



ANNUAL
Cancer Registry Report

2022



THE QUEEN'S
MEDICAL CENTER



THE QUEEN'S
MEDICAL CENTER
WEST O'AHU



The Queen’s Mission

To fulfill the intent of Queen Emma and King Kamehameha IV to provide in perpetuity quality health care services to improve the well-being of Native Hawaiians and all of the people of Hawai‘i.



The Queen’s Health System

Queen’s began with a single hospital founded in 1859 by Queen Emma and King Kamehameha IV to address the health care needs of the people of Hawai‘i during a time when epidemics were sweeping the islands. Named after Queen Emma, the hospital was called The Queen’s Hospital, which became The Queen’s Medical Center in 1967. The Queen’s Health System was established in 1985 to provide expanded health care services and programs to the people of Hawai‘i and the Pacific Basin. The Queen’s Health System became the state’s largest private employer in 2017, currently with over 8,500 employees and more than 1,500 physicians networked state-wide. Today, the Queen’s mission extends to four hospitals—The Queen’s Medical Center, The Queen’s Medical Center – West O‘ahu, Molokai General Hospital, Queen’s North Hawai‘i Community Hospital—and over 70 health care centers and labs throughout Hawai‘i and the Pacific.

Cover photo: TrueBeam Linear Accelerator, The Queen’s Cancer Center – West O‘ahu

Table of Contents

- SUMMARY OF ONCOLOGY DATA TRENDS..... 4**
- Summary of 2022 Cases - The Queen’s Medical Center (QMC) 4
- Newly Diagnosed Cancer Cases Reported: QMC & State of Hawai‘i, 2018 - 2022 6
- Classification of Newly Diagnosed Cases: QMC, 2018 - 2022 7
- Place of Residence at Diagnosis: QMC, 2022 8
- Age & Gender Distribution at Diagnosis: QMC, 2022 9
- Top 10 Cancer Sites Reported: QMC & the State of Hawai‘i..... 10
- 5 Leading Cancer Sites by Gender: QMC vs. State of Hawai‘i..... 11
- Distribution by Race: QMC vs. State of Hawai‘i..... 12

Summary of Oncology Data Trends

DURING THE YEAR 2022, The Queen's Medical Center (QMC) was the principal facility that established the initial diagnosis and/or performed the treatment for a total of 2,556 patients. This was a 0.58 % decrease in comparison to the previous year of 2,571 patients. In 2021, there were 9,044 analytic cancer cases in Hawai'i.

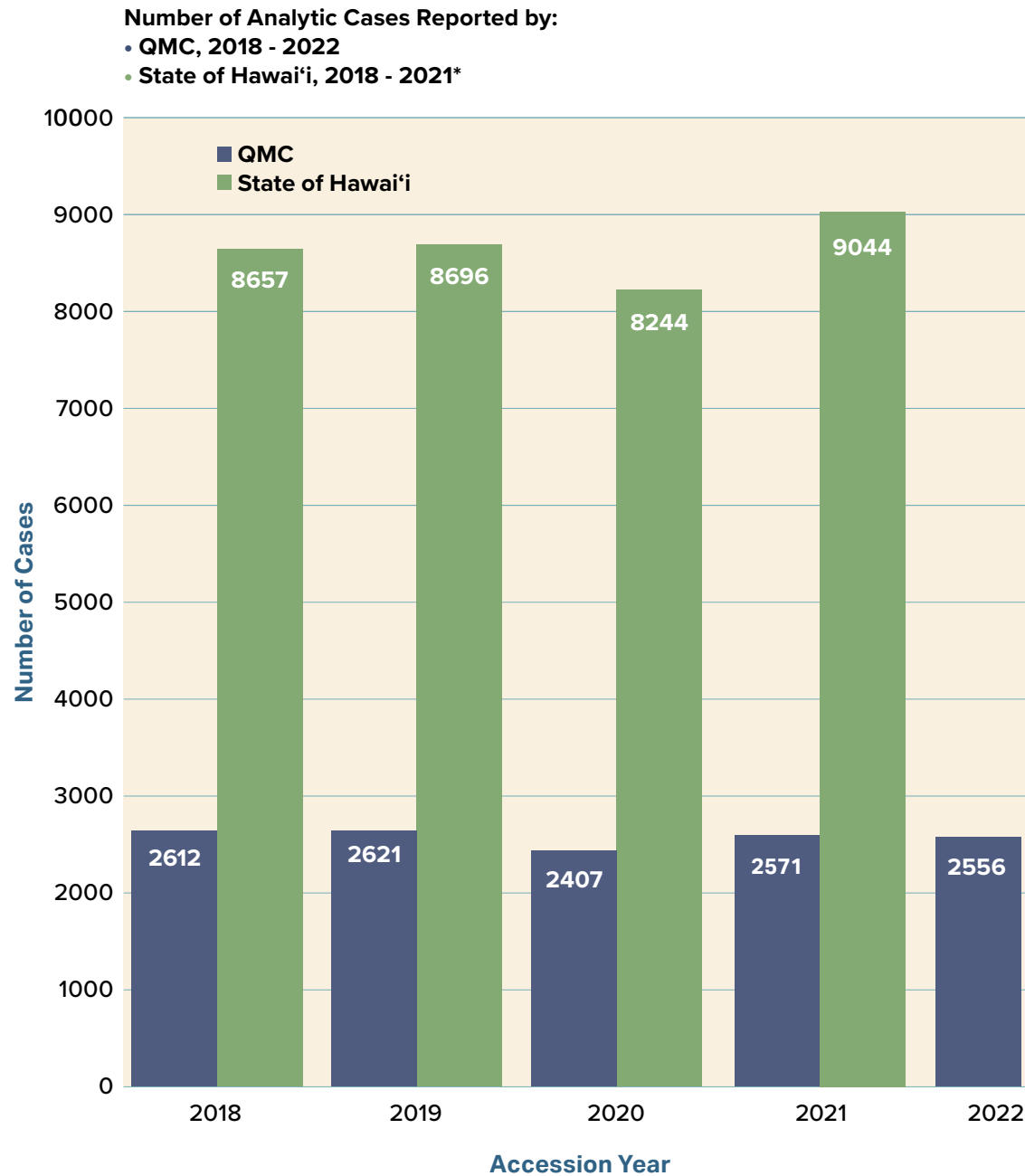
SUMMARY OF 2022 CASES – THE QUEEN'S MEDICAL CENTER

