



HAWAII

Cancer at a Glance

2014-2018



University of Hawai'i Cancer Center

The University of Hawai'i (UH) Cancer Center is one of 71 National Cancer Institute (NCI)-designated Cancer Centers in the United States and the only center in Hawai'i and the Pacific. The UH Cancer Center's mission is to reduce the burden of cancer through research, education, patient care and community outreach with an emphasis on the unique ethnic, cultural, and environmental characteristics of Hawai'i and the Pacific. The UH Cancer Center is a research organization within the University of Hawai'i at Mānoa with facilities located in downtown Honolulu. Our world-class facility was completed in early 2013. The UH Cancer Center directly employs 300 faculty and staff, with another 200 affiliate members through the UH-led Hawai'i Cancer Consortium.

Hawai'i Tumor Registry

The Hawai'i Tumor Registry (HTR) was established in 1960 by the Hawai'i Medical Association, the Hawai'i State Department of Health, and the Hawai'i Pacific Division of the American Cancer Society. The HTR has been operated by the University of Hawai'i Cancer Center since 1973 when it became a funded registry of the National Cancer Institute Surveillance, Epidemiology and End Results (SEER) Program. As one of the 22 NCI/SEER regions nationwide, the HTR provides complete and confidential cancer reporting for the entire state and serves as a resource for cancer research and cancer control activities in Hawai'i and the US. Its data is used for local, national, and international research efforts.

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Overview of Cancer in Hawai‘i, 2014-2018

- Each year, an average of 7,393 Hawai‘i residents are diagnosed with invasive cancer.
- During the period 2014-2018, the statewide average annual incidence rate for all cancers combined was 439.8 per 100,000 in males and 402.1 per 100,000 in females.
- Cancer is the 2nd leading cause of death (after cardiovascular disease) in Hawai‘i.
- On average, 2,393 Hawai‘i residents die of cancer each year.
- During the period 2014-2018, the average annual mortality (death) rate for all cancers combined was 153.4 per 100,000 in males and 106.9 per 100,000 in females.
- The mean age of cancer diagnosis is 67 years for males and 64 years for females
- The most common cancer in men is prostate cancer, which accounts for 23% of cases, followed by cancers of the lung & bronchus (13%), colon & rectum (10%), melanoma of the skin (7%), and bladder (6%).
- Breast cancer is the most common cancer among women, comprising 34% of cases, followed by cancers of the lung & bronchus (10%), colon & rectum (9%), uterus/endometrium (8%), and thyroid (4%).
- The leading cause of cancer death in men is lung & bronchus cancer, which accounts for 24% of cancer deaths, followed by cancers of the prostate (10%), colon & rectum (9%), liver & intrahepatic bile duct (8%), and pancreas (8%).
- Lung & bronchus cancer is also the top cause of cancer death in women (21%) followed by cancers of the breast (14%), pancreas (9%), colon & rectum (9%), and liver & intrahepatic bile duct (5%).



Table 1. Top Cancers in Hawai'i, Newly Diagnosed Cases and Deaths, 2014-2018

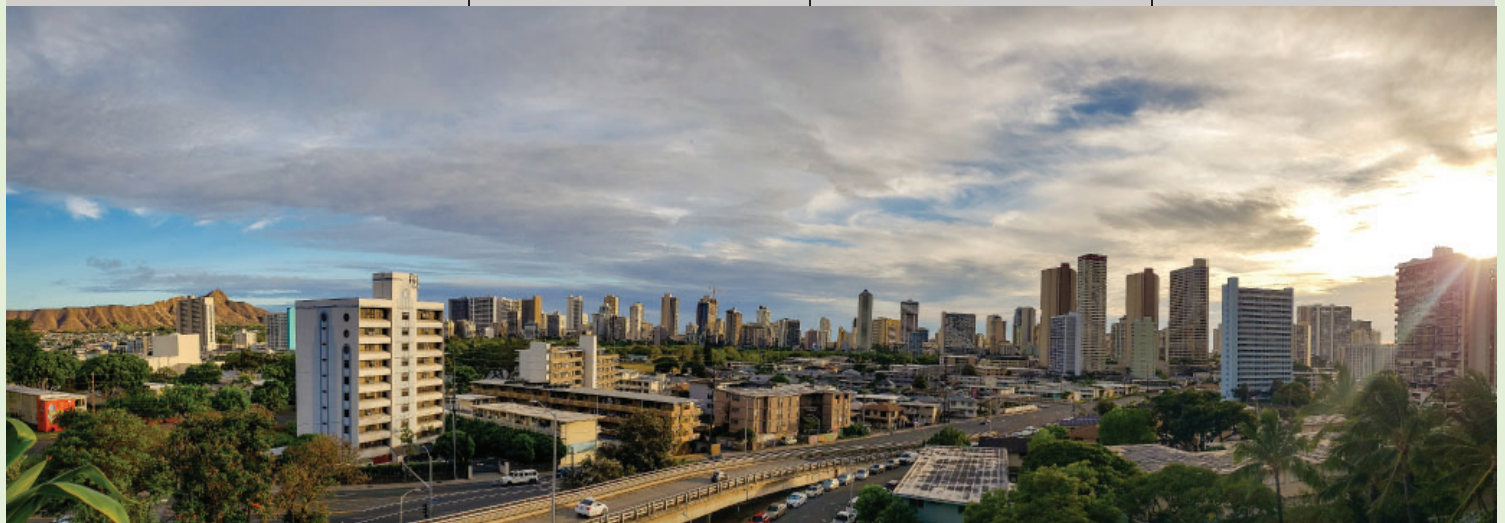
Incidence Average Number & Percent of Cases Per Year		Mortality Average Number & Percent of Deaths Per Year	
Male No. Cases Percent	Female No. Cases Percent	Male No. Deaths Percent	Female No. Deaths Percent
Prostate 855 22.8%	Breast 1,233 33.8%	Lung & Bronchus 314 24.1%	Lung & Bronchus 230 21.1%
Lung & Bronchus 467 12.5%	Lung & Bronchus 359 9.8%	Prostate 125 9.6%	Breast 155 14.2%
Colon & Rectum 385 10.3%	Colon & Rectum 325 8.9%	Colon & Rectum 118 9.1%	Pancreas 101 9.3%
Melanoma of the Skin 264 7.1%	Uterus/Endometrium 286 7.9%	Liver & Intrahepatic Bile Duct 103 7.9%	Colon & Rectum 98 9.0%
Bladder 209 5.6%	Thyroid 160 4.4%	Pancreas 100 7.7%	Liver & Intrahepatic Bile Duct 49 4.5%
Oral Cavity & Pharynx 161 4.3%	Melanoma of the Skin 140 3.8%	Leukemia 48 3.7%	Ovary; Uterus/Endometrium 44 4.0%
Non-Hodgkin Lymphoma 160 4.3%	Non-Hodgkin Lymphoma 123 3.4%	Non-Hodgkin Lymphoma 46 3.5%	Non-Hodgkin Lymphoma 37 3.4%
Kidney & Renal Pelvis 159 4.2%	Pancreas 120 3.3%	Stomach 42 3.2%	Stomach 32 2.9%
Liver & Intrahepatic Bile Duct 139 3.7%	Ovary 82 2.3%	Bladder 41 3.1%	Leukemia 30 2.8%
Pancreas 131 3.5%	Kidney & Renal Pelvis 76 2.1%	Esophagus 39 3.0%	Brain & Other Nervous System 21 1.9%
All Sites 3,745 100.0%	All Sites 3,648 100.0%	All Sites 1,302 100.0%	All Sites 1,090 100.0%

Table 2. Average Annual Incidence, Hawai'i, 2014-2018

	All		Male		Female	
Cancer Sites	Cases/Year	Rate	Cases/Year	Rate	Cases/Year	Rate
All Sites	7,393	415.5	3,745	439.8	3,648	402.1
Anus, Anal Canal & Anorectum	20	1.1	-	-	-	-
Bladder	264	14.1	209	24.9	55	5.2
Bones & Joints	13	0.9	-	-	-	-
Brain & Other Nervous System	68	4.2	39	5.1	29	3.5
Breast	-	-	-	-	1,233	139.6
Cervix	-	-	-	-	50	6.9
Colon & Rectum	710	40.1	385	46.0	325	34.6
Uterus/Endometrium	-	-	-	-	286	32.4
Esophagus	65	3.5	52	6.0	14	1.3
Gallbladder	18	1.0	-	-	-	-
Hodgkin Lymphoma	24	1.6	-	-	-	-
Kidney & Renal Pelvis	234	13.3	159	18.8	76	8.4
Larynx	37	1.9	-	-	-	-
Leukemia	180	10.5	109	13.5	70	7.9
Liver & Intrahepatic Bile Duct	200	10.6	139	16.0	61	5.9
Lung & Bronchus	826	44.1	467	54.5	359	35.5
Melanoma of the Skin	404	22.9	264	31.2	140	15.8
Myeloma	89	4.8	51	5.9	39	4.0
Non-Hodgkin Lymphoma	283	15.9	160	19.1	123	13.1
Nose, Nasal Cavity & Middle Ear	12	0.6	-	-	-	-
Oral Cavity & Pharynx	234	13.3	161	19.0	74	8.1
Other Biliary	41	2.2	24	2.9	17	1.6
Other Digestive Organs	26	1.3	16	1.8	10	1.0
Other Endocrine Including Thymus	14	0.9	-	-	-	-
Other Female Genital Organs	-	-	-	-	28	3.1
Other Non-Epithelial Skin	34	1.8	22	2.6	12	1.2
Ovary	-	-	-	-	82	9.7
Pancreas	251	13.6	131	15.4	120	11.9
Prostate	-	-	855	95.6	-	-
Small Intestine	36	1.9	21	2.4	15	1.6
Soft Tissue Including Heart	62	3.6	36	4.6	25	2.8
Stomach	154	8.3	92	11.1	61	6.1
Testis	-	-	42	5.9	-	-
Thyroid	209	14.0	49	6.5	160	21.7
Ureter	11	0.6
Vulva	-	-	-	-	18	1.8
Other Cancers	272	14.9	164	19.7	109	10.9

Table 3. Average Annual Mortality (Deaths), Hawai'i, 2014-2018

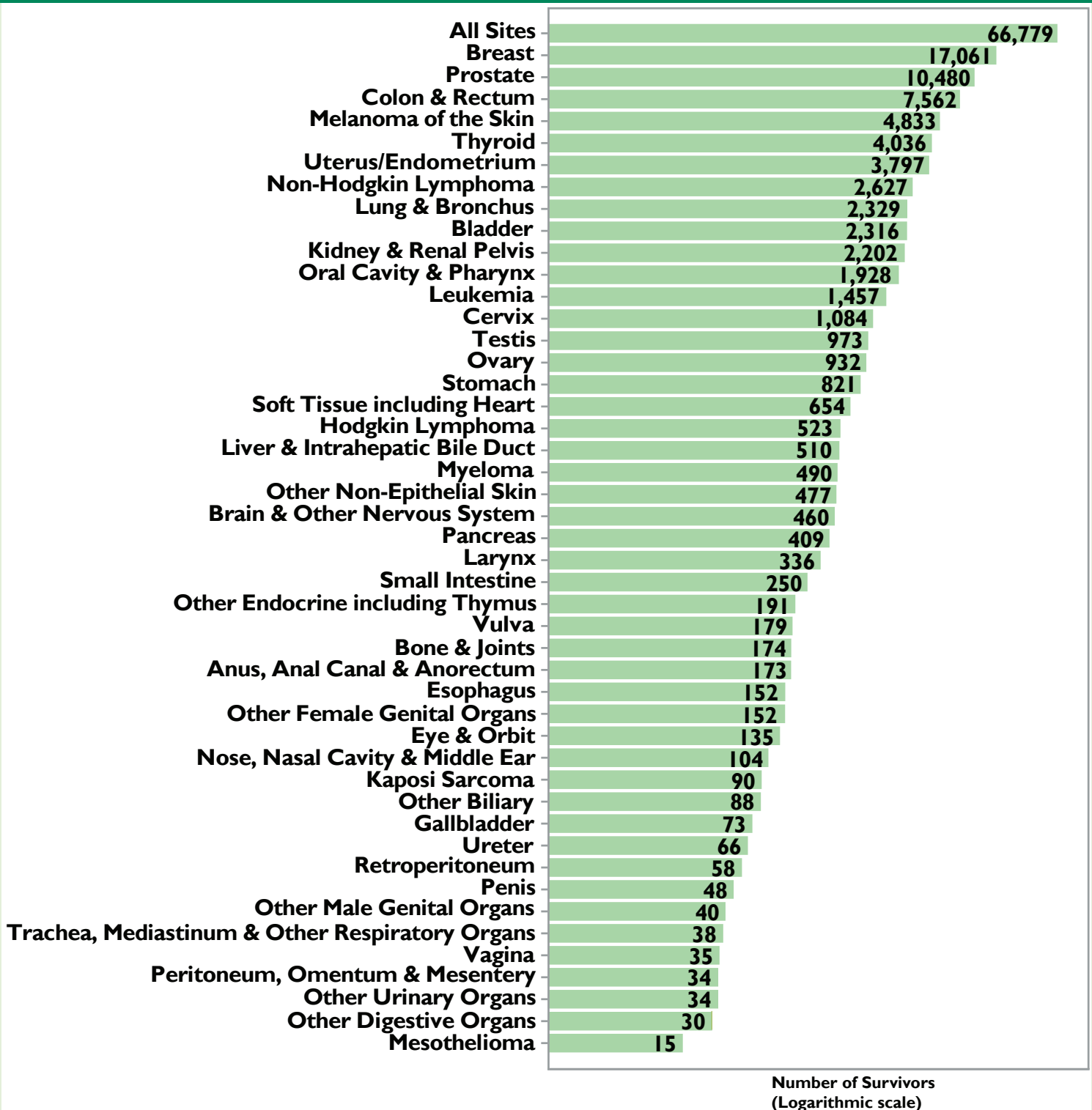
	All		Male		Female	
Cancer Sites	Deaths/Year	Rate	Deaths/Year	Rate	Deaths/Year	Rate
All Sites	2,393	127.2	1,302	153.4	1,090	106.9
Bladder	55	2.8	41	4.9	14	1.3
Brain & Other Nervous System	50	2.8	29	3.5	21	2.3
Breast	-	-	-	-	155	15.8
Cervix	-	-	-	-	13	1.5
Colon & Rectum	216	11.5	118	13.9	98	9.5
Uterus/Endometrium	-	-	-	-	44	4.7
Esophagus	53	2.8	39	4.5	14	1.3
Gallbladder	10	0.5	-	-	-	-
Kidney & Renal Pelvis	48	2.6	33	3.8	16	1.6
Larynx	12	0.6	-	-	-	-
Leukemia	78	4.3	48	6.0	30	2.9
Liver & Intrahepatic Bile Duct	152	8.0	103	11.9	49	4.6
Lung & Bronchus	544	28.8	314	36.9	230	22.3
Melanoma of the Skin	25	1.3	-	-	-	-
Myeloma	46	2.4	26	3.1	20	1.9
Non-Hodgkin Lymphoma	83	4.4	46	5.5	37	3.4
Non-Melanoma Skin	13	0.7	-	-	-	-
Oral Cavity & Pharynx	53	2.8	35	4.1	17	1.8
Other Digestive Organs	11	0.6	-	-	-	-
Ovary	-	-	-	-	44	4.5
Pancreas	201	10.6	100	11.7	101	9.6
Prostate	-	-	125	14.8	-	-
Soft Tissue Including Heart	23	1.3	12	1.6	10	1.1
Stomach	73	3.8	42	5.0	32	2.9
Thyroid	11	0.6	-	-	-	-
Other Cancers	252	13.3	137	16.1	115	11.1



Cancer Survivorship

In 2018, there were 66,779 Hawai'i residents (28,976 males, 37,803 females) living with cancer including those newly diagnosed and those diagnosed in the past. Cases with cancer of the breast (17,061 cases), prostate (10,480 cases), and colon & rectum (7,562 cases) comprised the largest proportion of cancer survivors in the state.

Figure 1. Cancer Survivors, Hawai'i, 2018



Cancer Across the Hawaiian Islands (Counties)

- Annually, Honolulu County, including all of O'ahu, accounts for the majority of newly diagnosed cancer cases (69%, or 5,113), followed by Hawai'i County (14%, or 1,068 cases), Maui County (including Maui, Moloka'i, & Lāna'i) (12%, or 858 cases), and Kaua'i County (5%, or 353 cases).
- Each year, residents of Honolulu County account for the most cancer deaths (67%, or 1,603), followed by Hawai'i County (17%, or 397 deaths), Maui County (11%, or 268 deaths), and Kaua'i County (5%, or 125 deaths).
- Overall cancer incidence rates were highest in Honolulu and Maui Counties (427 and 410 per 100,000, respectively) compared to Hawai'i and Kaua'i Counties (385 and 364 per 100,000, respectively).
- Overall cancer mortality rates were highest in Hawai'i County (140 per 100,000) compared to the Honolulu, Maui, and Kaua'i (125, 127, and 124 per 100,000, respectively).
- Melanoma of the skin incidence in Honolulu County was lower than in Hawai'i, Maui and Kaua'i Counties.
- Breast cancer incidence was higher in Honolulu County compared to Hawai'i, Kaua'i, and Maui Counties.
- Uterus/endometrium cancer incidence in Kaua'i County was lower than Honolulu County.
- Prostate cancer incidence in Hawai'i and Maui County was lower than Honolulu and Kaua'i Counties. Prostate mortality in Honolulu County was lower than Hawai'i and Maui Counties.
- Thyroid cancer incidence was lower in Hawai'i and Kaua'i Counties compared to Honolulu and Maui Counties.
- Liver & intrahepatic bile duct cancer in Kaua'i County was lower than Honolulu County.

Table 4. Average Annual Number of Cancer Cases and Deaths, by County, Hawai'i, 2014-2018

County	All Sites		Breast (Female)		Prostate		Colon & Rectum		Lung & Bronchus	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Honolulu	5,113	1,603	877	104	621	76	494	144	579	379
Hawai'i	1,068	397	167	27	108	24	94	36	122	81
Maui	858	268	138	16	78	16	86	24	87	58
Kaua'i	353	125	51	<10	48	<10	36	12	38	27

Figure 2. Overall Cancer Incidence and Mortality by County, Hawai'i, 2014-2018

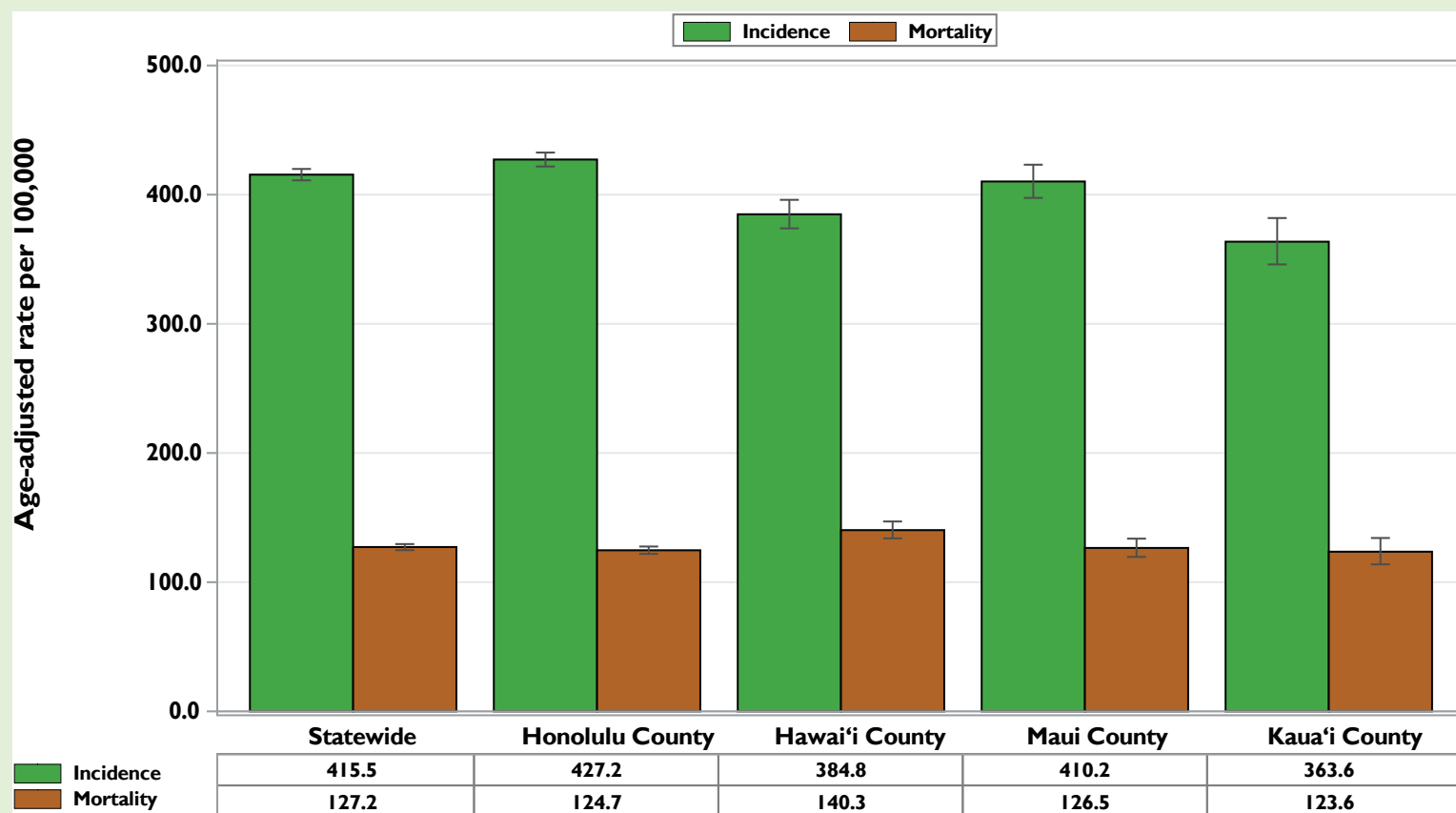


Figure 3. Melanoma of the Skin Incidence and Mortality by County, Hawai'i, 2014-2018

