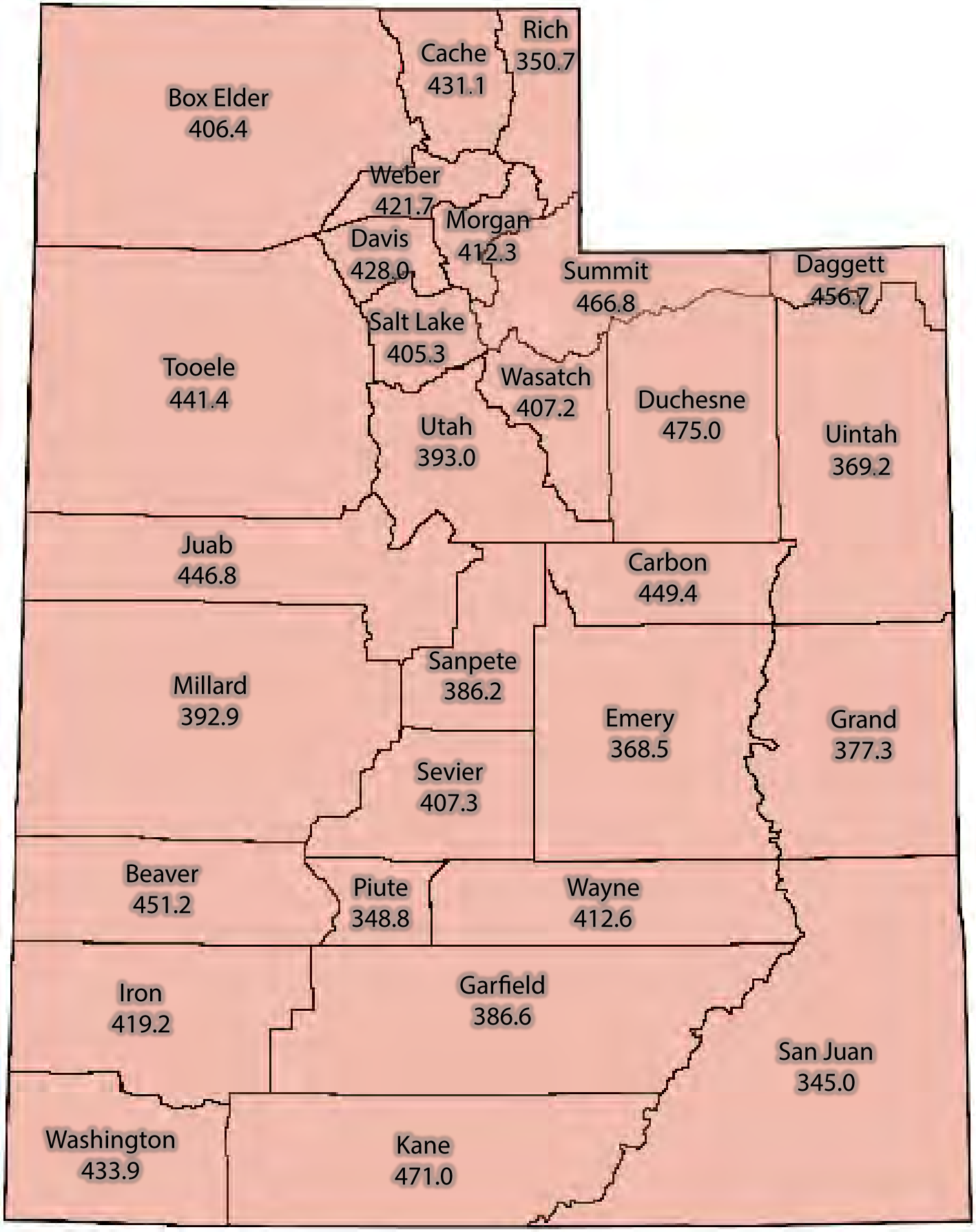


Table B.7-i Cancer counts and incidence rates in urban and rural counties in Utah, 2017-2021