PRIMARY SITE	TOTAL (%)	SEX		STAGE DISTRIBUTION – ANALYTIC CASES ONLY						
		M	F	STG 0	STG I	STG II	STG III	STG IV	N/A*	UNK
ORAL CAVITY & PHARYNX	135 (5.3%)	90	45	5	31	21	16	47	7	8
Lip	3 (0.1%)	2	1	1	0	0	1	1	0	0
Tongue	48 (1.9%)	31	17	3	17	8	6	11	1	2
Salivary Glands	12 (0.5%)	7	5	0	1	1	1	6	0	3
Floor of Mouth	3 (0.1%)	3	0	1	0	1	0	1	0	0
Gum & Other Mouth	32 (1.3%)	18	14	0	4	4	4	18	1	1
Nasopharynx	10 (0.4%)	7	3	0	3	0	2	5	0	0
Tonsil	9 (0.4%)	8	1	0	3	3	1	0	1	1
Oropharynx	10 (0.4%)	7	3	0	3	3	1	1	2	0
Hypopharynx	6 (0.2%)	6	0	0	0	1	0	4	1	0
Other Oral Cavity & Pharynx	2 (0.1%)	1	1	0	0	0	0	0	1	1
DIGESTIVE SYSTEM	536 (21.0%)	316	220	7	91	82	98	128	26	104
Esophagus	36 (1.4%)	31	5	0	1	5	7	11	3	9
Stomach	57 (2.2%)	32	25	1	15	12	9	11	1	8
Small Intestine	16 (0.6%)	11	5	0	2	1	1	4	5	3
Colon Excluding Rectum	134 (5.2%)	70	64	3	18	32	26	31	0	24
Cecum	17	6	11	0	1	9	3	4	0	0
Appendix	9	5	4	1	0	1	1	2	0	4
Ascending Colon	21	9	12	1	3	7	2	6	0	2
Hepatic Flexure	7	5	2	0	2	0	1	3	0	1
Transverse Colon	13	6	7	0	2	2	3	4	0	2
Splenic Flexure	3	1	2	0	1	1	0	0	0	1
Descending Colon	7	4	3	1	0	0	1	3	0	2
Sigmoid Colon	49	30	19	0	9	11	15	4	0	10
Large Intestine, NOS	8	4	4	0	0	1	0	5	0	2
Rectum & Rectosigmoid	86 (3.4%)	55	31	2	10	11	20	19	1	23
Rectosigmoid Junction	16	10	6	0	0	1	5	7	0	3
Rectum	70	45	25	2	10	10	15	12	1	20
Anus, Anal Canal & Anorectum	8 (0.3%)	6	2	0	2	0	4	0	1	1
Liver & Intrahepatic Bile Duct	73 (2.9%)	43	30	0	25	2	14	11	4	17
Liver	55	34	21	0	21	2	11	7	3	11
Intrahepatic Bile Duct	18	9	9	0	4	0	3	4	1	6
Gallbladder	7 (0.3%)	0	7	0	0	1	1	1	0	4
Other Biliary	28 (1.1%)	17	11	0	2	3	3	5	8	7
Pancreas	85 (3.3%)	48	37	1	16	14	11	34	1	8
Retroperitoneum	1 (0.0%)	1	0	0	0	0	1	0	0	0
Peritoneum, Omentum & Mesentery	3 (0.1%)	1	2	0	0	1	1	1	0	0
Other Digestive Organs	2 (0.1%)	1	1	0	0	0	0	0	2	0
RESPIRATORY SYSTEM	307 (12.0%)	164	143	1	70	33	46	133	11	13
Nose, Nasal Cavity & Middle Ear	8 (0.3%)	5	3	0	0	0	0	6	2	0
Larynx	23 (0.9%)	18	5	1	3	0	6	9	0	4
Lung & Bronchus	274 (10.7%)	139	135	0	67	33	40	118	7	9
Trachea, Mediastinum & Other Respiratory Organs	2 (0.1%)	2	0	0	0	0	0	0	2	0
BONES & JOINTS	2 (0.1%)	0	2	0	0	0	0	0	1	1
Bones & Joints	2 (0.1%)	0	2	0	0	0	0	0	1	1