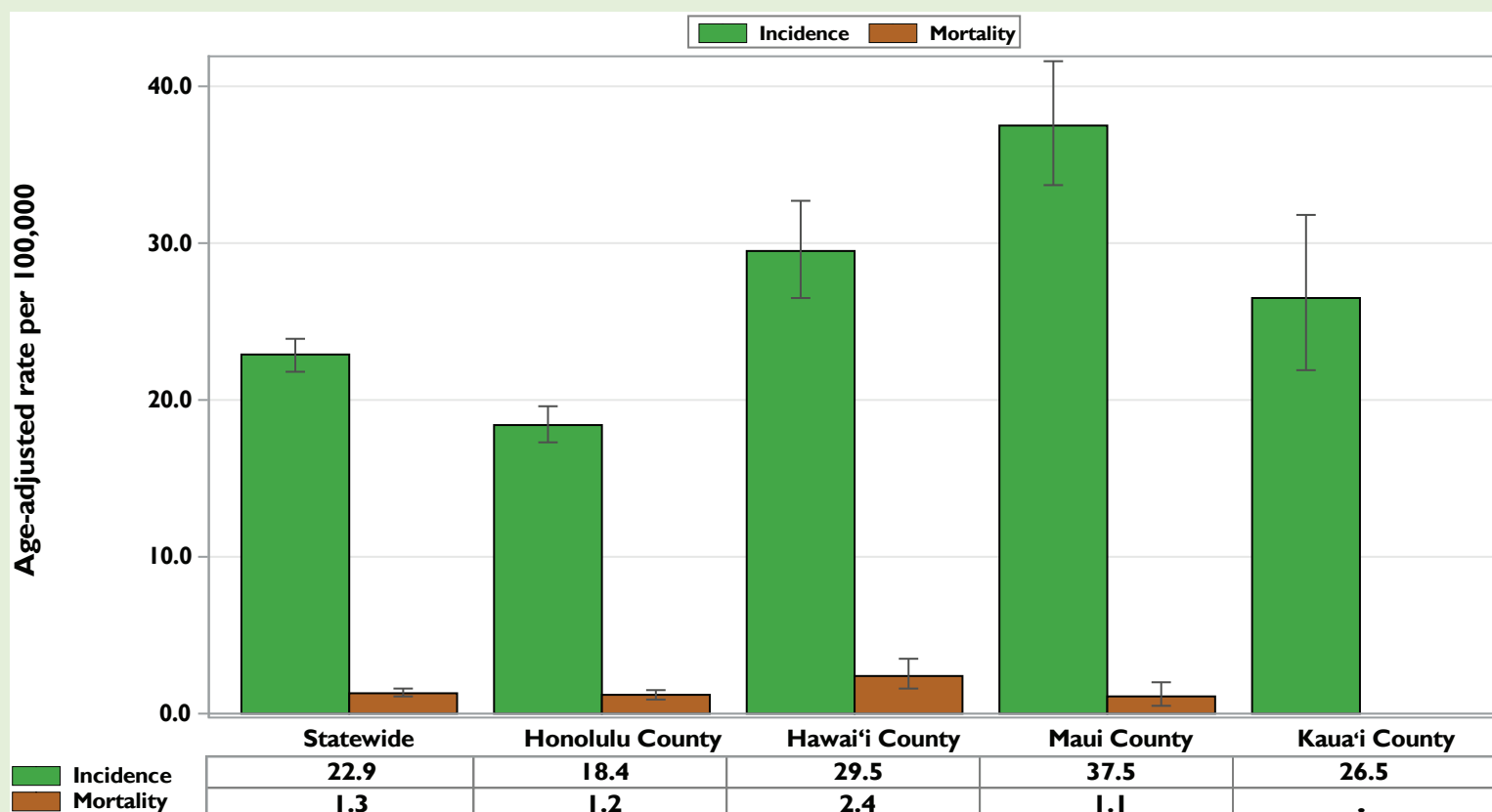


Figure 4. Prostate Incidence and Mortality by County, Hawai'i, 2014-2018

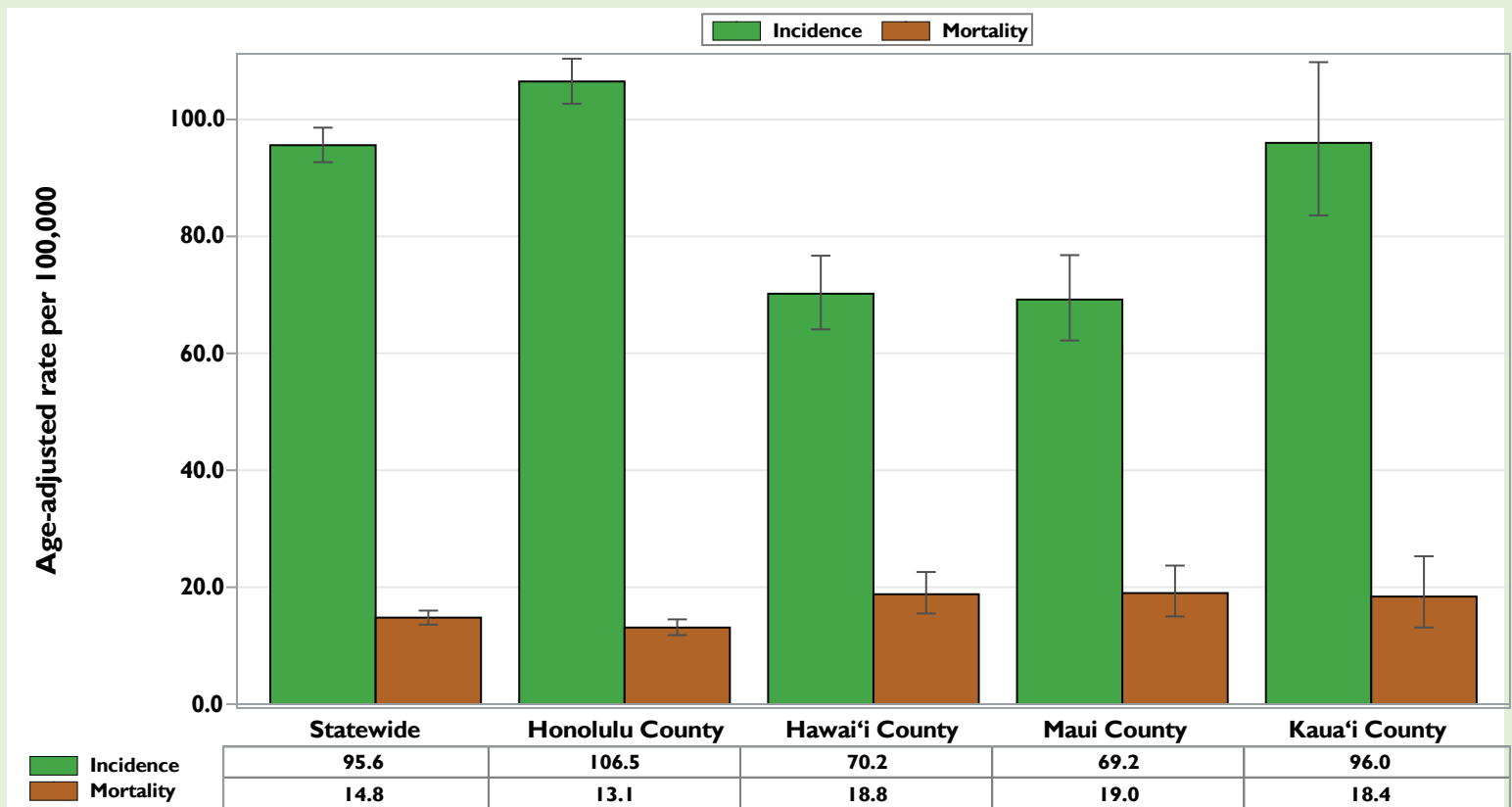
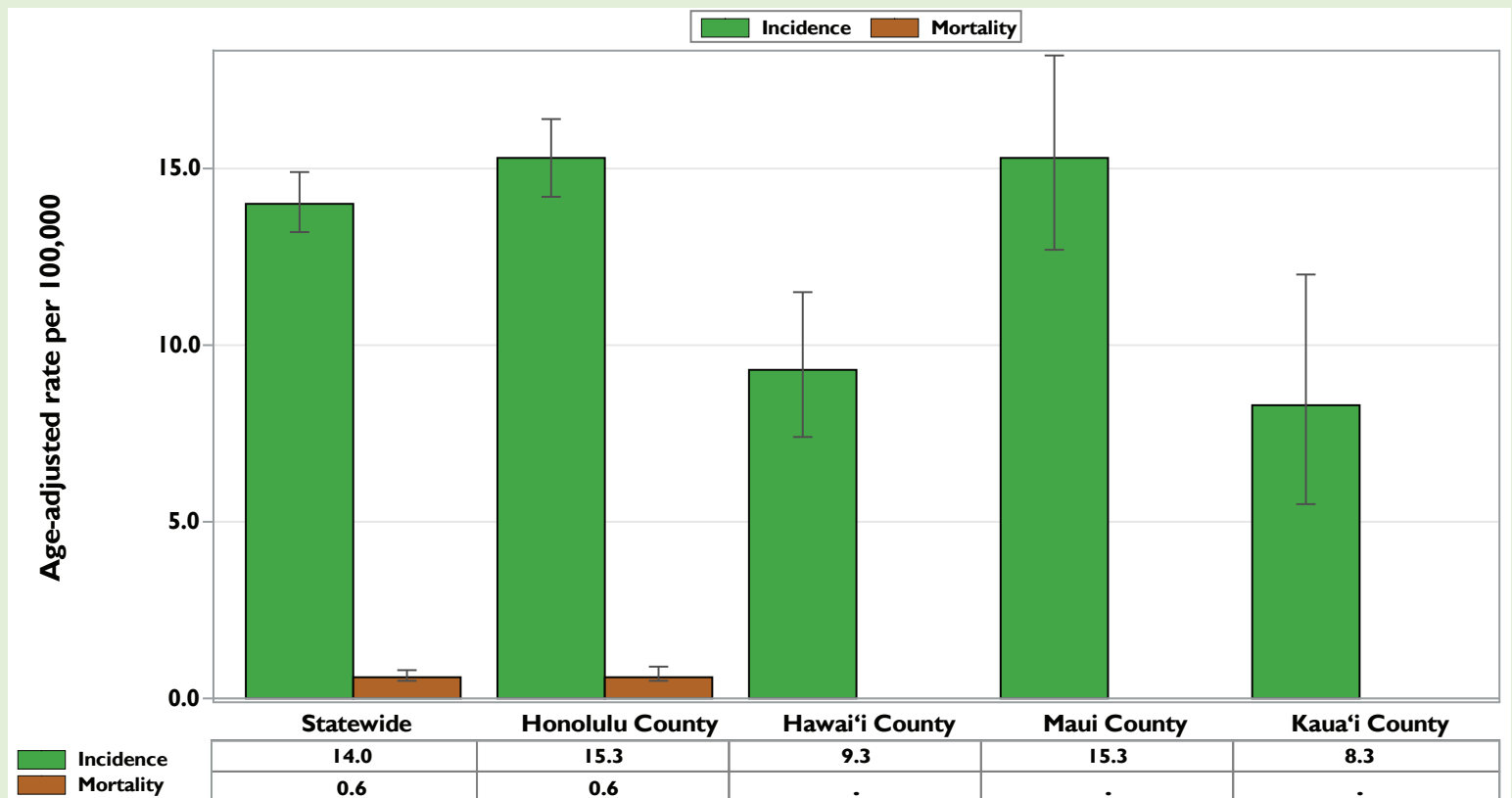


Figure 5. Thyroid Incidence and Mortality by County, Hawai'i, 2014-2018



Trends in Cancer Incidence and Mortality in Hawai‘i

- Over the past two decades (1999-2018), overall cancer incidence decreased in males & increased in females. Overall cancer mortality rates steadily decreased in both sexes (1.5% per year for males and 1.0% per year for females)
- Over the past decade (2009 to 2018), overall cancer incidence decreased among men (1.0% per year) and showed a slight increase among females (0.4% per year)
- Over the past decade (2009 to 2018), overall cancer mortality significantly declined in males (1.5% per year) and in females (1.0% per year).
- From 2009 to 2018, significant changes in incidence were observed for certain cancers:
 - Melanoma of the skin and cancers of the kidney & renal pelvis, testis, oral cavity & pharynx, and pancreas increased among males.
 - Cancers of the lung & bronchus, colon & rectum, larynx, stomach, and all cancer sites combined decreased among males.
 - Myeloma, melanoma of the skin, and cancers of the uterus/endometrium, breast, oral cavity & pharynx, and all sites combined increased among females.
 - Cancers of the ovary, lung & bronchus, colon & rectum, and stomach decreased among females.
- From 2009 to 2018, significant changes in mortality were observed for certain cancers:
 - Mortality increased for liver & intrahepatic bile duct cancer among males.
 - Mortality for all sites combined, non-Hodgkin lymphoma, and cancers of the colon & rectum, lung & bronchus, and stomach decreased among males.
 - Mortality increased for cancer of the uterus/endometrium among females.
 - Mortality for all sites combined, non-Hodgkin lymphoma, leukemia and cancers of the breast, colon & rectum, ovary, and stomach decreased among females.



Figure 6. Cancer Incidence, Average Annual Number of Cases and Age-Adjusted Rates, Hawai'i, 1984-2018

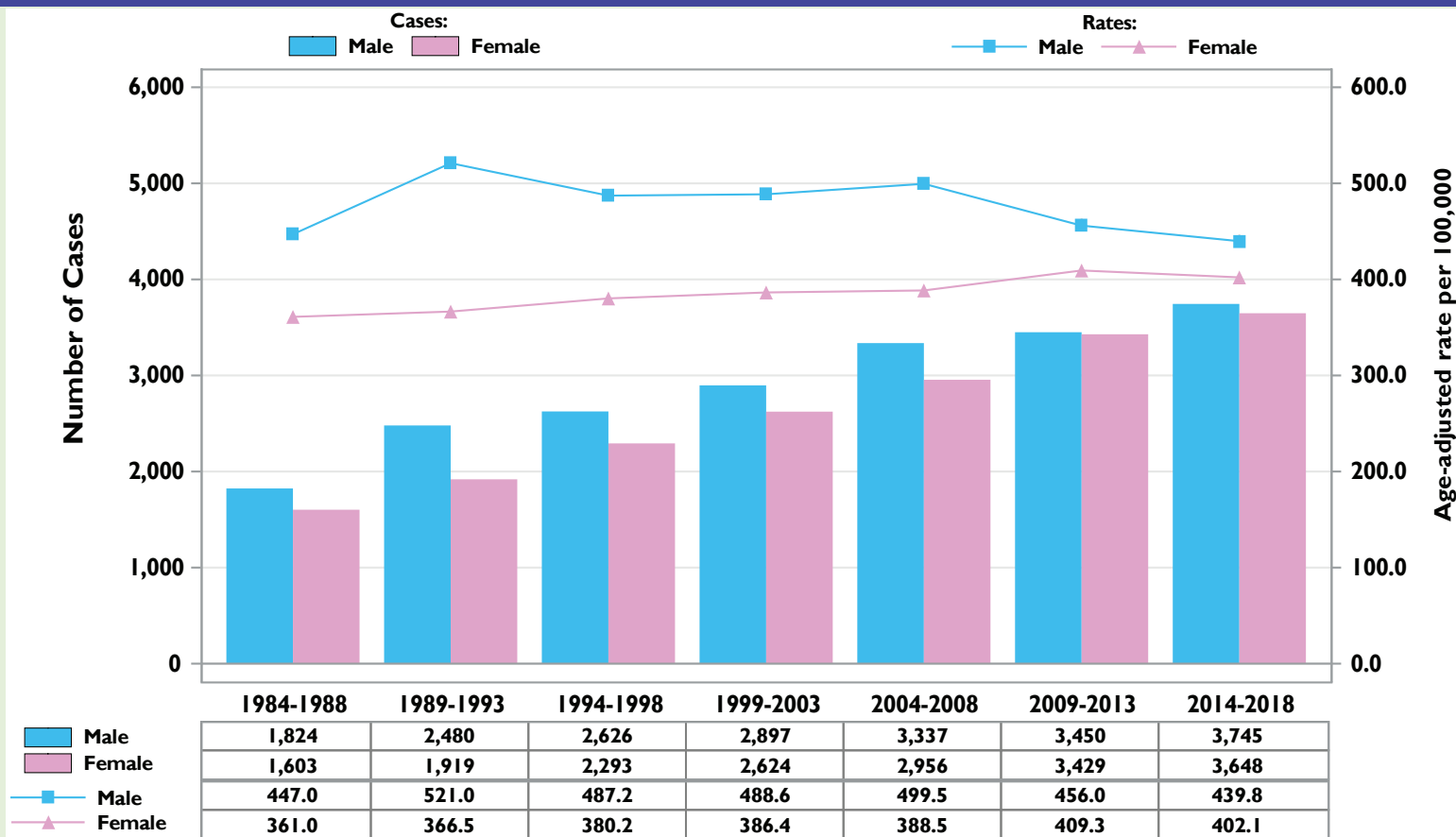


Figure 7. Cancer Mortality, Average Annual Number of Cases and Age-Adjusted Rates, Hawai'i, 1984-2018

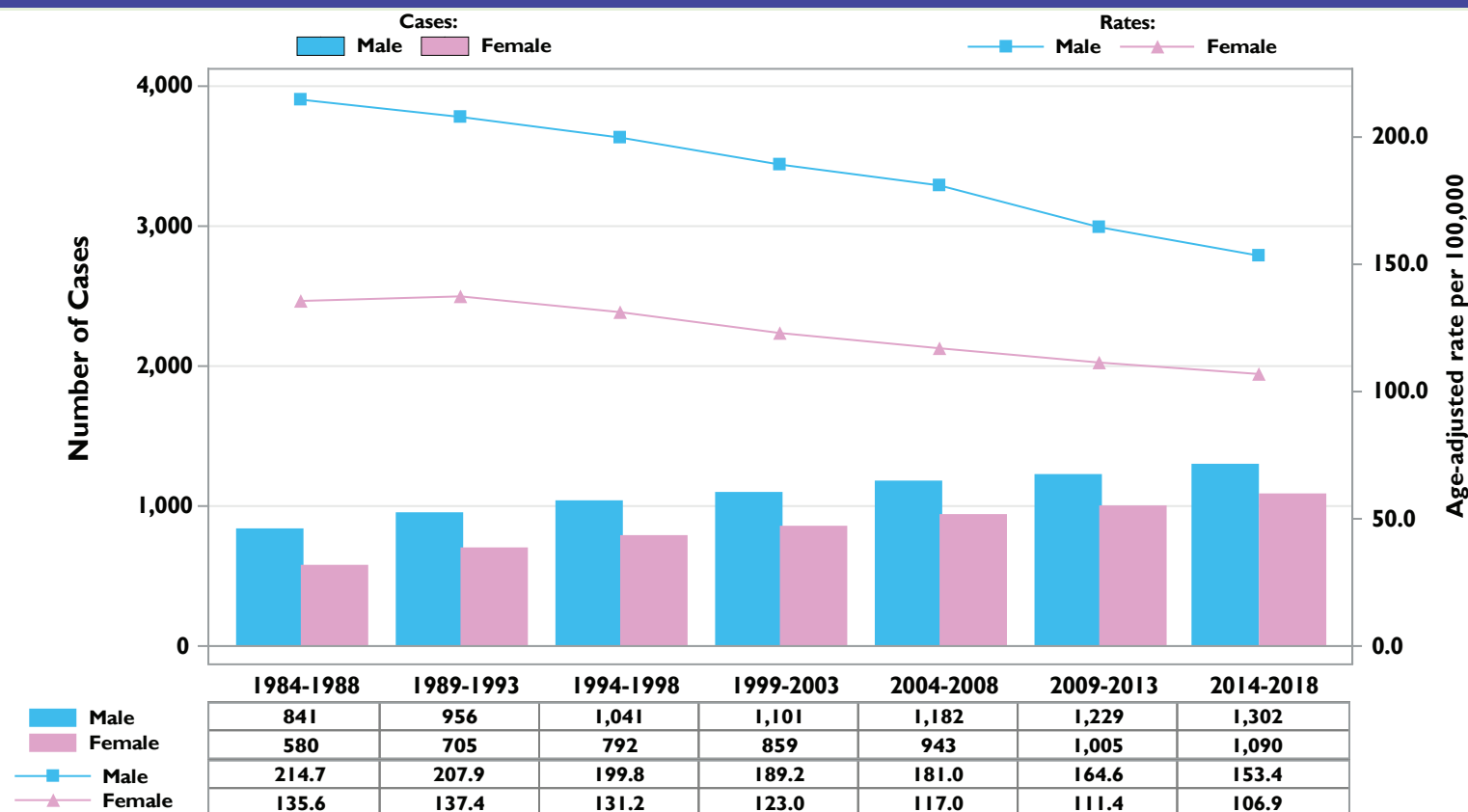


Figure 8. Average Annual Percent Change in Cancer Incidence Rates, Males, Hawai'i, 2009-2018

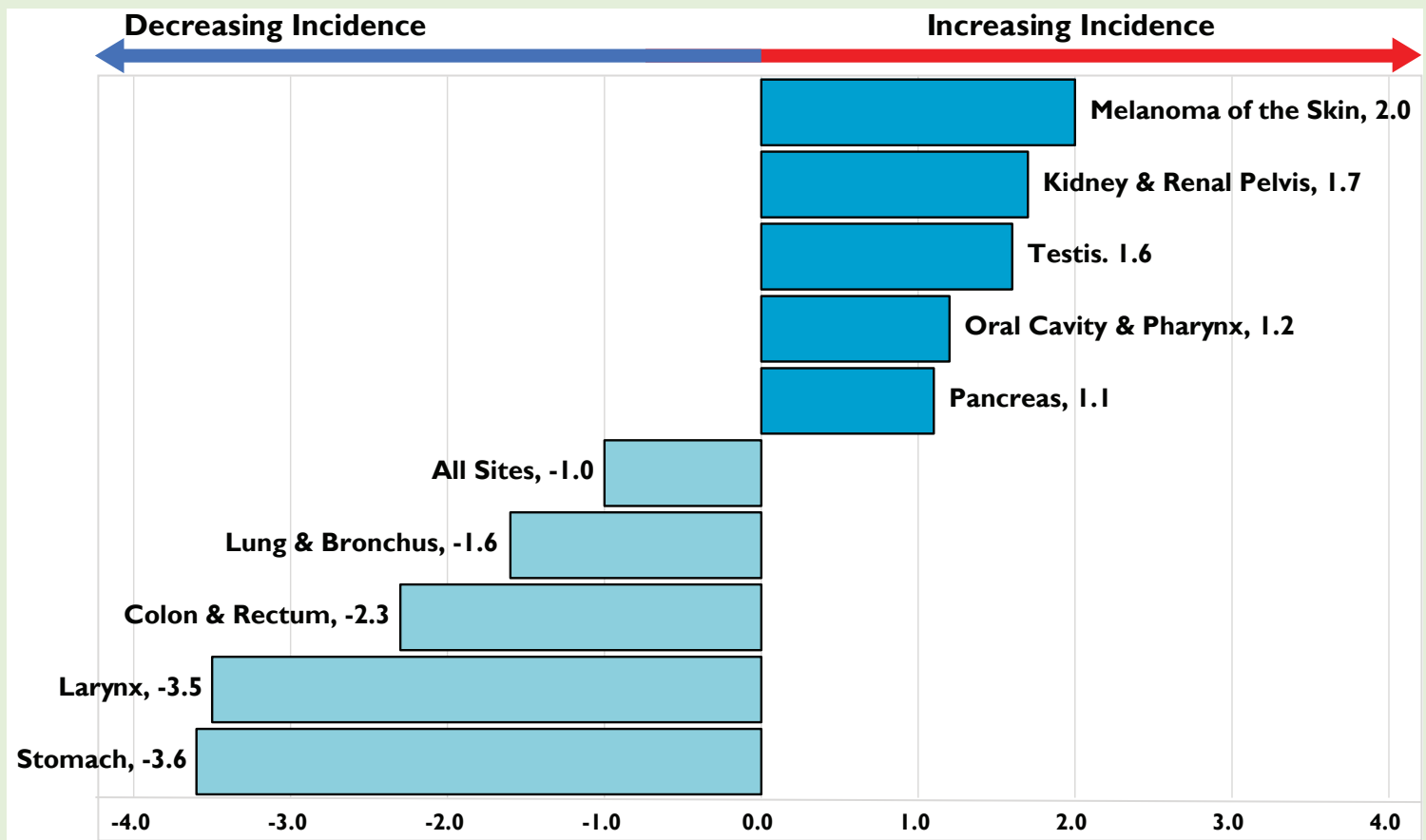


Figure 9. Average Annual Percent Change in Cancer Incidence Rates, Females, Hawai'i, 2009-2018

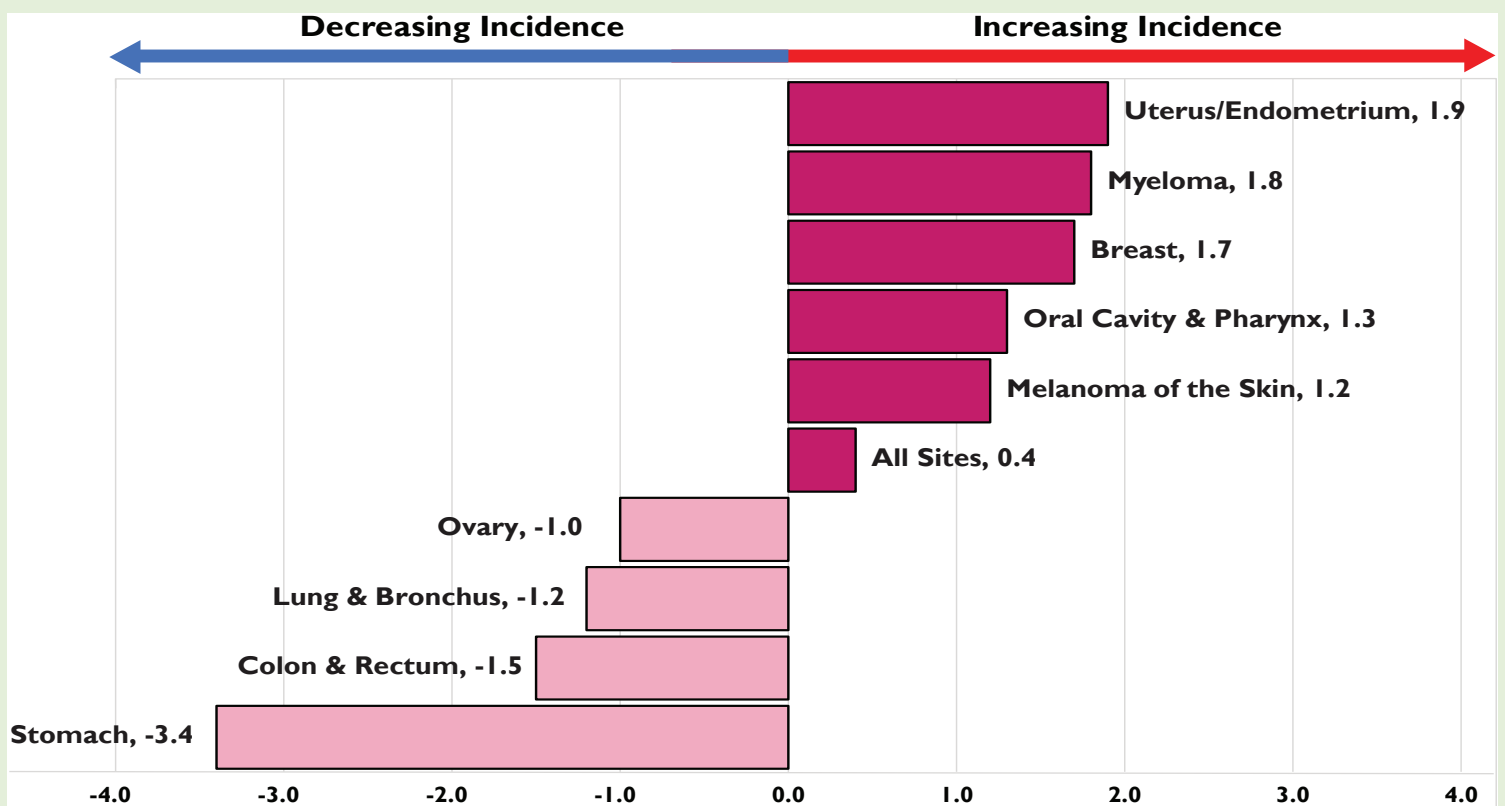


Figure 10. Average Annual Percent Change in Cancer Mortality Rates, Males, Hawai'i, 2009-2018

