HAWAIʻI CANCER AND HEALTH DISPARITIES REPORT

2022

Pacific Island Partnership for Cancer Health Equity

UNIVERSITY OF HAWAIʻI CANCER CENTER

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EXECUTIVE SUMMARY

The Community Outreach Core (COC) works in collaboration with the University of Hawai'i Cancer Center (UHCC) and the University of Guam (UoG) as well as community organizations and members to form the Pacific Island Partnership for Cancer Health Equity (PIPCHE). These partnerships work to recognize internal and external factors of increasing rates of cancer in Pacific Island Populations (PIP) in order to attain an overall goal of equity through the reduction of barriers leading to cancer disparities within PIP communities.

Using the gaps analysis method, this report will discuss the factors that may be underlying causes of cancer disparity in Hawai'i and what can be done to assist in closing the gaps and improving the health of the people of Hawai'i.

Reducing cancer health disparities in Pacific Island Populations.

EXECUTIVE SUMMARY

TARGET POPULATIONS

The UHCC U54 and PIPCHE project groups center their research on underserved PIP, who make up 10.1% of the 1.4 million population, living on the Hawaiian Islands. Specific PIP groups targeted for this research are Native Hawaiians, American Samoans, Micronesians, CHamoru, and Filipinos. Several social determinants such as lack of accessibility to care due to costs, lack of time and health insurance have led to their vulnerability to cancer disparities.

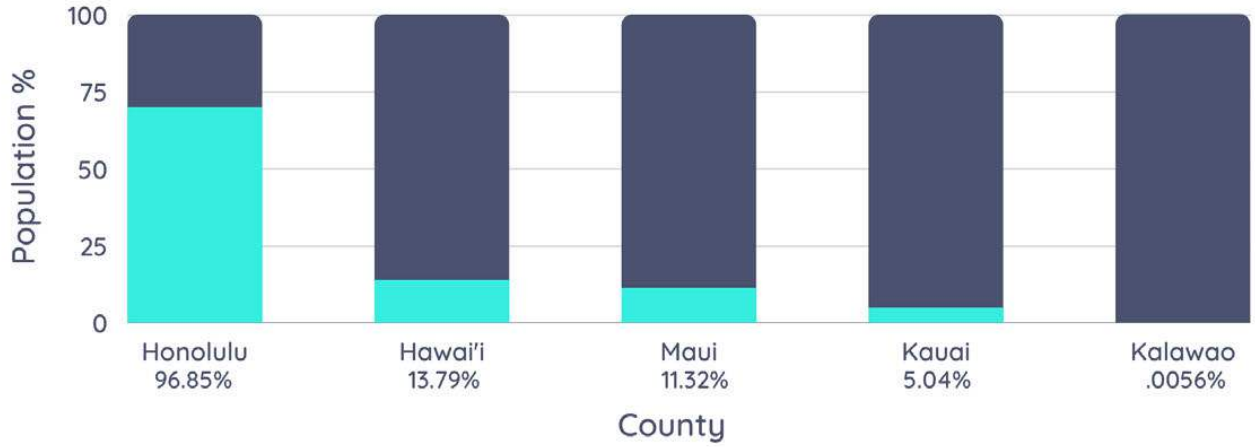
CANCER BURDEN

According to the Hawai'i Tumor Registry (2014-2018), Cancer is the 2nd leading cause of death in Hawai'i. An average of 7,393 residents are diagnosed with invasive cancer and 2,393 die each year. The top five cancers of Hawai'i in terms of incidence (in rank order) are: Breast (female), prostate (male), lung & bronchus, colon & rectum, and Melanoma of the skin. In terms of mortality; Lung & Bronchus, colon & rectum cancer, pancreatic cancer, breast (female), and liver cancer.

HAWAIʻI: DEMOGRAPHICS

POPULATION
1,455,271

Figure 1. Hawai'i population by county



EDUCATION

White populations have the highest rate of high school graduates (96.94%) & bachelor's degree holders (46.15%). While Pacific Islanders have a high rate of high school graduates (88.32%), they have the lowest rate of bachelor's degree obtainment (13.28%).

AGES

20.7% <18

79.4% >18

FEDERAL POVERTY LINE

Native Hawaiians and PIP have the highest poverty rate in Hawaiʻi.

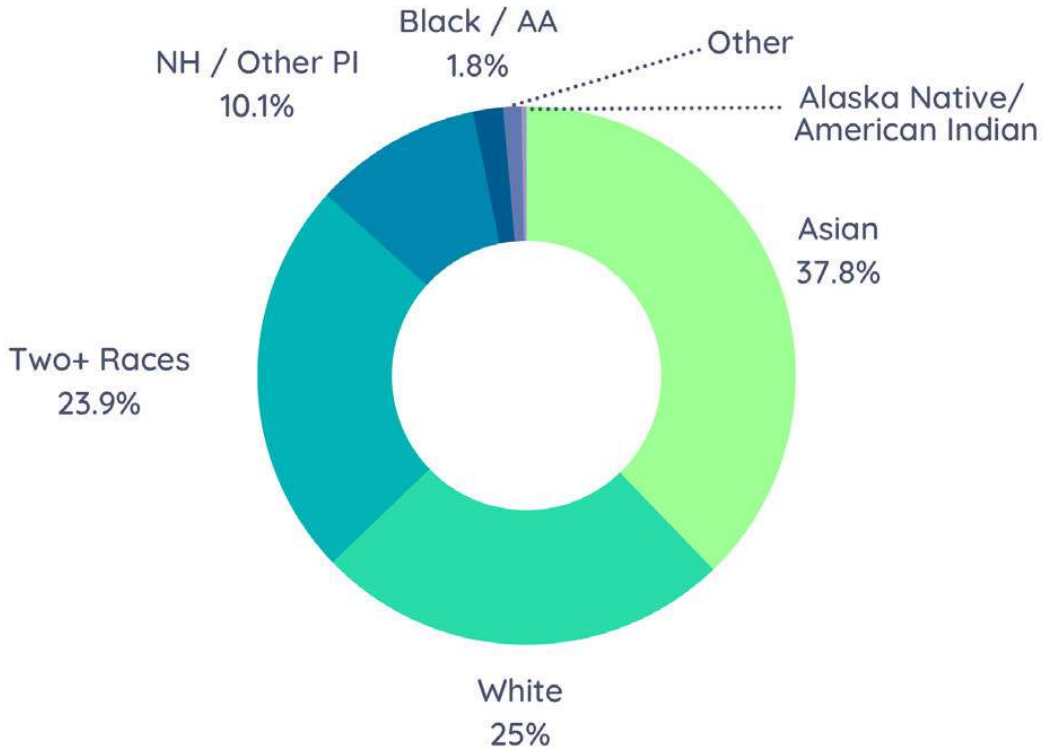
- Native Hawaiians: 22.3%
- PIP: 20.2%

Sources: US Census Bureau. 2020; Hawai'i Cancer at a Glance 2014-2018

HAWAIʻI: DEMOGRAPHICS

RACE/ETHNICITY*

Figure 2. Race & Ethnicity in Hawaiʻi



Asians and Whites make up the majority of Hawaiʻi's population while Native Hawaiians/Other Pacific Islanders make up a smaller portion of the population.

HEALTH TOPICS

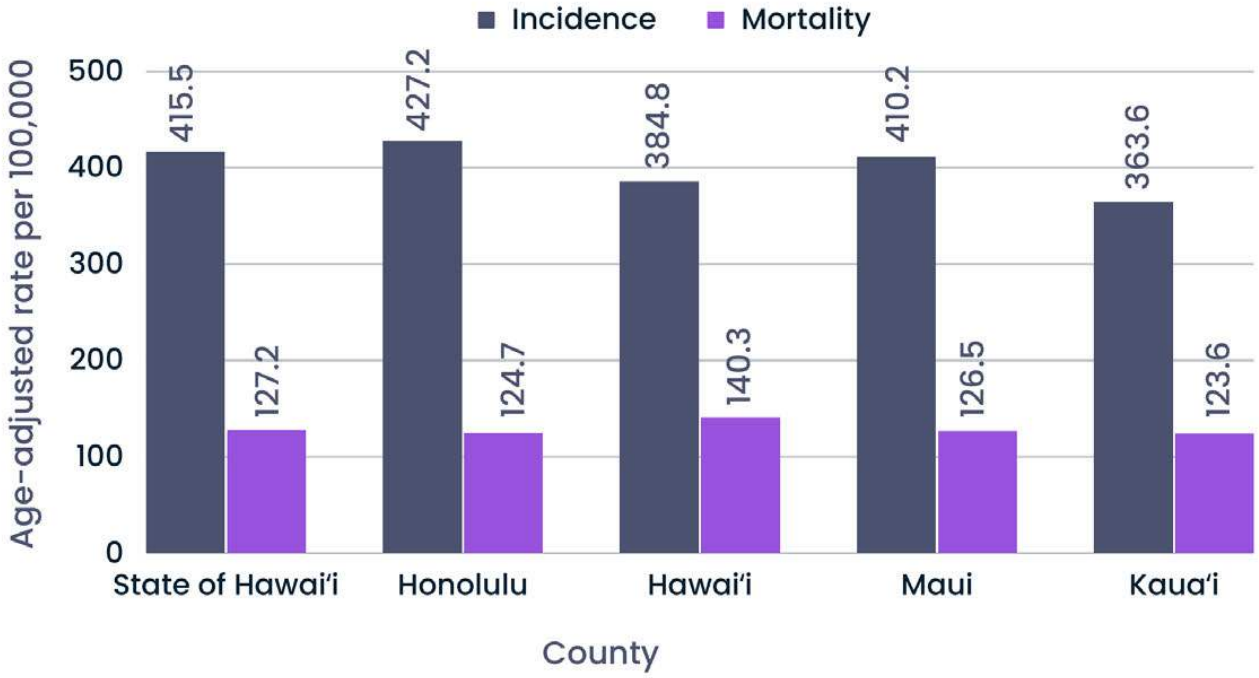
- **Top 5 Cancers in the state of Hawaiʻi**
  - Incidence: Breast (female) , Prostate (male), Lung & Bronchus, Colon & Rectum, and Melanoma of the skin
  - Mortality: Lung & Bronchus, Colon & Rectum, Pancreatic, Breast (female), and Liver
- **Risk Factors:** Smoking, alcohol consumption, obesity, lack of health insurance, cancer screening & vaccine coverage