PRIMARY SITE	TOTAL (%)	SEX		STAGE DISTRIBUTION – ANALYTIC CASES ONLY						
		M	F	STG 0	STG I	STG II	STG III	STG IV	N/A*	UNK
SOFT TISSUE	15 (0.6%)	11	4	0	3	2	3	1	6	0
Soft Tissue (including Heart)	15 (0.6%)	11	4	0	3	2	3	1	6	0
SKIN EXCLUDING BASAL & SQUAMOUS	102 (4.0%)	71	31	6	53	16	14	1	6	6
Melanoma – Skin	90 (3.5%)	62	28	6	51	16	12	1	0	4
Other Non-Epithelial Skin	12 (0.5%)	9	3	0	2	0	2	0	6	2
BREAST	388 (15.2%)	4	384	83	202	43	25	21	4	10
Breast	388 (15.2%)	4	384	83	202	43	25	21	4	10
FEMALE GENITAL SYSTEM	191 (7.5%)	0	191	0	100	9	20	20	3	39
Cervix Uteri	17 (0.7%)	0	17	0	7	2	3	3	0	2
Corpus & Uterus, NOS	134 (5.2%)	0	134	0	85	7	14	9	0	19
Corpus Uteri	132	0	132	0	84	7	14	9	0	18
Uterus, NOS	2	0	2	0	1	0	0	0	0	1
Ovary	29 (1.1%)	0	29	0	7	0	2	7	1	12
Vagina	1 (0.0%)	0	1	0	1	0	0	0	0	0
Vulva	4 (0.2%)	0	4	0	0	0	1	0	2	1
Other Female Genital Organs	6 (0.2%)	0	6	0	0	0	0	1	0	5
MALE GENITAL SYSTEM	260 (10.2%)	260	0	0	21	106	74	39	1	19
Prostate	254 (9.9%)	254	0	0	20	105	74	37	0	18
Testis	3 (0.1%)	3	0	0	1	1	0	0	0	1
Penis	2 (0.1%)	2	0	0	0	0	0	2	0	0
Other Male Genital Organs	1 (0.0%)	1	0	0	0	0	0	0	1	0
URINARY SYSTEM	175 (6.8%)	128	47	29	55	21	18	24	6	22
Urinary Bladder	70 (2.7%)	58	12	23	19	13	3	9	2	1
Kidney & Renal Pelvis	95 (3.7%)	65	30	3	36	6	14	15	1	20
Ureter	6 (0.2%)	1	5	2	0	2	1	0	0	1
Other Urinary Organs	4 (0.2%)	4	0	1	0	0	0	0	3	0
BRAIN & OTHER NERVOUS SYSTEM	103 (4.0%)	51	52	0	0	0	0	0	103	0
Brain	39 (1.5%)	27	12	0	0	0	0	0	39	0
Cranial Nerves/Other Nervous System	64 (2.5%)	24	40	0	0	0	0	0	64	0
ENDOCRINE SYSTEM	124 (4.9%)	43	81	0	67	27	3	3	19	5
Thyroid	95 (3.7%)	26	69	0	63	26	2	3	0	1
Other Endocrine including Thymus	29 (1.1%)	17	12	0	4	1	1	0	19	4
LYMPHOMA	88 (3.4%)	48	40	0	13	11	10	44	8	2
Hodgkin Lymphoma	5 (0.2%)	4	1	0	0	3	0	1	0	1
Non-Hodgkin Lymphoma	83 (3.2%)	44	39	0	13	8	10	43	8	1
NHL - Nodal	53	27	26	0	5	5	10	31	1	1
NHL - Extranodal	30	17	13	0	8	3	0	12	7	0
MYELOMA	27 (1.1%)	19	8	0	2	6	2	0	17	0
Myeloma	27 (1.1%)	19	8	0	2	6	2	0	17	0
LEUKEMIA	36 (1.4%)	18	18	0	0	1	0	0	35	0
Lymphocytic Leukemia	12 (0.5%)	5	7	0	0	1	0	0	11	0
Acute Lymphocytic Leukemia	6	1	5	0	0	0	0	0	6	0
Chronic Lymphocytic Leukemia	4	2	2	0	0	1	0	0	3	0
Other Lymphocytic Leukemia	2	2	0	0	0	0	0	0	2	0
Myeloid & Monocytic Leukemia	21 (0.8%)	11	10	0	0	0	0	0	21	0
Acute Myeloid Leukemia	18	9	9	0	0	0	0	0	18	0
Acute Monocytic Leukemia	1	0	1	0	0	0	0	0	1	0
Chronic Myeloid Leukemia	2	2	0	0	0	0	0	0	2	0
Other Leukemia	3 (0.1%)	2	1	0	0	0	0	0	3	0
Other Acute Leukemia	2	2	0	0	0	0	0	0	2	0
Aleukemic, Subleukemic & NOS	1	0	1	0	0	0	0	0	1	0
MESOTHELIOMA	3 (0.1%)	3	0	0	0	0	1	0	2	0
Mesothelioma	3 (0.1%)	3	0	0	0	0	1	0	2	0
MISCELLANEOUS	64 (2.5%)	40	24	0	0	0	1	0	61	2
Miscellaneous	64 (2.5%)	40	24	0	0	0	1	0	61	2
TOTAL	2,556	1,266	1,290	131	708	378	331	461	316	231

