

3

Incidence by Cancer Site

3.1 Men and Women Combined

3.1.1 Five-year Incidence

Table 3.1: Average annual age-adjusted cancer incidence rate by site, men and women, 2014–2018.

| | Alaska Native People | | | US White People | | RR |
|-----------------------------------|----------------------|--------------|-----------------------|-----------------|-----------------------|------------|
| | Count | Rate | 95% CI | Rate | 95% CI | |
| All sites | 2,401 | 497.6 | (476.7, 519.2) | 450.9 | (449.6, 452.2) | 1.1 |
| <i>Oral Cavity and Pharynx</i> | | | | | | |
| Lip | - | - | - | 0.8 | (0.7, 0.9) | - |
| Tongue | 13 | 2.3 | (1.2, 4.1) | 4.2 | (4.1, 4.3) | 0.6 |
| Salivary Gland | 7 | 1.4 | (0.5, 2.9) | 1.3 | (1.2, 1.3) | 1.1 |
| Floor of Mouth | 7 | 1.2 | (0.5, 2.6) | 0.5 | (0.4, 0.5) | 2.5 |
| Gum and Other Mouth | - | - | - | 1.7 | (1.6, 1.8) | - |
| Nasopharynx | 28 | 4.9 | (3.2, 7.2) | 0.3 | (0.3, 0.4) | 15.2 |
| Tonsil | 11 | 1.9 | (0.9, 3.5) | 2.3 | (2.2, 2.4) | 0.8 |
| Oropharynx | 5 | 1.0 | (0.3, 2.5) | 0.5 | (0.4, 0.5) | 2.0 |
| Hypopharynx | 5 | 1.1 | (0.3, 2.6) | 0.5 | (0.5, 0.6) | 2.0 |
| Other Oral Cavity and Pharynx | - | - | - | 0.3 | (0.3, 0.3) | - |
| <i>Digestive System</i> | | | | | | |
| Esophagus | 49 | 9.9 | (7.2, 13.4) | 4.7 | (4.5, 4.8) | 2.1 |
| Stomach | 82 | 17.2 | (13.5, 21.5) | 5.7 | (5.6, 5.8) | 3.0 |
| Small Intestine | - | - | - | 2.4 | (2.3, 2.5) | - |
| Colon and Rectum | 405 | 87.6 | (78.8, 97.1) | 36.7 | (36.3, 37.1) | 2.4 |
| Anus, Anal Canal and Anorectum | 12 | 2.2 | (1.1, 4.0) | 2.0 | (1.9, 2.1) | 1.1 |
| Liver | 67 | 13.3 | (10.2, 17.2) | 6.3 | (6.1, 6.4) | 2.1 |
| Intrahepatic Bile Duct | 6 | 1.6 | (0.5, 3.5) | 1.4 | (1.4, 1.5) | 1.1 |
| Gallbladder | 12 | 2.0 | (1.0, 3.5) | 1.0 | (0.9, 1.0) | 2.1 |
| Other Biliary | 9 | 2.1 | (0.9, 4.2) | 1.7 | (1.6, 1.8) | 1.2 |
| Pancreas | 84 | 18.5 | (14.5, 23.2) | 12.9 | (12.7, 13.1) | 1.4 |
| Retroperitoneum | - | - | - | 0.4 | (0.4, 0.5) | - |
| Peritoneum, Omentum and Mesentery | - | - | - | 0.5 | (0.5, 0.6) | - |
| Other Digestive Organs | 14 | 3.8 | (2.1, 6.5) | 0.8 | (0.8, 0.9) | 4.6 |

(continued)

Table 3.1: (continued)

| | Alaska Native People | | | US White People | | RR |
|---|----------------------|-------|----------------|-----------------|----------------|-----|
| | Count | Rate | 95% CI | Rate | 95% CI | |
| <i>Respiratory System</i> | | | | | | |
| Nose, Nasal Cavity and Middle Ear | - | - | - | 0.7 | (0.6, 0.7) | - |
| Larynx | 23 | 5.4 | (3.3, 8.2) | 2.7 | (2.6, 2.8) | 2.0 |
| Lung and Bronchus | 373 | 83.0 | (74.3, 92.4) | 52.3 | (51.9, 52.8) | 1.6 |
| Pleura | - | - | - | 0.0 | (0.0, 0.0) | - |
| Trachea, Mediastinum and Other Respiratory Organs | - | - | - | 0.2 | (0.1, 0.2) | - |
| <i>Bones and Joints</i> | | | | | | |
| Bones and Joints | 9 | 1.5 | (0.7, 3.0) | 1.0 | (1.0, 1.1) | 1.5 |
| <i>Soft Tissue including Heart</i> | | | | | | |
| Soft Tissue including Heart | 17 | 2.8 | (1.6, 4.5) | 3.4 | (3.3, 3.6) | 0.8 |
| <i>Skin excluding Basal and Squamous</i> | | | | | | |
| Melanoma of the Skin | 27 | 5.1 | (3.3, 7.6) | 32.1 | (31.7, 32.4) | 0.2 |
| Other Non-Epithelial Skin | - | - | - | 2.5 | (2.4, 2.6) | - |
| <i>Breast</i> | | | | | | |
| Breast (women) | 340 | 130.8 | (116.7, 146.0) | 134.4 | (133.4, 135.5) | 1.0 |
| <i>Female Genital System</i> | | | | | | |
| Cervix Uteri (women) | 32 | 12.4 | (8.4, 17.8) | 6.7 | (6.4, 6.9) | 1.9 |
| Corpus Uteri (women) | 40 | 13.7 | (9.7, 18.8) | 27.7 | (27.3, 28.2) | 0.5 |
| Uterus, NOS (women) | - | - | - | 0.6 | (0.5, 0.6) | - |
| Ovary (women) | 21 | 7.8 | (4.7, 12.1) | 11.4 | (11.1, 11.7) | 0.7 |
| Vagina (women) | - | - | - | 0.6 | (0.6, 0.7) | - |
| Vulva (women) | - | - | - | 2.9 | (2.8, 3.1) | - |
| Other Female Genital Organs | 10 | 3.5 | (1.6, 6.5) | 2.1 | (2.0, 2.3) | 1.6 |
| <i>Male Genital System</i> | | | | | | |
| Prostate (men) | 126 | 61.2 | (49.9, 74.2) | 104.1 | (103.2, 105.0) | 0.6 |
| Testis (men) | 16 | 4.9 | (2.7, 8.1) | 7.4 | (7.2, 7.7) | 0.7 |
| Penis (men) | 6 | 3.8 | (1.2, 9.2) | 0.9 | (0.8, 1.0) | 4.4 |
| Other Male Genital Organs | - | - | - | 0.3 | (0.2, 0.3) | - |
| <i>Urinary System</i> | | | | | | |
| Urinary Bladder | 60 | 13.9 | (10.4, 18.3) | 21.9 | (21.6, 22.2) | 0.6 |
| Kidney and Renal Pelvis | 150 | 28.9 | (24.3, 34.1) | 15.9 | (15.7, 16.2) | 1.8 |
| Ureter | - | - | - | 0.6 | (0.5, 0.6) | - |
| Other Urinary Organs | - | - | - | 0.5 | (0.4, 0.5) | - |
| <i>Eye and Orbit</i> | | | | | | |
| Eye and Orbit | - | - | - | 1.0 | (1.0, 1.1) | - |
| <i>Brain and Other Nervous System</i> | | | | | | |
| Brain | 21 | 3.4 | (2.0, 5.4) | 6.7 | (6.6, 6.9) | 0.5 |
| Cranial Nerves Other Nervous System | - | - | - | 0.4 | (0.4, 0.5) | - |
| <i>Endocrine System</i> | | | | | | |
| Thyroid | 80 | 15.0 | (11.8, 18.9) | 15.5 | (15.3, 15.8) | 1.0 |
| Other Endocrine including Thymus | 9 | 1.2 | (0.5, 2.4) | 0.7 | (0.6, 0.7) | 1.8 |
| <i>Lymphoma</i> | | | | | | |
| Hodgkin - Nodal | 9 | 1.6 | (0.7, 3.2) | 2.7 | (2.6, 2.8) | 0.6 |
| Hodgkin - Extranodal | - | - | - | 0.1 | (0.0, 0.1) | - |
| NHL - Nodal | 42 | 8.3 | (5.9, 11.5) | 13.5 | (13.3, 13.7) | 0.6 |
| NHL - Extranodal | 17 | 3.6 | (2.0, 6.0) | 7.3 | (7.2, 7.5) | 0.5 |