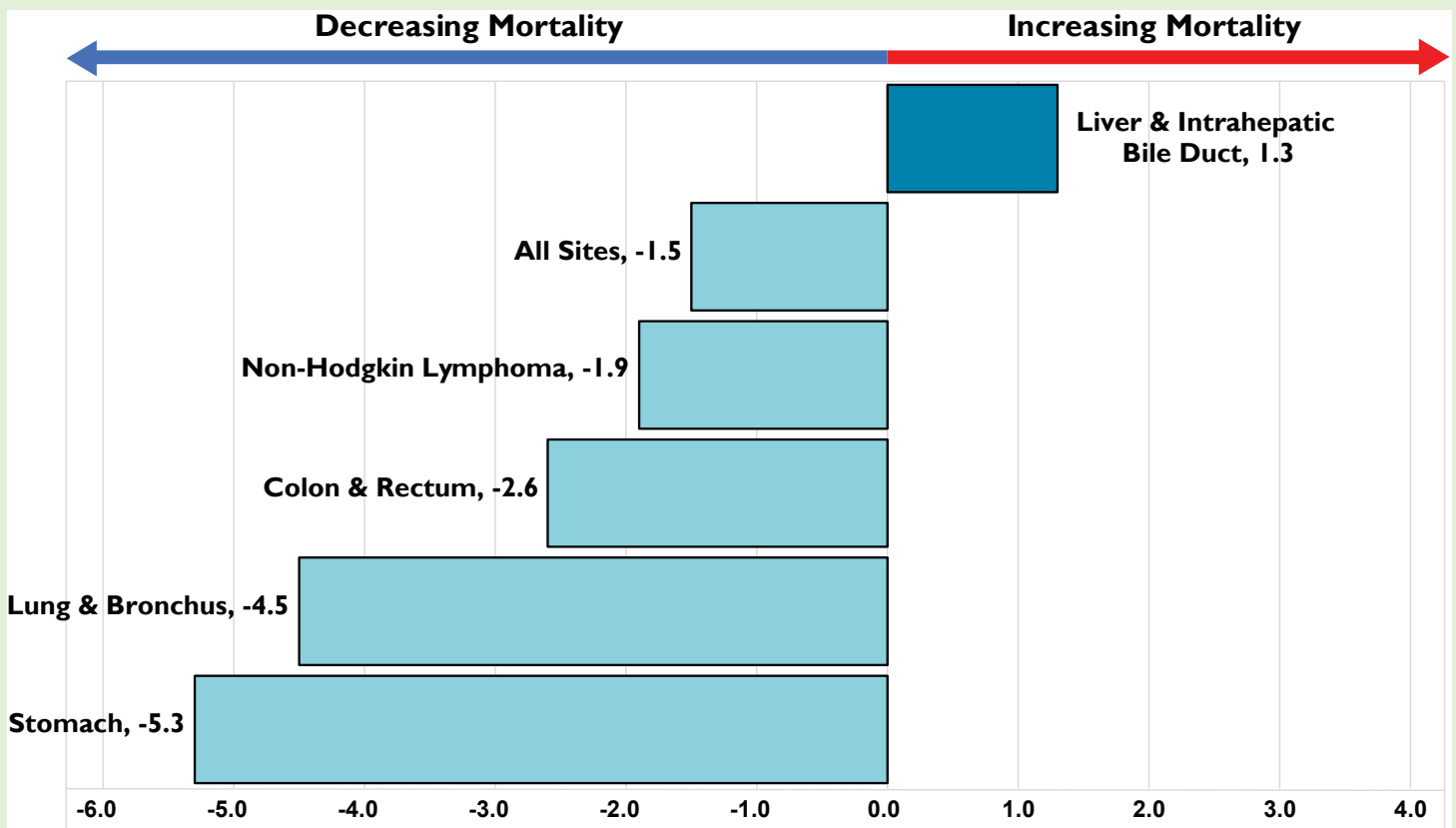
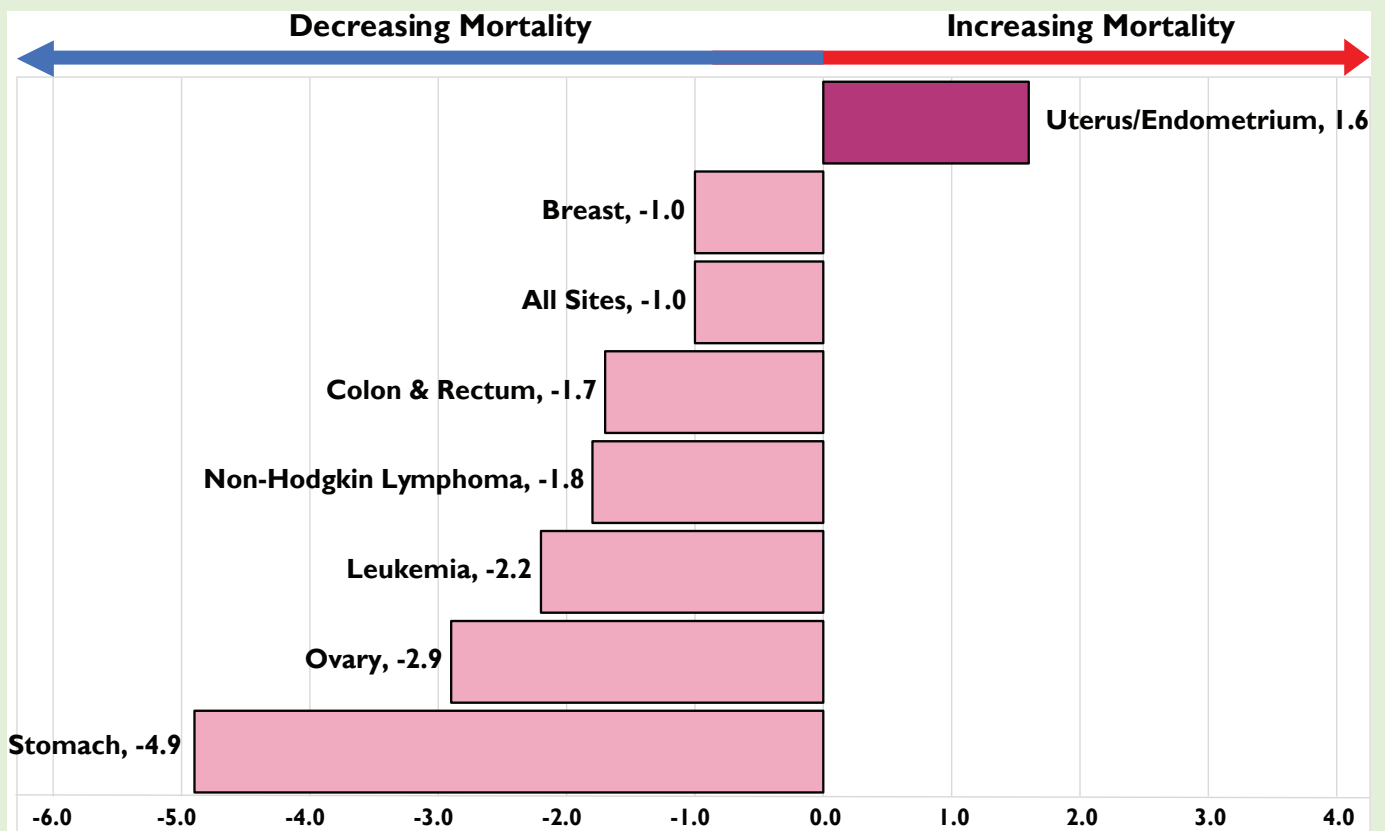


Figure 11. Average Annual Percent Change in Cancer Mortality Rates, Females, Hawai'i, 2009-2018



Comparison of Cancer in Hawai'i and the United States

- In 2014-2018, Hawai'i incidence rates were significantly higher than the U.S. overall for the following cancers: colon & rectum, melanoma of the skin, and other biliary in males; breast, oral cavity & pharynx, uterus/endometrium, and other female genital organs in females; and liver & intrahepatic bile duct, stomach, and other digestive organs in both sexes.
- In 2014-2018, Hawai'i incidence rates were significantly lower than the U.S. overall for the following cancers: esophagus and prostate in males; melanoma of the skin, small intestine, vulva in females; and all cancers combined, bladder, brain & other nervous system, kidney & renal pelvis, leukemia, lung & bronchus, myeloma, non-Hodgkin lymphoma in both sexes.
- In 2014-2018, mortality rates were significantly higher in Hawai'i compared to the U.S. overall for cancers of the liver & intrahepatic bile duct in males and cancer of the stomach in both sexes.
- In 2014-2018, cancer mortality rates in Hawai'i were significantly lower than the U.S. overall for cancers of the esophagus and prostate in males; cancer of the ovary, breast, cervix in females; and all cancers combined, bladder, brain & other nervous system, colon & rectum, kidney & renal pelvis, leukemia, lung & bronchus, myeloma, non-Hodgkin lymphoma in both sexes.



Table 5. Cancers with Higher Incidence in Hawai'i Compared to the U.S., 2014-2018

Site	Hawai'i Incidence Rate	U.S. Incidence Rate
Males		
Colon & Rectum	46.0	43.5
Liver & Intrahepatic Bile Duct	16.0	13.1
Melanoma of the Skin	31.2	28.9
Other Biliary	2.9	2.1
Other Digestive Organs	1.8	0.8
Stomach	11.1	8.7
Females		
Breast	139.6	126.9
Liver & Intrahepatic Bile Duct	5.9	4.7
Oral Cavity & Pharynx	8.1	6.5
Other Digestive Organs	1.0	0.6
Other Female Genital Organs	3.1	1.7
Stomach	6.1	4.6
Uterus/Endometrium	32.4	27.4



Table 6. Cancers with Lower Incidence in Hawai'i Compared to the U.S., 2014-2018

Site	Hawai'i Incidence Rate	U.S. Incidence Rate
Males		
All Cancer Sites Combined	439.8	487.9
Bladder	24.9	34.0
Brain & Other Nervous System	5.1	7.6
Esophagus	6.0	7.8
Kidney & Renal Pelvis	18.8	23.2
Leukemia	13.5	18.1
Lung & Bronchus	54.5	65.8
Myeloma	5.9	8.6
Non-Hodgkin Lymphoma	19.1	23.1
Prostate	95.6	106.4
Females		
All Cancer Sites Combined	402.1	423.0
Bladder	5.2	8.5
Brain & Other Nervous System	3.5	5.5
Kidney & Renal Pelvis	8.4	11.8
Leukemia	7.9	11.0
Lung & Bronchus	35.5	50.8
Melanoma of the Skin	15.8	18.0
Myeloma	4.0	5.7
Non-Hodgkin Lymphoma	13.1	15.9
Small Intestine	1.6	2.2
Vulva	1.8	2.6

Table 7. Cancers with Higher Mortality in Hawai'i Compared to the U.S., 2014-2018

Site	Hawai'i Mortality Rate	U.S. Mortality Rate
Males		
Liver & Intrahepatic Bile Duct	11.9	9.7
Stomach	5.0	4.0
Females		
Stomach	2.9	2.2



Table 8. Cancers with Lower Mortality in Hawai'i Compared to the U.S., 2014-2018

Site	Hawai'i Mortality Rate	U.S. Mortality Rate
Males		
All Cancer Sites Combined	153.4	185.6
Bladder	4.9	7.4
Brain & Other Nervous System	3.5	5.4
Colon & Rectum	13.9	16.3
Esophagus	4.5	6.9
Kidney & Renal Pelvis	3.8	5.3
Leukemia	6.0	8.4
Lung & Bronchus	36.9	46.9
Myeloma	3.1	4.1
Non-Hodgkin Lymphoma	5.5	7.0
Prostate	14.8	19.0

Continued on pg. 18



Table 8. Cancers with Lower Mortality in Hawai'i Compared to the U.S., 2014-2018

Site	Hawai'i Mortality Rate	U.S. Mortality Rate
Females		
All Cancer Sites Combined	106.9	133.6
Bladder	1.3	2.1
Brain & Other Nervous System	2.3	3.6
Breast	15.8	20.1
Cervix	1.5	2.2
Colon & Rectum	9.5	11.5
Kidney & Renal Pelvis	1.6	2.3
Leukemia	2.9	4.7
Lung & Bronchus	22.3	32.0
Myeloma	1.9	2.6
Non-Hodgkin Lymphoma	3.4	4.1
Ovary	4.5	6.7



Childhood Cancer in Hawai'i

- Childhood cancer is rare with less than one percent of all cancers occurring in individuals ages 19 years and under.
- Approximately 59 children (ages 19 and under) are diagnosed with cancer each year in Hawai'i.
- Cancer is the third leading cause of death in Hawai'i among children ages 1 to 14 years old.
- Leukemias were the most common cancers in children comprising 26% of all cases diagnosed in 2014-2018.

Figure 12. Age Distribution of Childhood Cancers, Hawai'i, 2014-2018 (5-year total)

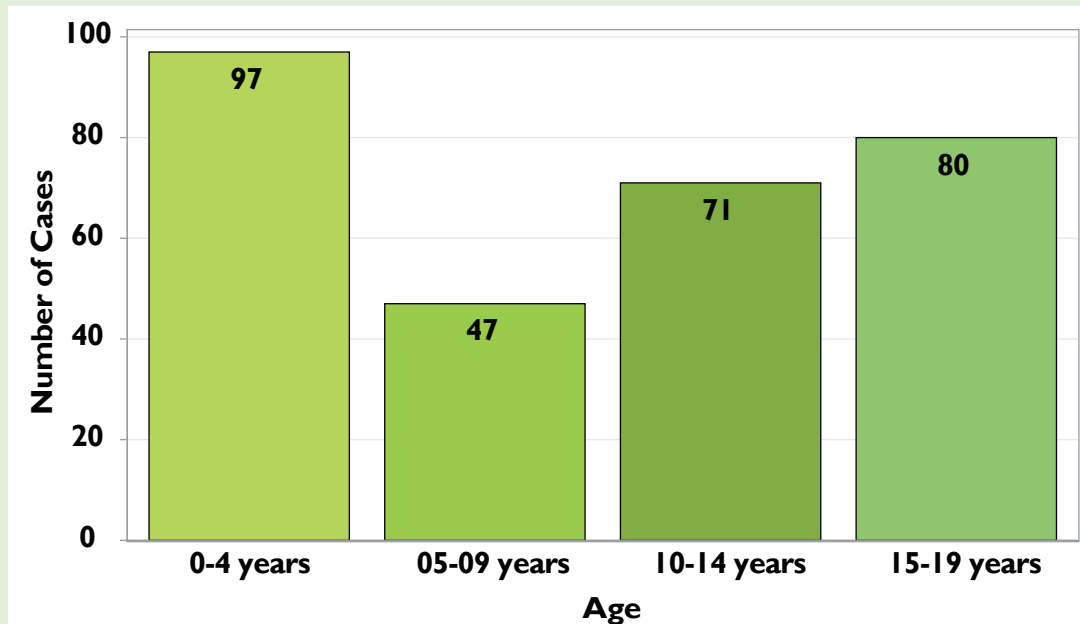
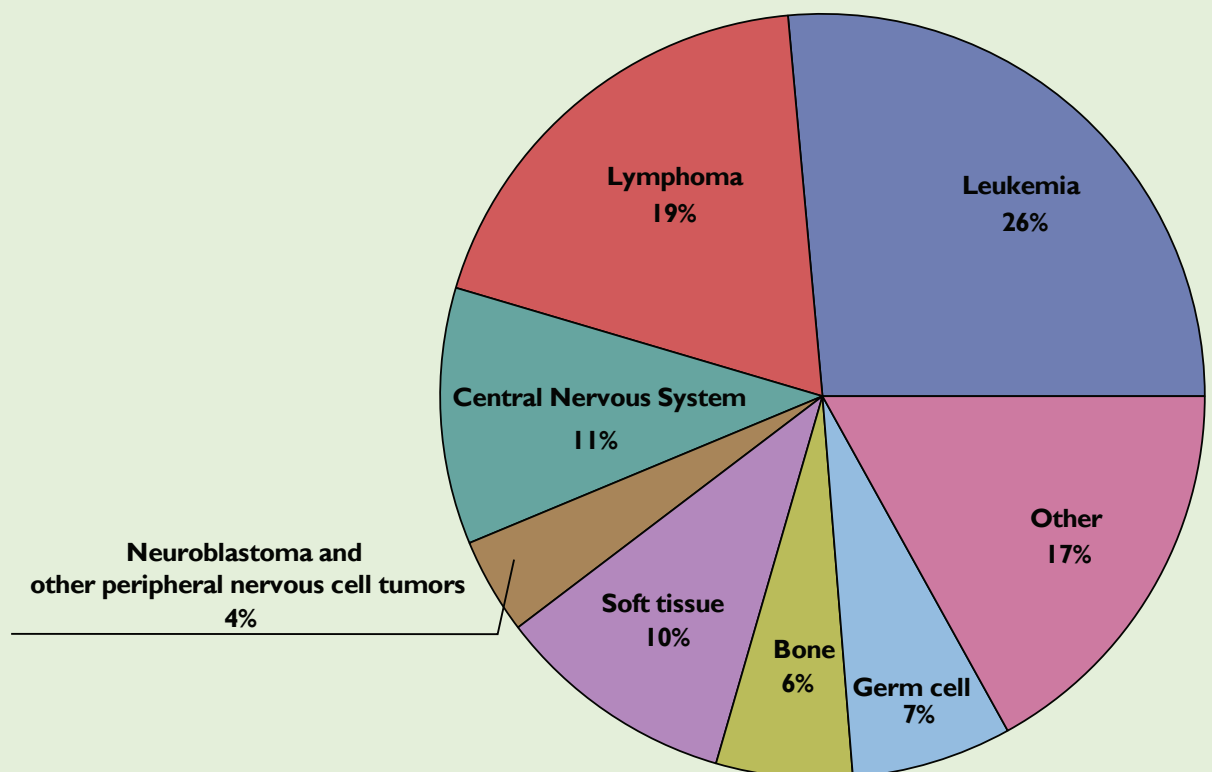


Figure 13. Cancers in Individuals Ages 19 & Under, Hawai'i, 2014-2018 (5-year total)



Rounded to a whole number and they may not add up to 100%

HAWAI'I CANCER AT A GLANCE 2014-2018

Breast Cancer in Hawai'i

- Breast cancer is the most common cancer diagnosed in women in Hawai'i.
- Annually, an average of 1,233 women are diagnosed with invasive breast cancer in Hawai'i while another 308 are diagnosed with in situ breast cancer, or very early stage tumors that have not invaded surrounding tissue.
- An average of 155 women die of breast cancer each year in Hawai'i.
- Seventy-two percent of breast cancers are diagnosed in women of age 55 and older.
- Invasive breast cancer incidence rates in Hawai'i increased nearly 1.7% per year over the past 10 years.
- Invasive breast cancer mortality rates declined approximately 1.0% per year over the past decade.
- Invasive breast cancer incidence in Hawai'i (139.6 per 100,000) was higher than the U.S. overall (126.9 per 100,000) in 2014-2018.
- Hawai'i has among the lowest rates of breast cancer mortality in the country (15.8 per 100,000). This compares to 20.1 per 100,000 for the U.S. overall in 2014-2018.
- Breast cancer incidence is higher among Japanese and Native Hawaiian women compared to Chinese, Filipino, White, other Asian, and women of other race/ethnic groups. Other Asian women had lower incidence than Native Hawaiian, Japanese, White, and women of other race/ethnic groups.
- Native Hawaiian women had higher mortality than Chinese, Filipino, Japanese, White, and other Asian women.
- Most breast cancers (76%) are diagnosed at early stages (in situ or localized); 22% are diagnosed at advanced stages.
- The proportion of breast cancers diagnosed at advanced stages ranged from 17% for Japanese women to 33% for women of other race/ethnic groups.

Figure 14. Breast Cancer Incidence and Mortality, 1984-2018

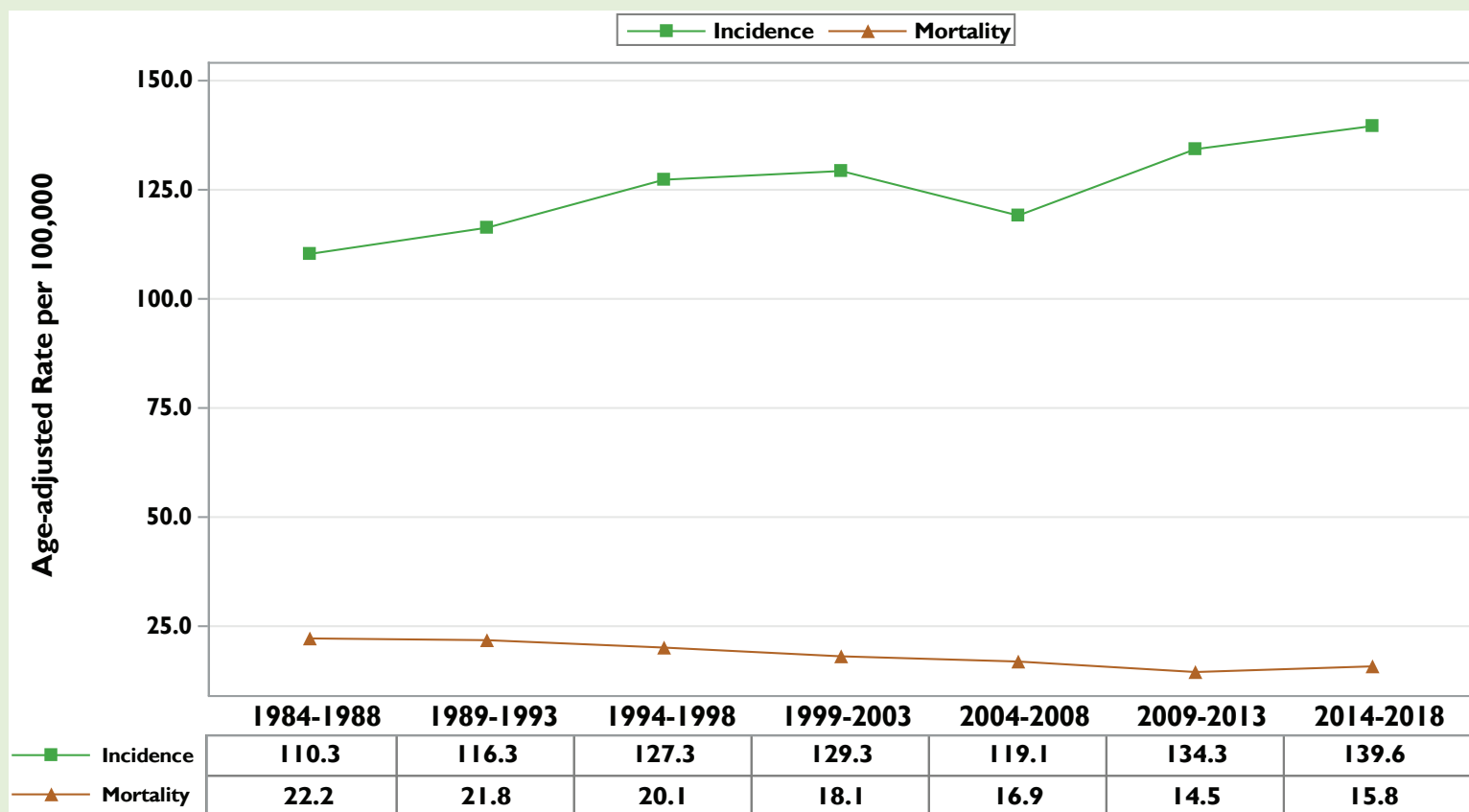


Figure 15. Breast Cancer Cases by Age at Diagnosis, Hawai'i, 2014-2018

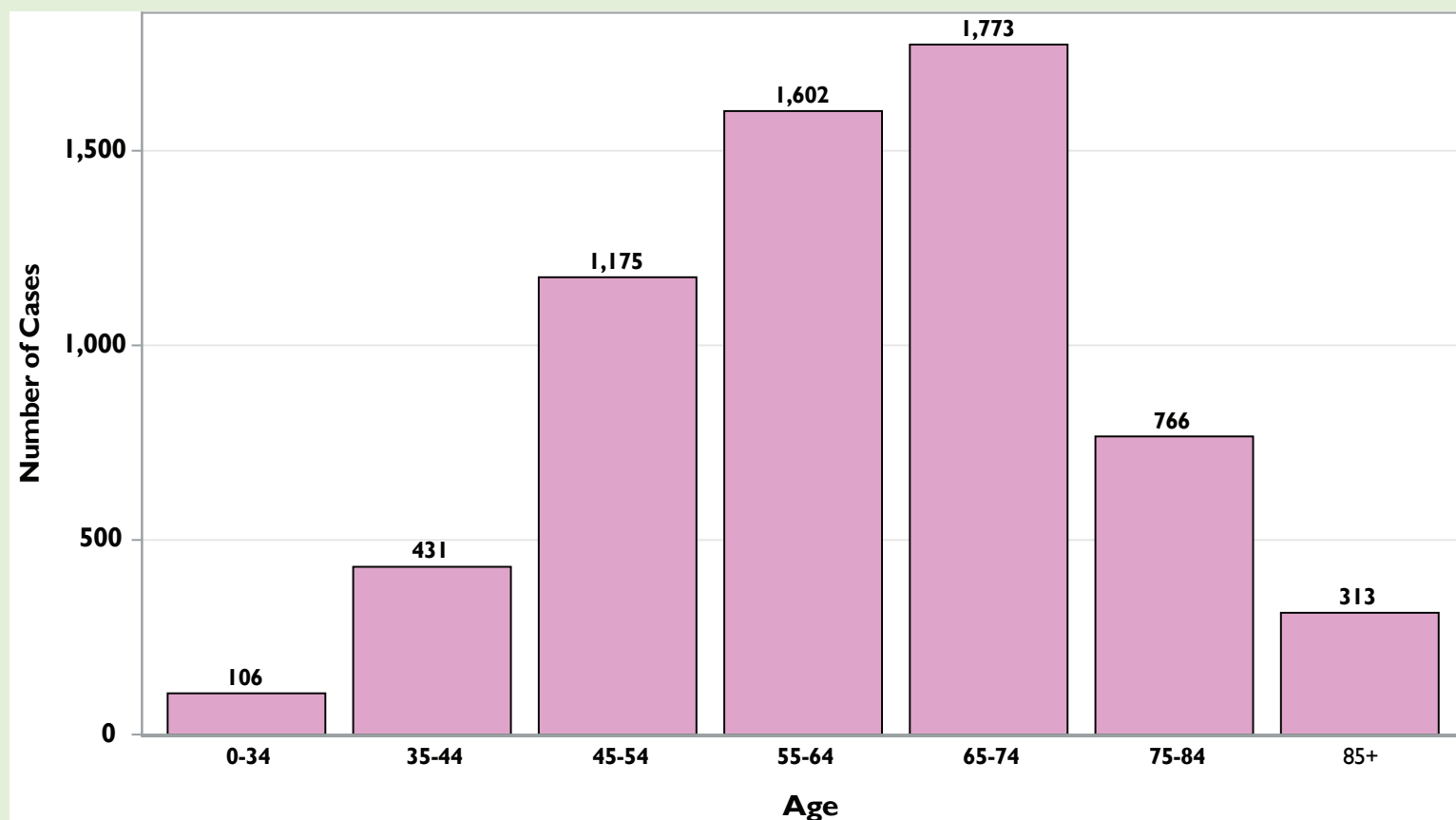


Figure 16. Breast Cancer Incidence and Mortality, by Race/Ethnicity, Hawai'i, 2014-2018