Cancer Sites		Urban			Rural		
		Incidence per 100,000 population (2017-2021)		Cases (2021)	Incidence per 100,000 population (2017-2021)		Cases (2021)
		Rate	95% CI		Rate	95% CI	
All Sites	All Sites	412.5	(409.0-416.1)	11,730	412.5	(402.9-422.3)	1,597
Bones and joints	Bones and joints	1.2	(1.0-1.4)	33	1.2	(0.7-1.8)	^
Brain and nervous system	Brain and nervous system	7.2	(6.7-7.7)	209	6.2	(5.1-7.5)	22
Breast	Breast, female	120.6	(117.9-123.3)	1,760	106.9	(100.0-114.2)	204
	Breast, male	1.0	(0.8-1.3)	^	^	^	^
Digestive system	Esophagus	3.4	(3.1-3.7)	95	3.9	(3.1-4.9)	21
	Stomach	4.6	(4.2-5.0)	132	5.1	(4.1-6.3)	17
	Small intestine	2.7	(2.4-3.0)	95	2.3	(1.6-3.2)	^
	Colon and rectum	29.1	(28.2-30.1)	763	29.5	(27.0-32.3)	119
	Anus, anal canal and anorectum	1.4	(1.2-1.6)	37	1.6	(1.1-2.3)	^
	Liver	5.4	(5.0-5.8)	169	5.6	(4.5-6.8)	20
	Intrahepatic bile duct	1.3	(1.1-1.5)	35	1.0	(0.6-1.6)	^
	Gallbladder	0.9	(0.8-1.1)	23	1.2	(0.7-1.8)	^
	Other biliary	1.1	(0.9-1.3)	32	1.0	(0.5-1.6)	^
	Pancreas	11.8	(11.2-12.4)	293	12.2	(10.6-14.0)	50
	Retroperitoneum	0.6	(0.4-0.7)	17	^	^	^
	Peritoneum, omentum and mesentery	0.5	(0.4-0.6)	^	^	^	^
	Other digestive organs	0.7	(0.6-0.9)	17	^	^	^
Endocrine system	Thyroid	17.0	(16.3-17.7)	555	14.7	(12.8-16.7)	46
	Other endocrine including thymus	1.0	(0.8-1.1)	62	1.1	(0.6-1.7)	^
Eye and orbit	Eye and orbit	1.0	(0.8-1.2)	38	1.3	(0.8-2.0)	^
Female genital system	Cervix	5.9	(5.3-6.5)	90	6.7	(5.0-8.8)	^
	Uterus	27.2	(25.9-28.5)	414	24.3	(21.1-27.8)	43
	Ovary	10.4	(9.6-11.2)	144	8.3	(6.5-10.6)	16
	Vagina	0.6	(0.4-0.8)	^	^	^	^
	Vulva	2.3	(1.9-2.7)	40	1.8	(1.1-3.0)	^
	Other female genital organs	1.9	(1.6-2.2)	23	1.7	(0.9-2.8)	^
Leukemia	Leukemia	15.1	(14.4-15.8)	420	16.1	(14.2-18.1)	49
Lymphoma	Hodgkin lymphoma	2.4	(2.2-2.7)	74	2.1	(1.4-2.9)	^
	Non-Hodgkin lymphoma	18.6	(17.8-19.4)	505	18.9	(16.9-21.1)	76

^ Counts <16 suppressed to preserve confidentiality.