*N/A=not applicable; no AJCC staging scheme for site/histology combination

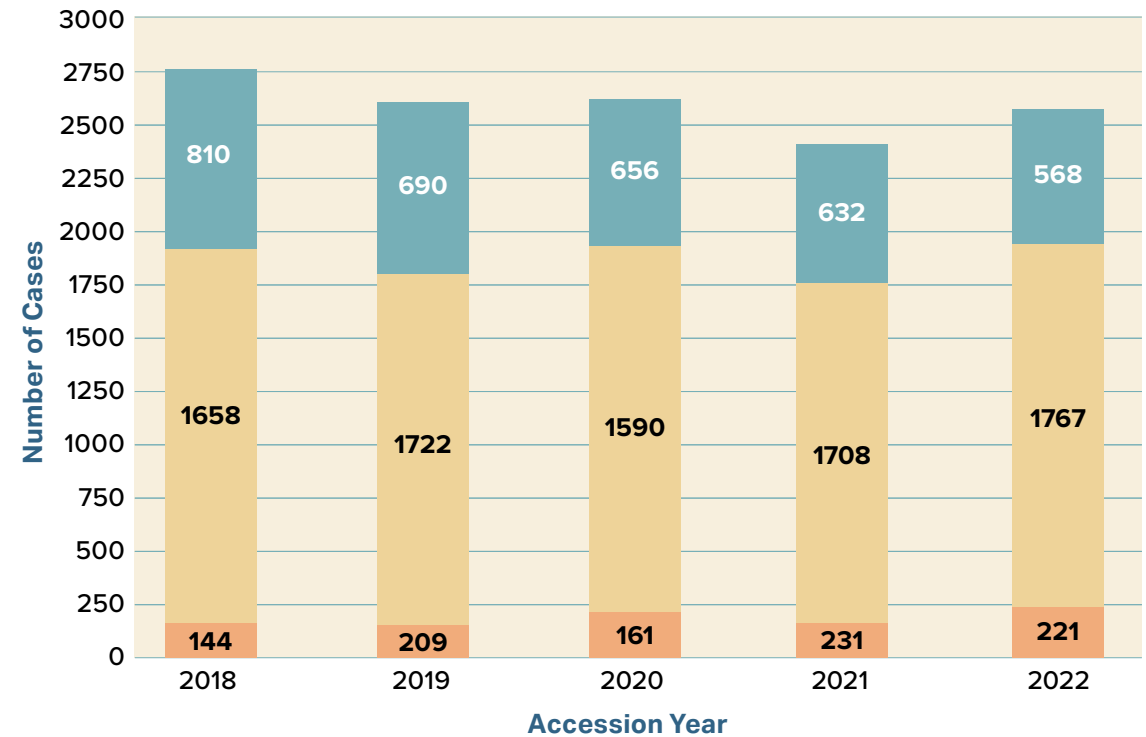
**NEWLY DIAGNOSED CANCER CASES REPORTED:
QMC & THE STATE OF HAWAI'I, 2018 – 2022***



*2022 data from the state of Hawai'i were not available during the preparation of this report.

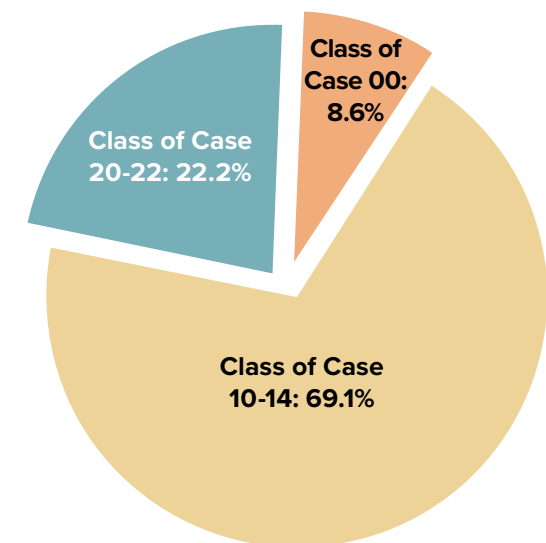
CLASSIFICATION OF NEWLY DIAGNOSED CASES: QMC, 2018 – 2022

Patients who had their diagnosis and treatment at QMC (Class of Case 10-14) numbered 1,767 which accounted for 69.1% of total analytical cases.