(continued)

Table 3.1: (continued)

| | Alaska Native People | | | US White People | | RR |
|----------------------------------|----------------------|------|--------------|-----------------|-------------|-----|
| | Count | Rate | 95% CI | Rate | 95% CI | |
| <i>Myeloma</i> | | | | | | |
| Myeloma | 22 | 5.4 | (3.3, 8.3) | 6.4 | (6.3, 6.6) | 0.8 |
| <i>Leukemia</i> | | | | | | |
| Acute Lymphocytic Leukemia | 14 | 1.6 | (0.9, 2.7) | 1.7 | (1.6, 1.8) | 0.9 |
| Chronic Lymphocytic Leukemia | 6 | 1.4 | (0.5, 3.2) | 5.8 | (5.6, 5.9) | 0.2 |
| Other Lymphocytic Leukemia | - | - | - | 0.5 | (0.4, 0.5) | - |
| Acute Myeloid Leukemia | 15 | 2.4 | (1.3, 4.1) | 4.5 | (4.3, 4.6) | 0.5 |
| Chronic Myeloid Leukemia | 8 | 1.6 | (0.7, 3.1) | 2.1 | (2.0, 2.1) | 0.8 |
| Other Myeloid/Monocytic Leukemia | - | - | - | 0.1 | (0.1, 0.1) | - |
| Acute Monocytic Leukemia | - | - | - | 0.2 | (0.1, 0.2) | - |
| Other Acute Leukemia | - | - | - | 0.2 | (0.2, 0.2) | - |
| Aleukemic, subleukemic and NOS | - | - | - | 0.2 | (0.2, 0.2) | - |
| <i>Mesothelioma</i> | | | | | | |
| Mesothelioma | - | - | - | 1.0 | (0.9, 1.1) | - |
| <i>Kaposi Sarcoma</i> | | | | | | |
| Kaposi Sarcoma | - | - | - | 0.4 | (0.3, 0.4) | - |
| <i>Miscellaneous</i> | | | | | | |
| Miscellaneous | 38 | 9.1 | (6.3, 12.7) | 7.3 | (7.2, 7.5) | 1.2 |

Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130) standard.
See section A.2 on page 171 for information regarding statistical methods, including years of data available for US White People.

3.1.2 Fifty-year Incidence

Table 3.2: Average annual age-adjusted cancer incidence rate by site, men and women, 1969–2018.