Table B.7-ii Cancer counts and incidence rates in urban and rural counties in Utah, 2017-2021

Cancer Sites		Urban			Rural		
		Incidence per 100,000 population (2017-2021)		Cases (2021)	Incidence per 100,000 population (2017-2021)		Cases (2021)
		Rate	95% CI		Rate	95% CI	
Male genital system	Prostate	123.0	(120.2-125.9)	1,872	117.5	(110.6-124.7)	245
	Testis	7.0	(6.4-7.7)	110	8.1	(6.1-10.4)	^
	Penis	0.6	(0.4-0.9)	^	^	^	^
	Other male genital organs	0.4	(0.3-0.6)	^	^	^	^
Miscellaneous	Miscellaneous	12.5	(11.9-13.1)	331	16.5	(14.6-18.6)	66
Myeloma	Myeloma	6.6	(6.1-7.1)	167	6.6	(5.4-7.9)	28
Oral cavity and pharynx	Oral cavity and pharynx	9.1	(8.6-9.7)	258	11.3	(9.7-13.0)	55
Respiratory system	Nose, nasal cavity and middle ear	0.6	(0.5-0.7)	^	^	^	^
	Larynx	1.3	(1.1-1.5)	38	1.6	(1.1-2.3)	^
	Lung	24.5	(23.6-25.4)	649	27.5	(25.1-30.1)	105
	Pleura	^	^	^	^	^	^
	Trachea, mediastinum and other respiratory organs	0.1	(0.1-0.2)	^	^	^	^
Skin, excluding basal and squamous	Melanoma	41.4	(40.3-42.6)	1,122	41.5	(38.4-44.8)	180
	Non-melanoma skin	2.9	(2.6-3.2)	71	2.6	(1.9-3.5)	^
Soft tissue including heart	Soft tissue including heart	3.2	(2.9-3.6)	93	4.1	(3.2-5.2)	^
Urinary system	Urinary bladder	16.8	(16.0-17.5)	405	18.0	(16.0-20.2)	59
	Kidney	15.5	(14.8-16.2)	435	15.7	(13.8-17.7)	51
	Ureter	0.3	(0.2-0.4)	^	^	^	^
	Other urinary organs	0.4	(0.3-0.5)	^	^	^	^
Kaposi sarcoma	Kaposi sarcoma	0.1	(0.1-0.2)	^	^	^	^

^ Counts <16 suppressed to preserve confidentiality.

Table B.8-i Hispanic or Latino and non-Hispanic White cancer incidence rates, Utah and the Remaining U.S., 2017-2021