Sources: US Census Bureau. 2020; Hawaiʻi Cancer at a Glance 2014-2018

OVERALL COUNTY CANCER COMPARISON 2014-2018

Honolulu County accounts for the majority of newly diagnosed cancer cases in Hawai'i (5,113 or 69% of all cases) and for the majority of deaths related to cancer. This is followed by Hawai'i County (1,068 or 14%), Maui County (858 cases or 12%), and Kaua'i County (353 cases or 5%). Annually, Honolulu County also accounts for the majority of mortality by cancer (1,603 or 67%). This is followed by Hawai'i County (397 or 17%), Maui County (268 deaths 11%), and Kaua'i County (125 deaths or 5%). Overall cancer incidence rates in Hawai'i were highest in Honolulu and Maui County at 427 and 410 cases per 100,000. This is followed by Hawai'i and Kaua'i County with 385 and 364 cases per 100,000. Hawai'i County had the highest mortality rate at 140 per 100,000. This is followed by Maui County at 127 per 100,000; Honolulu County at 125 per 100,000; and Kaua'i County with the lowest mortality rate at 124 per 100,000.

Figure 3. Hawai'i County Comparison of overall cancer incidence & mortality from 2014-2018



Sources: Hawai'i Cancer At A Glance 2014-2018

TOP 5 CANCERS

Figure 4. Incidence Rate: Top 5 Cancers in Hawai'i (2014-2018)

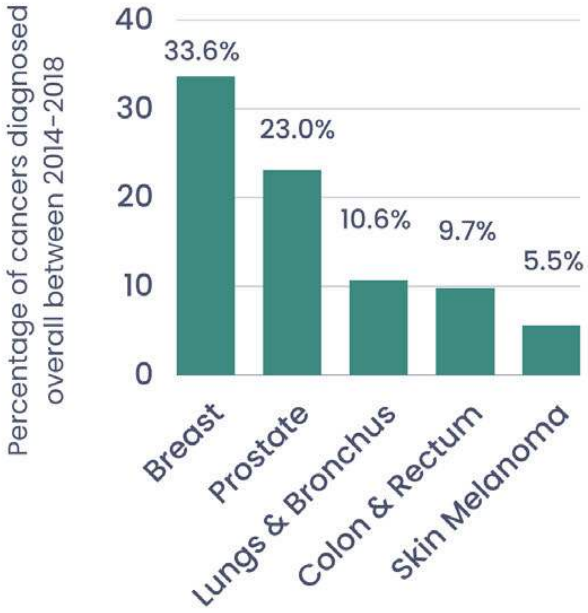


Table 1. Incidence: Top 5 Cancers in Hawai'i (2014-2018)

Type of Cancer	Number of Cases
Breast (female)	1,233
Prostate (male)	855
Lung & Bronchus	826
Colon & Rectum	710
Melanoma	404

Figure 5. Mortality Rate: Top 5 Cancers in Hawai'i (2014-2018)

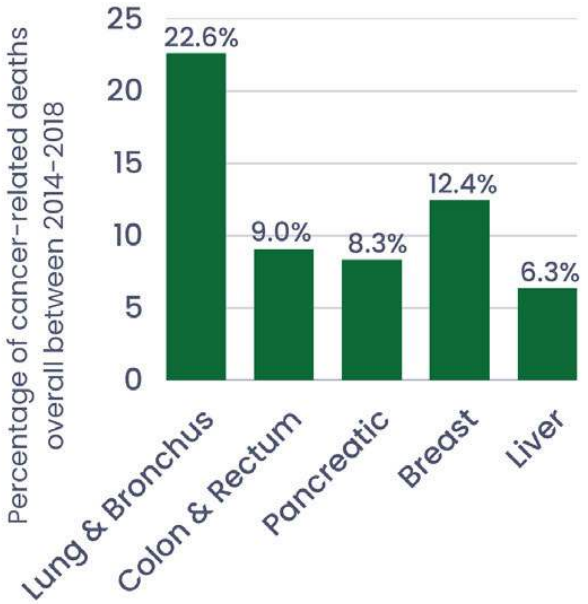


Table 2. Mortality: Top 5 Cancers in Hawai'i (2014-2018)

Type of Cancer	Number of Deaths
Lung & Bronchus	544
Colon & Rectum	216
Pancreatic	201
Breast (female)	155
Liver	152

Sources: Hawai'i Cancer At A Glance 2014-2018

TOP 5 CANCERS: BY COUNTY 2014-2018

The table below indicates the average annual number of cancer cases and deaths in each county for breast cancer, prostate cancer, colon & rectum cancer, lung & bronchus cancer, and melanoma of the skin. For melanoma, the data were adjusted to the 2000 U.S. standard population. Honolulu County was the highest in breast, prostate, colon & rectum, and lung & bronchus cancers in both incidence and mortality. One factor of this is that the population density of Honolulu County is much greater than that of the other counties. Where this differs is in the comparison between the counties for cases and deaths of melanoma of the skin. Maui County had the highest incidence which was followed by Hawai'i County. Both exceeded statewide rates. Hawai'i County had the highest mortality rate compared to the rest of the counties. Honolulu and Maui Counties had the lowest melanoma deaths.

Table 3. Average annual number of cancer cases and deaths in Hawai'i counties by cancer type

County	Honolulu		Hawai'i		Maui		Kaua'i	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
All Cancer	5,113	1,603	1,068	397	858	268	353	125
Breast (Female)	877	104	167	27	138	16	51	<10
Prostate	621	76	108	24	78	16	48	<10
Colon & Rectum	494	144	94	36	86	24	36	12
Lung & Bronchus	579	379	122	81	87	58	38	27
Melanoma*	18	1	30	2	38	1	27	N/A

*Age-adjusted to 2000 U.S. standard population for Melanoma

Sources: Hawai'i Cancer At A Glance 2014-2018

TOP 5 CANCERS: GENDER

Comparisons of cancer burdens between Males and Females in Hawai'i reveal that males have higher overall cancer rates as they account for 52 percent of all newly diagnosed cancers. While females account for approximately 48 percent of newly diagnosed cancers. Despite these numbers, the overall incidence rates over the past three decades have decreased for males and increased for females. Within the decade of 2009 to 2018, the trend for cancer incidence has decreased for males (1.0%) and increased for females (0.4%). However, the trend for mortality made a significant decrease in males (1.5% annually) and in females (1.0% annually). Changes in incidence were observed for both males and females within this same decade. Of the five top cancers, for Males, melanoma of the skin and pancreatic cancer incidence rates increased. While colon & rectum and lung & bronchus cancers decreased. For Females, breast cancer incidence rates increased while lung & bronchus and colon & rectum cancers decreased. Males had an increase in liver cancer mortality rates. However, prostate, lung & bronchus, colon & rectum cancers decreased in males. For Females, there was a decrease in colon & rectum and breast cancers.