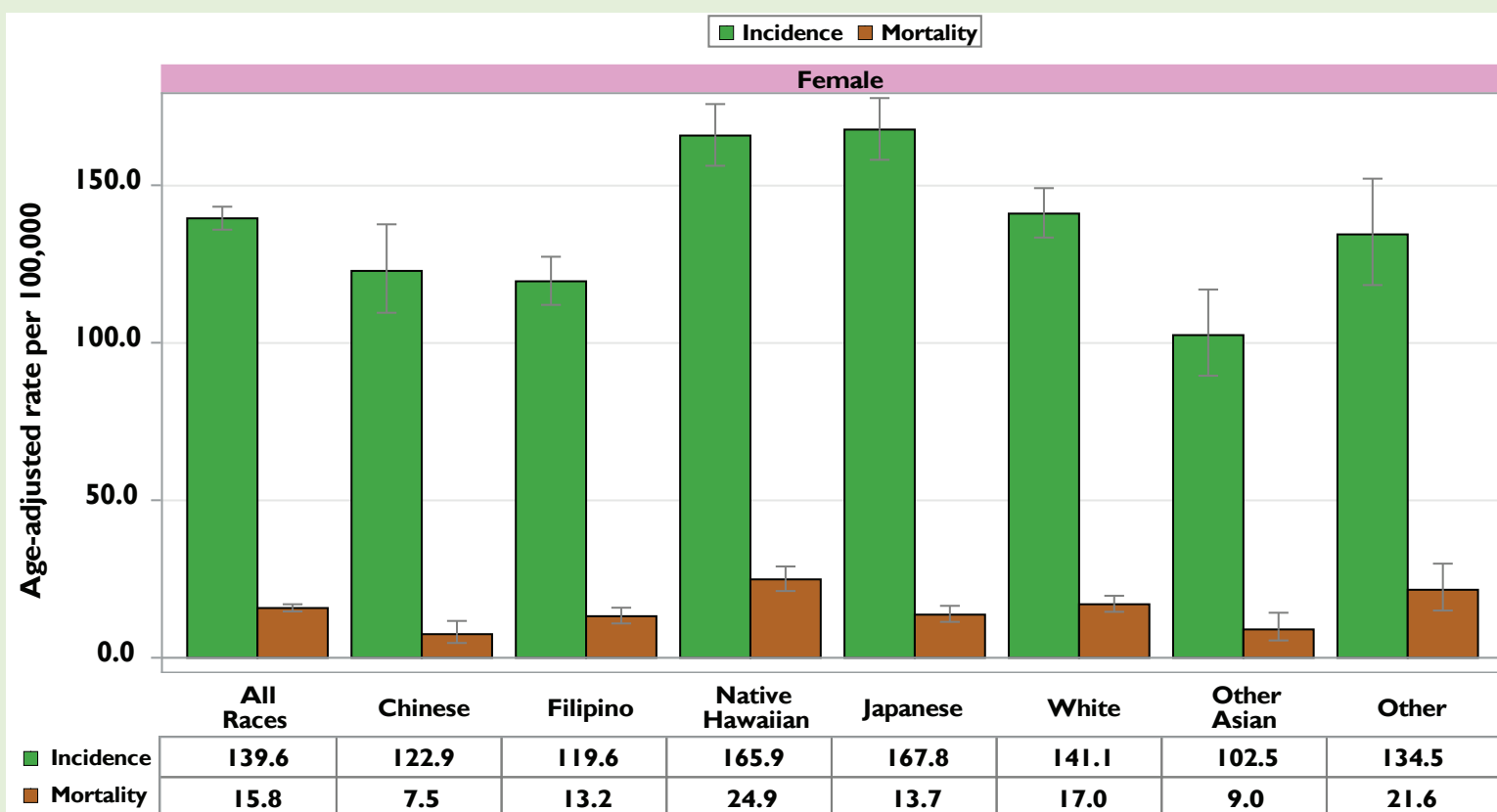
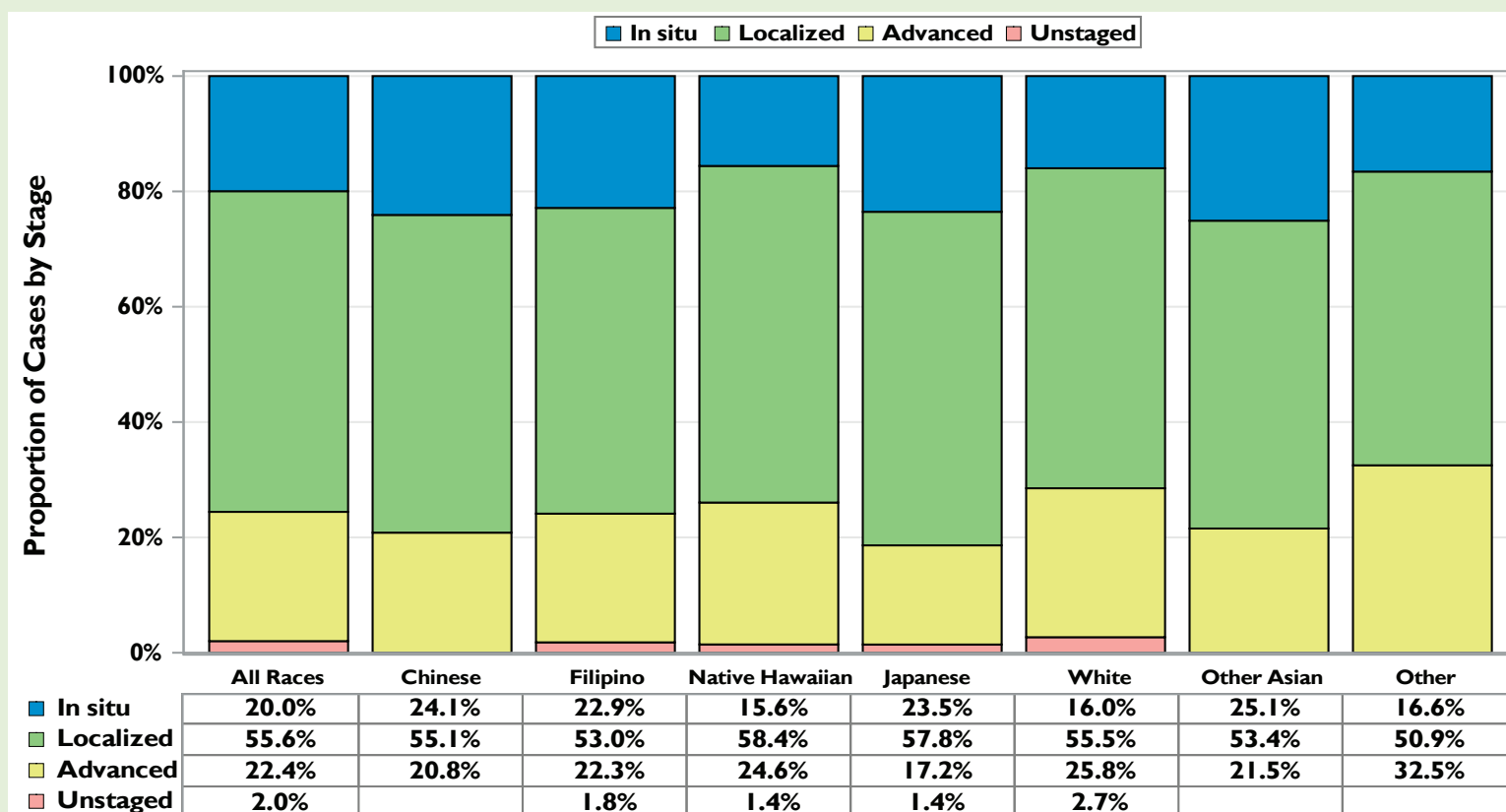


Figure 17. Breast Cancer Stage Distribution, Hawai'i, 2014-2018



Prostate Cancer in Hawai'i

- Prostate cancer is the most common cancer diagnosed in men in Hawai'i.
- Annually, an average of 855 men are diagnosed with invasive prostate cancer in Hawai'i.
- An average of 125 men die of prostate cancer in Hawai'i each year.
- Ninety-five percent of prostate cancers are diagnosed at age 55 years and older.
- Hawai'i has among the lowest incidence of prostate cancer in the U.S. (95.6 per 100,000) compared to the U.S. overall (106.4 per 100,000) in 2014-2018.
- Hawai'i has the lowest rate of prostate cancer mortality in the country (14.8 per 100,000). This compares to 19.0 per 100,000 for the U.S. overall in 2014-2018.
- Prostate cancer incidence was highest in males of Other race/ethnic groups.
- In 2014-2018, 57% of prostate cancer cases were diagnosed at early stages and 27% at late stages; 16% of tumors were unstaged.
- Filipinos had the highest proportions of advanced stage prostate cancers (35%).



Figure 18. Prostate Cancer Incidence and Mortality, Hawai'i, 1984-2018

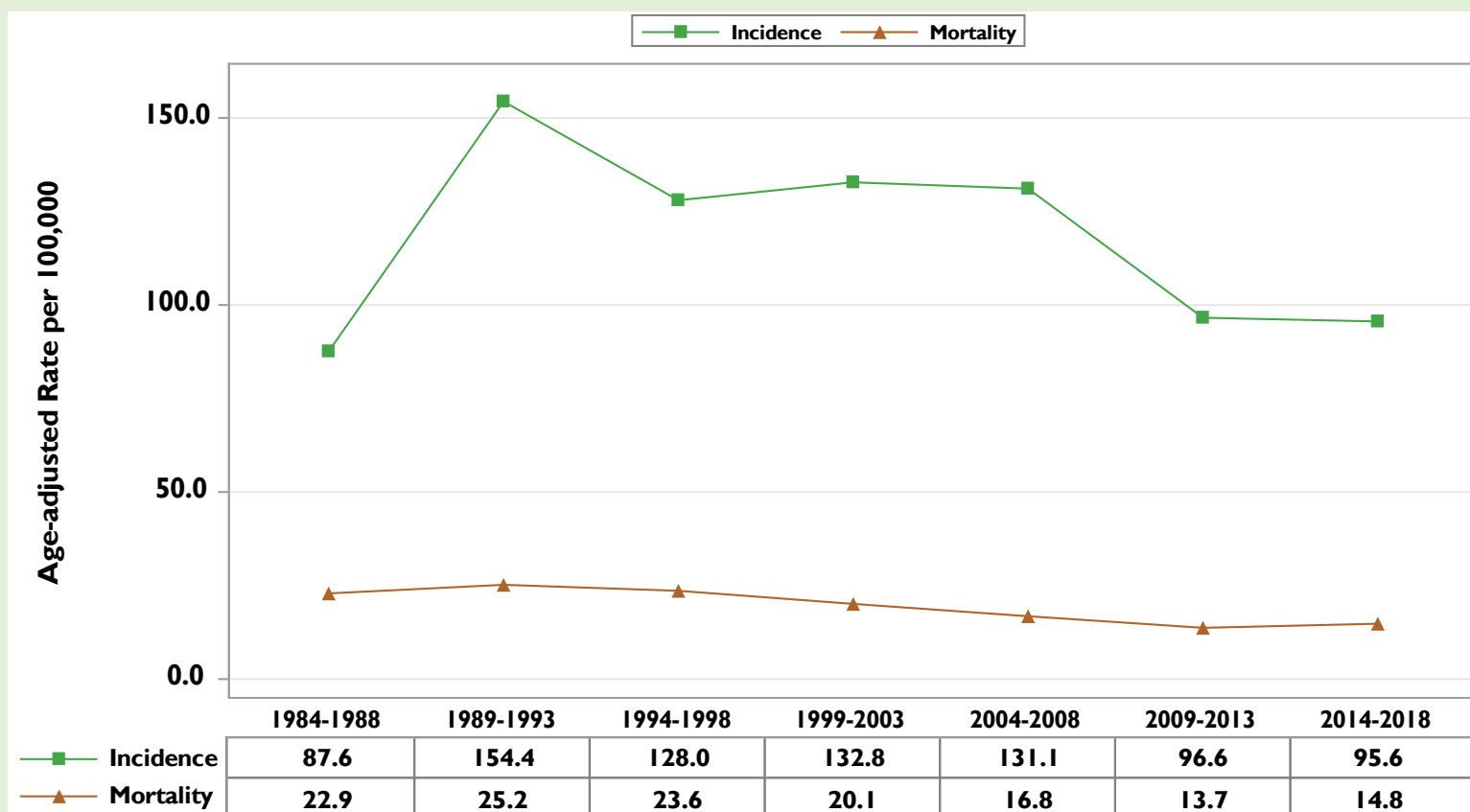


Figure 19. Prostate Cancer Cases by Age at Diagnosis, Hawai'i, 2014-2018

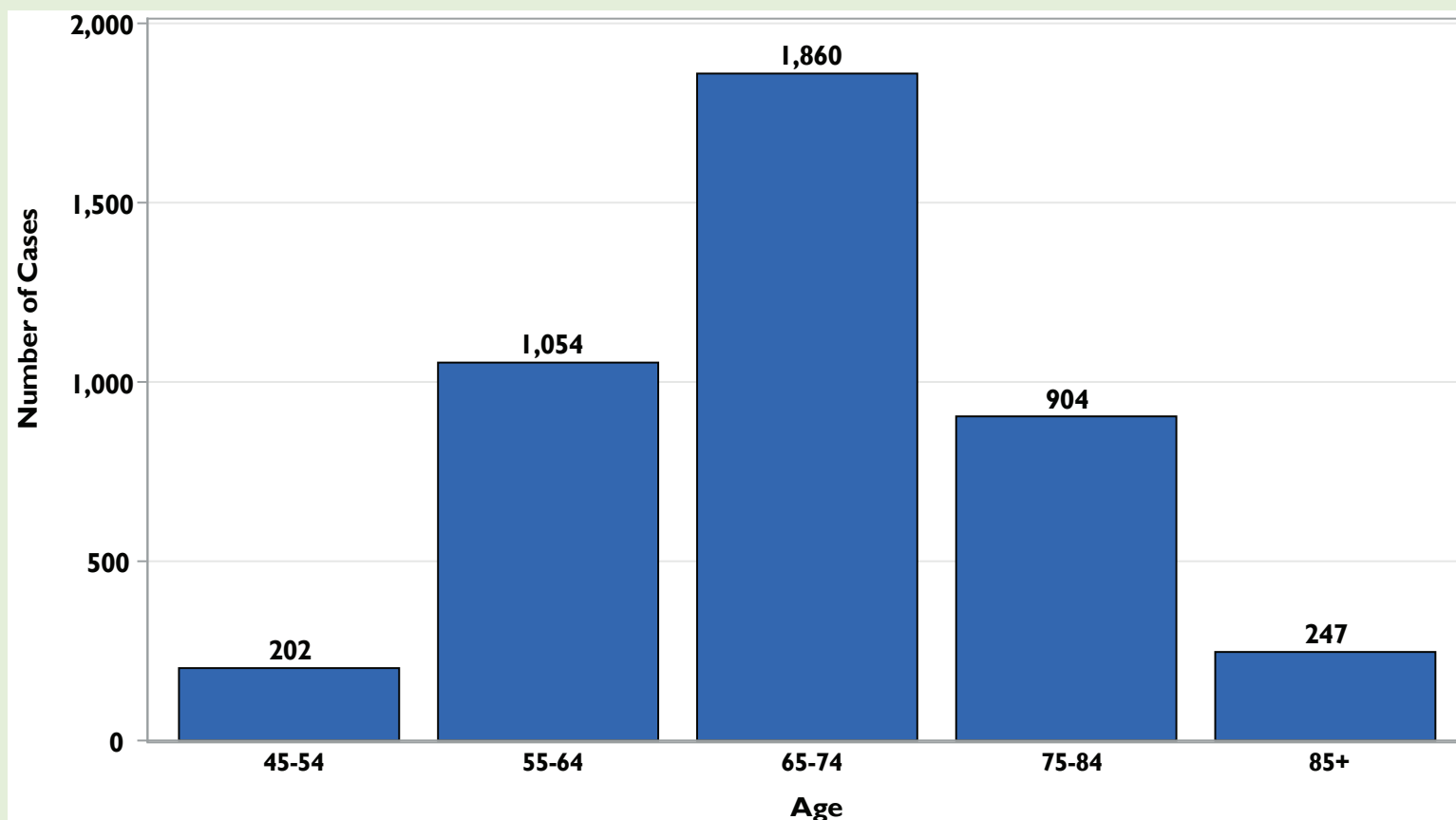


Figure 20. Prostate Cancer Incidence and Mortality, by Race/Ethnicity, Hawai'i, 2014-2018

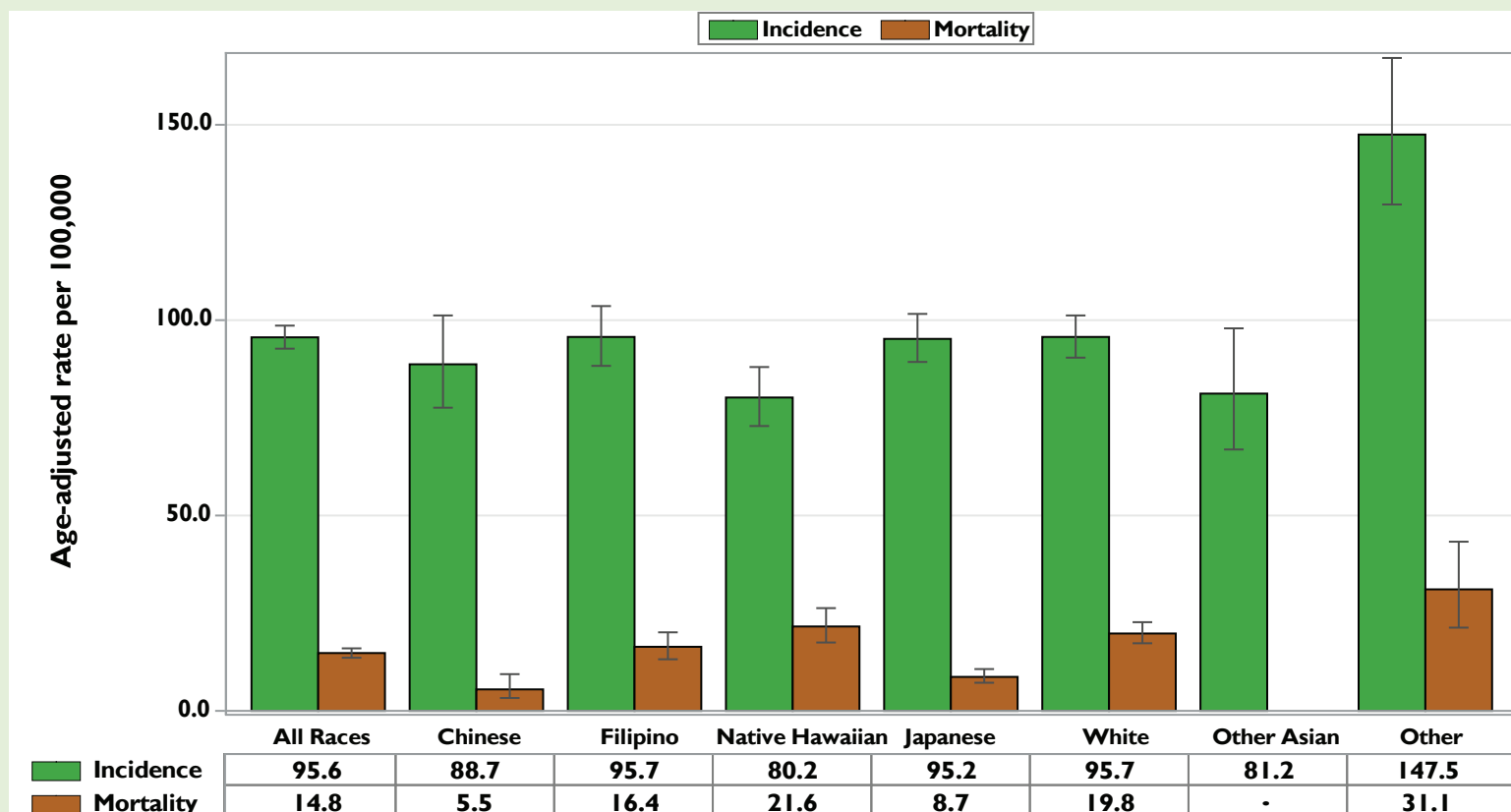
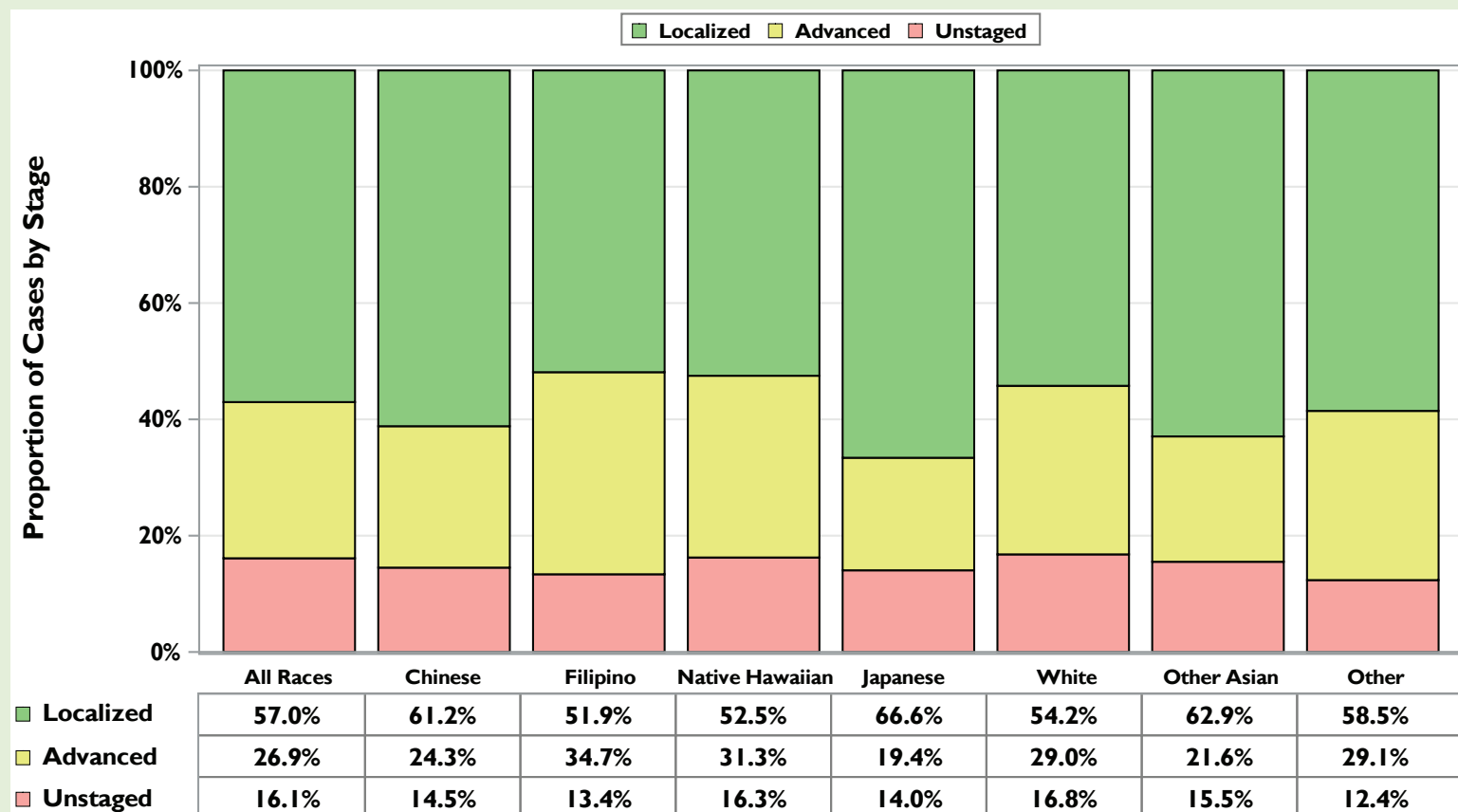


Figure 21. Prostate Cancer Stage Distribution, Hawai'i, 2014-2018



Lung & Bronchus Cancer in Hawai'i

- Cancers of the lung & bronchus are the 2nd most commonly diagnosed malignancy in men and women with an average of 826 new cases (467 males, 359 females) each year in Hawai'i.
- Lung & bronchus cancer is the leading cause of cancer mortality in both sexes with an average of 544 deaths (314 males, 230 females) statewide each year.
- Ninety-four percent of lung & bronchus cancers are diagnosed at age 55 years and older.
- Among men, the rate of new cancers declined 1.6% per year and mortality rates fell 4.5% per year over the past decade.
- Among women, lung & bronchus cancer incidence declined 1.2% per year over the past decade.
- Hawai'i has among the lowest lung & bronchus cancer incidence and mortality in the U.S. In 2014-2018, incidence was 54.5 per 100,000 (males) and 35.5 per 100,000 (females) in Hawai'i, compared to 65.8 per 100,000 (males) and 50.8 per 100,000 (females) in the U.S. overall. Mortality was 36.9 per 100,000 (males) and 22.3 per 100,000 (females) in Hawai'i, compared to 46.9 per 100,000 (males) and 32.0 per 100,000 (females) in the U.S. overall.
- Among females, Native Hawaiians had higher lung & bronchus cancer incidence and mortality than Chinese, Filipino, Japanese, White, and other Asians. Japanese women had the lowest lung & bronchus cancer incidence compared to any other race/ethnic group.
- In 2014-2018, 18% of lung & bronchus cancers were diagnosed at early stages and 74% at late stages.