- Class of Case 20-22: Diagnosis elsewhere and referral to QMC for all or a part of initial treatment
- Class of Case 10-14: Diagnosis at QMC or staff physician's office and all or part of initial treatment at QMC
- Class of Case 00: Diagnosis at QMC and all treatment given elsewhere

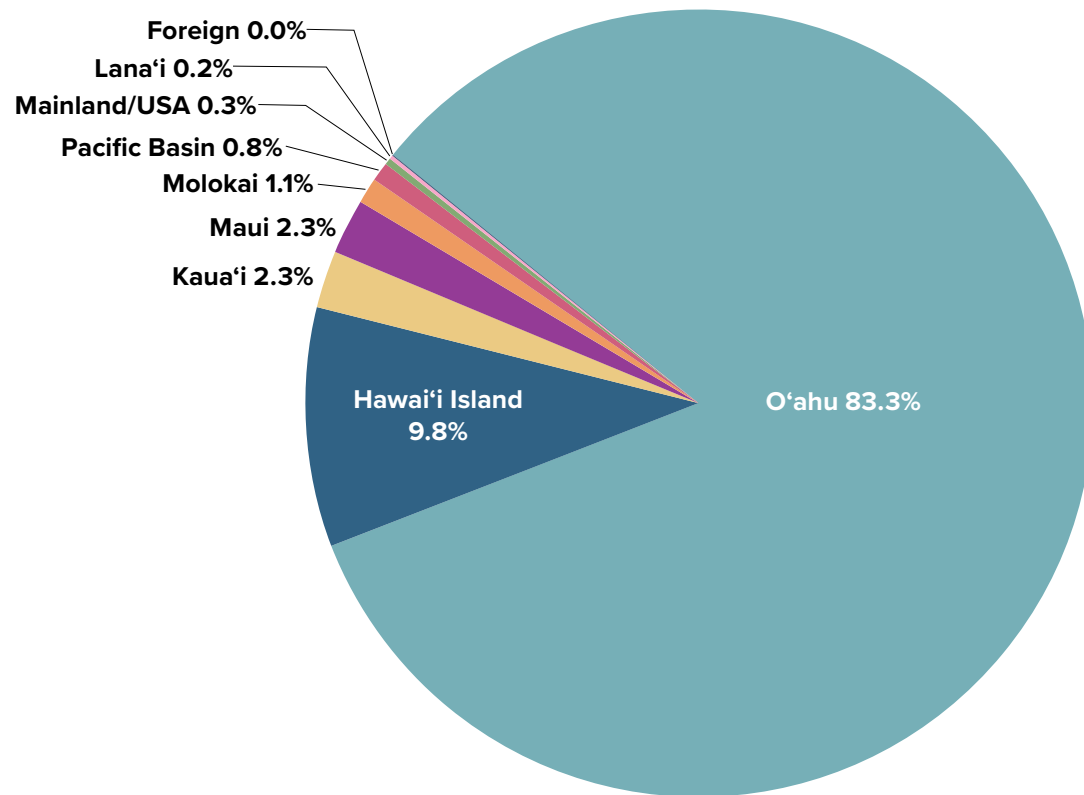
Patients who received a diagnosis of cancer from another center but were subsequently treated at QMC (Class of Case 20-22) accounted for 22.2% of the analytical case distribution. Only 8.6% of patients diagnosed with cancer at QMC elected to have their care performed elsewhere or chose no treatment at all. This highlights the belief that QMC is the provider of choice for many cancer patients in Hawai'i. The low rate of patients electing to have their care managed elsewhere is a testament to QMC's reputable oncology program.



- Class of Case 20-22: Diagnosis elsewhere and referral to QMC for all or a part of initial treatment
- Class of Case 10-14: Diagnosis at QMC or staff physician's office and all or part of initial treatment at QMC
- Class of Case 00: Diagnosis at QMC and all treatment given elsewhere