Figure 6. Incidence Rates for Males & Females 2009-2018

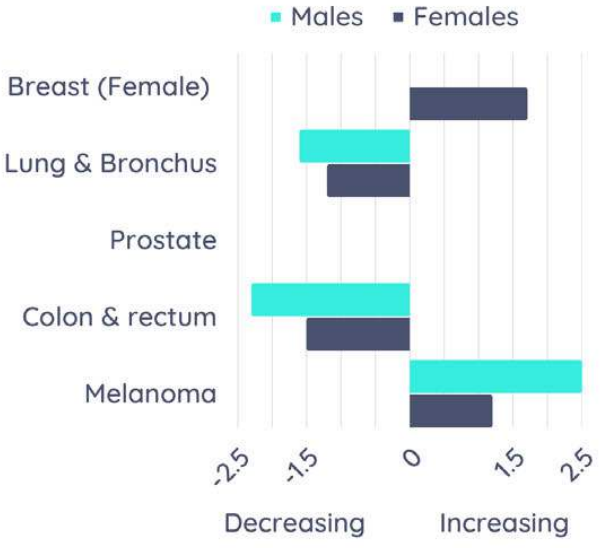
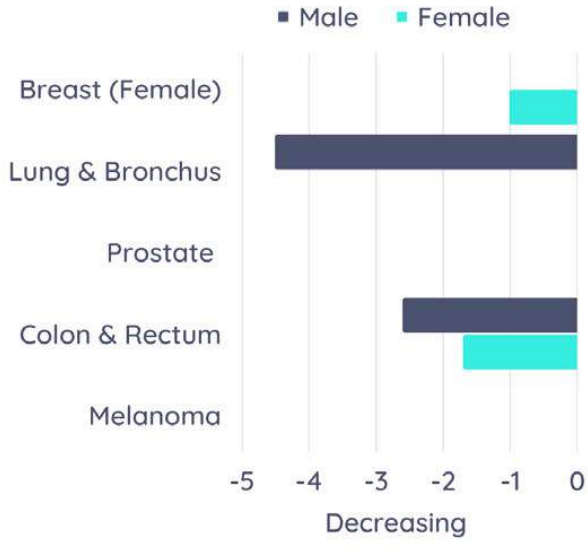


Figure 7. Mortality Rates for Males & Females 2009-2018



The graphs above show the incidence and mortality rates from 2009-2018 and by what percentage the rates increased or decreased among males and females in Hawai'i. Data not provided for a few variables.

Sources: Hawai'i Cancer Facts and Figures. Hawai'i Cancer At A Glance 2014-2018

HAWAIʻI VS U.S. CANCER RATES

INCIDENCE

In Hawai'i, between 2014 and 2018, the incidence rate was higher than the national average for colon & rectum cancer, melanoma of the skin, and other biliary in males. For females, breast cancer, uterine/endometrium, and oral cavity & pharynx cancers had a high incidence rate in Hawai'i. Liver & intrahepatic bile duct and stomach cancers had a mortality rate higher than the national average in both sexes.

Figure 8. Incidence Rate of Males in Hawai'i and U.S. (2014-2018)

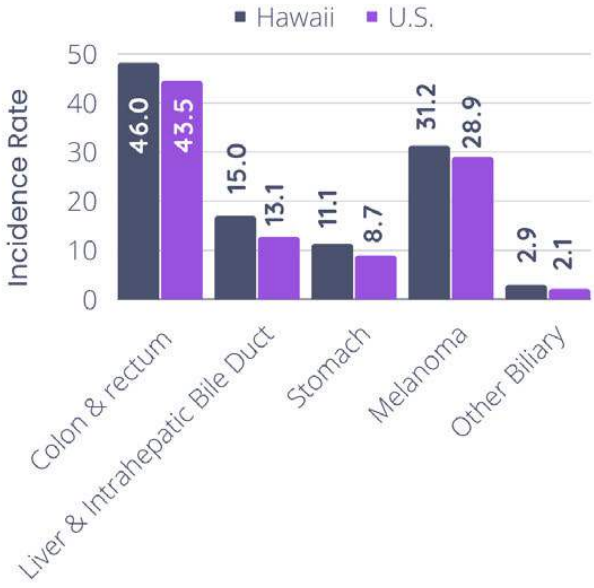
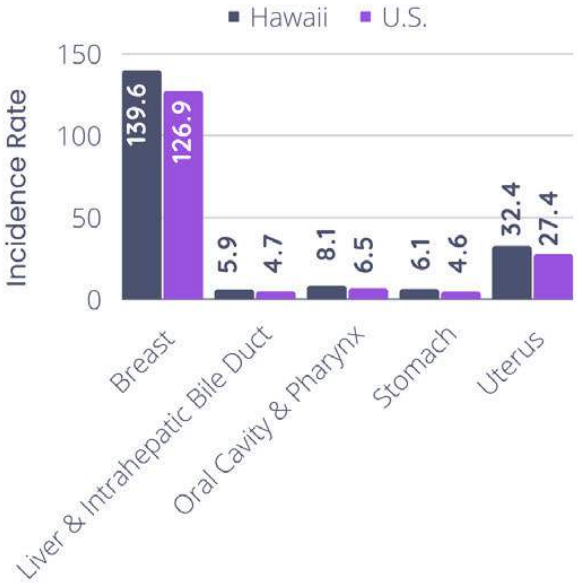


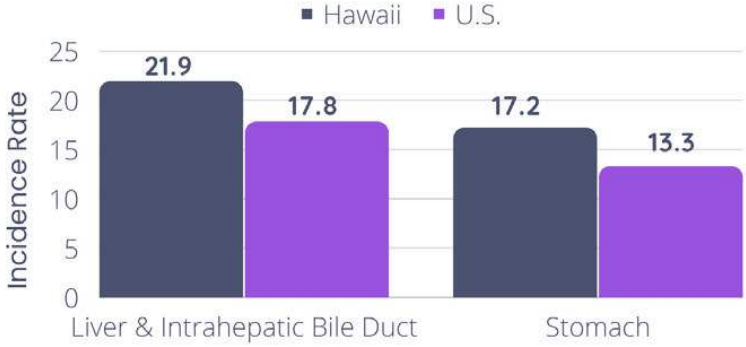
Figure 9. Incidence Rate of Females in Hawai'i and U.S. (2014-2018)



MORTALITY

In Hawai'i, between 2014 and 2018, the mortality rate was higher than the national average for liver & intrahepatic bile duct and stomach cancers in both sexes.

Figure 10. Mortality rate comparison in Hawai'i and U.S. (2014-2018)



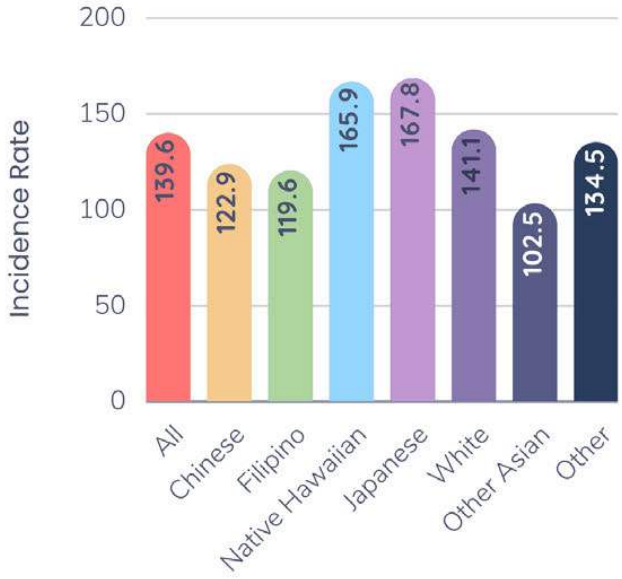
Sources: Hawai'i Cancer At A Glance 2014-2018

TOP 5 CANCERS: INCIDENCE RATE BY ETHNICITY

BREAST CANCER - Incidence

- Invasive breast cancer incidence rates have increased by 1.7% annually over the past decade.
- Invasive breast cancer incidence (139.6 per 100,000) was higher than the overall U.S. (126.9 per 100,000) incidence rate.
- There are an average of 1,233 women diagnosed with invasive breast cancer and 308 are diagnosed with in situ breast Cancer.
- Based on the data from 2014-2018, breast cancer has the highest incidence rate in Native Hawaiians and Japanese ethnic groups.

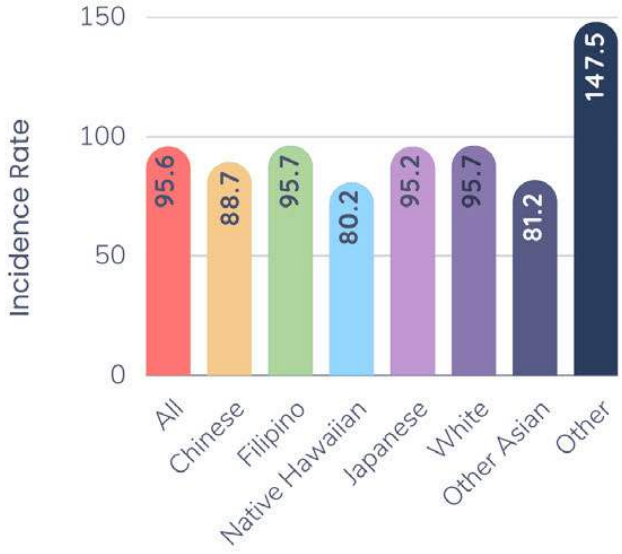
Figure 11. Incidence per 100,000 by ethnicity: Breast Cancer (2014-2018)



PROSTATE CANCER - Incidence

- Annually, 855 men are diagnosed and 125 die of prostate cancer.
- Hawai'i has the lowest incidence (95.6 per 100,000) compared to the U.S. (106.4 per 100,000).
- Incidence for prostate cancer was highest in males of Other race or ethnic groups.
- Based on the data from 2014-2018, Filipinos had the highest proportions of those with advanced stage prostate cancers (35%).