| | Alaska Native People | | |
|---|----------------------|--------------|-----------------------|
| | Count | Rate | 95% CI |
| All sites | 12,697 | 481.3 | (472.4, 490.4) |
| <i>Oral Cavity and Pharynx</i> | | | |
| Lip | 7 | 0.3 | (0.1, 0.6) |
| Tongue | 61 | 2.2 | (1.6, 2.8) |
| Salivary Gland | 54 | 1.7 | (1.2, 2.2) |
| Floor of Mouth | 37 | 1.2 | (0.9, 1.7) |
| Gum and Other Mouth | 47 | 1.7 | (1.2, 2.3) |
| Nasopharynx | 209 | 7.2 | (6.2, 8.4) |
| Tonsil | 30 | 1.0 | (0.6, 1.4) |
| Oropharynx | 16 | 0.5 | (0.3, 0.9) |
| Hypopharynx | 32 | 1.3 | (0.9, 1.9) |
| Other Oral Cavity and Pharynx | 10 | 0.4 | (0.2, 0.8) |
| <i>Digestive System</i> | | | |
| Esophagus | 206 | 8.4 | (7.2, 9.7) |
| Stomach | 547 | 20.6 | (18.8, 22.6) |
| Small Intestine | 28 | 1.0 | (0.7, 1.5) |
| Colon and Rectum | 2,225 | 91.9 | (87.8, 96.0) |
| Anus, Anal Canal and Anorectum | 46 | 1.7 | (1.2, 2.2) |
| Liver | 258 | 8.9 | (7.8, 10.2) |
| Intrahepatic Bile Duct | 22 | 0.9 | (0.6, 1.5) |
| Gallbladder | 106 | 4.7 | (3.8, 5.7) |
| Other Biliary | 74 | 3.2 | (2.4, 4.0) |
| Pancreas | 373 | 15.3 | (13.7, 17.0) |
| Retroperitoneum | - | - | - |
| Peritoneum, Omentum and Mesentery | 8 | 0.3 | (0.1, 0.6) |
| Other Digestive Organs | 54 | 2.4 | (1.8, 3.2) |
| <i>Respiratory System</i> | | | |
| Nose, Nasal Cavity and Middle Ear | 22 | 0.8 | (0.5, 1.3) |
| Larynx | 84 | 3.1 | (2.5, 3.9) |
| Lung and Bronchus | 2,087 | 87.0 | (83.0, 91.0) |
| Pleura | - | - | - |
| Trachea, Mediastinum and Other Respiratory Organs | 9 | 0.4 | (0.2, 0.7) |
| <i>Bones and Joints</i> | | | |
| Bones and Joints | 51 | 1.4 | (1.0, 1.9) |
| <i>Soft Tissue including Heart</i> | | | |
| Soft Tissue including Heart | 81 | 2.4 | (1.8, 3.0) |
| <i>Skin excluding Basal and Squamous</i> | | | |
| Melanoma of the Skin | 83 | 2.6 | (2.0, 3.3) |
| Other Non-Epithelial Skin | 19 | 0.7 | (0.4, 1.1) |
| <i>Breast</i> | | | |
| Breast (women) | 1,794 | 118.7 | (113.1, 124.5) |
| <i>Female Genital System</i> | | | |
| Cervix Uteri (women) | 258 | 14.5 | (12.7, 16.5) |

(continued)

Table 3.2: (continued)

| | Alaska Native People | | |
|---------------------------------------|----------------------|------|--------------|
| | Count | Rate | 95% CI |
| Corpus Uteri (women) | 191 | 12.4 | (10.7, 14.4) |
| Uterus, NOS (women) | 8 | 0.4 | (0.2, 0.8) |
| Ovary (women) | 168 | 11.1 | (9.4, 13.0) |
| Vagina (women) | 13 | 1.1 | (0.6, 1.9) |
| Vulva (women) | 28 | 2.3 | (1.5, 3.4) |
| Other Female Genital Organs | 32 | 1.8 | (1.2, 2.6) |
| <i>Male Genital System</i> | | | |
| Prostate (men) | 704 | 65.4 | (60.2, 71.0) |
| Testis (men) | 119 | 5.3 | (4.4, 6.4) |
| Penis (men) | 23 | 2.3 | (1.3, 3.6) |
| Other Male Genital Organs | 6 | 0.4 | (0.1, 1.1) |
| <i>Urinary System</i> | | | |
| Urinary Bladder | 259 | 11.3 | (9.9, 12.9) |
| Kidney and Renal Pelvis | 599 | 22.2 | (20.3, 24.2) |
| Ureter | 10 | 0.4 | (0.2, 0.8) |
| Other Urinary Organs | 5 | 0.2 | (0.1, 0.5) |
| <i>Eye and Orbit</i> | | | |
| Eye and Orbit | 16 | 0.4 | (0.2, 0.7) |
| <i>Brain and Other Nervous System</i> | | | |
| Brain | 121 | 3.0 | (2.4, 3.6) |
| Cranial Nerves Other Nervous System | 12 | 0.3 | (0.1, 0.5) |
| <i>Endocrine System</i> | | | |
| Thyroid | 291 | 8.6 | (7.6, 9.7) |
| Other Endocrine including Thymus | 23 | 0.5 | (0.3, 0.8) |
| <i>Lymphoma</i> | | | |
| Hodgkin - Nodal | 37 | 0.9 | (0.6, 1.3) |
| Hodgkin - Extranodal | - | - | - |
| NHL - Nodal | 209 | 7.4 | (6.4, 8.6) |
| NHL - Extranodal | 105 | 4.0 | (3.2, 4.9) |
| <i>Myeloma</i> | | | |
| Myeloma | 115 | 4.4 | (3.6, 5.4) |
| <i>Leukemia</i> | | | |
| Acute Lymphocytic Leukemia | 82 | 1.3 | (1.0, 1.6) |
| Chronic Lymphocytic Leukemia | 19 | 0.9 | (0.5, 1.4) |
| Other Lymphocytic Leukemia | - | - | - |
| Acute Myeloid Leukemia | 88 | 2.8 | (2.2, 3.5) |
| Chronic Myeloid Leukemia | 48 | 1.5 | (1.0, 2.0) |
| Other Myeloid/Monocytic Leukemia | - | - | - |
| Acute Monocytic Leukemia | 6 | 0.2 | (0.1, 0.5) |
| Other Acute Leukemia | 10 | 0.3 | (0.1, 0.6) |
| Aleukemic, subleukemic and NOS | 8 | 0.3 | (0.1, 0.6) |

(continued)

Table 3.2: (continued)

| | Alaska Native People | | |
|-----------------------|----------------------|------|--------------|
| | Count | Rate | 95% CI |
| <i>Mesothelioma</i> | | | |
| Mesothelioma | 9 | 0.4 | (0.1, 0.7) |
| <i>Kaposi Sarcoma</i> | | | |
| Kaposi Sarcoma | 20 | 0.9 | (0.5, 1.4) |
| <i>Miscellaneous</i> | | | |
| Miscellaneous | 370 | 16.7 | (14.9, 18.6) |

Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130) standard.