PLACE OF RESIDENCE AT DIAGNOSIS: QMC, 2022

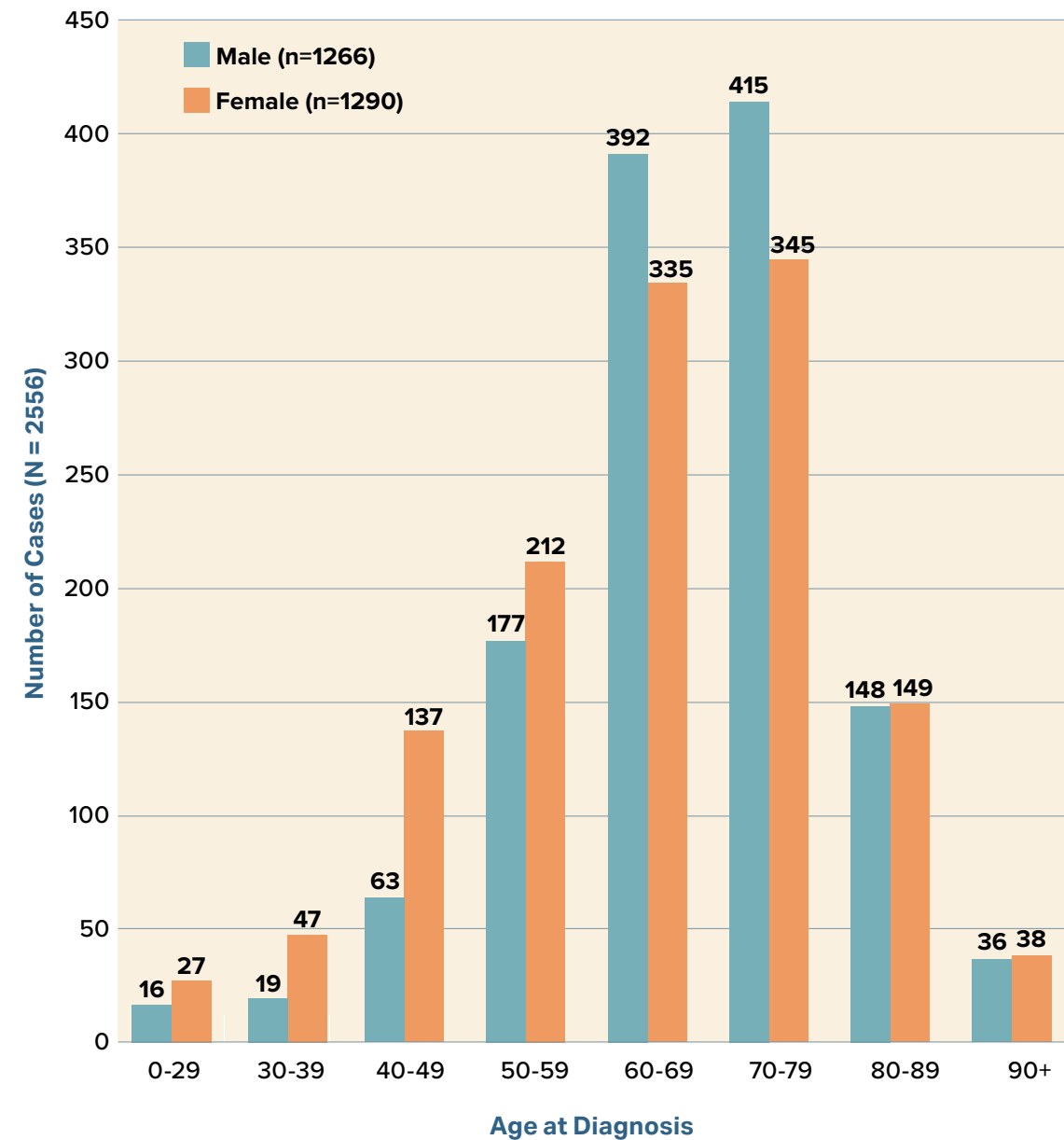
In 2022, there was no significant change in the distribution of residence for patients who received their oncologic care at QMC as compared to the prior year. The overwhelming majority of patients (83.3%) live on the island of O’ahu; 15.7% of patients who received their cancer care at QMC were from a neighbor island.



Place of Residence at Diagnosis	Number of Cases	Percent Cases
O'ahu	2128	83.3%
Hawai'i	251	9.8%
Kaua'i	60	2.3%
Maui	58	2.3%
Molokai	27	1.1%
Pacific Basin	20	0.8%
Mainland/USA	7	0.3%
Lana'i	4	0.2%
Foreign	1	0.0%
Total	2556	100.0%