Figure 12. Incidence per 100,000 by ethnicity: Prostate Cancer (2014-2018)



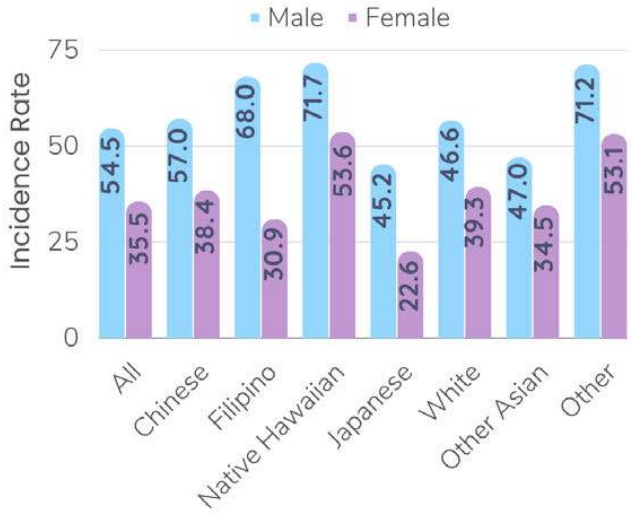
Other Asian groups/ethnicities include: American Indian, Black, Korean, Micronesian, Samoan, and Vietnamese

Sources: Hawai'i Cancer At A Glance 2014-2018

TOP 5 CANCERS: INCIDENCE RATE BY ETHNICITY

LUNG & BRONCHUS CANCER - Incidence

Figure 13. Incidence per 100,000 by ethnicity: Lung & Bronchus Cancer (2014-2018)

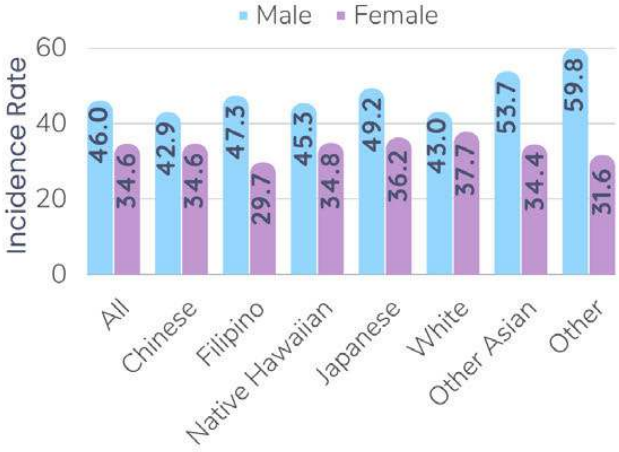


- Average of 826 lung & bronchus cancer cases and 544 deaths per year.
- Hawai'i has the lowest lung & bronchus cancer incidence compared to the U.S.
  - 90 per 100,000 for Hawai'i and 116.6 per 100,000 for the U.S. overall.
- Native Hawaiian females have the highest incidence and mortality rates for lung & bronchus cancers.
- Japanese women had the lowest lung & bronchus cancer incidence.

COLON & RECTUM CANCER - Incidence

- Average 710 new cases with an average of 216 deaths annually.
- Hawai'i males had a higher incidence (46.0 per 100,000) compared to the U.S. (43.5 per 100,000) for colon & rectum cancer.
- For both males and females, incidence rates have been decreasing for the past decade. (2.3% annually for males and 1.5% annually for females).
- Other race or ethnic groups had a higher incidence rate.

Figure 14. Incidence per 100,000 by ethnicity: Colon & Rectum Cancer (2014-2018)



*Incidence rate estimates for Melanoma of the Skin was not provided for any race/ethnicity other than White. This data would show that white males and females have the highest incidence and mortality rates without a comparison.

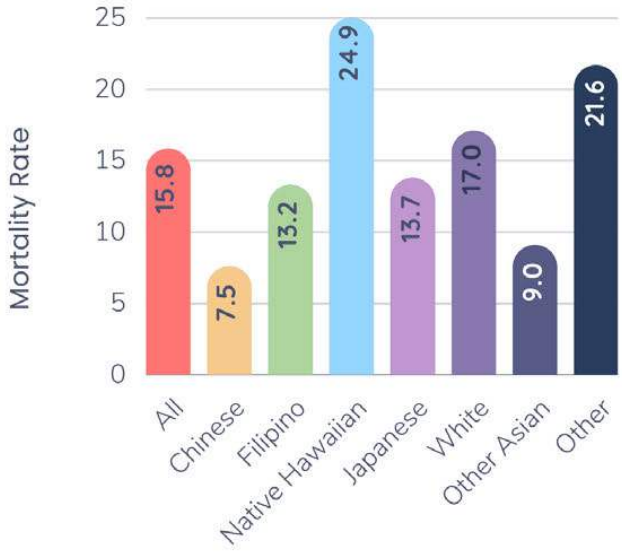
Sources: Hawai'i Cancer At A Glance 2014-2018

TOP 5 CANCERS: MORTALITY RATE BY ETHNICITY

BREAST CANCER - Mortality

- An average 155 women die of breast cancer annually.
- Hawai'i has the lowest mortality rate (15.8 per 100,000) compared to the U.S. (20.1 per 100,000).
- Breast cancer mortality was highest in Native Hawaiian females at 24.9 per 100,000.
- This is followed by women in the Other ethnic groups (21.6 per 100,000) between 2014 and 2018.
- Invasive breast cancer mortality rates have decreased approximately 1.0% annually in the past decade.

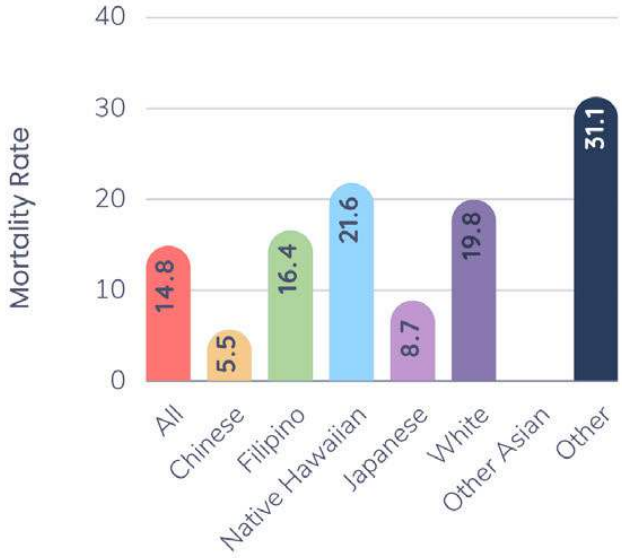
Figure 15. Mortality per 100,000 by ethnicity: Breast Cancer (2014-2018)



PROSTATE CANCER - Mortality

- There is an average of 125 men who die from prostate cancer annually.
- Hawai'i has one of the lowest mortality rates (14.8 per 100,000) for prostate cancer compared to the U.S. (19.0 per 100,000).
- Other race or ethnic groups had the highest mortality rate (31.1 per 100,000).
- Chinese males had the lowest mortality rate (5.5 per 100,000) for prostate cancer.
- There was no data provided for Other Asian groups.

Figure 16. Mortality per 100,000 by ethnicity: Prostate Cancer (2014-2018)

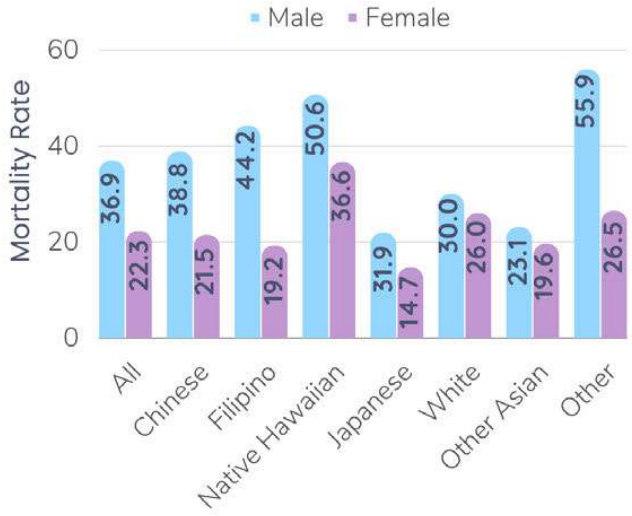


Sources: Hawai'i Cancer At A Glance 2014-2018

TOP 5 CANCERS: MORTALITY RATE BY ETHNICITY

LUNG & BRONCHUS CANCER - Mortality

Figure 17. Mortality per 100,000 by ethnicity: Lung & Bronchus Cancer (2014-2018)

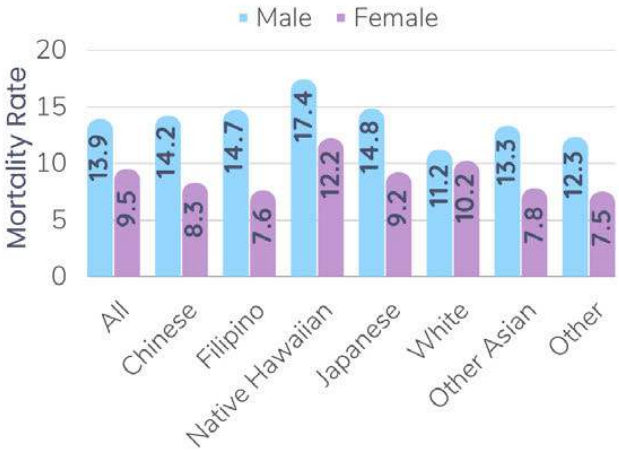


- Lung & bronchus cancer is the leading cause of mortality with an average of 544 per 100,000 deaths a year in the state of Hawai'i alone.
- The mortality rate of lung & bronchus cancer in Hawai'i is lower than the national average mortality rate.
  - 59 per 100,000 for Hawai'i and 79 per 100,000 for the U.S.
- Mortality rates have steadily declined by 4.5% per year for males and by 1.2% per year for females.
- Males in Other groups or ethnicities as well as Native Hawaiian males had the highest mortality rate for lung & bronchus cancer.