Cancer Sites		Utah				Remaining U.S.			
		Non-Hispanic White		Hispanic or Latino		Non-Hispanic White		Hispanic or Latino	
		Incidence per 100,000 population		Incidence per 100,000 population		Incidence per 100,000 population		Incidence per 100,000 population	
		Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
All Sites	All Sites	412.4	(408.8-416.1)	407.4	(394.9-420.1)	463.6	(463.3-464.0)	349.6	(348.8-350.4)
Bones and joints	Bones and joints	1.2	(1.0-1.4)	1.5	(0.9-2.4)	1.1	(1.0-1.1)	1.0	(0.9-1.0)
Brain and nervous system	Brain and nervous system	7.3	(6.9-7.8)	6.1	(4.9-7.6)	7.2	(7.1-7.2)	5.2	(5.1-5.3)
Breast	Breast, female	119.0	(116.2-121.7)	130.0	(121.1-139.4)	135.8	(135.5-136.1)	100.9	(100.3-101.4)
	Breast, male	1.0	(0.8-1.3)	^	^	1.3	(1.3-1.3)	0.7	(0.6-0.8)
Digestive system	Esophagus	3.6	(3.3-3.9)	2.7	(1.8-4.0)	5.1	(5.1-5.1)	2.7	(2.7-2.8)
	Stomach	3.9	(3.6-4.3)	9.5	(7.6-11.7)	5.1	(5.1-5.2)	9.3	(9.1-9.4)
	Small intestine	2.7	(2.4-3.0)	1.7	(1.0-2.6)	2.6	(2.5-2.6)	1.9	(1.9-2.0)
	Colon and rectum	28.6	(27.7-29.6)	34.0	(30.6-37.7)	36.6	(36.5-36.7)	32.8	(32.6-33.1)
	Anus, anal canal and anorectum	1.4	(1.2-1.7)	1.5	(0.8-2.5)	2.2	(2.2-2.3)	1.4	(1.4-1.5)
	Liver	4.2	(3.8-4.6)	17.2	(14.6-20.0)	5.7	(5.7-5.8)	11.8	(11.6-11.9)
	Intrahepatic bile duct	1.2	(1.0-1.4)	2.4	(1.5-3.6)	1.7	(1.6-1.7)	1.9	(1.9-2.0)
	Gallbladder	0.8	(0.7-1.0)	^	^	0.8	(0.8-0.9)	1.8	(1.7-1.9)
	Other biliary	1.0	(0.8-1.2)	2.2	(1.3-3.4)	1.5	(1.5-1.6)	2.3	(2.2-2.3)
	Pancreas	11.8	(11.2-12.4)	11.5	(9.4-13.9)	13.5	(13.4-13.5)	12.1	(11.9-12.2)
	Retroperitoneum	0.5	(0.4-0.6)	^	^	0.4	(0.4-0.4)	0.5	(0.4-0.5)
	Peritoneum, omentum and mesentery	0.4	(0.3-0.6)	^	^	0.5	(0.5-0.5)	0.4	(0.4-0.4)
	Other digestive organs	0.7	(0.6-0.9)	^	^	0.7	(0.7-0.7)	0.8	(0.8-0.9)
Endocrine system	Thyroid	16.9	(16.2-17.6)	17.3	(15.2-19.5)	13.6	(13.5-13.7)	13.1	(13.0-13.3)
	Other endocrine including thymus	1.0	(0.8-1.2)	^	^	0.9	(0.9-0.9)	0.8	(0.7-0.8)
Eye and orbit	Eye and orbit	1.1	(1.0-1.3)	^	^	1.0	(1.0-1.0)	0.5	(0.5-0.6)
Female genital system	Cervix	5.3	(4.7-5.9)	8.7	(6.8-11.0)	7.1	(7.0-7.1)	9.6	(9.4-9.7)
	Uterus	25.6	(24.4-26.9)	30.0	(25.9-34.6)	27.7	(27.6-27.9)	26.3	(26.0-26.6)
	Ovary	9.7	(8.9-10.5)	13.4	(10.7-16.6)	10.3	(10.2-10.3)	9.7	(9.6-9.9)
	Vagina	0.6	(0.4-0.8)	^	^	0.6	(0.6-0.6)	0.7	(0.6-0.7)
	Vulva	2.3	(1.9-2.7)	^	^	3.1	(3.1-3.2)	1.7	(1.6-1.8)
	Other female genital organs	1.7	(1.4-2.1)	2.9	(1.7-4.6)	2.1	(2.1-2.2)	1.7	(1.6-1.8)
Leukemia	Leukemia	15.2	(14.5-15.9)	13.4	(11.3-15.7)	14.9	(14.9-15.0)	11.4	(11.3-11.6)
Lymphoma	Hodgkin lymphoma	2.4	(2.2-2.7)	3.2	(2.4-4.3)	2.7	(2.7-2.8)	2.3	(2.2-2.3)
	Non-Hodgkin lymphoma	18.5	(17.7-19.3)	22.3	(19.3-25.6)	19.4	(19.3-19.5)	17.3	(17.1-17.5)

^ Estimates derived from counts <16 suppressed to preserve confidentiality.