Figure 22. Lung & Bronchus Cancer Incidence and Mortality, 1984-2018

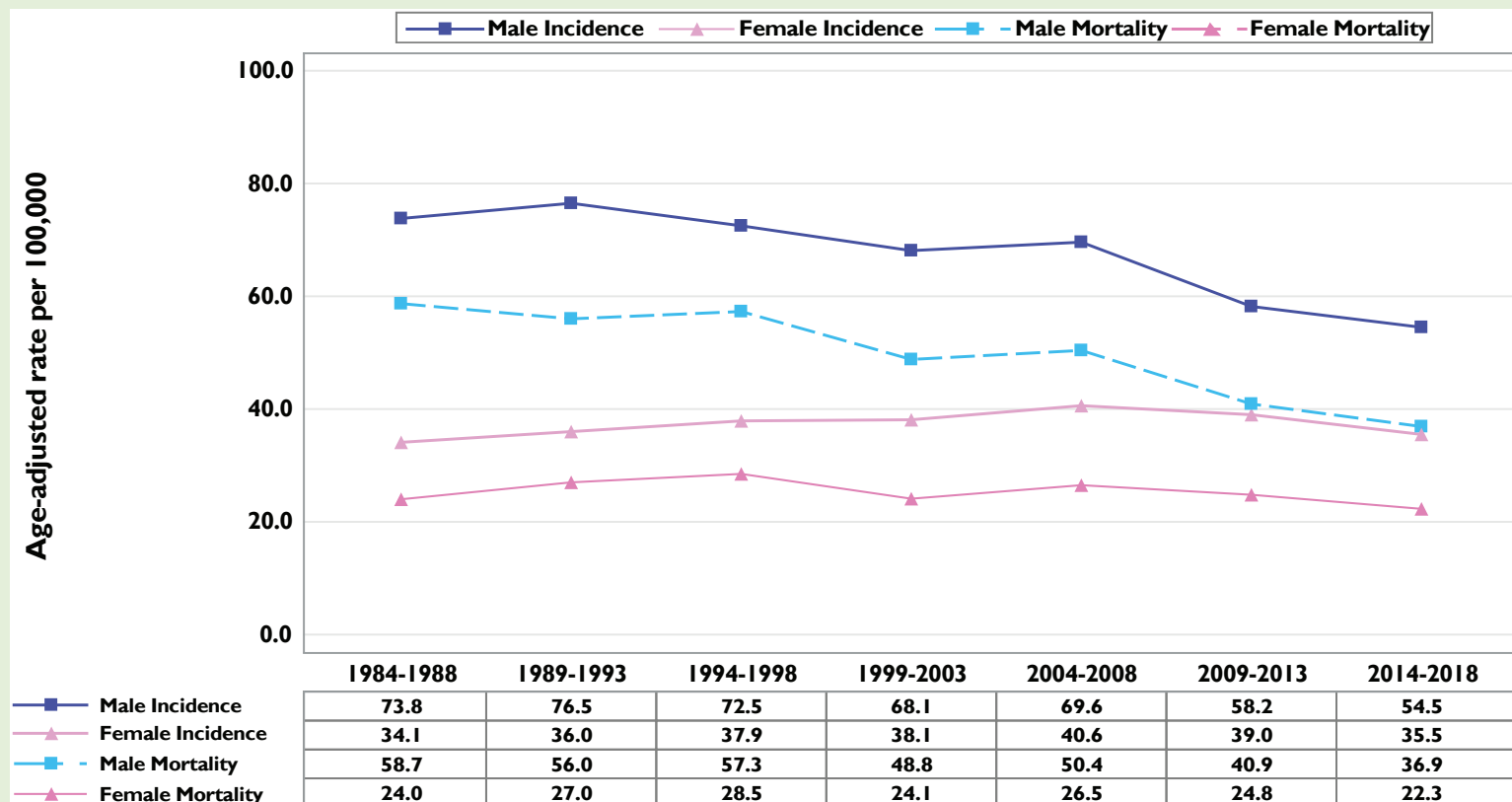


Figure 23. Lung & Bronchus Cancer Cases by Age at Diagnosis, Hawai'i, 2014-2018

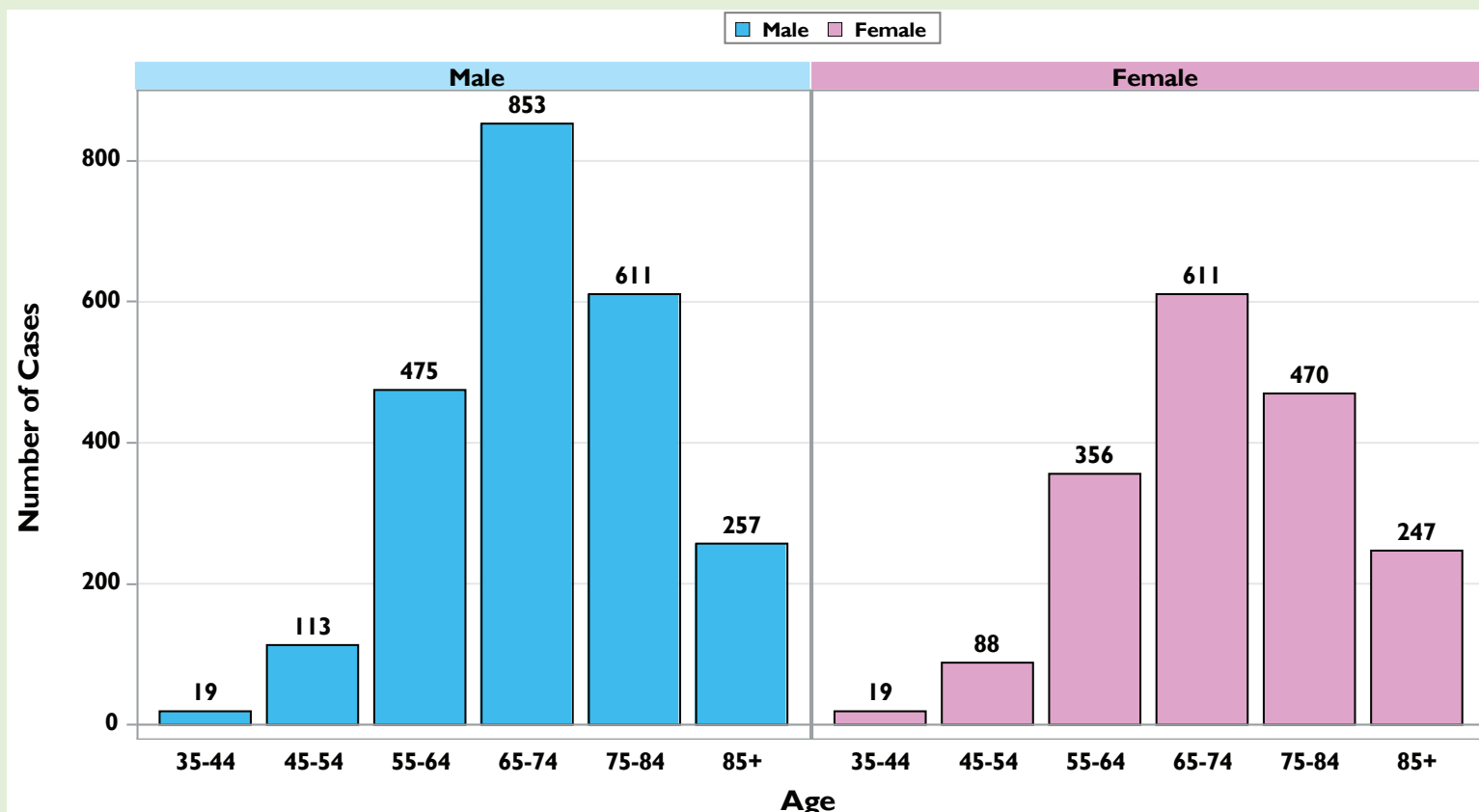


Figure 24. Lung & Bronchus Cancer Incidence and Mortality, Hawai'i, 2014-2018

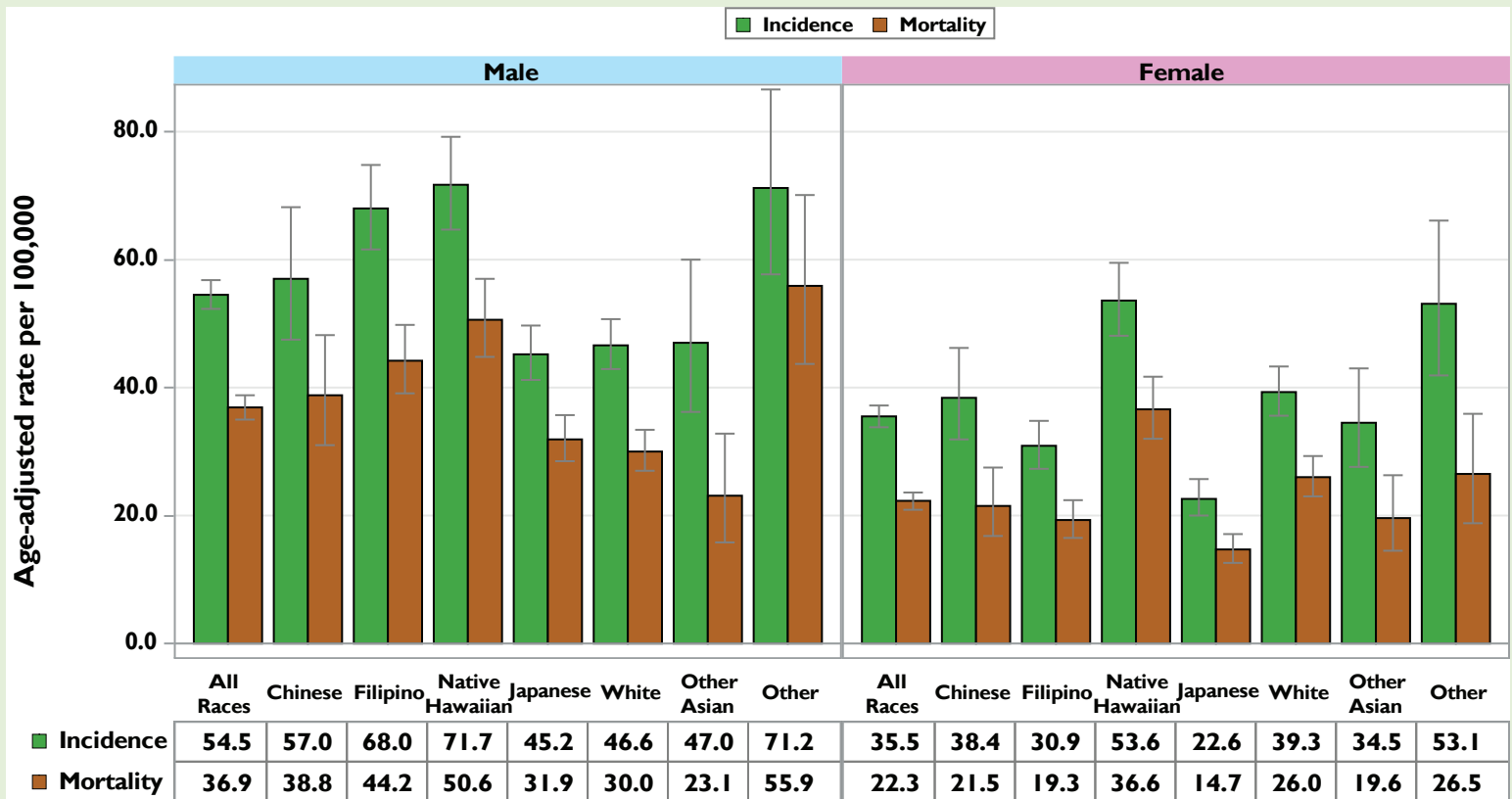
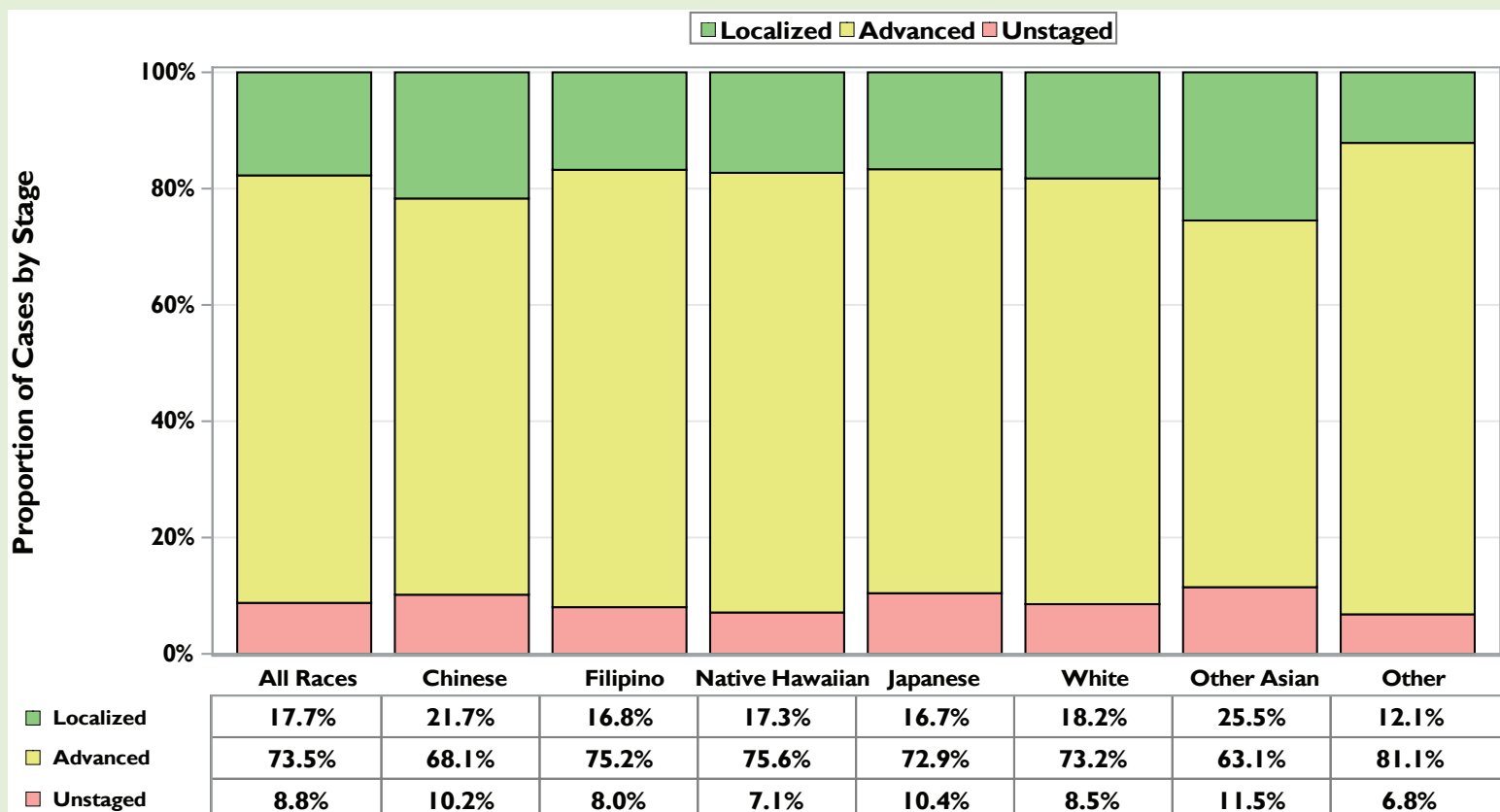


Figure 25. Lung & Bronchus Cancer Stage Distribution, Hawai'i, 2014-2018



Colon & Rectum Cancer in Hawai'i

- Cancers of the colon & rectum are the 3rd most frequently diagnosed cancer in Hawai'i with an average of 710 new cases (385 males, 325 females) diagnosed each year.
- With an average of 216 deaths (118 males, 98 females) from colon & rectum cancer in Hawai'i each year, it is the 3rd leading cause of cancer death in men and 4th among women.
- Eighty-three percent of colon & rectum cancers are diagnosed at age 55 years and older.
- Colon & rectum cancer incidence and mortality have steadily declined in males and females statewide over the past 35 years. Over the past decade, the rate of new cancers declined an average of 2.3% per year in males and 1.5 per year in females; mortality rates fell 2.6% per year in males and 1.7% per year in females.
- In 2014-2018, colon & rectum cancer incidence was higher in Hawai'i males (46.0 per 100,000) compared to 43.5 per 100,000 in the U.S. overall. Mortality was lower in Hawai'i (males 13.9 and females 9.5 per 100,000) compared to the U.S. overall (males 16.3 and females 11.5 per 100,000).
- In 2014-2018, 38% of colon & rectum cancers were diagnosed at early stages and 55% at advanced stages. Stage distribution was similar across race/ethnic groups.



Figure 26. Colon & Rectum Cancer Incidence and Mortality, 1984-2018

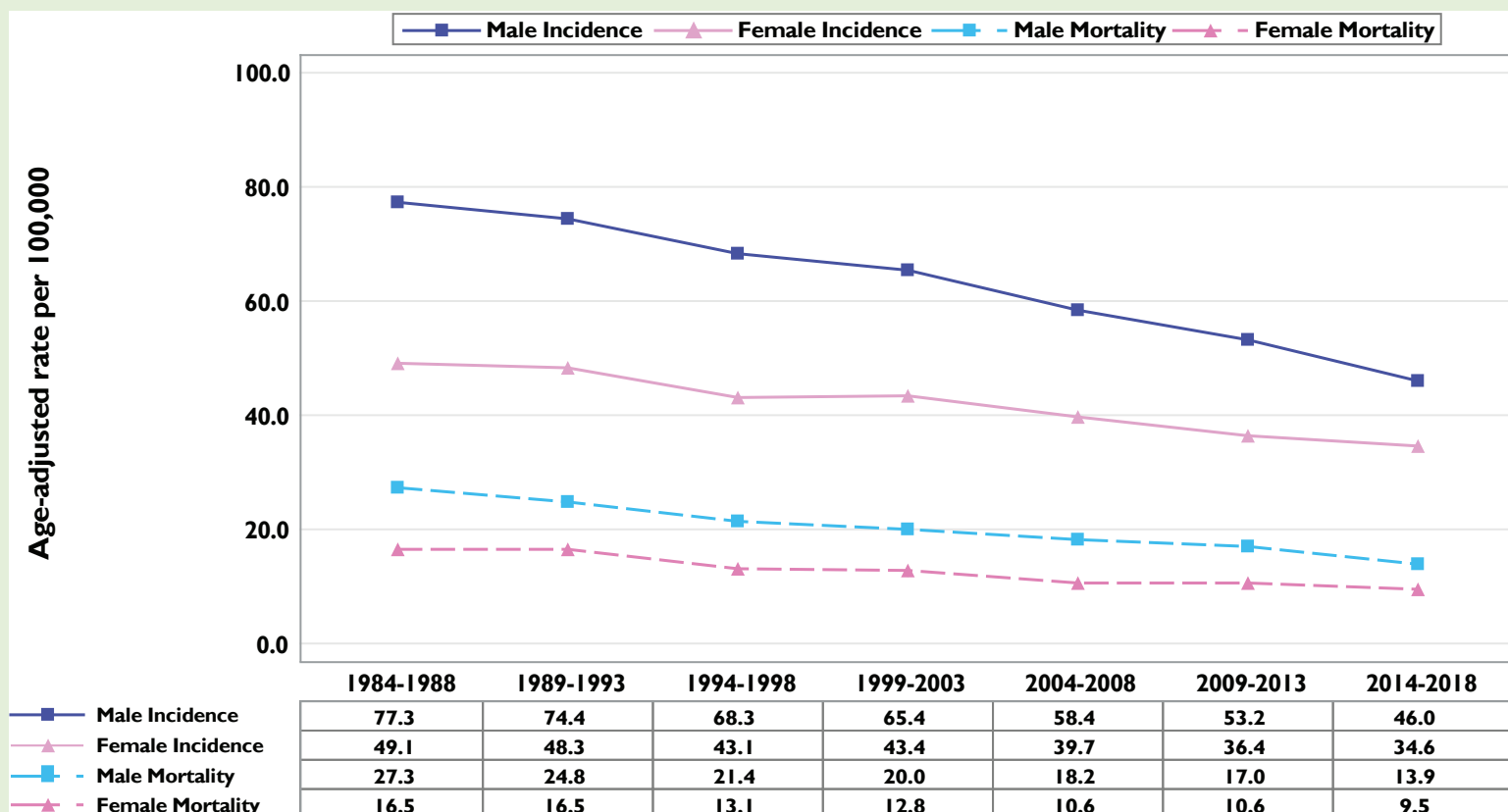


Figure 27. Colon & Rectum Cancer Cases by Age at Diagnosis, Hawai'i, 2014-2018

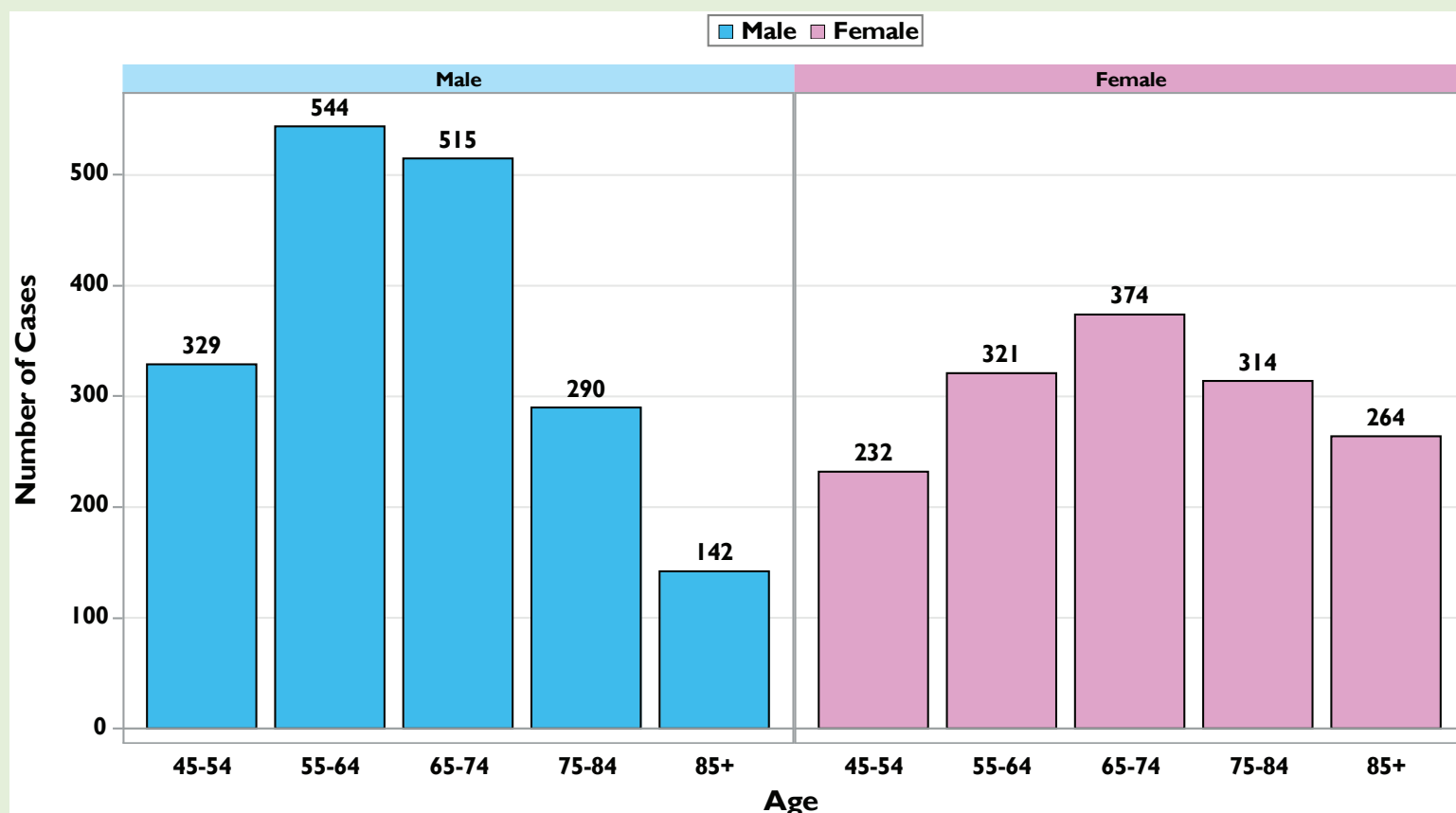


Figure 28. Colon & Rectum Cancer Incidence and Mortality, Hawai'i, 2014-2018

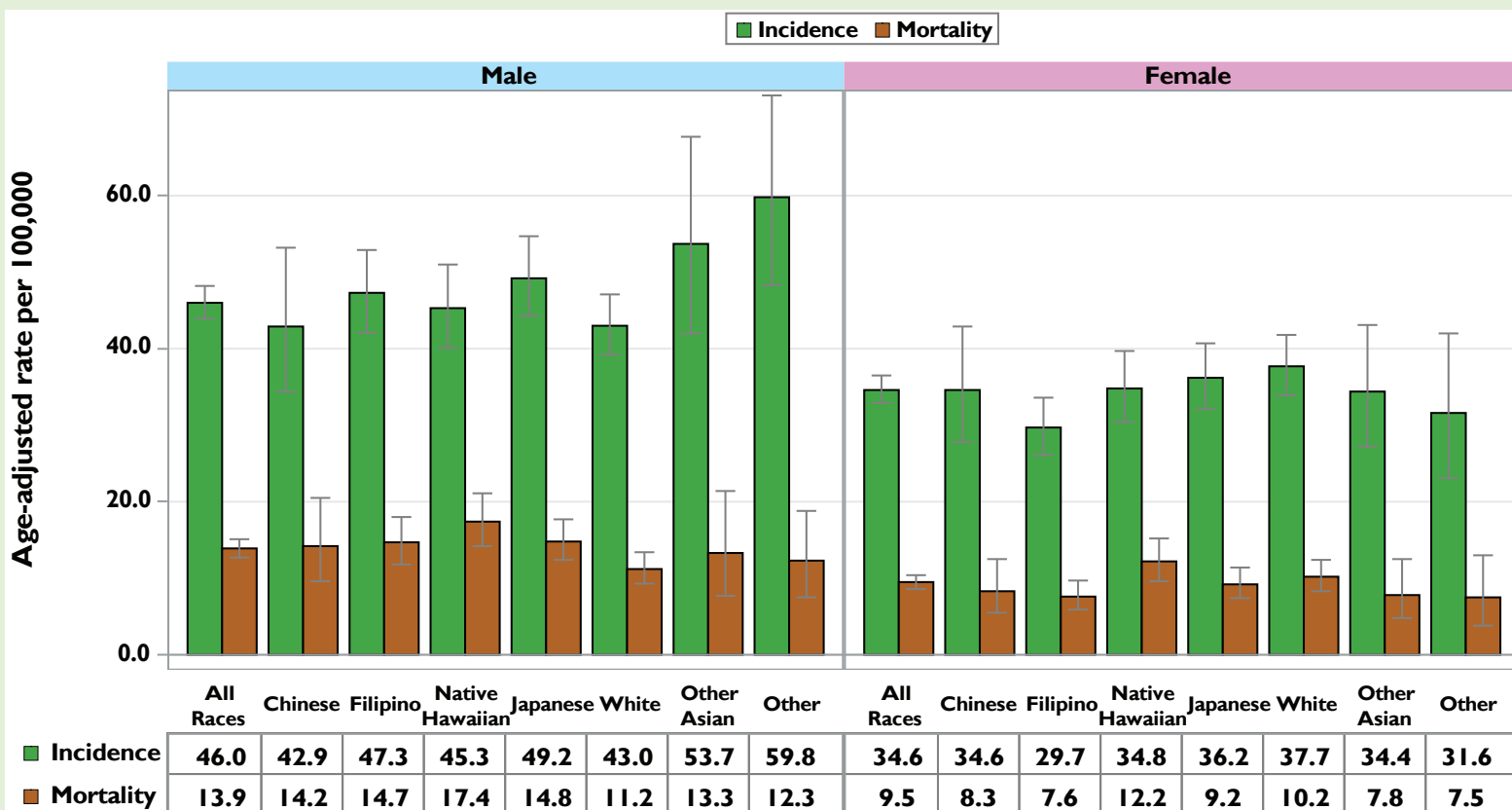
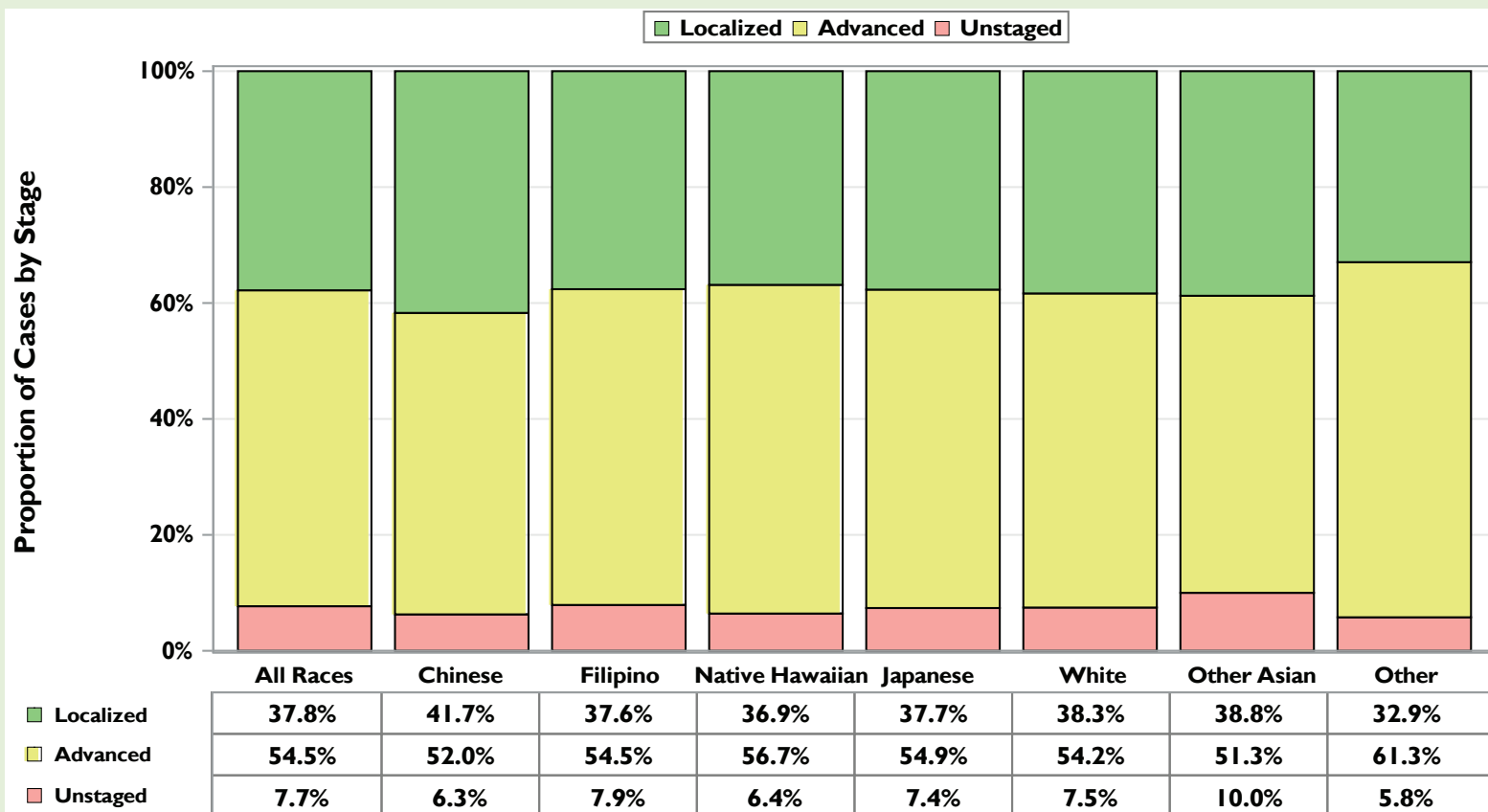


Figure 29. Colon & Rectum Cancer Stage Distribution, Hawai'i, 2014-2018



Cancer in Hawai‘i’s Racial & Ethnic Populations

In 2014-2018, incidence and mortality of certain cancers varied across Hawai‘i’s five major ethnic groups (Chinese, Filipinos, Japanese, Native Hawaiian, Whites), Other Asians (including Koreans and Vietnamese), and all Others (including Samoans, Micronesians, Blacks, American Indians).