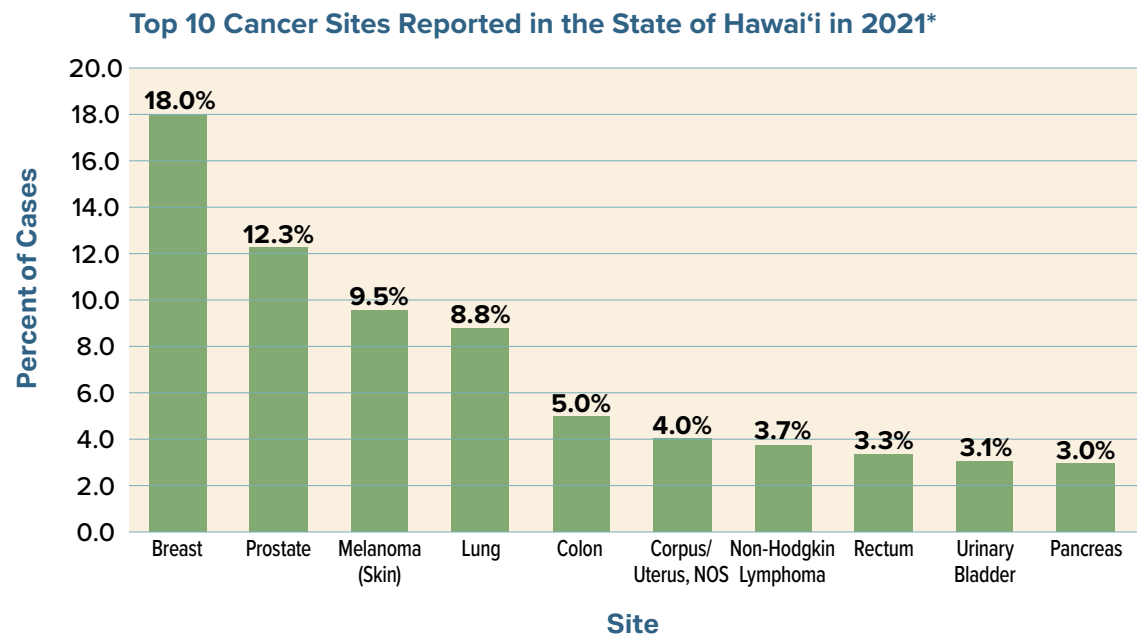
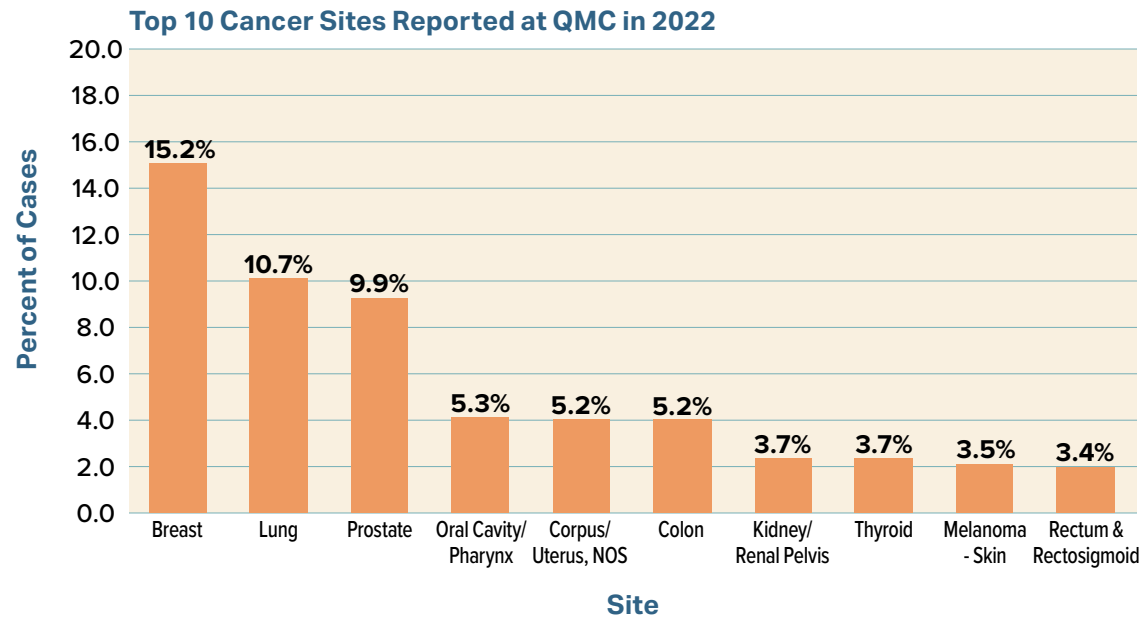
AGE & GENDER DISTRIBUTION AT DIAGNOSIS: QMC, 2022

Most patients diagnosed with cancer were between the ages of 50 years to 79 years. However, more than 12.1 % were less than 50 years old, which emphasizes that this condition can afflict young individuals; additionally, 14.5% were 80 years old or greater, which demonstrates that it can also burden the elderly population.



TOP 10 CANCER SITES REPORTED: QMC & THE STATE OF HAWAI'I

In 2022, QMC reported that the most common cancers included breast, lung, and prostate. In 2021, the state reported that the most frequent cancers included breast, prostate, and Melanoma (skin).