Table B.8-ii Hispanic or Latino and non-Hispanic White cancer incidence rates, Utah and the Remaining U.S., 2017-2021

Cancer Sites		Utah				Remaining U.S.			
		Non-Hispanic White		Hispanic or Latino		Non-Hispanic White		Hispanic or Latino	
		Incidence per 100,000 population		Incidence per 100,000 population		Incidence per 100,000 population		Incidence per 100,000 population	
		Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
Male genital system	Prostate	121.8	(119.0-124.5)	104.9	(95.2-115.3)	107.7	(107.5-107.9)	86.8	(86.2-87.4)
	Testis	7.4	(6.8-8.2)	6.5	(5.2-8.1)	6.9	(6.8-6.9)	5.7	(5.6-5.8)
	Penis	0.6	(0.4-0.8)	^	^	0.8	(0.8-0.8)	1.4	(1.3-1.5)
	Other male genital organs	0.5	(0.3-0.7)	^	^	0.2	(0.2-0.2)	0.2	(0.2-0.2)
Miscellaneous	Miscellaneous	12.9	(12.3-13.6)	13.9	(11.5-16.6)	17.1	(17.1-17.2)	13.3	(13.2-13.5)
Myeloma	Myeloma	6.4	(5.9-6.8)	8.0	(6.3-10.1)	6.2	(6.2-6.3)	6.7	(6.6-6.8)
Oral cavity and pharynx	Oral cavity and pharynx	9.6	(9.1-10.2)	6.8	(5.2-8.5)	13.5	(13.4-13.5)	7.3	(7.2-7.4)
Respiratory system	Nose, nasal cavity and middle ear	0.6	(0.5-0.7)	^	^	0.7	(0.7-0.7)	0.5	(0.5-0.6)
	Larynx	1.3	(1.1-1.5)	1.6	(0.9-2.6)	3.0	(3.0-3.1)	2.1	(2.0-2.2)
	Lung	24.7	(23.8-25.6)	27.2	(23.7-30.9)	57.9	(57.8-58.1)	27.9	(27.6-28.1)
	Pleura	^	^	^	^	0.0	(0.0-0.0)	0.0	(0.0-0.0)
	Trachea, mediastinum and other respiratory organs	0.2	(0.1-0.2)	^	^	0.2	(0.2-0.2)	0.2	(0.2-0.2)
Skin, excluding basal and squamous	Melanoma	44.7	(43.5-45.9)	9.8	(7.9-11.9)	29.7	(29.6-29.8)	4.6	(4.6-4.7)
	Non-melanoma skin	2.9	(2.6-3.2)	2.6	(1.6-3.9)	1.9	(1.9-1.9)	1.0	(0.9-1.0)
Soft tissue including heart	Soft tissue including heart	3.3	(3.0-3.6)	3.5	(2.5-4.8)	3.3	(3.2-3.3)	3.1	(3.1-3.2)
Urinary system	Urinary bladder	17.7	(16.9-18.5)	10.8	(8.6-13.3)	21.4	(21.4-21.5)	10.5	(10.4-10.7)
	Kidney	15.1	(14.4-15.8)	20.9	(18.2-23.8)	17.6	(17.5-17.6)	17.6	(17.4-17.8)
	Ureter	0.3	(0.2-0.5)	^	^	0.6	(0.6-0.6)	0.3	(0.3-0.4)
	Other Urinary Organs	0.4	(0.3-0.5)	^	^	0.4	(0.4-0.4)	0.3	(0.2-0.3)
Kaposi sarcoma	Kaposi sarcoma	^	^	^	^	0.2	(0.2-0.2)	0.5	(0.5-0.5)

^ Estimates derived from counts <16 suppressed to preserve confidentiality.