- Among males, overall cancer incidence was highest in Whites and Others. Mortality was highest in Native Hawaiians and Others.
- Among females, overall cancer incidence was highest in Native Hawaiians, Whites, and Others. Mortality was highest in Native Hawaiians and Others.
- Brain & other nervous system cancer incidence was highest in White males compared to all groups, except Others.
- Breast cancer incidence was highest in Native Hawaiians and Japanese. Mortality was highest in Native Hawaiians compared to other groups, except Others.
- Melanoma of the skin incidence was highest in White males and females.
- Ovarian cancer incidence was highest in Whites compared to Filipinos, Japanese, and Native Hawaiians.
- Prostate cancer incidence was highest in Others.
- Thyroid cancer incidence was highest among Filipino women.
- Uterine/endometrium cancer incidence and mortality was highest in Others.



Figure 30. Overall Cancer Incidence and Mortality, By Sex and Race/Ethnicity, Hawai'i, 2014-2018

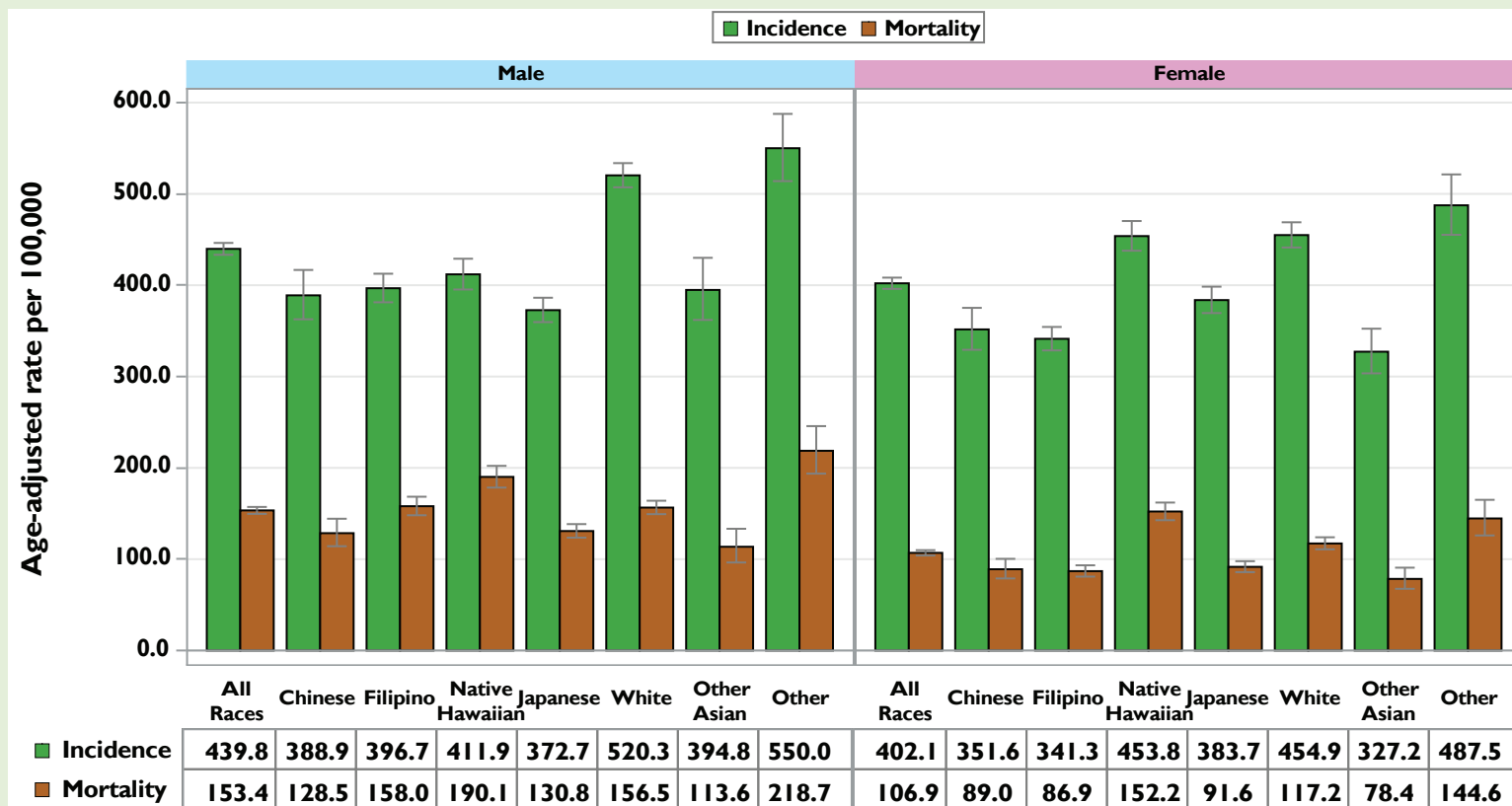


Figure 31. Bladder Cancer Incidence and Mortality, By Sex and Race/Ethnicity, Hawai'i, 2014-2018

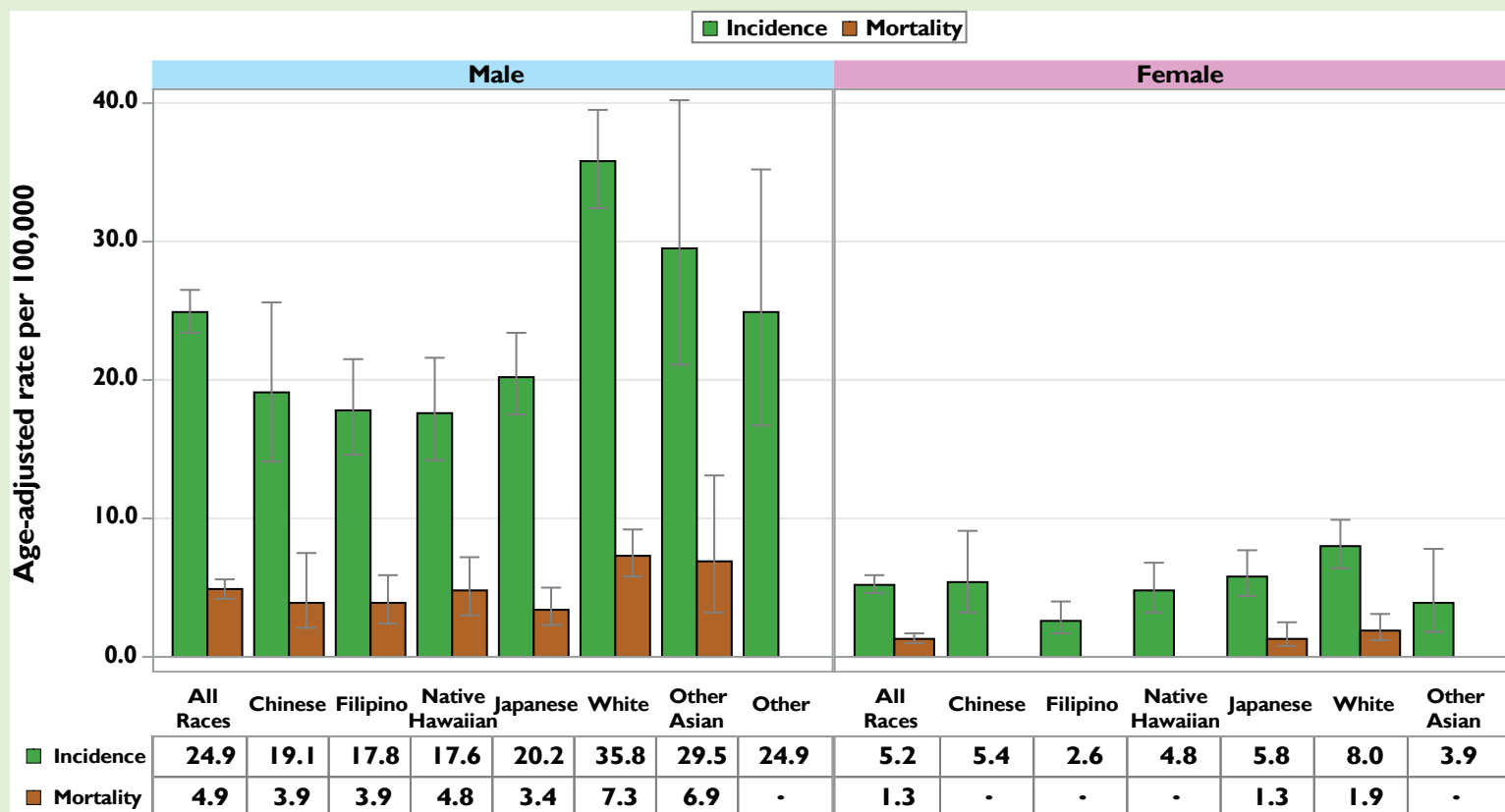


Figure 32. Brain & Nervous System Cancer Incidence and Mortality, By Sex and Race/Ethnicity, Hawai'i, 2014-2018

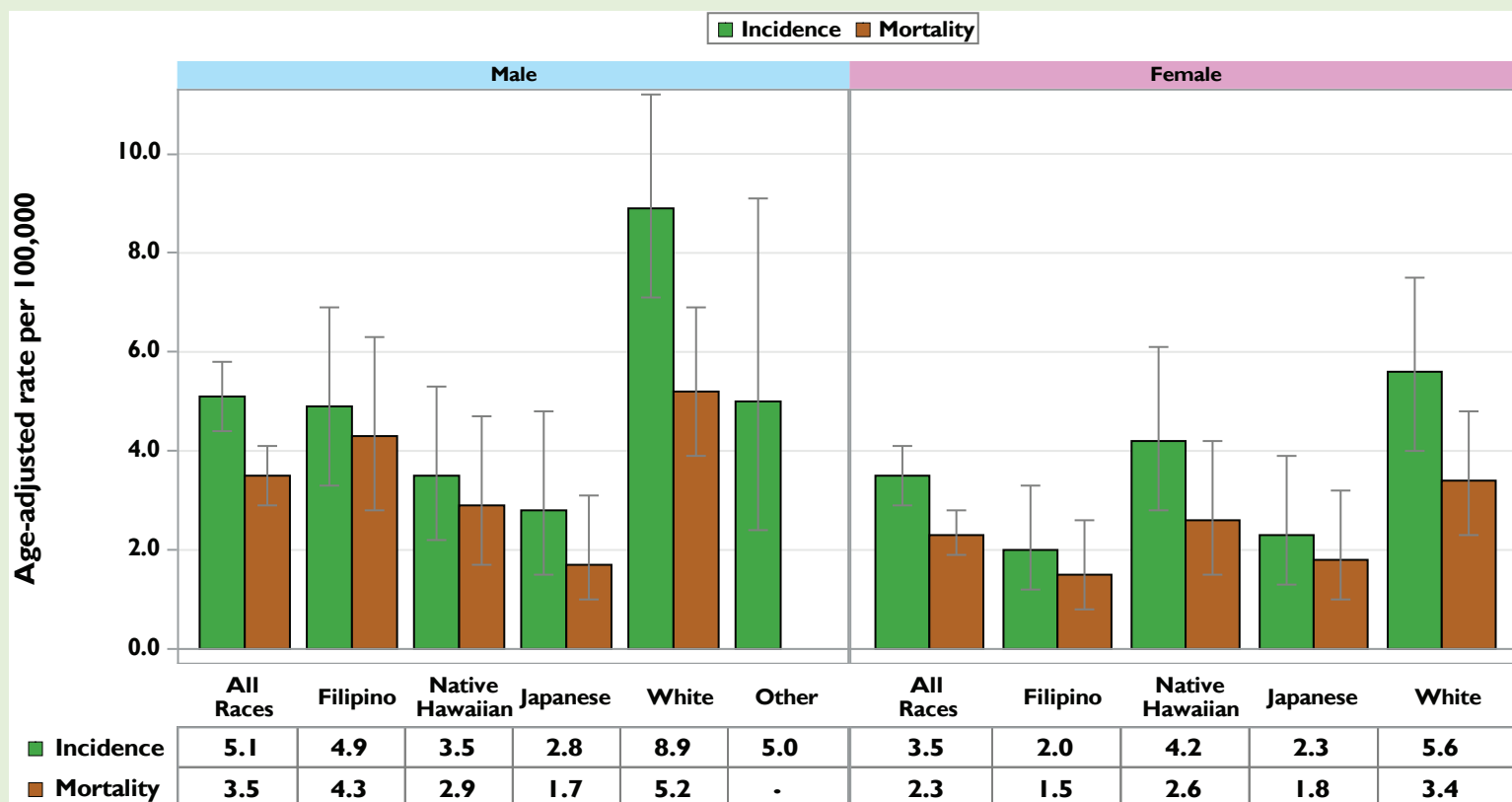


Figure 33. Cervix Cancer Incidence and Mortality, By Race/Ethnicity, Hawai'i, 2014-2018

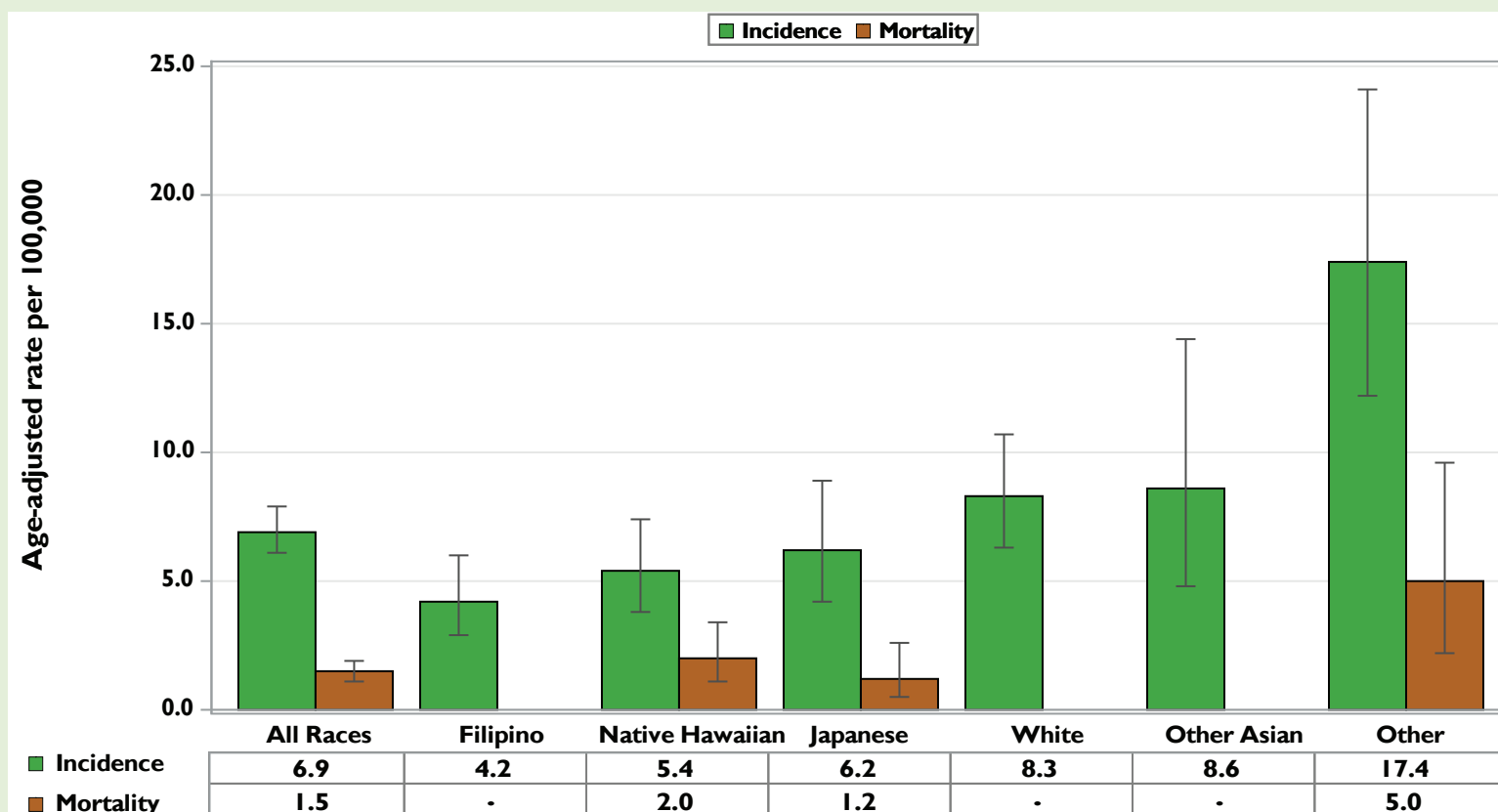


Figure 34. Esophagus Cancer Incidence and Mortality, Male, By Race/Ethnicity, Hawai'i, 2014-2018

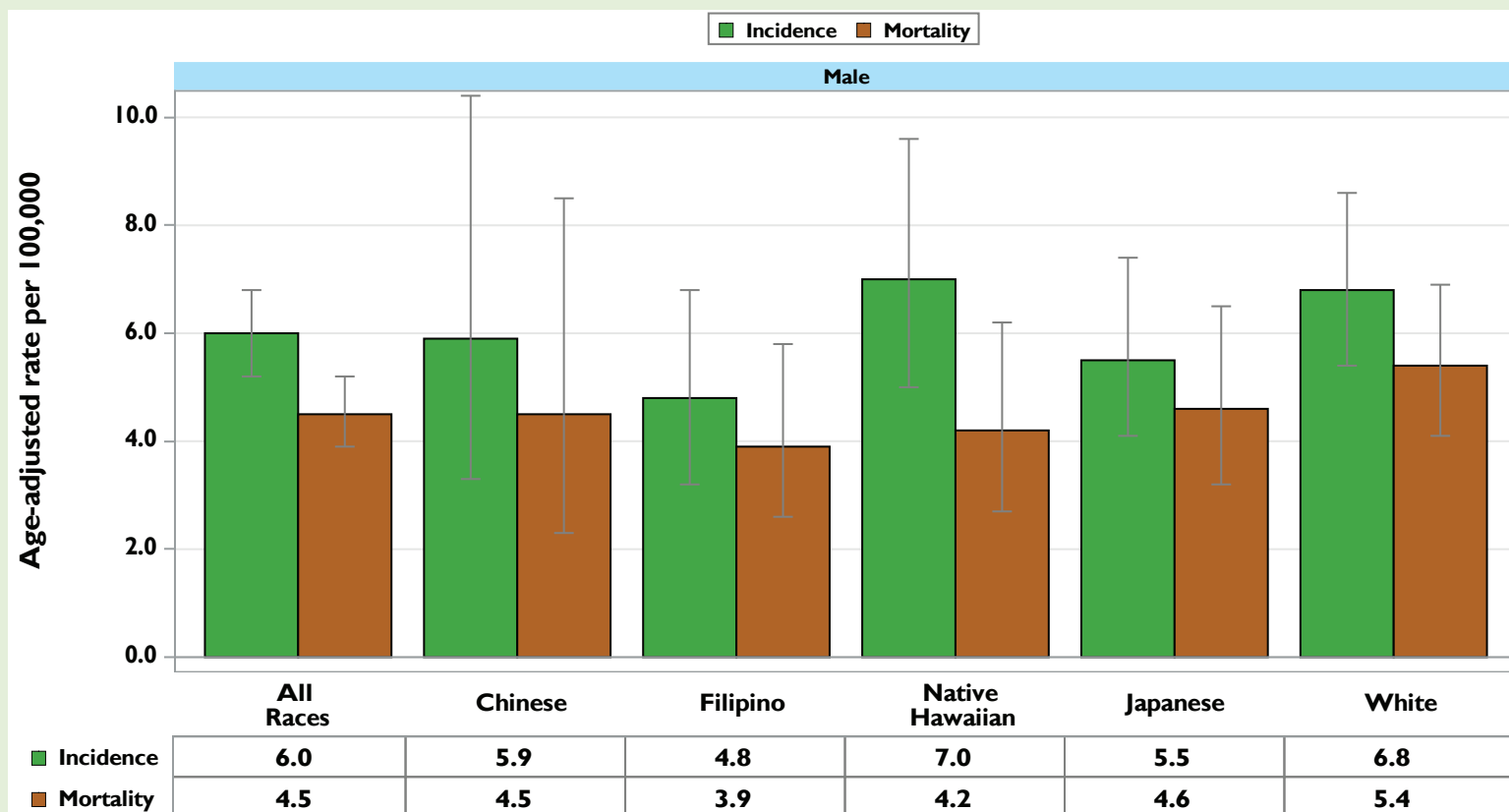


Figure 35. Kidney & Renal Pelvis Cancer Incidence and Mortality, By Sex and Race/Ethnicity, Hawai'i, 2014-2018

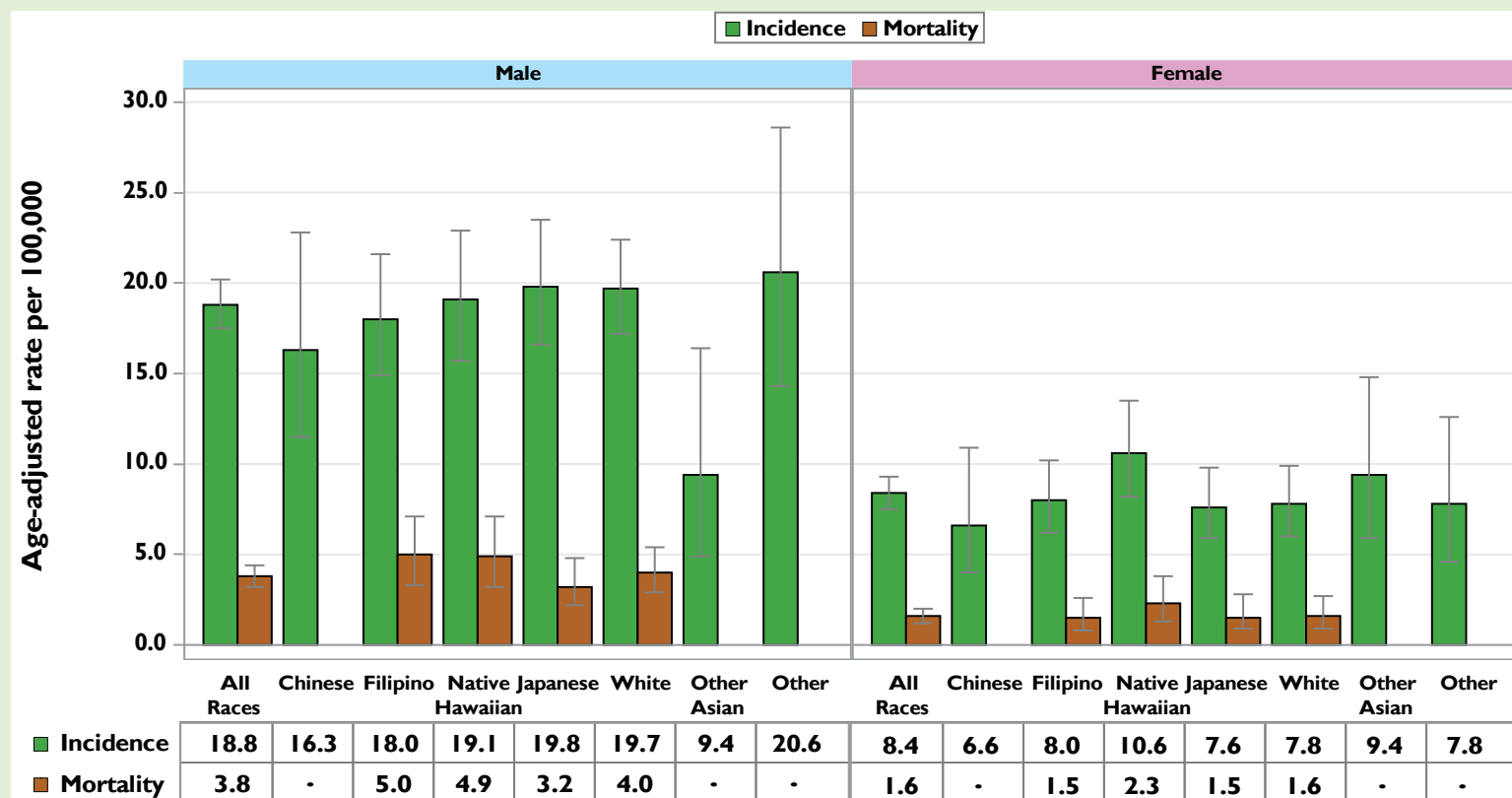


Figure 36. Larynx Cancer Incidence, Male, By Race/Ethnicity, Hawai'i, 2014-2018

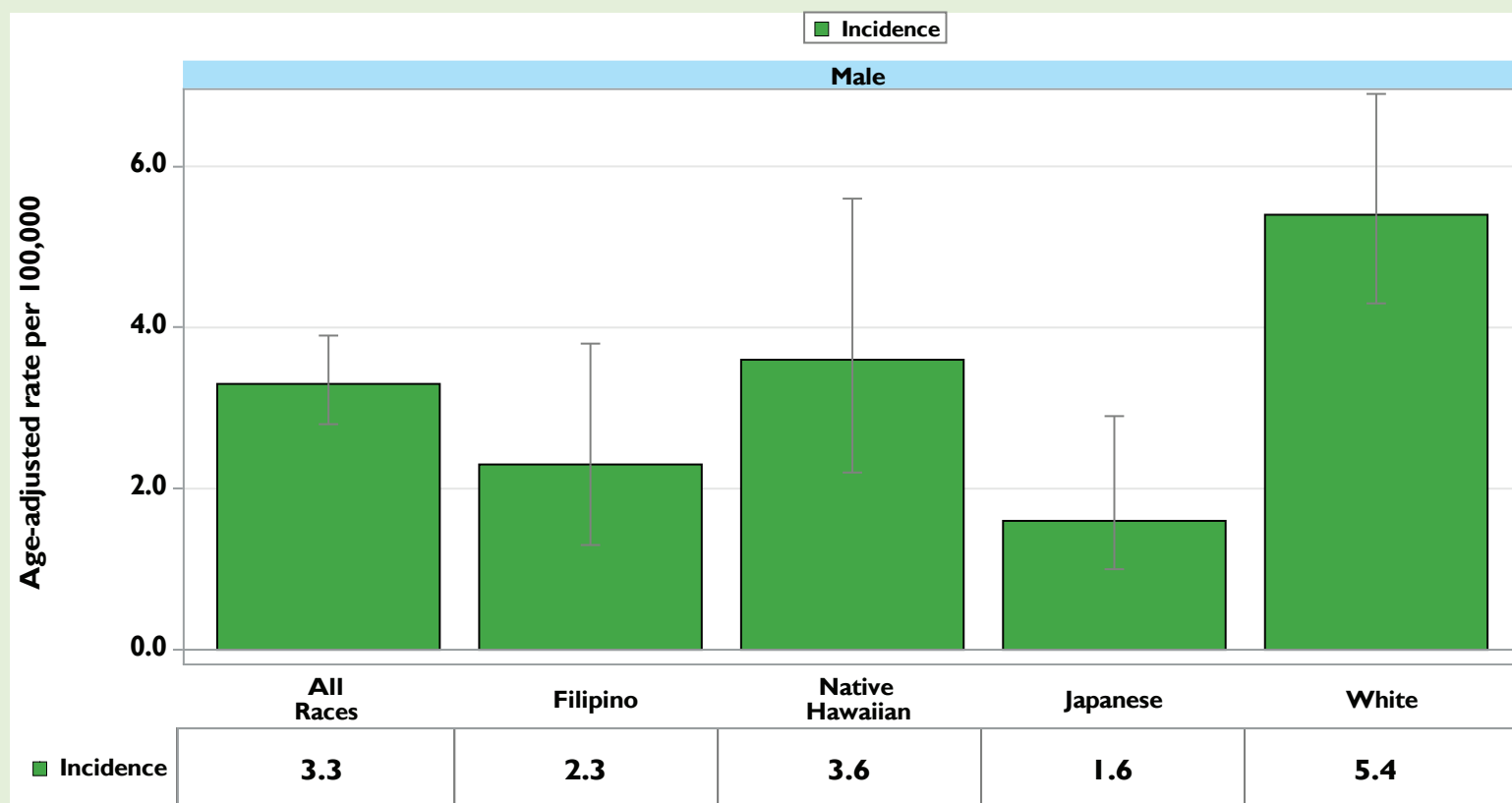


Figure 37. Leukemia Incidence and Mortality, By Sex and Race/Ethnicity, Hawai'i, 2014-2018