COLON & RECTUM CANCER - Mortality

- Each year in Hawai'i, there is an average of 216 deaths from colon & rectum cancer.
  - 3rd leading cause of death in males and 4th in females.
- Mortality rates have decreased 2.6% in males and 1.7% in females.
- Mortality was lower in Hawai'i (23.4 per 100,000) compared to the U.S. national average (27.8 per 100,000).
- The mortality rate was highest among Native Hawaiian males (17.4 per 100,000).

Figure 18. Mortality per 100,000 by ethnicity: Colon & Rectum Cancer (2014-2018)



*Mortality rate estimates for Melanoma of the skin was not provided for any race/ ethnicity other than White. This data would show that white males and females have the highest incidence and mortality rates without a comparison.

Sources: Hawai'i Cancer At A Glance 2014-2018

STAGE AT DIAGNOSIS

BREAST CANCER

Between 2014 to 2018, breast cancer was the most diagnosed cancer among females and had the highest incidence rate overall for Hawai'i. 72% of females were diagnosed with breast cancer at ages 55 and older. Approximately 76% of breast cancers were diagnosed at early stages and 22% at late stages.

Figure 19. Breast Cancer - Stage Distribution by % (Overall)

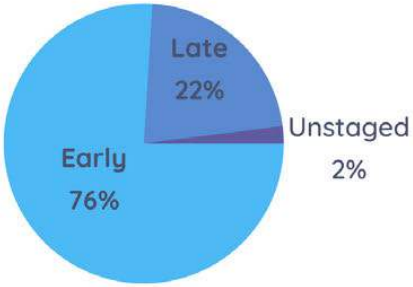


Figure 20. Breast Cancer - Stage Distribution by % (Ethnicity)

Table 4. Breast Cancer - Number of deaths by ethnicity (2014-2018)

Race/Ethnicity	Deaths
Chinese	16
Filipino	8
Native Hawaiian	25
Japanese	14
White	17
Other Asian	9
Other	22

From 2014 to 2018, the percentage of early stage detection was relatively high for all racial groups. However, Native Hawaiians (NH), Whites (W), and groups of Other ethnicities had the highest percentage of late stage diagnoses (24.6% for NH, 25.8 for W, and 32.5% for Others) and deaths (25 for NH, 17 for W, and 22 for Others).

Potential Gap:

This data indicates that these three groups are the most vulnerable to breast cancer as they have the highest incidence rates with a high number of deaths and late stage diagnoses. Community efforts to better educate these groups is needed to increase screening and early diagnosis.

Sources: Hawai'i Cancer At A Glance 2014-2018

STAGE AT DIAGNOSIS

PROSTATE CANCER

Between 2014 to 2018, prostate cancer was the most diagnosed cancer among men. Approximately 57% of prostate cancers are diagnosed in the early stages while 27% are diagnosed in later stages overall.

Figure 21. Prostate Cancer - Stage Distribution by % (Overall)

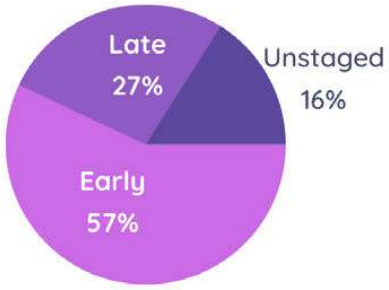


Figure 22. Prostate Cancer - Stage Distribution by % (Ethnicity)

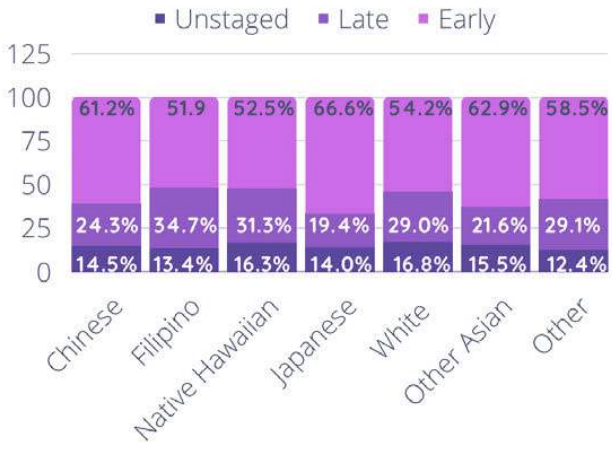


Table 5. Prostate Cancer - Number of deaths by ethnicity (2014-2018)

Race/Ethnicity	Deaths
Chinese	6
Filipino	16
Native Hawaiian	22
Japanese	9
White	20
Other Asian	9
Other	31

The percentage of early stage diagnosis for all racial groups are relatively high. However, the data also shows that Filipino men have the highest percentage (34.7%) of late stage diagnoses. This group and White populations also had the second highest incidence rate of 95.7 per 100,000 after groups of Other ethnicities. Community education to promote early cancer screening is needed for this group.

Potential Gap:

Despite having a relatively low incidence rate and a high percentage of early stage diagnosis, Native Hawaiians & Other groups had the highest mortality rate with 22 & 31 deaths between the years 2014 to 2018. More research should be conducted with this group to further explore why this is occurring.

Sources: Hawai'i Cancer At A Glance 2014-2018

STAGE AT DIAGNOSIS

LUNG & BRONCHUS CANCER

Between 2014 to 2018, lung & bronchus cancers were the second most diagnosed cancers among Hawai'i populations. It was also the leading cause of cancer-related deaths overall for both males and females. Approximately 74% of the lung & bronchus cancer cases were diagnosed at the late stages. Late-stage diagnosis may be a factor of high mortality rates.

Figure 23. Lung & Bronchus Cancer - Stage Distribution by % (Overall)

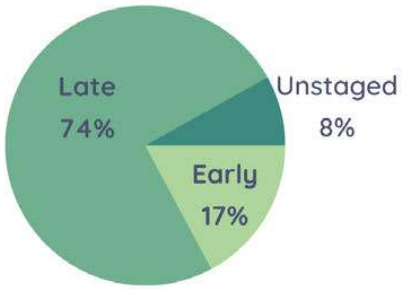


Figure 24. Lung & Bronchus Cancer - Stage Distribution by % (Ethnicity)

Table 6. Lung & Bronchus Cancer - Number of deaths by ethnicity (2014-2018)

Race/Ethnicity	Deaths
Chinese	60
Filipino	64
Native Hawaiian	87
Japanese	47
White	56
Other Asian	43
Other	82

All groups had high percentages of those who had late stage diagnoses for lung & bronchus cancer. Other groups or ethnicities had the highest percentage of those who had late stage diagnoses at 81.1%. Native Hawaiians followed with a percentage of 75.6% and also had the highest mortality of 87 deaths.

Potential Gap:

These high incidence and mortality rates at later stages indicate that lung & bronchus cancer screenings remain lacking. This could stem from a lack of access or resources, or both, for all groups.

Sources: Hawai'i Cancer At A Glance 2014-2018

STAGE AT DIAGNOSIS

COLON & RECTUM CANCER

Between 2014 to 2018, colon & rectum cancer was the third most frequently diagnosed cancer. It was also the 3rd leading cause of death in men and 4th in women. Approximately 38% of cases are diagnosed at early stages while 55% are diagnosed at later stages.