3.2 Men Only

3.2.1 Five-year Incidence

Table 3.3: Average annual age-adjusted cancer incidence rate by site, men, 2014–2018.

| | Alaska Native People | | | U.S. White People | | RR |
|---|----------------------|--------------|-----------------------|-------------------|-----------------------|------------|
| | Count | Rate | 95% CI | Rate | 95% CI | |
| All sites | 1,135 | 515.3 | (482.8, 549.5) | 482.5 | (480.5, 484.4) | 1.1 |
| <i>Oral Cavity and Pharynx</i> | | | | | | |
| Lip | - | - | - | 1.2 | (1.1, 1.3) | - |
| Tongue | 9 | 3.5 | (1.5, 6.8) | 6.3 | (6.1, 6.5) | 0.5 |
| Salivary Gland | - | - | - | 1.6 | (1.5, 1.7) | - |
| Floor of Mouth | - | - | - | 0.7 | (0.6, 0.8) | - |
| Gum and Other Mouth | - | - | - | 2.0 | (1.8, 2.1) | - |
| Nasopharynx | 21 | 7.4 | (4.5, 11.5) | 0.5 | (0.4, 0.6) | 15.4 |
| Tonsil | 9 | 3.1 | (1.4, 6.0) | 3.9 | (3.8, 4.1) | 0.8 |
| Oropharynx | - | - | - | 0.8 | (0.7, 0.9) | - |
| Hypopharynx | 5 | 2.2 | (0.7, 5.5) | 0.9 | (0.8, 1.0) | 2.4 |
| Other Oral Cavity and Pharynx | - | - | - | 0.5 | (0.4, 0.6) | - |
| <i>Digestive System</i> | | | | | | |
| Esophagus | 32 | 14.4 | (9.4, 21.0) | 8.1 | (7.8, 8.3) | 1.8 |
| Stomach | 51 | 22.7 | (16.5, 30.4) | 7.9 | (7.6, 8.1) | 2.9 |
| Small Intestine | - | - | - | 2.8 | (2.6, 2.9) | - |
| Colon and Rectum | 192 | 86.2 | (73.4, 100.5) | 41.1 | (40.5, 41.7) | 2.1 |
| Anus, Anal Canal and Anorectum | 6 | 2.6 | (0.7, 6.7) | 1.6 | (1.5, 1.8) | 1.6 |
| Liver | 36 | 15.4 | (10.5, 21.9) | 10.0 | (9.7, 10.2) | 1.5 |
| Intrahepatic Bile Duct | - | - | - | 1.6 | (1.5, 1.7) | - |
| Gallbladder | - | - | - | 0.7 | (0.6, 0.8) | - |
| Other Biliary | - | - | - | 2.2 | (2.1, 2.4) | - |
| Pancreas | 49 | 22.5 | (16.1, 30.5) | 14.6 | (14.3, 14.9) | 1.5 |
| Retroperitoneum | - | - | - | 0.4 | (0.4, 0.5) | - |
| Peritoneum, Omentum and Mesentery | - | - | - | 0.1 | (0.1, 0.1) | - |
| Other Digestive Organs | 8 | 5.5 | (2.2, 11.1) | 1.0 | (0.9, 1.1) | 5.5 |
| <i>Respiratory System</i> | | | | | | |
| Nose, Nasal Cavity and Middle Ear | - | - | - | 0.8 | (0.8, 0.9) | - |
| Larynx | 20 | 10.8 | (6.3, 17.4) | 4.6 | (4.4, 4.8) | 2.4 |
| Lung and Bronchus | 187 | 93.9 | (79.7, 109.8) | 57.5 | (56.8, 58.2) | 1.6 |
| Pleura | - | - | - | 0.0 | (0.0, 0.0) | - |
| Trachea, Mediastinum and Other Respiratory Organs | - | - | - | 0.2 | (0.2, 0.3) | - |
| <i>Bones and Joints</i> | | | | | | |
| Bones and Joints | - | - | - | 1.3 | (1.2, 1.4) | - |
| <i>Soft Tissue including Heart</i> | | | | | | |
| Soft Tissue including Heart | 12 | 4.2 | (2.1, 7.4) | 4.2 | (4.0, 4.4) | 1.0 |
| <i>Skin excluding Basal and Squamous</i> | | | | | | |
| Melanoma of the Skin | 9 | 4.1 | (1.8, 8.1) | 39.3 | (38.8, 39.9) | 0.1 |
| Other Non-Epithelial Skin | - | - | - | 3.7 | (3.5, 3.8) | - |
| <i>Breast</i> | | | | | | |
| Breast | - | - | - | 1.2 | (1.1, 1.3) | - |

(continued)

Table 3.3: (continued)