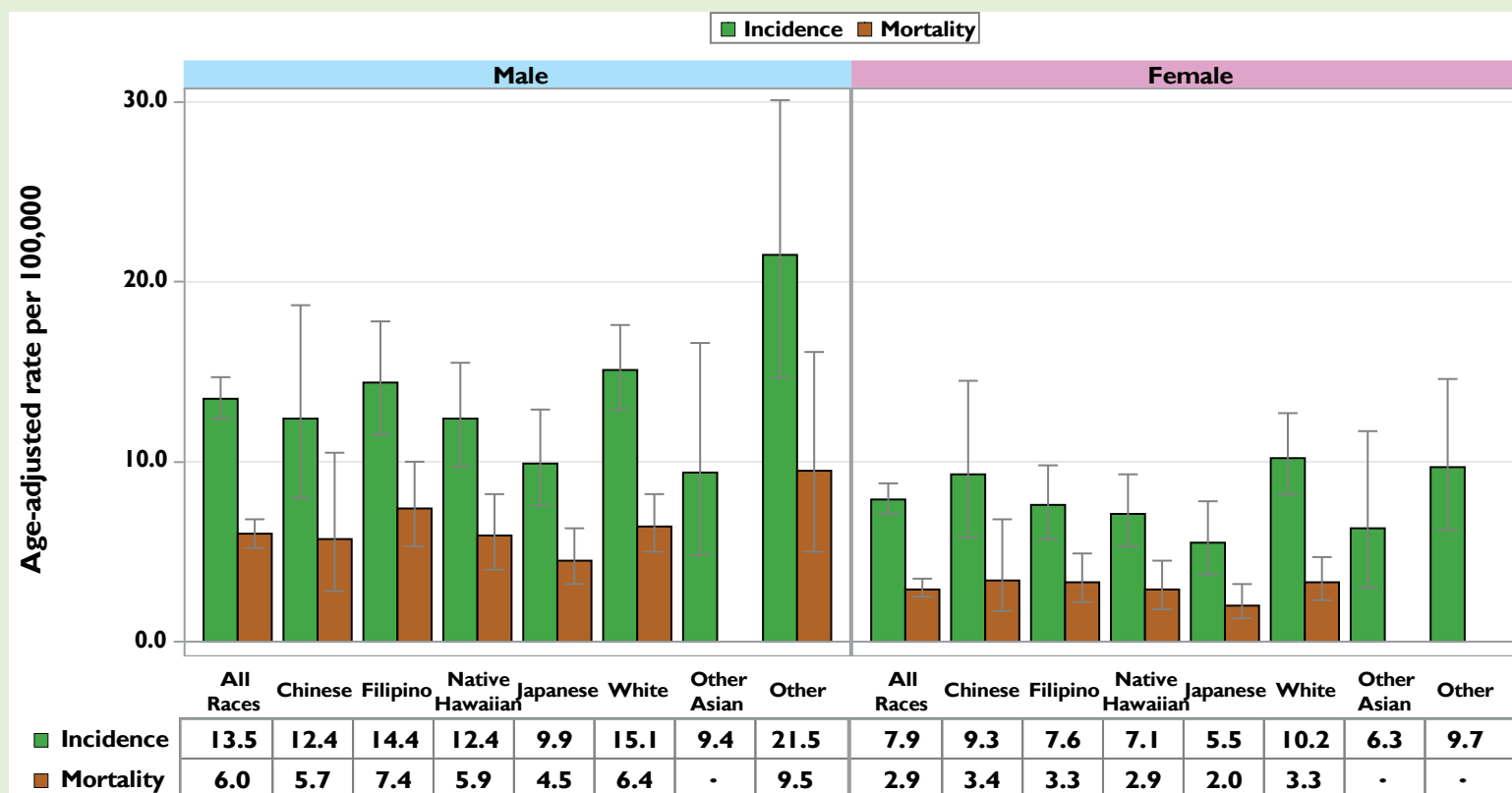


Figure 38. Liver & Intrahepatic Bile Duct Incidence and Mortality, By Sex and Race/Ethnicity, Hawai'i, 2014-2018

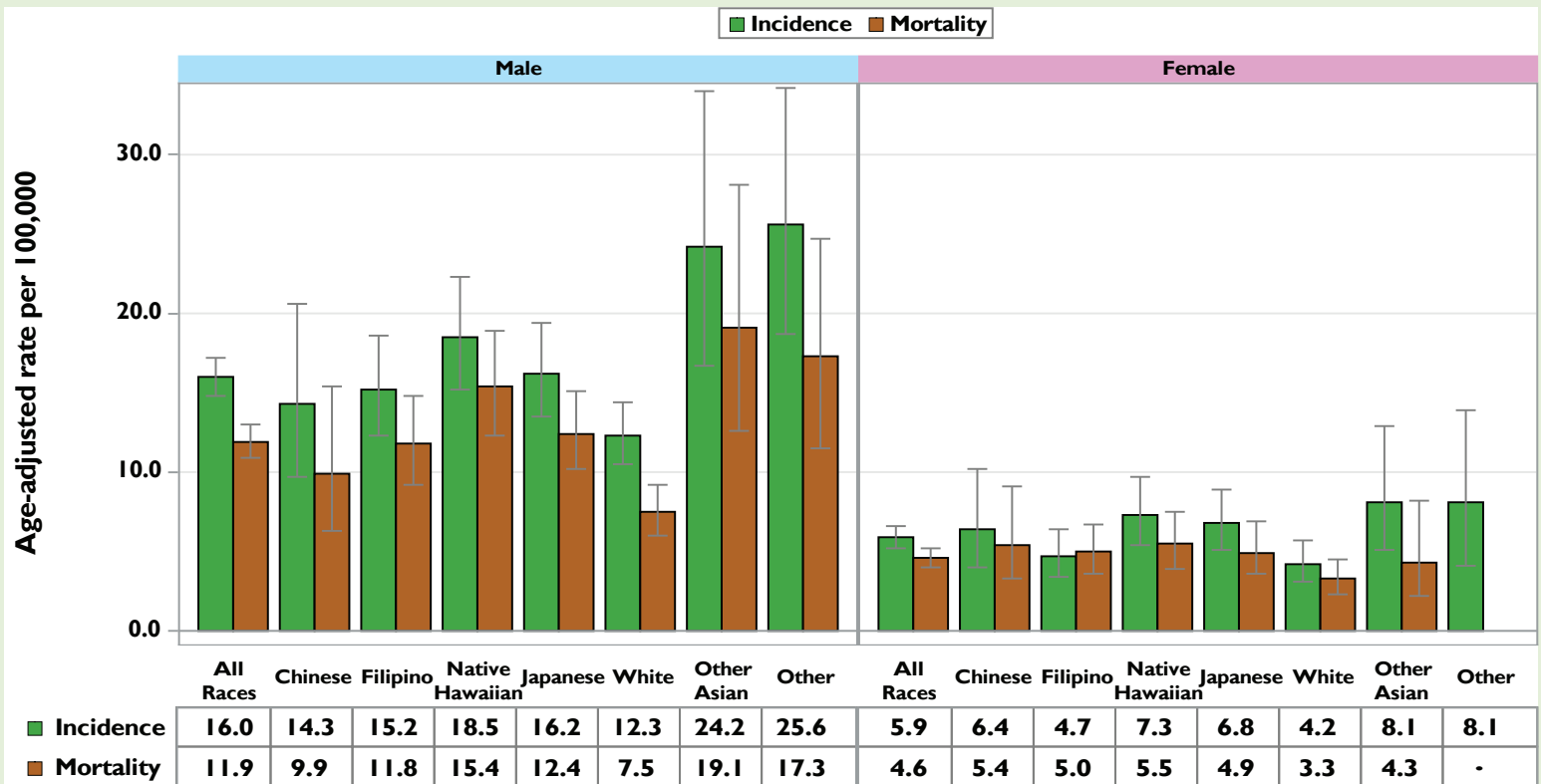


Figure 39. Melanoma of the Skin Incidence and Mortality, By Sex and Race/Ethnicity, Hawai'i, 2014-2018

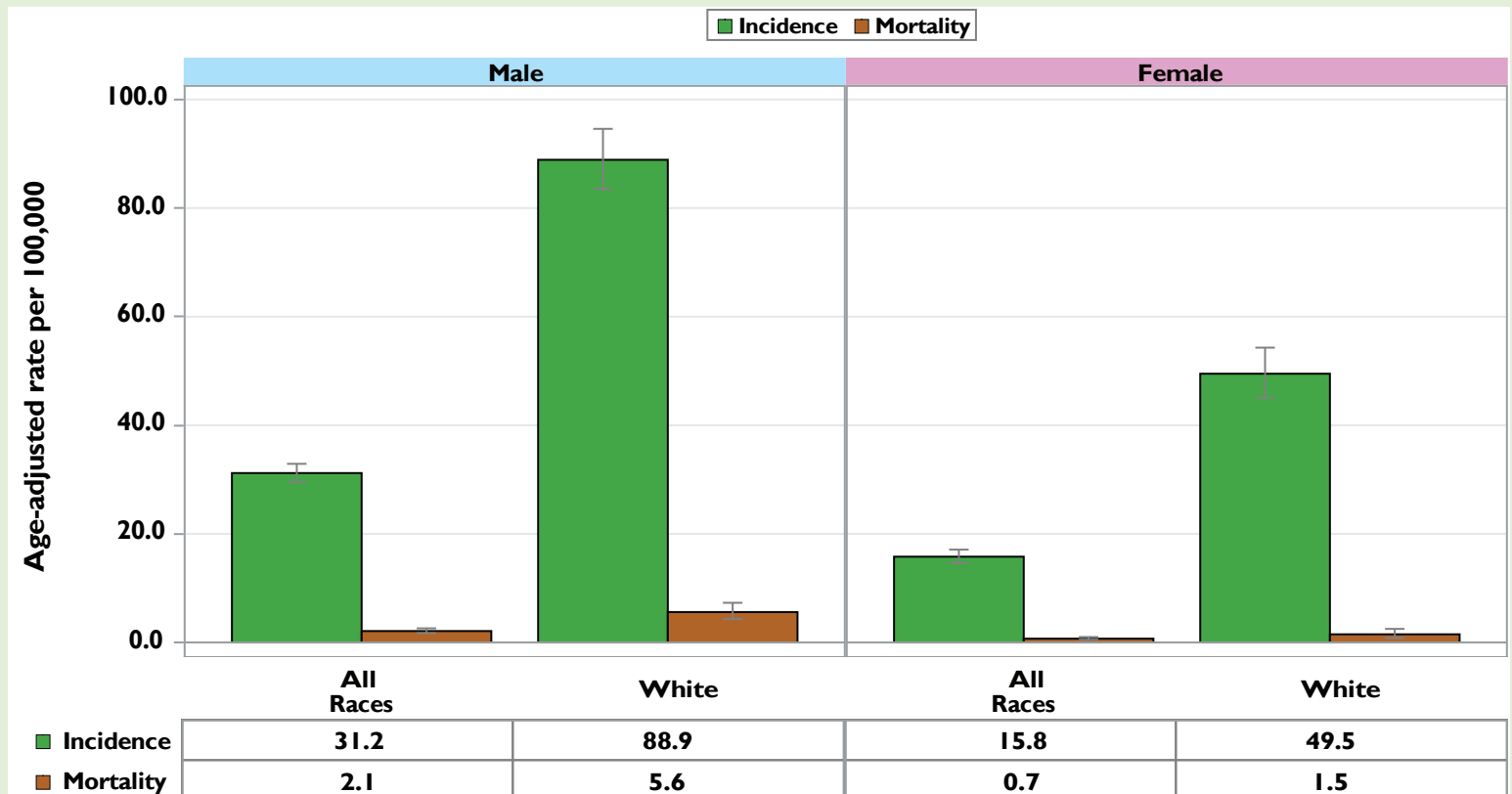


Figure 40. Myeloma Incidence and Mortality, By Sex and Race/Ethnicity, Hawai'i, 2014-2018

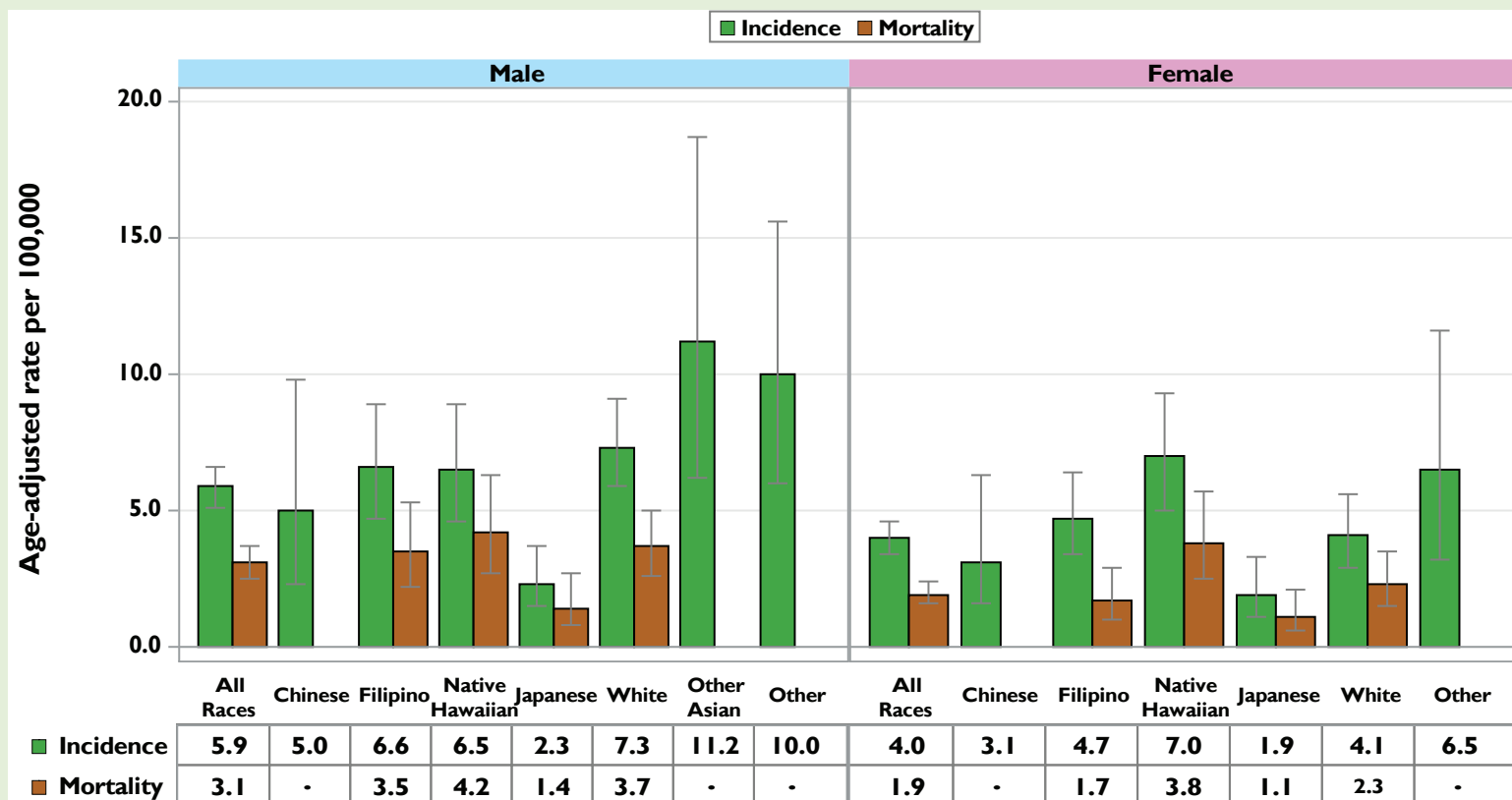


Figure 41. Non-Hodgkins Lymphoma Incidence and Mortality, By Sex and Race/Ethnicity, Hawai'i, 2014-2018

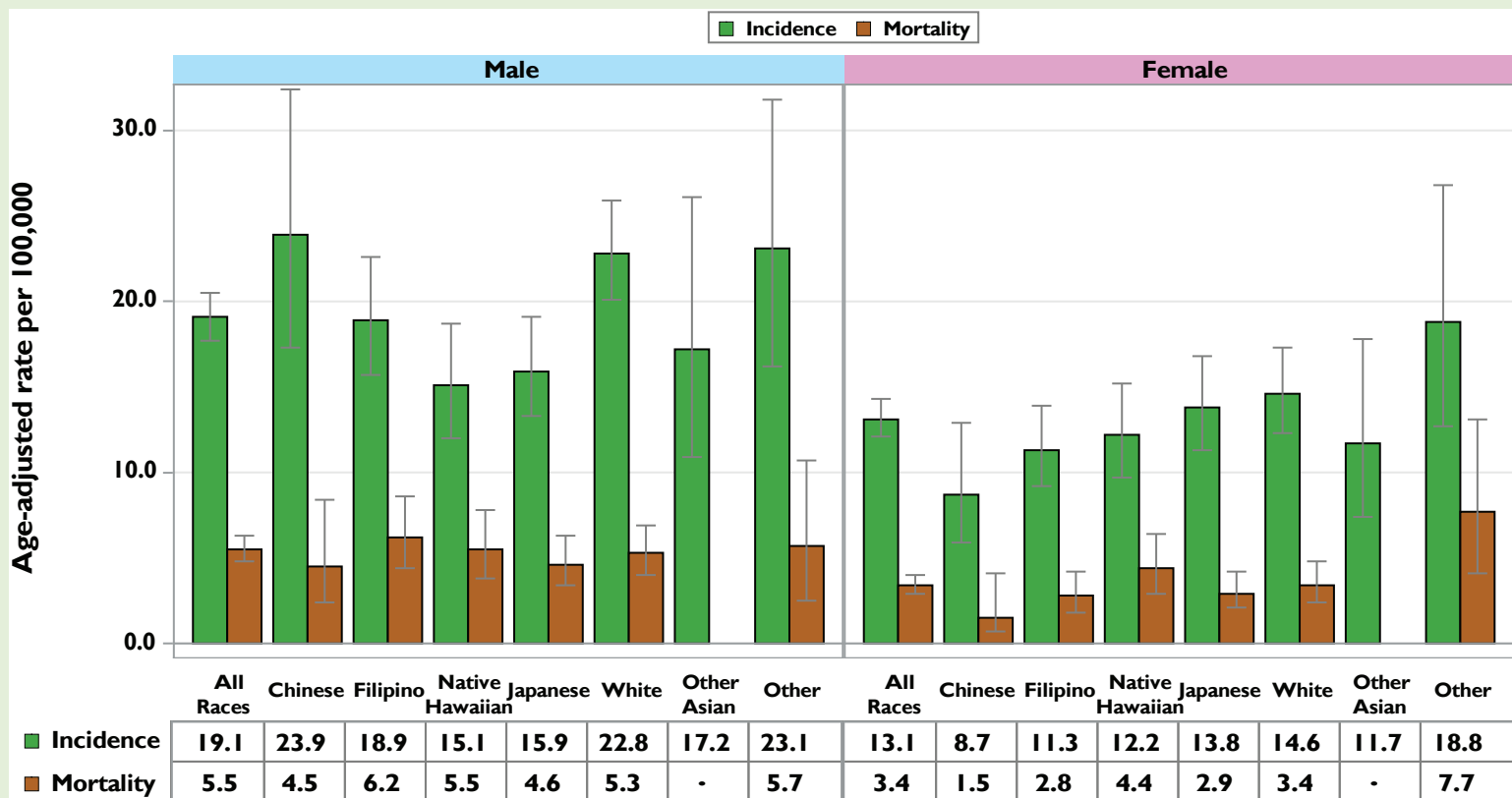


Figure 42. Oral Cavity & Pharynx Incidence and Mortality, By Sex and Race/Ethnicity, Hawai'i, 2014-2018

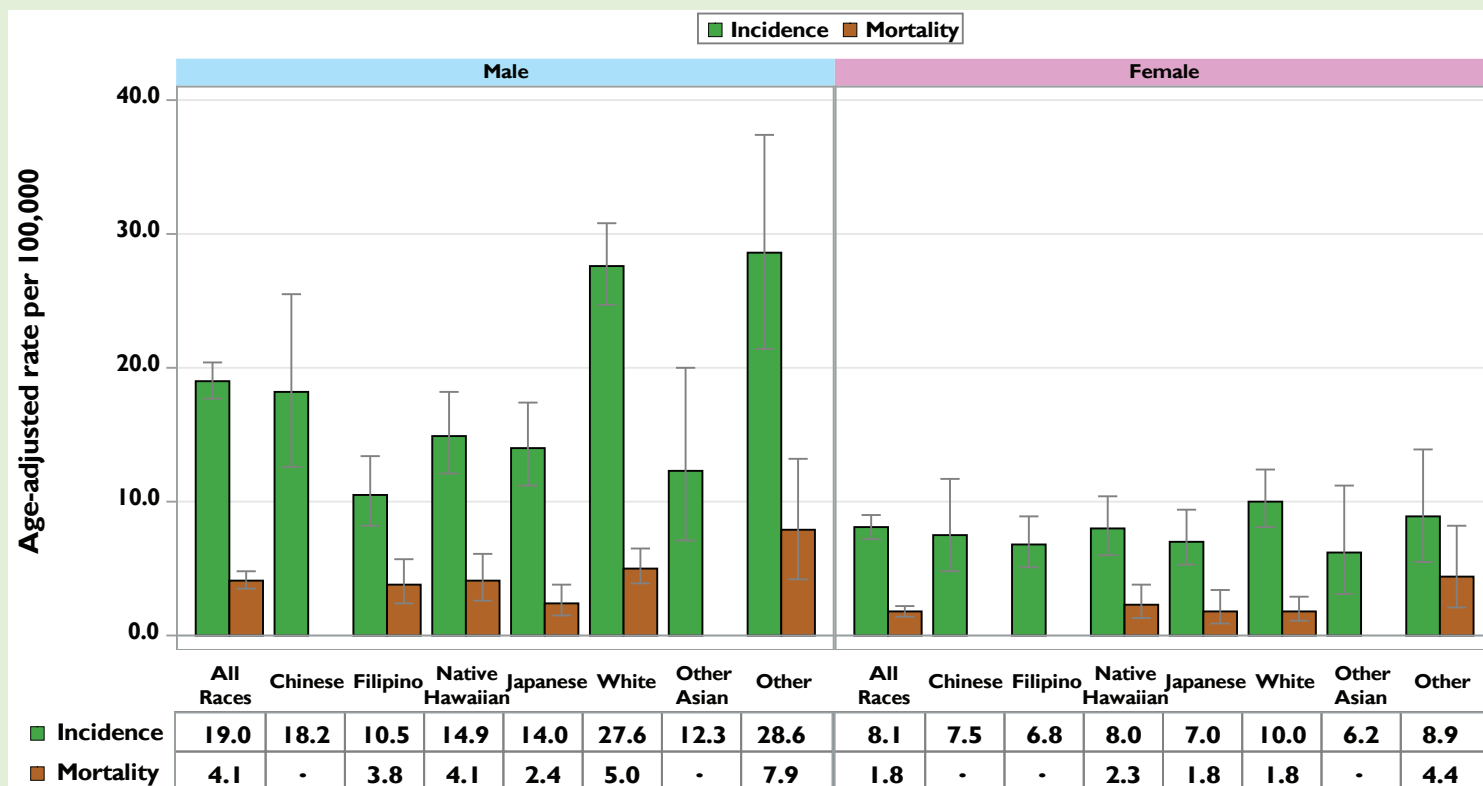


Figure 43. Ovary Cancer Incidence and Mortality, By Race/Ethnicity, Hawai'i, 2014-2018