Figure 25. Colon & Rectum Cancer - Stage Distribution by % (Overall)

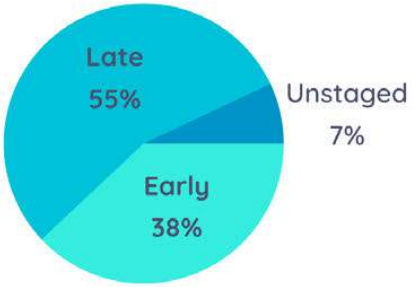


Figure 26. Colon & Rectum Cancer - Stage Distribution by % (Ethnicity)

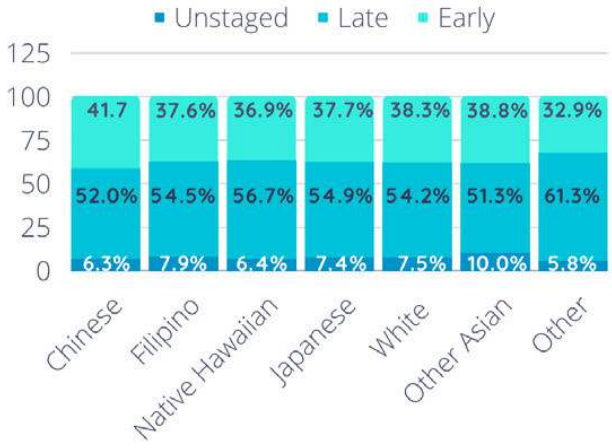


Table 7. Colon & Rectum Cancer - Number of deaths by ethnicity (2014-2018)

Race/Ethnicity	Deaths
Chinese	23
Filipino	22
Native Hawaiian	30
Japanese	24
White	21
Other Asian	21
Other	20

Overall, the percentage of late stage diagnosis was high. Other groups and ethnicities had the highest percentage of diagnosis at a late stage at 61.3%. However, Native Hawaiians had the highest deaths at 30 per 100,000 between the years 2014 and 2018.

Potential Gap:

The data indicates that this group is the most vulnerable to colon & rectum cancer. There is a need for community outreach to engage in discussion for this cancer and screening.

*Not enough data given for Melanoma of the skin

Sources: Hawai'i Cancer At A Glance 2014-2018

RISK FACTORS

TOBACCO USE (ADULT)

2020 Behavioral Risk Factor Surveillance System (BRFSS) Highlights:

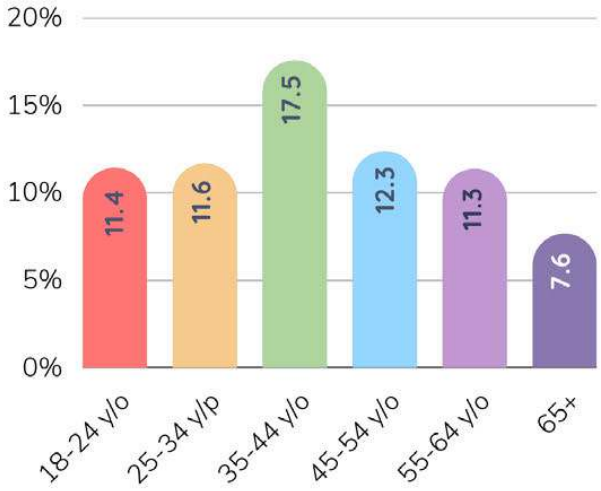
- Out of 7,485 respondents, 11.6% (n=797) were current smokers while 88.4% (n=6,688) were not current smokers.
- The ethnic group with the most current smokers was Native Hawaiian/Pacific Islander (n=96). This is followed by multiracial groups (n=213). Smoking is the #1 risk factor for lung cancer. The incidence rate per 100,000 for lung & bronchus cancers from 2012-2016 for Native Hawaiians (144.3) is higher than the U.S. average (120.8).
- As educational attainment increases, the percentage of current smokers decreases.
- The age group with the most current smokers are those between 35 to 44 years old (17.5% or n=168). While the age group with the lowest current smoker percentage are those 65 and older (7.6% or n=171).

Figure 27. BRFSS (2020) - % of current smokers by gender

12.1% of males surveyed were current smokers.

11.1% of females surveyed were current smokers.

Figure 28. BRFSS (2020) - % of current smokers by age



Intersections:

- The individual who is most likely to be a current smoker is a male, between the ages of 35 to 44 years old, who identifies as Native Hawaiian or Pacific Islander, has less than a high school education, and has an annual household income of less than $15,000.
- The individual least likely to be a current smoker is a female, 65 or older, who identifies as Asian, is a college graduate, and has an annual household income of $50,000 or more.

Sources: BRFSS Prevalence & Trends Data 2020

RISK FACTORS

TOBACCO USE (ADULT)

Figure 29. BRFSS (2020) - % of current smokers by ethnicity

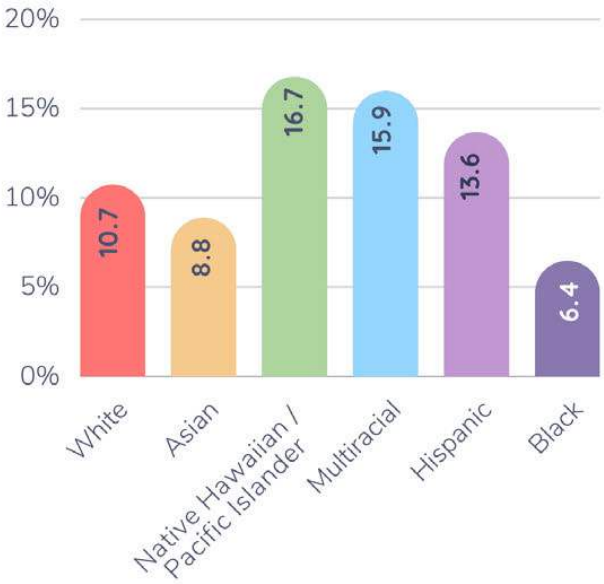


Figure 30. BRFSS (2020) - % of current smokers by educational attainment

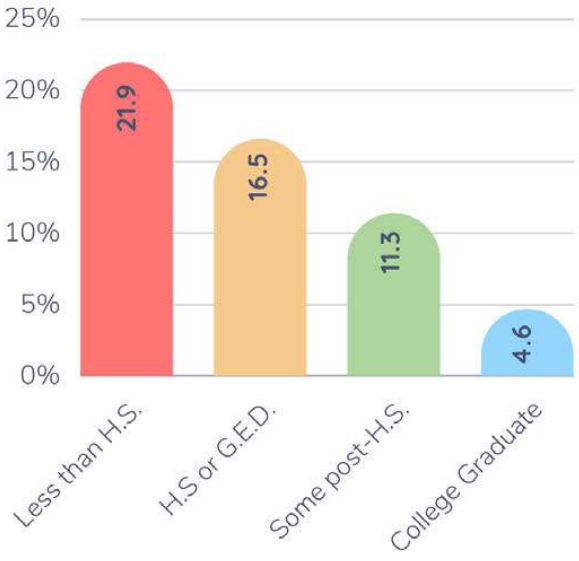


Figure 31. BRFSS (2020) - % of current smokers by household income

Less than $15,000: **25.7%** of adults in this income bracket were current smokers.

$15,000-$24,999: **18.2%** of adults in this income bracket were current smokers.

$25,000-$34,999: **18.1%** of adults in this income bracket were current smokers.

$35,000-$49,999: **15.2%** of adults in this income bracket were current smokers.

More than $50,000: **7.7%** of adults in this income bracket were current smokers.

Sources: BRFSS Prevalence & Trends Data 2020

RISK FACTORS

TOBACCO USE (YOUTH)

2019 Youth Risk Behavior Survey (YRBS):

- 5.3% of all students surveyed smoked at least one cigarette in the last 30 days before the survey.
- Those most likely to be current smokers were any male or female who identified as Hispanic and were in the 12th grade.

Figure 32. YRBS (2019) - % of student smokers by gender

5.0% of males smoked ≥1 cigarette in past 30 days.

5.0% of females smoked ≥1 cigarette in past 30 days.

Figure 33. YRBS (2019) - % of current smokers by ethnicity

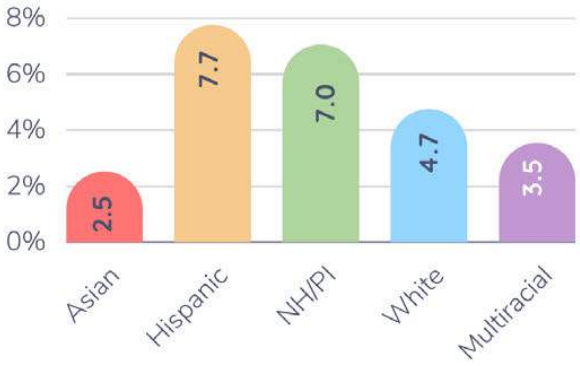


Table 8. YRBS (2019) - number of current smokers by ethnicity

Race/Ethnicity	# Student Smokers
Asian	1,273
Hispanic	1,106
NH/PI	1,811
White	446
Multiracial	854

Figure 34. YRBS (2019) - % of current smokers by grade level

Table 9. YRBS (2019) - number of current smokers by grade level

Grade Level	# Student Smokers
Grade 9	1,494
Grade 10	1,559
Grade 11	1,491
Grade 12	1,073

Sources: High School Youth BRS: Hawaii 2019 Results

RISK FACTORS

E-CIGARETTE USE (ADULT)