Table B.9-i Hispanic or Latino and non-Hispanic White cancer mortality rates, Utah and the Remaining U.S., 2017-2021

Cancer Sites		Utah				Remaining U.S.			
		Non-Hispanic White		Hispanic or Latino		Non-Hispanic White		Hispanic or Latino	
		Mortality per 100,000 population		Mortality per 100,000 population		Mortality per 100,000 population		Mortality per 100,000 population	
		Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
All Sites	All Sites	122.6	(120.6-124.6)	104.4	(97.5-111.6)	153.9	(153.7-154.1)	108.2	(107.7-108.6)
Bones and joints	Bones and joints	0.5	(0.4-0.6)	^	^	0.5	(0.5-0.5)	0.4	(0.4-0.5)
Brain and nervous system	Brain and nervous system	5.1	(4.7-5.5)	2.5	(1.7-3.6)	5.1	(5.0-5.1)	3.1	(3.1-3.2)
Breast	Breast, female	20.5	(19.4-21.7)	16.8	(13.6-20.6)	19.7	(19.6-19.8)	13.7	(13.5-13.9)
	Breast, male	^	^	^	^	0.3	(0.3-0.3)	0.1	(0.1-0.2)
Digestive system	Esophagus	2.8	(2.5-3.1)	1.7	(1.0-2.8)	4.3	(4.3-4.4)	1.9	(1.9-2.0)
	Stomach	1.7	(1.5-2.0)	4.2	(2.9-5.8)	2.1	(2.1-2.1)	4.7	(4.6-4.8)
	Small intestine	0.4	(0.3-0.5)	^	^	0.4	(0.4-0.4)	0.3	(0.3-0.3)
	Colon and rectum	10.5	(9.9-11.1)	9.4	(7.5-11.6)	13.1	(13.0-13.1)	10.8	(10.6-10.9)
	Anus, anal canal and anorectum	0.2	(0.1-0.3)	^	^	0.4	(0.4-0.4)	0.2	(0.2-0.2)
	Liver	3.1	(2.8-3.4)	8.6	(6.7-10.8)	4.1	(4.1-4.1)	7.1	(7.0-7.3)
	Intrahepatic bile duct	1.4	(1.2-1.6)	2.1	(1.3-3.3)	1.9	(1.8-1.9)	2.0	(2.0-2.1)
	Gallbladder	0.4	(0.3-0.5)	^	^	0.4	(0.4-0.5)	0.8	(0.8-0.8)
	Other biliary	0.3	(0.2-0.4)	^	^	0.5	(0.5-0.5)	0.5	(0.5-0.6)
	Pancreas	9.7	(9.2-10.3)	7.1	(5.4-9.2)	11.4	(11.4-11.5)	8.9	(8.8-9.0)
	Retroperitoneum	^	^	^	^	0.1	(0.1-0.1)	0.1	(0.1-0.1)
	Peritoneum, omentum and mesentery	0.2	(0.1-0.3)	^	^	0.3	(0.3-0.3)	0.2	(0.2-0.2)
	Other digestive organs	0.4	(0.3-0.6)	^	^	0.4	(0.4-0.4)	0.4	(0.4-0.4)
Endocrine system	Thyroid	0.6	(0.5-0.8)	^	^	0.5	(0.5-0.5)	0.6	(0.6-0.7)
	Other endocrine including thymus	0.2	(0.2-0.3)	^	^	0.3	(0.3-0.3)	0.2	(0.2-0.2)
Eye and orbit	Eye and orbit	^	^	^	^	0.1	(0.1-0.1)	0.1	(0.0-0.1)
Female genital system	Cervix	1.9	(1.5-2.3)	^	^	2.1	(2.0-2.1)	2.4	(2.4-2.5)
	Uterus	4.5	(4.0-5.0)	3.4	(2.0-5.4)	4.7	(4.7-4.8)	4.4	(4.3-4.5)
	Ovary	6.4	(5.8-7.0)	7.0	(4.9-9.6)	6.5	(6.5-6.6)	4.9	(4.8-5.0)
	Vagina	^	^	^	^	0.2	(0.2-0.2)	0.2	(0.1-0.2)
	Vulva	0.3	(0.2-0.5)	^	^	0.7	(0.7-0.7)	0.4	(0.3-0.4)
	Other female genital organs	0.5	(0.3-0.7)	^	^	0.5	(0.5-0.5)	0.3	(0.2-0.3)
Leukemia	Leukemia	6.5	(6.0-7.0)	4.1	(2.8-5.6)	6.4	(6.3-6.4)	4.2	(4.2-4.3)
Lymphoma	Hodgkin lymphoma	^	^	^	^	0.3	(0.3-0.3)	0.3	(0.3-0.3)
	Non-Hodgkin lymphoma	4.8	(4.4-5.2)	6.4	(4.7-8.5)	5.4	(5.3-5.4)	4.4	(4.3-4.5)

^ Estimates derived from counts <16 suppressed to preserve confidentiality.