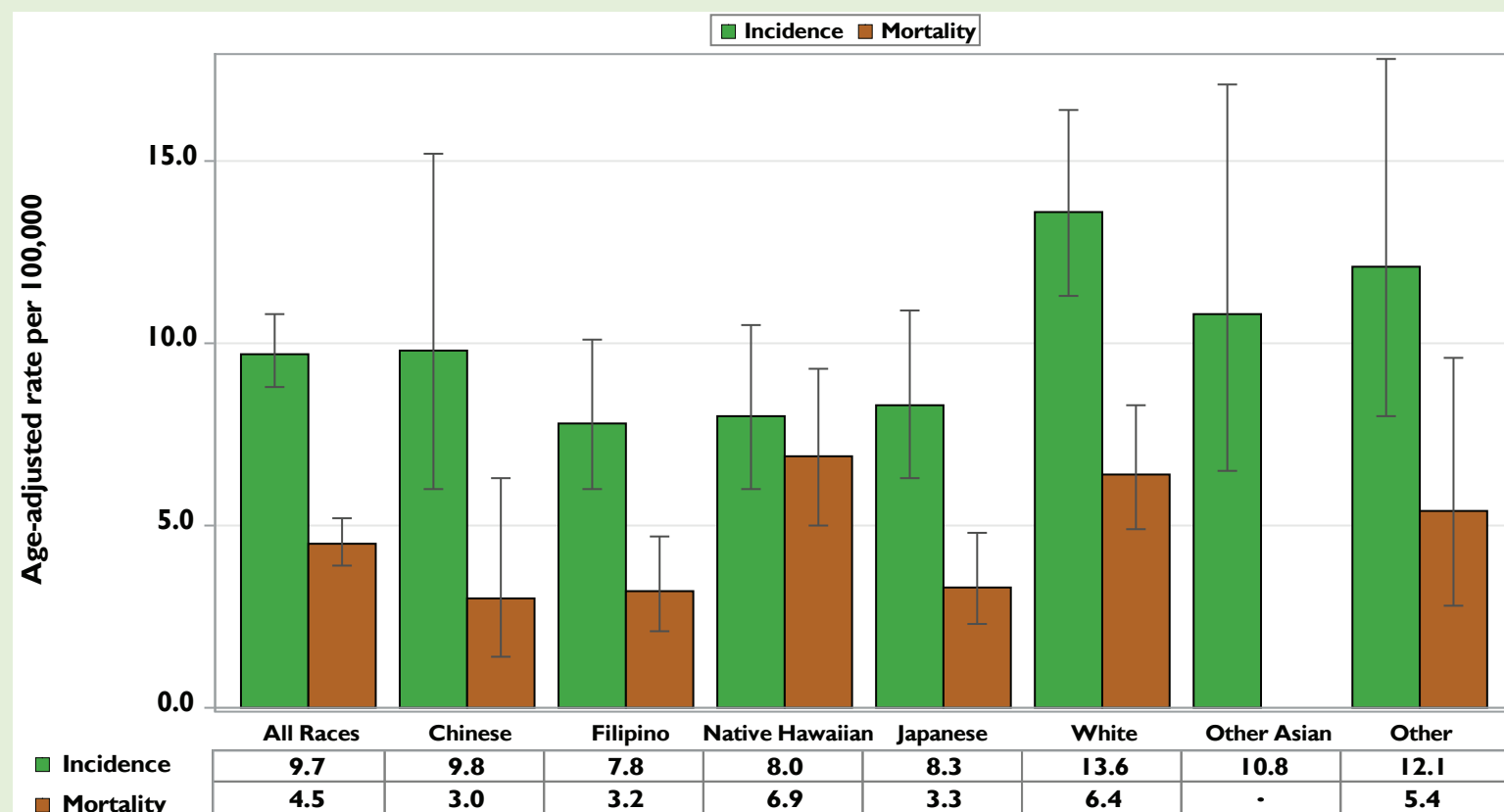


Figure 44. Pancreas Cancer Incidence and Mortality, By Sex and Race/Ethnicity, Hawai'i, 2014-2018

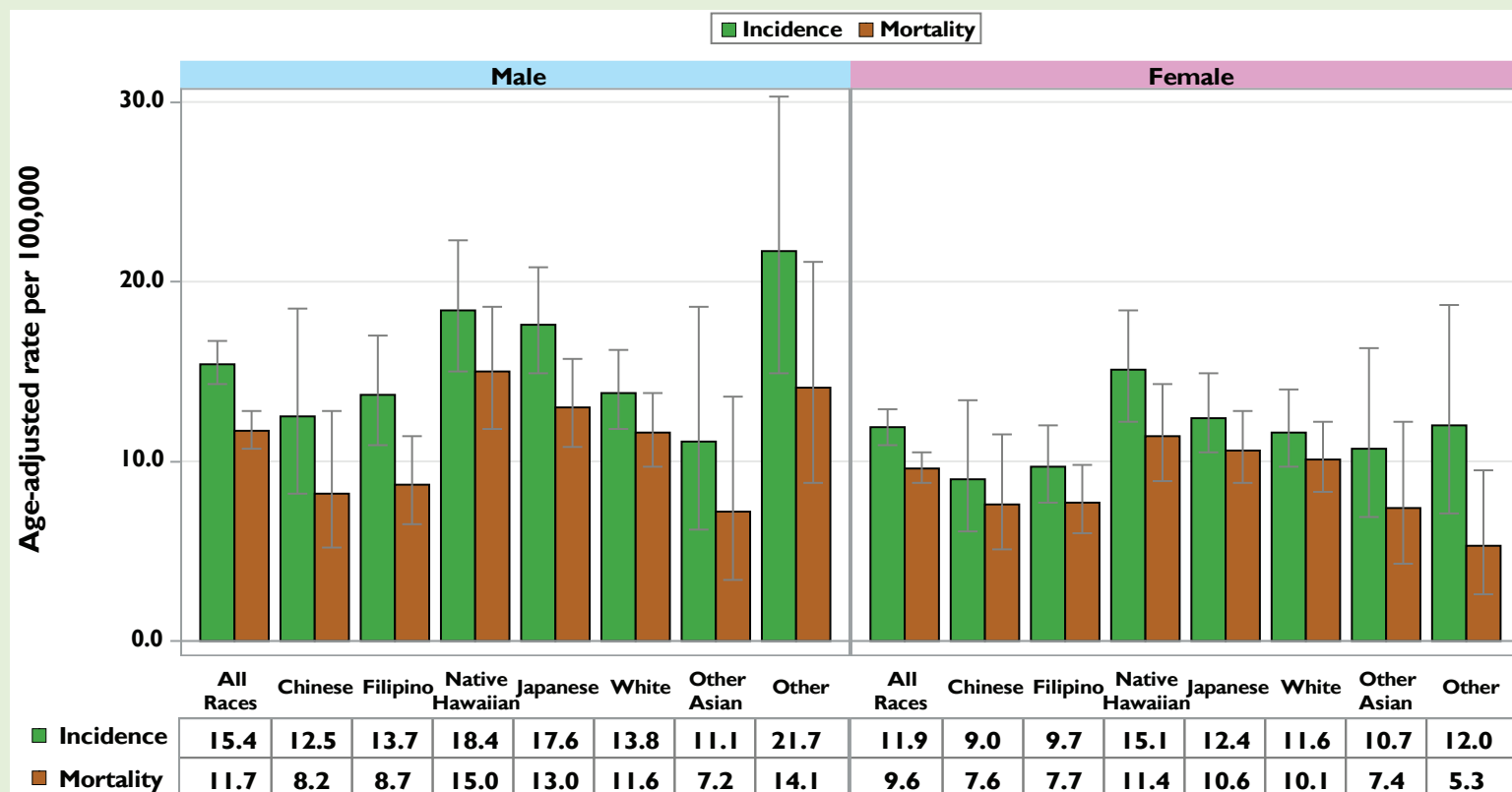


Figure 45. Stomach Cancer Incidence and Mortality, By Sex and Race/Ethnicity, Hawai'i, 2014-2018

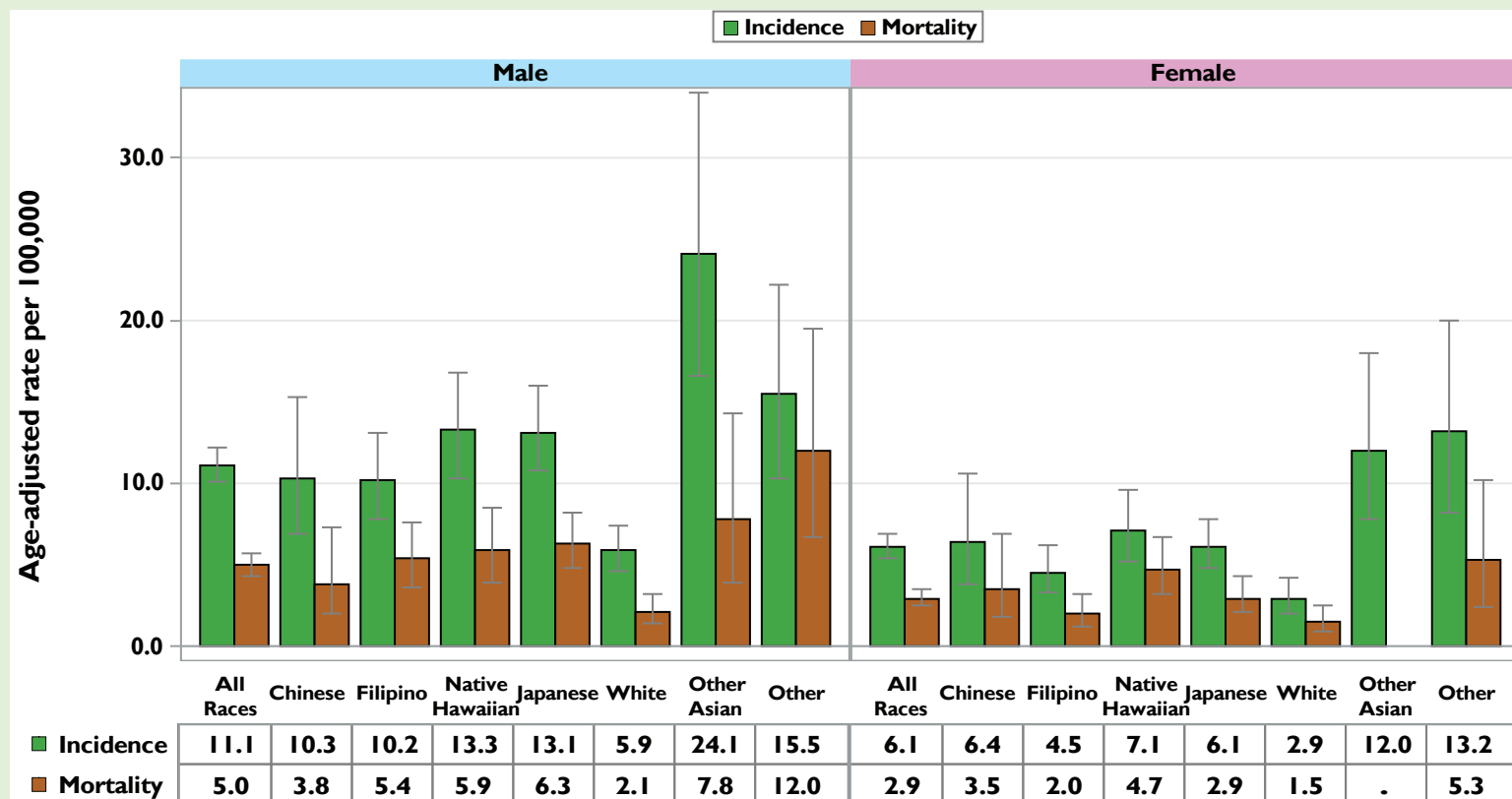


Figure 46. Testis Cancer Incidence, By Race/Ethnicity, Hawai'i, 2014-2018

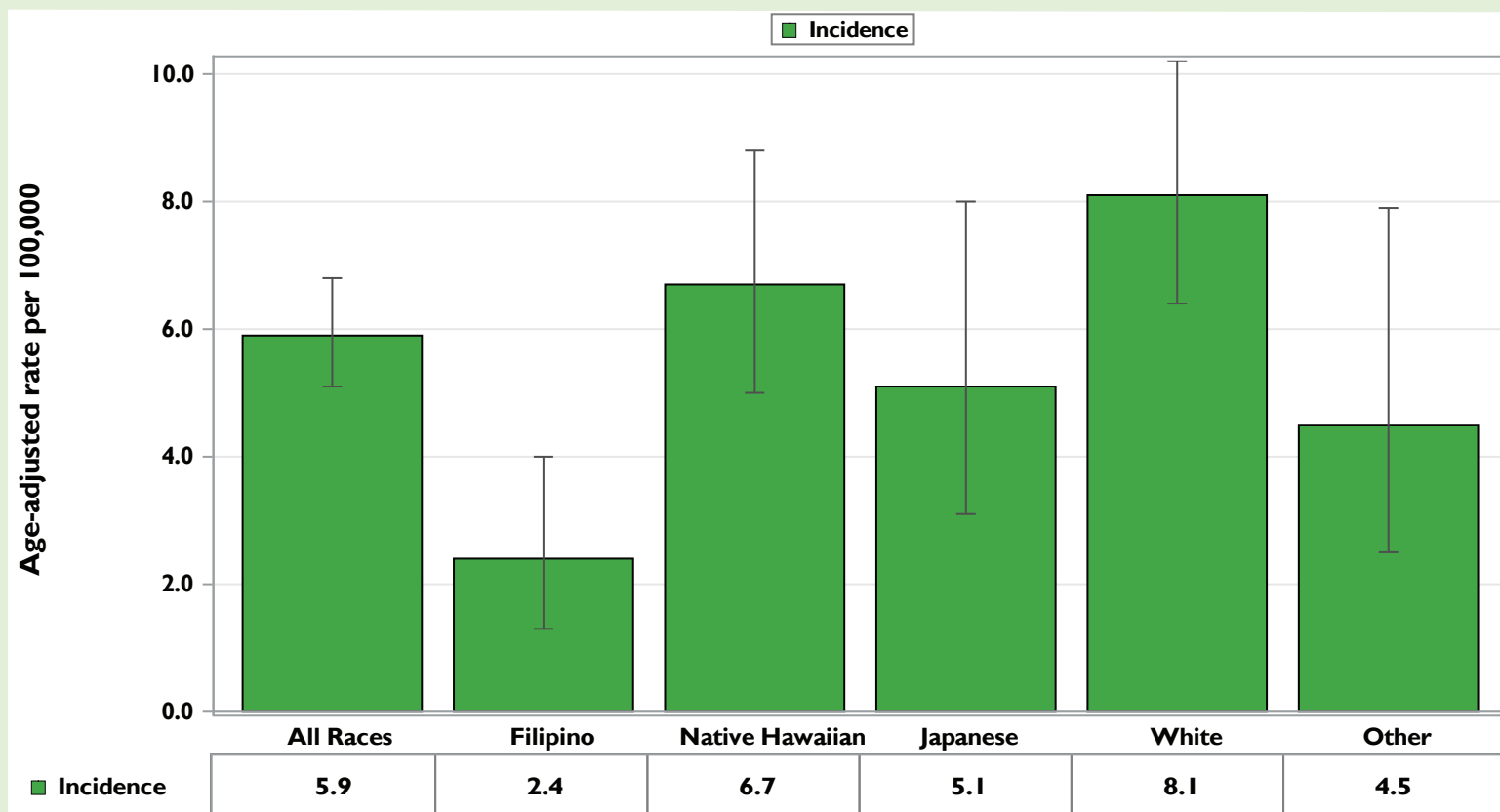


Figure 47. Thyroid Cancer Incidence, By Sex and Race/Ethnicity, Hawai'i, 2014-2018

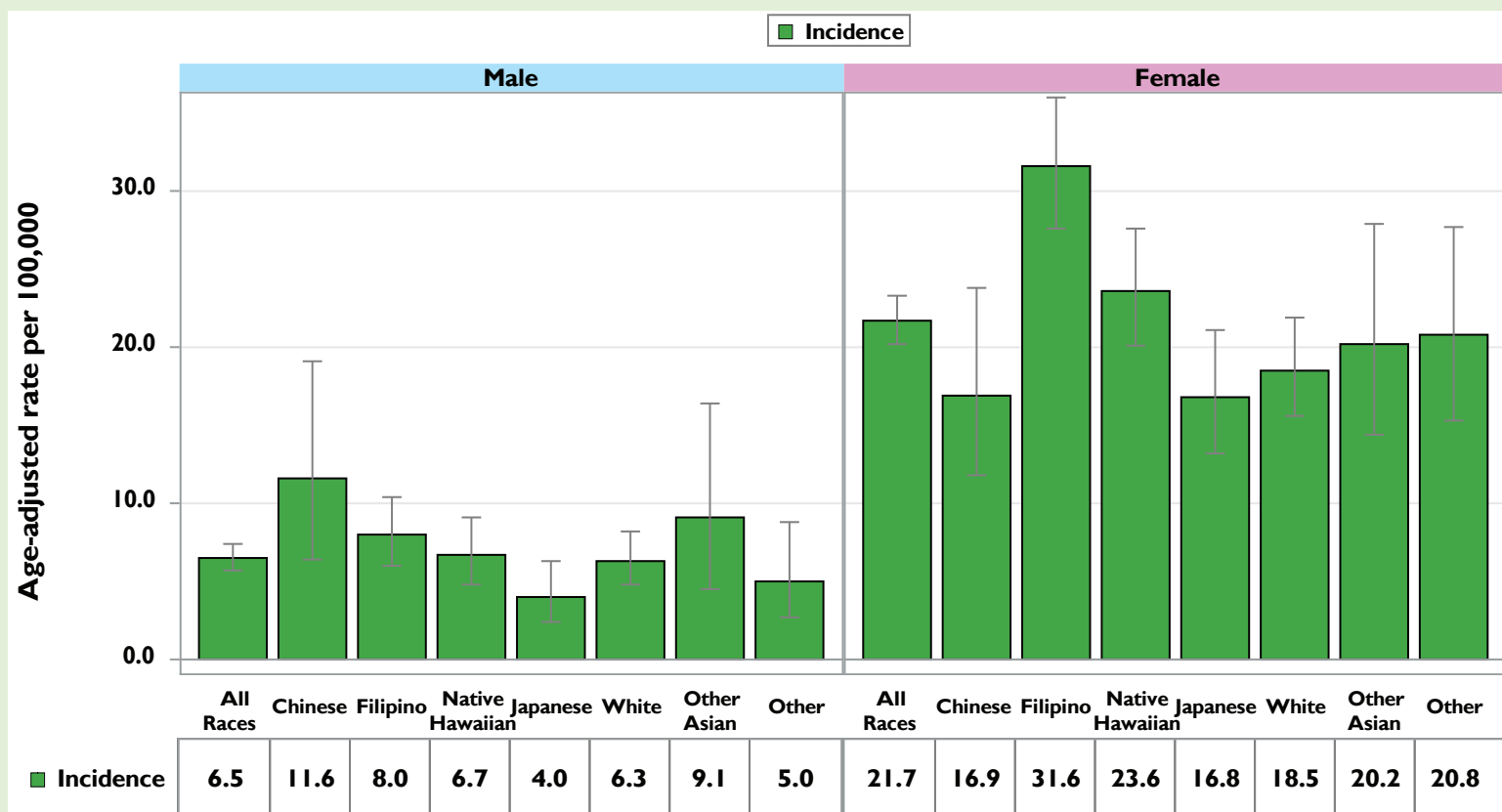


Figure 48. Uterus/Endometrium Cancer Incidence and Mortality, By Race/Ethnicity, Hawai'i, 2014-2018

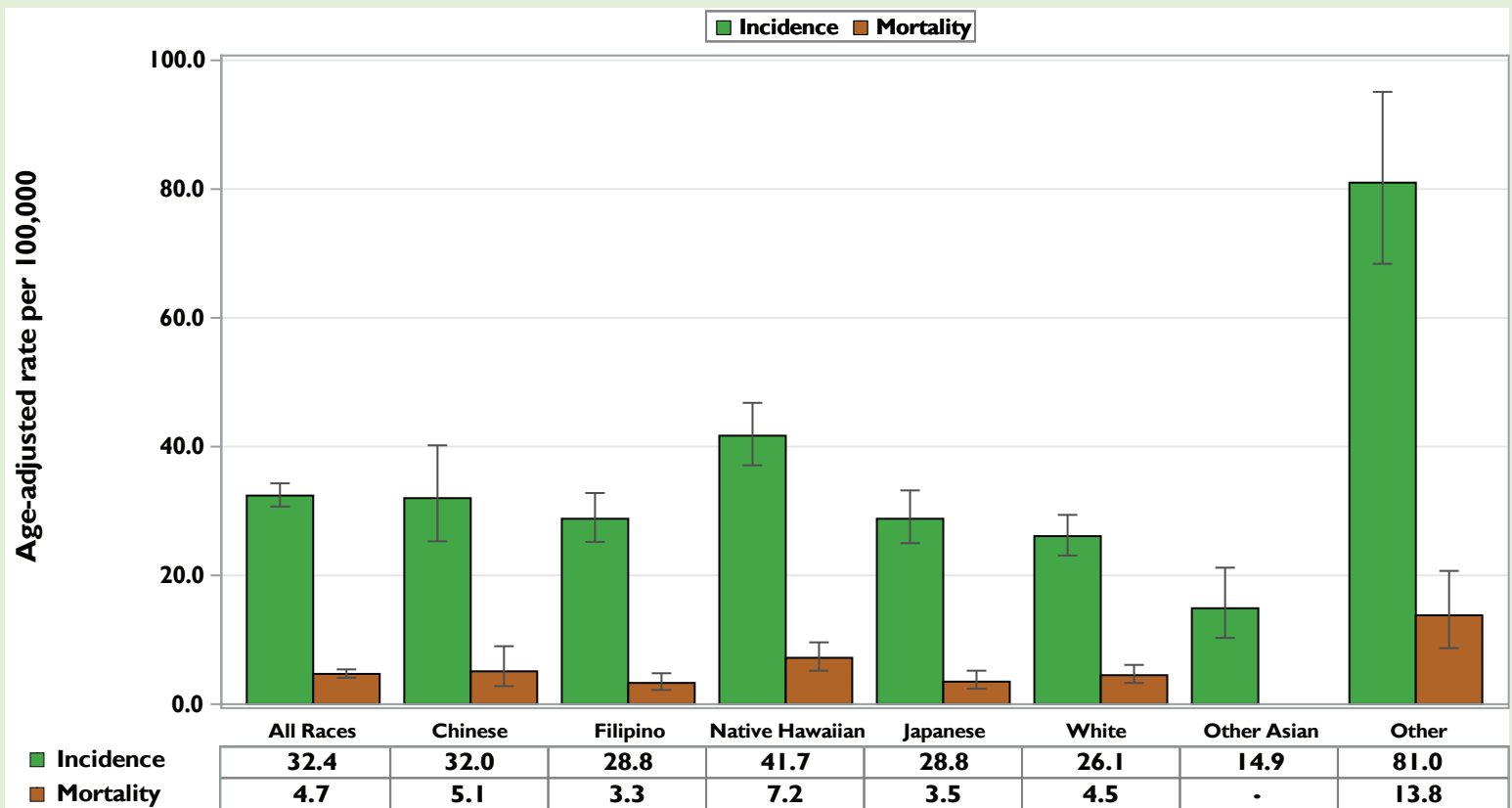


Table 9. Top Cancers in Other Racial/Ethnic Groups, Males and Females Combined, Hawai'i, 2014-2018

American Indian	Black	Korean	Micronesian	Samoan	Vietnamese
Lung & Bronchus	Prostate	Breast (Female)	Breast (Female)	Breast (Female)	Breast (Female)
31 (15.3%)	130 (27.0%)	131 (18.5%)	61 (12.6%)	85 (14.4%)	43 (19.6%)
Breast (Female)	Breast (Female)	Lung & Bronchus	Lung & Bronchus	Uterus/Endometrium	Lung & Bronchus; Colon & Rectum
26 (12.8%)	55 (11.4%)	102 (14.4%)	50 (10.3%)	81 (13.7%)	28 (12.8%)
Prostate	Colon & Rectum	Colon & Rectum	Uterus/Endometrium	Lung & Bronchus	Liver & Intrahepatic Bile Duct
19 (9.4%)	45 (9.4%)	78 (11.0%)	48 (9.9%)	71 (12.0%)	23 (10.5%)
Melanoma of the Skin	Lung & Bronchus	Stomach	Oral Cavity and Pharynx	Colon & Rectum	Non-Hodgkin Lymphoma
14 (6.9%)	36 (7.5%)	50 (7.1%)	43 (8.8%)	58 (9.8%)	12 (5.5%)
Oral Cavity & Pharynx	Bladder	Prostate	Prostate	Prostate	Prostate
13 (6.4%)	24 (5.0%)	43 (6.1%)	31 (6.4%)	57 (9.6%)	10 (4.6%)
All Sites	All Sites	All Sites	All Sites	All Sites	All Sites
203 (100.0%)	481 (100.0%)	708 (100.0%)	486 (100.0%)	591 (100.0%)	219 (100.0%)

Data Sources, Methods, and Definitions

General

- Counts and/or rates displayed in tables and figures are suppressed if the total 5-year count and/or the average annual count is less than 10.
- For some tables, the annual average numbers are rounded and may not add up to the rounded total. Similarly, percentages may not add up to 100% due to rounding.

Sources

- Hawai'i Tumor Registry, University of Hawai'i Cancer Center.
- Hawai'i State Department of Health.
- American Community Survey 5-year Public Use Microdata Sample.
- National Center for Health Statistics, Centers for Disease Control and Prevention.
- SEER*Stat Database: Incidence - SEER Research Plus Data, 9 Registries, Nov 2020 Sub (1975-2018) - Linked To County Attributes - Total U.S., 1969-2019 Counties.
- SEER*Stat Database: Mortality - All COD, Aggregated With County, Total U.S. (1969-2018) Katrina Rita Population Adjustment - Linked To County Attributes - Total U.S., 1969-2018 Counties.
- U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on 2020 submission data (1999–2018): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute.
- State Cancer Profiles, National Cancer Institute and Centers for Disease Control and Prevention.

Methods

- Rates are age-adjusted per 100,000 to the 2000 U.S. Standard Population.
- Age-adjusted rates, prevalence, frequencies are calculated by Surveillance Research Program, National Cancer Institute SEER*Stat software version 8.3.9.1.
- Mean age at diagnosis is calculated by weighted mean from frequency aggregated with single age group.
- AAPC Calculation: Joinpoint Regression Program, Version 4.9.0.0. March, 2021; Statistical Research and Applications Branch, National Cancer Institute.
- Hawai'i's detailed race/ethnicity population estimates based on the American Community Survey 5-year Public Use Microdata Sample.
- Multiple race/ethnicity populations were apportioned into the major race/ethnicity groups according to their relative prevalence.

Definitions

- Cancer cases include invasive cases except for bladder cancer, which includes both invasive and in situ.
- Maui County includes Maui, Kalawao, Molokai, and Lanai.
- The number of cancer survivors are based on individuals diagnosed with the cancer in 1975-2017 and alive as of January 1st, 2018.
- Other Female Genital Organs: Includes broad and round ligament, parametrium, uterine adnexa, Wolffian body, fallopian tube, placenta, overlapping lesion of female genital organs, unspecified sites of the female genital tract.
- Other Digestive Organs: Includes overlapping lesions of the digestive system, overlapping lesions of retroperitoneum and peritoneum, and unspecified sites of the intestinal tract.
- Other Biliary: Includes extrahepatic bile duct, ampulla of vater, overlapping lesion of biliary tract, and biliary tract, NOS.
- Stage information derived from combined summary stage variables.



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