2020 BRFSS Highlights:

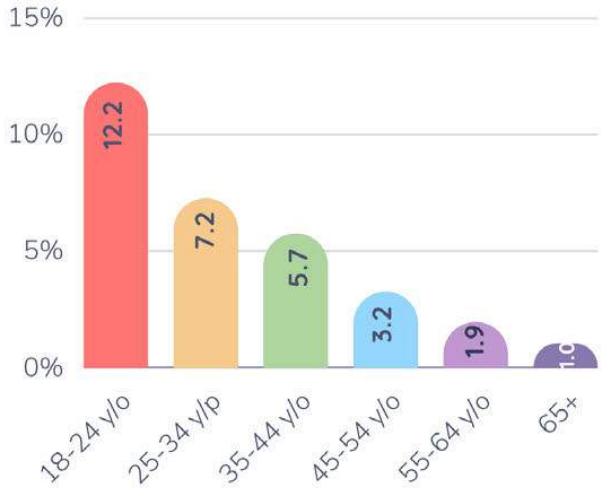
- Out of 7,376 respondents, 95.3% (n=7116) were current E-cigarette users, while 4.7% (n=260) were not current E-cigarette users. Among the adult population, E-cigarette use is low.
- Adult males had a higher percentage of respondents than females who were current users of E-cigarettes (n=165).
- The age group that used E-cigarettes the most among the adult population was between 18 and 24.
- As age increases, the percent of those who use E-cigarettes decreases.
- The ethnic group that uses E-cigarettes the most is Hispanics (n=41).
- As the level of educational attainment increases, the percent of those who use E-cigarettes decreases.
- The annual household income with the most users was between $25,000 and $34,999 at 52%.

Figure 35. BRFSS (2020) - % of current E-cigarette users by gender

6.6% of males were current E-Cigarette users.

2.7% of females were current E-cigarette users.

Figure 36. BRFSS (2020) - % of current E-cigarette users by age



Intersections:

- The individual most likely to be a current E-Cigarette user is a male, between the ages of 18-24, who identifies as Hispanic, with less than a high school degree, and an annual household income between $25,000 and $34,999.
- The individual least likely to be a current E-cigarette user is a female, age 65 or older, who identifies as black, who is a college graduate, and has an annual household income of $50,000 or more.

Sources: BRFSS Prevalence & Trends Data 2020

RISK FACTORS

E-CIGARETTE USE (ADULT)

Figure 37. BRFSS (2020) - % of current E-cigarette users by ethnicity

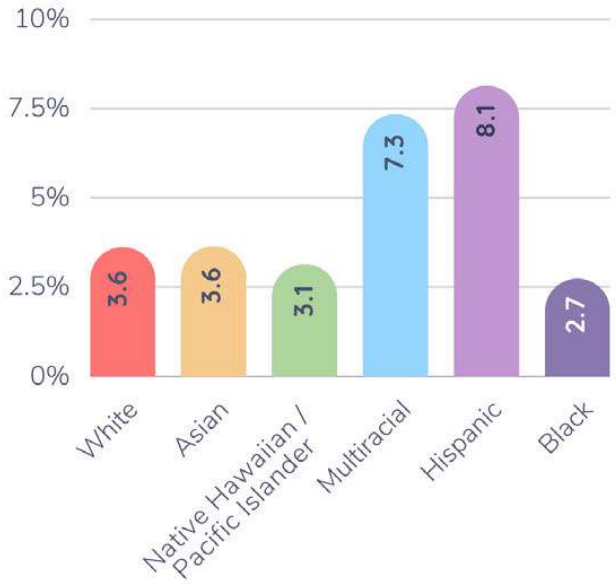


Figure 38. BRFSS (2020) - % of current E-cigarette users by educational attainment

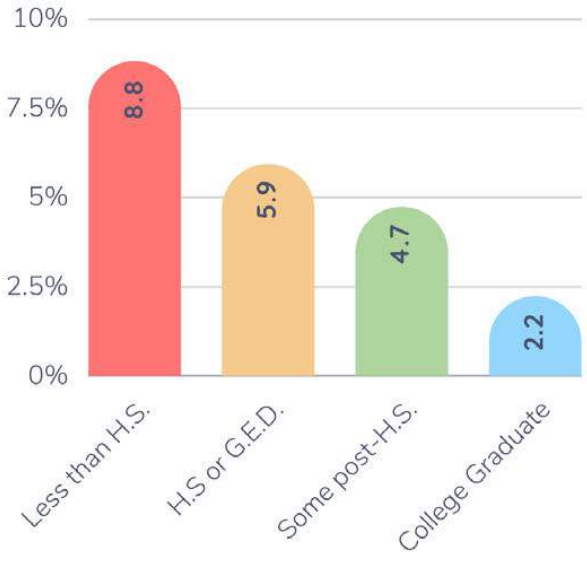


Figure 39. BRFSS (2020) - % of current smokers by household income

Less than $15,000: **4.8%** of adults in this income bracket were current E-Cigarette users.

$15,000-$24,999: **4.9%** of adults in this income bracket were current E-cigarette users.

$25,000-$34,999: **5.2%** of adults in this income bracket were current E-cigarette users.

$35,000-$49,999: **5.0%** of adults in this income bracket were current E-cigarette users.

More than $50,000: **4.0%** of adults in this income bracket were current E-cigarette users.

Sources: BRFSS Prevalence & Trends Data 2020

RISK FACTORS

E-CIGARETTE USE (YOUTH)

2019 Youth Risk Behavior Survey (YRBS):

- **30.6%** of all students surveyed used an E-Cigarette in the last 30 days before the survey.
- Those most likely to be current smokers were females who identified as Hispanic and were in the 12th grade.

Figure 40. YRBS (2019) - % of student E-cigarette users by gender

27.4% of males used ≥1 E-cigarette in past 30 days.

33.9% of females used ≥1 E-cigarette in past 30 days.

Figure 41. YRBS (2019) - % of current E-cigarette users by ethnicity

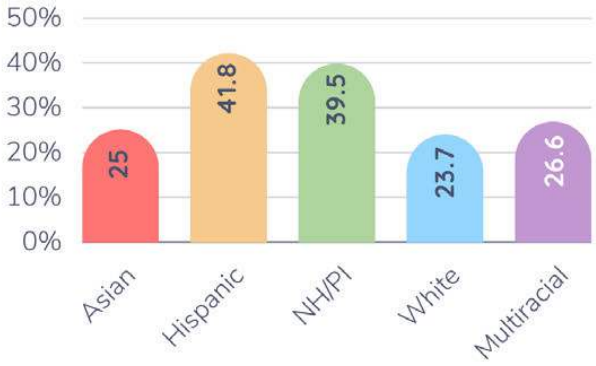


Table 10. YRBS (2019) - number of current E-cigarette users by ethnicity

Race/Ethnicity	# Student E-cig Users
Asian	1.216
Hispanic	1,019
NH/PI	1,677
White	427
Multiracial	826

Figure 42. YRBS (2019) - of current E-cigarette users by grade level

Table 11. YRBS (2019) - number of current E-cigarette users by grade level

Grade Level	# Student E-Cig Users
Grade 9	1,388
Grade 10	1,478
Grade 11	1,401
Grade 12	1,015

Sources: High School Youth BRS: Hawaii 2019 Results

RISK FACTORS

ALCOHOL CONSUMPTION (ADULT)

2020 BRFSS Highlights:

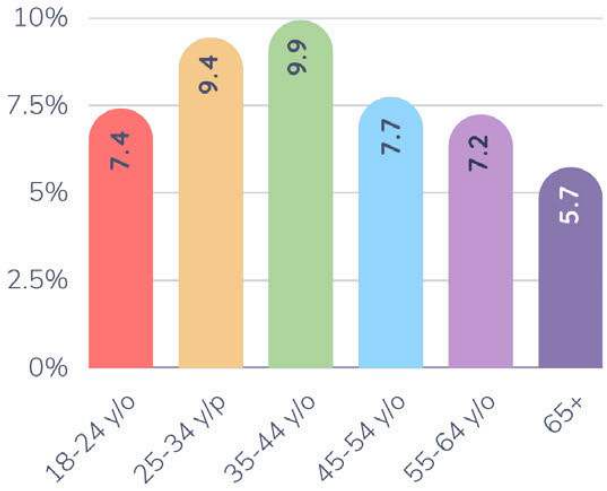
- Out of 7,393 respondents, 7.7% meet the criteria for heavy drinking (males having >14 drinks per week and females having >7 drinks per week).
- The percentage eof heavy drinkers in Hawai'i was higher than the national average of 6.7%.
- Adult males were more likely in 2020 to be heavy drinkers (8.6% or n=280).
- Those 35-44 years of age had the highest percentage of heavy drinkers at n=103.
- Whites had the highest percentage of respondents who were heavy drinkers.
- Respondents who graduated high school or have a GED had the highest percentage of heavy drinkers.
- Those who earned a household income of less than $15,000 and between $15,000-$24,999 both had the highest percentage of heavy drinkers.
- Heavy alcohol consumption is one of the risk factors for liver cancer.