Table B.9-ii Hispanic or Latino and non-Hispanic White cancer mortality rates, Utah and the Remaining U.S., 2017-2021

Cancer Sites		Utah				Remaining U.S.			
		Non-Hispanic White		Hispanic or Latino		Non-Hispanic White		Hispanic or Latino	
		Mortality per 100,000 population		Mortality per 100,000 population		Mortality per 100,000 population		Mortality per 100,000 population	
		Rate	95% CI	Rate	95% CI	Rate	95% CI	Rate	95% CI
Male genital system	Prostate	22.5	(21.2-23.8)	18.2	(13.6-23.7)	18.2	(18.1-18.3)	15.6	(15.3-15.9)
	Testis	^	^	^	^	0.3	(0.3-0.3)	0.3	(0.3-0.4)
	Penis	^	^	^	^	0.2	(0.2-0.2)	0.3	(0.3-0.4)
	Other male genital organs	^	^	^	^	0.0	(0.0-0.0)	0.0	(0.0-0.1)
Miscellaneous	Miscellaneous	10.5	(9.9-11.1)	9.2	(7.2-11.6)	12.0	(11.9-12.0)	7.8	(7.7-7.9)
Myeloma	Myeloma	3.1	(2.8-3.4)	1.9	(1.1-3.1)	2.9	(2.8-2.9)	2.6	(2.5-2.6)
Oral cavity and pharynx	Oral cavity and pharynx	1.7	(1.5-2.0)	^	^	2.8	(2.7-2.8)	1.5	(1.5-1.6)
Respiratory system	Nose, nasal cavity and middle ear	^	^	^	^	0.1	(0.1-0.2)	0.1	(0.1-0.1)
	Larynx	0.4	(0.3-0.5)	^	^	0.9	(0.9-0.9)	0.6	(0.6-0.6)
	Lung	16.7	(15.9-17.4)	11.9	(9.6-14.6)	37.1	(37.0-37.2)	15.1	(14.9-15.3)
	Pleura	^	^	^	^	0.1	(0.1-0.1)	0.1	(0.1-0.1)
	Trachea, mediastinum and other respiratory organs	^	^	^	^	0.1	(0.1-0.1)	0.1	(0.0-0.1)
Skin, excluding basal and squamous	Melanoma	3.0	(2.7-3.4)	^	^	2.6	(2.6-2.7)	0.7	(0.6-0.7)
	Non-melanoma skin	1.0	(0.8-1.1)	^	^	1.2	(1.2-1.3)	0.5	(0.5-0.5)
Soft tissue including heart	Soft tissue including heart	1.4	(1.2-1.6)	^	^	1.3	(1.3-1.3)	1.1	(1.1-1.2)
Urinary system	Urinary bladder	3.8	(3.5-4.2)	^	^	4.6	(4.6-4.7)	2.3	(2.3-2.4)
	Kidney	3.2	(2.9-3.6)	3.3	(2.1-4.8)	3.6	(3.6-3.7)	3.3	(3.2-3.4)
	Ureter	^	^	^	^	0.1	(0.1-0.1)	0.1	(0.0-0.1)
	Other urinary organs	0.2	(0.1-0.2)	^	^	0.1	(0.1-0.1)	0.1	(0.1-0.1)

^ Estimates derived from counts <16 suppressed to preserve confidentiality.

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