| | Alaska Native People | | | U.S. White People | | RR |
|---------------------------------------|----------------------|------|--------------|-------------------|----------------|-----|
| | Count | Rate | 95% CI | Rate | 95% CI | |
| <i>Male Genital System</i> | | | | | | |
| Prostate | 126 | 61.1 | (49.9, 74.2) | 104.1 | (103.2, 105.0) | 0.6 |
| Testis | 16 | 4.9 | (2.7, 8.1) | 7.4 | (7.2, 7.7) | 0.7 |
| Penis | 6 | 3.8 | (1.2, 9.2) | 0.9 | (0.8, 1.0) | 4.4 |
| Other Male Genital Organs | - | - | - | 0.3 | (0.2, 0.3) | - |
| <i>Urinary System</i> | | | | | | |
| Urinary Bladder | 47 | 24.2 | (17.1, 33.5) | 37.9 | (37.4, 38.5) | 0.6 |
| Kidney and Renal Pelvis | 94 | 39.3 | (31.2, 48.8) | 21.8 | (21.4, 22.2) | 1.8 |
| Ureter | - | - | - | 0.8 | (0.7, 0.9) | - |
| Other Urinary Organs | - | - | - | 0.8 | (0.7, 0.8) | - |
| <i>Eye and Orbit</i> | | | | | | |
| Eye and Orbit | - | - | - | 1.1 | (1.0, 1.2) | - |
| <i>Brain and Other Nervous System</i> | | | | | | |
| Brain | 15 | 5.0 | (2.4, 9.3) | 8.0 | (7.8, 8.3) | 0.6 |
| Cranial Nerves Other Nervous System | - | - | - | 0.5 | (0.4, 0.5) | - |
| <i>Endocrine System</i> | | | | | | |
| Thyroid | 20 | 7.6 | (4.5, 11.9) | 8.3 | (8.0, 8.5) | 0.9 |
| Other Endocrine including Thymus | 7 | 2.0 | (0.7, 4.2) | 0.8 | (0.7, 0.8) | 2.6 |
| <i>Lymphoma</i> | | | | | | |
| Hodgkin - Nodal | - | - | - | 3.0 | (2.9, 3.2) | - |
| Hodgkin - Extranodal | - | - | - | 0.1 | (0.0, 0.1) | - |
| NHL - Nodal | 24 | 10.8 | (6.5, 16.9) | 16.6 | (16.3, 17.0) | 0.6 |
| NHL - Extranodal | 8 | 3.5 | (1.4, 7.5) | 8.8 | (8.5, 9.1) | 0.4 |
| <i>Myeloma</i> | | | | | | |
| Myeloma | 11 | 6.4 | (2.9, 12.1) | 8.2 | (8.0, 8.5) | 0.8 |
| <i>Leukemia</i> | | | | | | |
| Acute Lymphocytic Leukemia | 10 | 2.2 | (1.0, 4.0) | 2.0 | (1.8, 2.1) | 1.1 |
| Chronic Lymphocytic Leukemia | 6 | 3.2 | (1.1, 7.4) | 7.8 | (7.5, 8.0) | 0.4 |
| Other Lymphocytic Leukemia | - | - | - | 0.8 | (0.7, 0.8) | - |
| Acute Myeloid Leukemia | 11 | 3.6 | (1.7, 6.7) | 5.5 | (5.3, 5.7) | 0.7 |
| Chronic Myeloid Leukemia | 5 | 2.1 | (0.7, 5.0) | 2.6 | (2.5, 2.8) | 0.8 |
| Other Myeloid/Monocytic Leukemia | - | - | - | 0.2 | (0.1, 0.2) | - |
| Acute Monocytic Leukemia | - | - | - | 0.2 | (0.1, 0.2) | - |
| Other Acute Leukemia | - | - | - | 0.3 | (0.2, 0.3) | - |
| Aleukemic, subleukemic and NOS | - | - | - | 0.3 | (0.2, 0.3) | - |
| <i>Mesothelioma</i> | | | | | | |
| Mesothelioma | - | - | - | 1.7 | (1.6, 1.9) | - |
| <i>Kaposi Sarcoma</i> | | | | | | |
| Kaposi Sarcoma | - | - | - | 0.6 | (0.6, 0.7) | - |
| <i>Miscellaneous</i> | | | | | | |
| Miscellaneous | 25 | 12.3 | (7.7, 18.7) | 8.0 | (7.7, 8.3) | 1.5 |

Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130) standard. See section A.2 on page 171 for information regarding statistical methods, including years of data available for US White People.

3.2.2 *Fifty-year Incidence*

Table 3.4: Average annual age-adjusted cancer incidence rate by site, men, 1969–2018.

| | Alaska Native People | | |
|---|----------------------|--------------|-----------------------|
| | Count | Rate | 95% CI |
| All sites | 6,015 | 503.4 | (489.3, 517.8) |
| <i>Oral Cavity and Pharynx</i> | | | |
| Lip | 6 | 0.5 | (0.2, 1.2) |
| Tongue | 34 | 2.4 | (1.6, 3.4) |
| Salivary Gland | 20 | 1.2 | (0.7, 1.9) |
| Floor of Mouth | 21 | 1.4 | (0.9, 2.2) |
| Gum and Other Mouth | 26 | 1.6 | (1.1, 2.4) |
| Nasopharynx | 145 | 10.5 | (8.7, 12.6) |
| Tonsil | 25 | 1.6 | (1.0, 2.4) |
| Oropharynx | 9 | 0.5 | (0.2, 1.0) |
| Hypopharynx | 26 | 2.3 | (1.4, 3.6) |
| Other Oral Cavity and Pharynx | 9 | 0.7 | (0.3, 1.4) |
| <i>Digestive System</i> | | | |
| Esophagus | 137 | 12.1 | (10.0, 14.5) |
| Stomach | 357 | 28.7 | (25.5, 32.2) |
| Small Intestine | 15 | 1.2 | (0.6, 2.2) |
| Colon and Rectum | 1,082 | 95.2 | (89.0, 101.7) |
| Anus, Anal Canal and Anorectum | 20 | 1.6 | (0.9, 2.6) |
| Liver | 170 | 12.3 | (10.3, 14.6) |
| Intrahepatic Bile Duct | 15 | 1.5 | (0.8, 2.6) |
| Gallbladder | 34 | 3.8 | (2.5, 5.5) |
| Other Biliary | 38 | 3.4 | (2.4, 4.9) |
| Pancreas | 194 | 16.7 | (14.2, 19.5) |
| Retroperitoneum | - | - | - |
| Peritoneum, Omentum and Mesentery | - | - | - |
| Other Digestive Organs | 28 | 2.6 | (1.7, 3.9) |
| <i>Respiratory System</i> | | | |
| Nose, Nasal Cavity and Middle Ear | 15 | 1.3 | (0.7, 2.3) |
| Larynx | 66 | 5.5 | (4.1, 7.1) |
| Lung and Bronchus | 1,220 | 109.3 | (102.7, 116.2) |
| Pleura | - | - | - |
| Trachea, Mediastinum and Other Respiratory Organs | 8 | 0.6 | (0.3, 1.4) |
| <i>Bones and Joints</i> | | | |
| Bones and Joints | 29 | 1.6 | (1.0, 2.5) |
| <i>Soft Tissue including Heart</i> | | | |
| Soft Tissue including Heart | 45 | 2.6 | (1.8, 3.6) |
| <i>Skin excluding Basal and Squamous</i> | | | |
| Melanoma of the Skin | 31 | 2.0 | (1.3, 2.9) |
| Other Non-Epithelial Skin | 12 | 0.9 | (0.4, 1.7) |
| <i>Breast</i> | | | |
| Breast | - | - | - |
| <i>Male Genital System</i> | | | |
| Prostate | 704 | 65.5 | (60.2, 71.0) |

(continued)