5 LEADING CANCER SITES BY GENDER: QMC in 2022

Female		Male	
Breast	29.8%	Prostate	20.1%
Lung	10.5%	Lung	11.0%
Corpus/Uterus, NOS	10.4%	Oral Cavity/Pharynx	7.1%
Thyroid	5.3%	Colon	5.5%
Colon	5.0%	Kidney/Renal Pelvis	5.1%

5 LEADING CANCER SITES BY GENDER: STATE OF HAWAI'I IN 2021*

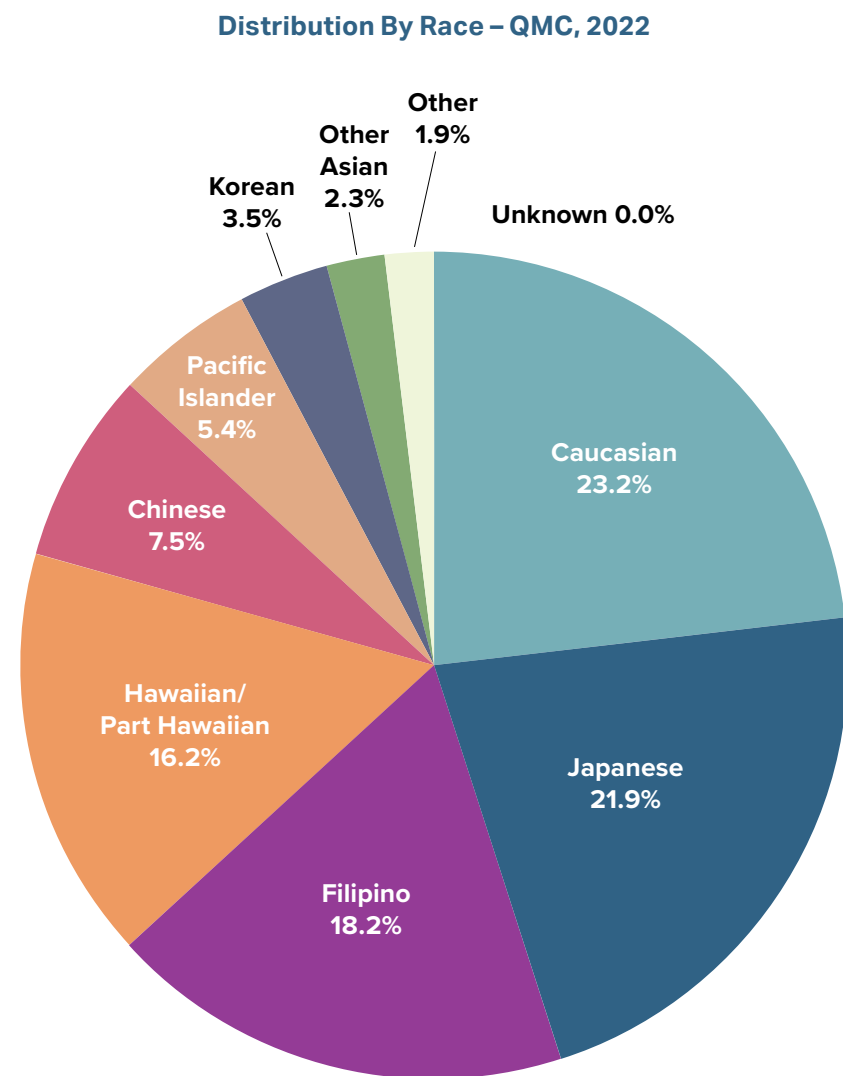
Female		Male	
Breast	36.6%	Prostate	26.3%
Lung	8.4%	Melanoma (Skin)	12.5%
Corpus/Uterus, NOS	8.1%	Lung	9.9%
Melanoma (Skin)	7.4%	Colon	5.5%
Colon	5.0%	Urinary Bladder	5.3%

*2022 data for the state of Hawai'i were not available during the preparation of this report.

Note: Data excludes basal and squamous cell skin cancers.

DISTRIBUTION BY RACE: QMC VS. THE STATE OF HAWAI'I

Caucasian was the most common group affected. Regarding the other ethnicities it is compelling that greater than 5% of cancer patients managed at QMC were Pacific Islanders. This underscores the fact that QMC not only serves Hawai'i, but the Pacific Basin as well. QMC also continues to care for Native Hawaiians, who comprised 16.2 % of all cancer patients treated in 2022 which is a higher proportion than the rest of the state.



QMC Distribution by Race, 2022		
Race	No. Cases	% Cases
Caucasian	592	23.2%
Japanese	559	21.9%
Filipino	464	18.2%
Hawaiian	413	16.2%
Chinese	192	7.5%
Pacific Islander	139	5.4%
Korean	90	3.5%
Other Asian	58	2.3%
Other	49	1.9%
Unknown	0	0.0%
Total	2556	100.0%

State of Hawai'i Distribution by Race, 2021*		
Race	No. Cases	% Cases
Caucasian	3127	34.6%
Japanese	1739	19.2%
Hawaiian/Part Hawaiian	1337	14.8%
Filipino	1279	14.1%
Chinese	498	5.5%
Other	393	4.3%
Pacific Islander	296	3.3%
Korean	188	2.1%
Other Asian	187	2.1%
Unknown	0	0.0%
Total	9044	100.0%

*2021 data from the state of Hawai'i were not available during the preparation of this report.