Table 3.4: (continued)

| | Alaska Native People | | |
|---------------------------------------|----------------------|------|---------------|
| | Count | Rate | 95% CI |
| Testis | 119 | 5.3 | (4.4, 6.4) |
| Penis | 23 | 2.3 | (1.3, 3.6) |
| Other Male Genital Organs | 6 | 0.4 | (0.1, 1.1) |
| <i>Urinary System</i> | | | |
| Urinary Bladder | 197 | 18.5 | (15.7, 21.6) |
| Kidney and Renal Pelvis | 340 | 27.5 | (24.4, 30.9) |
| Ureter | 7 | 0.7 | (0.3, 1.5) |
| Other Urinary Organs | 5 | 0.4 | (0.1, 1.0) |
| <i>Eye and Orbit</i> | | | |
| Eye and Orbit | 7 | 0.4 | (0.1, 1.0) |
| <i>Brain and Other Nervous System</i> | | | |
| Brain | 64 | 3.4 | (2.5, 4.5) |
| Cranial Nerves Other Nervous System | - | - | - |
| <i>Endocrine System</i> | | | |
| Thyroid | 62 | 4.1 | (3.1, 5.5) |
| Other Endocrine including Thymus | 18 | 0.7 | (0.4, 1.2) |
| <i>Lymphoma</i> | | | |
| Hodgkin - Nodal | 17 | 0.8 | (0.4, 1.2) |
| Hodgkin - Extranodal | - | - | - |
| NHL - Nodal | 118 | 8.9 | (7.2, 10.9) |
| NHL - Extranodal | 54 | 4.3 | (3.1, 5.9) |
| <i>Myeloma</i> | | | |
| Myeloma | 58 | 4.9 | (3.6, 6.5) |
| <i>Leukemia</i> | | | |
| Acute Lymphocytic Leukemia | 45 | 1.3 | (0.9, 1.7) |
| Chronic Lymphocytic Leukemia | 14 | 1.4 | (0.7, 2.4) |
| Other Lymphocytic Leukemia | - | - | - |
| Acute Myeloid Leukemia | 56 | 4.0 | (2.8, 5.4) |
| Chronic Myeloid Leukemia | 30 | 2.0 | (1.2, 2.9) |
| Other Myeloid/Monocytic Leukemia | - | - | - |
| Acute Monocytic Leukemia | - | - | - |
| Other Acute Leukemia | 6 | 0.3 | (0.1, 0.8) |
| Aleukemic, subleukemic and NOS | - | - | - |
| <i>Mesothelioma</i> | | | |
| Mesothelioma | 8 | 0.8 | (0.3, 1.7) |
| <i>Kaposi Sarcoma</i> | | | |
| Kaposi Sarcoma | 17 | 1.6 | (0.8, 2.8) |
| <i>Miscellaneous</i> | | | |
| Miscellaneous | 183 | 17.0 | (14.4, 19.9) |

Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130) standard.

3.3 Women Only

3.3.1 Five-year Incidence

Table 3.5: Average annual age-adjusted cancer incidence rate by site, women, 2014–2018.

| | Alaska Native People | | | U.S. White People | | RR |
|---|----------------------|--------------|-----------------------|-------------------|-----------------------|------------|
| | Count | Rate | 95% CI | Rate | 95% CI | |
| All sites | 1,266 | 493.0 | (465.1, 522.0) | 431.7 | (429.9, 433.5) | 1.1 |
| <i>Oral Cavity and Pharynx</i> | | | | | | |
| Lip | - | - | - | 0.4 | (0.4, 0.5) | - |
| Tongue | - | - | - | 2.2 | (2.1, 2.4) | - |
| Salivary Gland | - | - | - | 1.0 | (1.0, 1.1) | - |
| Floor of Mouth | - | - | - | 0.3 | (0.3, 0.4) | - |
| Gum and Other Mouth | - | - | - | 1.4 | (1.3, 1.5) | - |
| Nasopharynx | 7 | 2.5 | (0.9, 5.3) | 0.2 | (0.1, 0.2) | 14.5 |
| Tonsil | - | - | - | 0.7 | (0.6, 0.8) | - |
| Oropharynx | - | - | - | 0.2 | (0.2, 0.2) | - |
| Hypopharynx | - | - | - | 0.2 | (0.2, 0.2) | - |
| Other Oral Cavity and Pharynx | - | - | - | 0.1 | (0.1, 0.1) | - |
| <i>Digestive System</i> | | | | | | |
| Esophagus | 17 | 6.0 | (3.4, 9.9) | 1.8 | (1.6, 1.9) | 3.4 |
| Stomach | 31 | 12.2 | (8.2, 17.5) | 3.9 | (3.7, 4.1) | 3.1 |
| Small Intestine | - | - | - | 2.1 | (2.0, 2.2) | - |
| Colon and Rectum | 213 | 87.8 | (76.0, 100.9) | 32.8 | (32.3, 33.3) | 2.7 |
| Anus, Anal Canal and Anorectum | 6 | 2.1 | (0.8, 4.7) | 2.4 | (2.3, 2.5) | 0.9 |
| Liver | 31 | 11.3 | (7.5, 16.4) | 2.9 | (2.8, 3.0) | 3.9 |
| Intrahepatic Bile Duct | - | - | - | 1.3 | (1.2, 1.4) | - |
| Gallbladder | 8 | 2.3 | (1.0, 4.5) | 1.2 | (1.1, 1.3) | 2.0 |
| Other Biliary | 7 | 3.0 | (1.1, 6.3) | 1.3 | (1.2, 1.4) | 2.2 |
| Pancreas | 35 | 14.9 | (10.2, 21.0) | 11.4 | (11.1, 11.7) | 1.3 |
| Retroperitoneum | - | - | - | 0.4 | (0.4, 0.5) | - |
| Peritoneum, Omentum and Mesentery | - | - | - | 0.9 | (0.8, 1.0) | - |
| Other Digestive Organs | 6 | 2.9 | (1.0, 6.4) | 0.7 | (0.6, 0.8) | 4.2 |
| <i>Respiratory System</i> | | | | | | |
| Nose, Nasal Cavity and Middle Ear | - | - | - | 0.5 | (0.4, 0.6) | - |
| Larynx | - | - | - | 1.1 | (1.0, 1.1) | - |
| Lung and Bronchus | 186 | 75.3 | (64.4, 87.5) | 48.5 | (48.0, 49.1) | 1.6 |
| Pleura | - | - | - | 0.0 | (0.0, 0.0) | - |
| Trachea, Mediastinum and Other Respiratory Organs | - | - | - | 0.1 | (0.1, 0.1) | - |
| <i>Bones and Joints</i> | | | | | | |
| Bones and Joints | 5 | 1.8 | (0.6, 4.3) | 0.8 | (0.8, 0.9) | 2.2 |
| <i>Soft Tissue including Heart</i> | | | | | | |
| Soft Tissue including Heart | 5 | 1.4 | (0.4, 3.2) | 2.8 | (2.7, 3.0) | 0.5 |
| <i>Skin excluding Basal and Squamous</i> | | | | | | |
| Melanoma of the Skin | 18 | 6.3 | (3.7, 10.1) | 26.8 | (26.3, 27.2) | 0.2 |
| Other Non-Epithelial Skin | - | - | - | 1.7 | (1.6, 1.8) | - |
| <i>Breast</i> | | | | | | |
| Breast | 340 | 130.8 | (116.7, 146.0) | 134.4 | (133.4, 135.4) | 1.0 |

(continued)

Table 3.5: (continued)

| | Alaska Native People | | | U.S. White People | | RR |
|---------------------------------------|----------------------|------|---------------|-------------------|---------------|-----|
| | Count | Rate | 95% CI | Rate | 95% CI | |
| <i>Female Genital System</i> | | | | | | |
| Cervix Uteri | 32 | 12.4 | (8.4, 17.8) | 6.7 | (6.4, 6.9) | 1.9 |
| Corpus Uteri | 40 | 13.7 | (9.7, 18.8) | 27.7 | (27.3, 28.2) | 0.5 |
| Uterus, NOS | - | - | - | 0.6 | (0.5, 0.6) | - |
| Ovary | 21 | 7.8 | (4.8, 12.1) | 11.4 | (11.1, 11.7) | 0.7 |
| Vagina | - | - | - | 0.6 | (0.6, 0.7) | - |
| Vulva | - | - | - | 2.9 | (2.8, 3.1) | - |
| Other Female Genital Organs | 10 | 3.5 | (1.6, 6.5) | 2.1 | (2.0, 2.3) | 1.6 |
| <i>Urinary System</i> | | | | | | |
| Urinary Bladder | 13 | 5.9 | (3.1, 10.3) | 9.1 | (8.8, 9.3) | 0.7 |
| Kidney and Renal Pelvis | 56 | 20.1 | (15.0, 26.3) | 10.7 | (10.4, 11.0) | 1.9 |
| Ureter | - | - | - | 0.4 | (0.3, 0.4) | - |
| Other Urinary Organs | - | - | - | 0.2 | (0.2, 0.3) | - |
| <i>Eye and Orbit</i> | | | | | | |
| Eye and Orbit | - | - | - | 0.9 | (0.8, 1.0) | - |
| <i>Brain and Other Nervous System</i> | | | | | | |
| Brain | 6 | 2.1 | (0.8, 4.7) | 5.6 | (5.4, 5.8) | 0.4 |
| Cranial Nerves Other Nervous System | - | - | - | 0.4 | (0.3, 0.4) | - |
| <i>Endocrine System</i> | | | | | | |
| Thyroid | 60 | 22.4 | (16.9, 29.0) | 23.0 | (22.6, 23.4) | 1.0 |
| Other Endocrine including Thymus | - | - | - | 0.6 | (0.5, 0.7) | - |
| <i>Lymphoma</i> | | | | | | |
| Hodgkin - Nodal | 6 | 2.2 | (0.8, 5.0) | 2.4 | (2.2, 2.5) | 0.9 |
| Hodgkin - Extranodal | - | - | - | 0.0 | (0.0, 0.1) | - |
| NHL - Nodal | 18 | 6.6 | (3.8, 10.6) | 10.9 | (10.6, 11.2) | 0.6 |
| NHL - Extranodal | 9 | 3.6 | (1.6, 7.1) | 6.2 | (6.0, 6.4) | 0.6 |
| <i>Myeloma</i> | | | | | | |
| Myeloma | 11 | 4.7 | (2.3, 8.4) | 4.9 | (4.8, 5.1) | 0.9 |
| <i>Leukemia</i> | | | | | | |
| Acute Lymphocytic Leukemia | - | - | - | 1.4 | (1.3, 1.6) | - |
| Chronic Lymphocytic Leukemia | - | - | - | 4.1 | (3.9, 4.2) | - |
| Other Lymphocytic Leukemia | - | - | - | 0.2 | (0.2, 0.3) | - |
| Acute Myeloid Leukemia | - | - | - | 3.7 | (3.6, 3.9) | - |
| Chronic Myeloid Leukemia | - | - | - | 1.6 | (1.5, 1.7) | - |
| Other Myeloid/Monocytic Leukemia | - | - | - | 0.1 | (0.0, 0.1) | - |
| Acute Monocytic Leukemia | - | - | - | 0.1 | (0.1, 0.2) | - |
| Other Acute Leukemia | - | - | - | 0.1 | (0.1, 0.2) | - |
| Aleukemic, subleukemic and NOS | - | - | - | 0.2 | (0.1, 0.2) | - |
| <i>Mesothelioma</i> | | | | | | |
| Mesothelioma | - | - | - | 0.4 | (0.4, 0.5) | - |
| <i>Kaposi Sarcoma</i> | | | | | | |
| Kaposi Sarcoma | - | - | - | 0.1 | (0.0, 0.1) | - |
| <i>Miscellaneous</i> | | | | | | |
| Miscellaneous | 13 | 5.9 | (3.1, 10.4) | 5.8 | (5.7, 6.0) | 1.0 |

Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130) standard. See section A.2 on page 171 for information regarding statistical methods, including years of data available for US White People..

3.3.2 *Fifty-year Incidence*

Table 3.6: Average annual age-adjusted cancer incidence rate by site, women, 1969–2018.

| | Alaska Native People | | |
|---|----------------------|--------------|-----------------------|
| | Count | Rate | 95% CI |
| All sites | 6,682 | 470.4 | (458.6, 482.4) |
| <i>Oral Cavity and Pharynx</i> | | | |
| Lip | - | - | - |
| Tongue | 27 | 1.9 | (1.2, 2.8) |
| Salivary Gland | 34 | 2.0 | (1.4, 2.9) |
| Floor of Mouth | 16 | 1.1 | (0.6, 1.7) |
| Gum and Other Mouth | 21 | 1.6 | (1.0, 2.5) |
| Nasopharynx | 64 | 4.3 | (3.2, 5.5) |
| Tonsil | 5 | 0.3 | (0.1, 0.7) |
| Oropharynx | 7 | 0.5 | (0.2, 1.0) |
| Hypopharynx | 6 | 0.4 | (0.1, 0.9) |
| Other Oral Cavity and Pharynx | - | - | - |
| <i>Digestive System</i> | | | |
| Esophagus | 69 | 5.2 | (4.0, 6.6) |
| Stomach | 190 | 13.6 | (11.6, 15.7) |
| Small Intestine | 13 | 0.9 | (0.5, 1.5) |
| Colon and Rectum | 1,143 | 89.5 | (84.1, 95.1) |
| Anus, Anal Canal and Anorectum | 26 | 1.8 | (1.1, 2.6) |
| Liver | 88 | 5.9 | (4.7, 7.4) |
| Intrahepatic Bile Duct | 7 | 0.5 | (0.2, 1.1) |
| Gallbladder | 72 | 5.6 | (4.3, 7.2) |
| Other Biliary | 36 | 2.9 | (2.0, 4.1) |
| Pancreas | 179 | 14.0 | (11.9, 16.3) |
| Retroperitoneum | - | - | - |
| Peritoneum, Omentum and Mesentery | 5 | 0.4 | (0.1, 1.0) |
| Other Digestive Organs | 26 | 2.2 | (1.4, 3.3) |
| <i>Respiratory System</i> | | | |
| Nose, Nasal Cavity and Middle Ear | 7 | 0.5 | (0.2, 1.0) |
| Larynx | 18 | 1.2 | (0.7, 1.8) |
| Lung and Bronchus | 867 | 68.1 | (63.4, 73.0) |
| Pleura | - | - | - |
| Trachea, Mediastinum and Other Respiratory Organs | - | - | - |
| <i>Bones and Joints</i> | | | |
| Bones and Joints | 22 | 1.2 | (0.7, 1.9) |
| <i>Soft Tissue including Heart</i> | | | |
| Soft Tissue including Heart | 36 | 2.1 | (1.4, 3.1) |
| <i>Skin excluding Basal and Squamous</i> | | | |
| Melanoma of the Skin | 52 | 3.2 | (2.3, 4.2) |
| Other Non-Epithelial Skin | 7 | 0.5 | (0.2, 1.1) |
| <i>Breast</i> | | | |
| Breast | 1,794 | 118.7 | (113.1, 124.5) |
| <i>Female Genital System</i> | | | |
| Cervix Uteri | 258 | 14.5 | (12.7, 16.5) |

(continued)

Table 3.6: (continued)

| | Alaska Native People | | |
|---------------------------------------|----------------------|------|--------------|
| | Count | Rate | 95% CI |
| Corpus Uteri | 191 | 12.4 | (10.7, 14.4) |
| Uterus, NOS | 8 | 0.4 | (0.2, 0.8) |
| Ovary | 168 | 11.1 | (9.4, 13.0) |
| Vagina | 13 | 1.1 | (0.6, 1.9) |
| Vulva | 28 | 2.3 | (1.5, 3.4) |
| Other Female Genital Organs | 32 | 1.8 | (1.2, 2.6) |
| <i>Urinary System</i> | | | |
| Urinary Bladder | 62 | 5.3 | (4.0, 6.9) |
| Kidney and Renal Pelvis | 259 | 17.8 | (15.6, 20.2) |
| Ureter | - | - | - |
| Other Urinary Organs | - | - | - |
| <i>Eye and Orbit</i> | | | |
| Eye and Orbit | 9 | 0.4 | (0.1, 0.8) |
| <i>Brain and Other Nervous System</i> | | | |
| Brain | 57 | 2.6 | (2.0, 3.5) |
| Cranial Nerves Other Nervous System | 8 | 0.4 | (0.1, 0.7) |
| <i>Endocrine System</i> | | | |
| Thyroid | 229 | 12.9 | (11.2, 14.8) |
| Other Endocrine including Thymus | 5 | 0.2 | (0.1, 0.6) |
| <i>Lymphoma</i> | | | |
| Hodgkin - Nodal | 20 | 1.1 | (0.6, 1.7) |
| Hodgkin - Extranodal | - | - | - |
| NHL - Nodal | 91 | 6.2 | (4.9, 7.7) |
| NHL - Extranodal | 51 | 3.7 | (2.7, 4.9) |
| <i>Myeloma</i> | | | |
| Myeloma | 57 | 4.0 | (3.0, 5.3) |
| <i>Leukemia</i> | | | |
| Acute Lymphocytic Leukemia | 37 | 1.3 | (0.9, 1.9) |
| Chronic Lymphocytic Leukemia | 5 | 0.4 | (0.1, 1.0) |
| Other Lymphocytic Leukemia | - | - | - |
| Acute Myeloid Leukemia | 32 | 1.8 | (1.2, 2.7) |
| Chronic Myeloid Leukemia | 18 | 1.0 | (0.6, 1.6) |
| Other Myeloid/Monocytic Leukemia | - | - | - |
| Acute Monocytic Leukemia | - | - | - |
| Other Acute Leukemia | - | - | - |
| Aleukemic, subleukemic and NOS | - | - | - |
| <i>Mesothelioma</i> | | | |
| Mesothelioma | - | - | - |
| <i>Kaposi Sarcoma</i> | | | |
| Kaposi Sarcoma | - | - | - |
| <i>Miscellaneous</i> | | | |
| Miscellaneous | 185 | 15.9 | (13.6, 18.6) |

Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130) standard.