Figure 43. BRFSS (2020) - % of heavy drinkers by gender

8.6% of males surveyed were heavy drinkers.

6.9% of females surveyed were heavy drinkers.

Figure 44. BRFSS (2020) - % of heavy drinkers by age



Intersections:

- The individual who is most likely to be a heavy drinker is an adult male, who identifies as white, is between the ages of 35-44 years of age, is a high school graduate or GED holder, and earns an annual household income of $15,000-$24,999.
- The individual least likely to be a heavy drinker is a female who is 65 years or older, who identifies as Asian, who has completed some post-high school, and has an annual household income of either less than $15,000 or between $25,000-$34,999.

Sources: BRFSS Prevalence & Trends Data 2020

RISK FACTORS

ALCOHOL CONSUMPTION (ADULT)

Figure 45. BRFSS (2020) - % of heavy drinkers by ethnicity

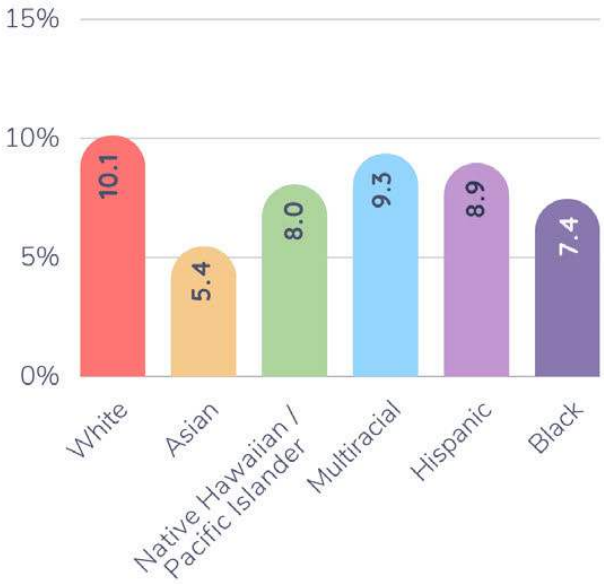


Figure 46. BRFSS (2020) - % of heavy drinkers by educational attainment

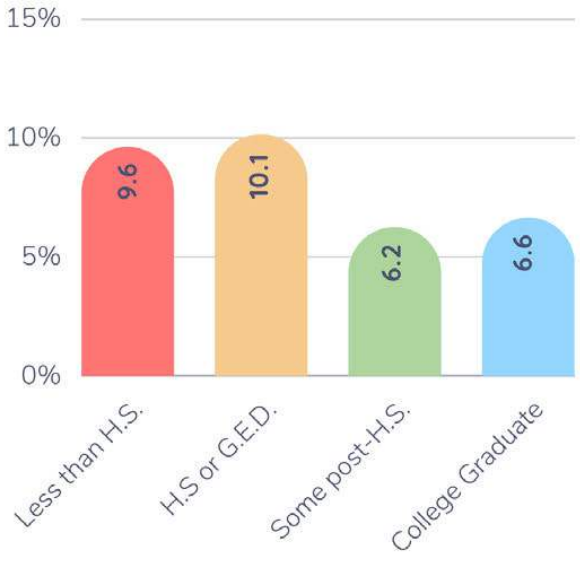


Figure 47. BRFSS (2020) - % of heavy drinkers by household income

Less than $15,000: **7.7%** of adults in this income bracket were heavy drinkers.

$15,000-$24,999: **9.1%** of adults in this income bracket were heavy drinkers.

$25,000-$34,999: **7.7%** of adults in this income bracket were heavy drinkers.

$35,000-$49,999: **8.2%** of adults in this income bracket were heavy drinkers.

More than $50,000: **8.1%** of adults in this income bracket were heavy drinkers.

Sources: BRFSS Prevalence & Trends Data 2020

RISK FACTORS

ALCOHOL CONSUMPTION (YOUTH)

2019 Youth Risk Behavior Survey (YRBS):

- **20.4%** of all students surveyed had one drink of alcohol in the last 30 days before the survey.
- Those most likely to be current drinkers were females, who identified as Hispanic, and is in the 12th grade.

Figure 48. YRBS (2019) - % of student drinkers by gender

16.2% of males had ≥1 alcoholic drink in past 30 days.

24.1% of females had ≥1 alcoholic drink in past 30 days.

Figure 49. YRBS (2019) - % of current drinkers by ethnicity

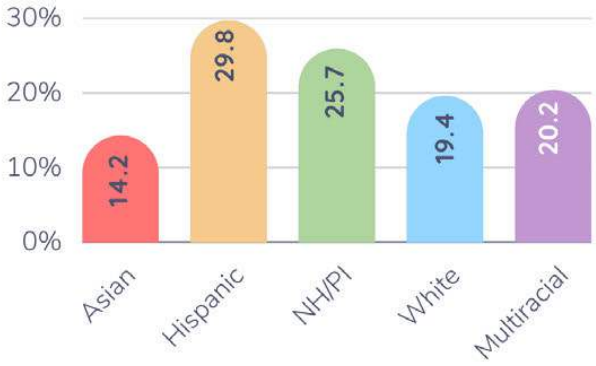


Table 12. YRBS (2019) - number of current drinkers by ethnicity

Race/Ethnicity	# Student Drinkers
Asian	1,199
Hispanic	988
NH/PI	1,614
White	426
Multiracial	823

Figure 50. YRBS (2019) - % of current drinkers by grade level

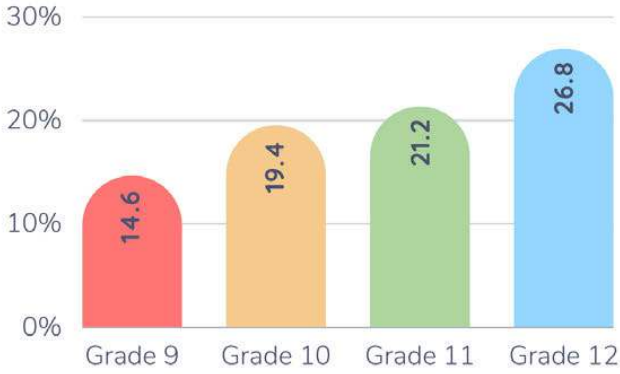


Table 13. YRBS (2019) - number of current drinkers by grade level

Grade Level	# Student Drinkers
Grade 9	1,405
Grade 10	1,444
Grade 11	1,359
Grade 12	1,000

Sources: High School Youth BRS: Hawaii 2019 Results

RISK FACTORS

OBESITY - BMI (ADULT)

2020 BRFSS Highlights:

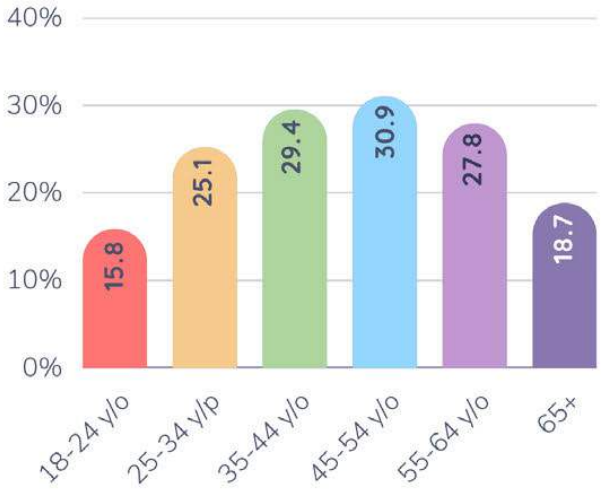
- Out of 7,383 respondents, 24.5% were obese (BMI 30.0-99.8) and 2.7% were underweight (BMI 12.0-18.4).
- Hawai'i had a lower percent of obese respondents than the national average of 31.9%.
- The gender with the highest percentage of obesity was males. Women had the highest percent of respondents at normal weight.
- Those within the ages of 45-54 had the highest percentage of obesity while those between 18-24 had the highest percentage within normal weight ranges.
- Native Hawaiian and Pacific Islanders had a higher percentage of those who were obese (45.1%) which was higher than the national average (31.9%)
- Respondents who were high school graduates or who had a GED were more likely to be obese than college graduates. Those who also earned less than $15,000 were more likely to be obese.

Figure 51. BRFSS (2020) - % of obese respondents by gender

26.9% of males surveyed were obese.

22.1% of females surveyed were obese.

Figure 52. BRFSS (2020) - % of obese respondents by age



Intersections:

- The individual who is most likely to be obese is a male who is between the ages of 45-54 years, who identifies as a Native Hawaiian or Pacific Islander, has graduated high school or has obtained a GED and earns an annual household income of less than $15,000.
- The individual least likely to be obese is a female between the ages of 18-24 years, who identifies as Asian, is a college graduate, and earns an annual household income of $25,000-$34,999.

Sources: BRFSS Prevalence & Trends Data 2020

RISK FACTORS

OBESITY - BMI (ADULT)

Figure 53. BRFSS (2020) - % obese and normal weight by ethnicity

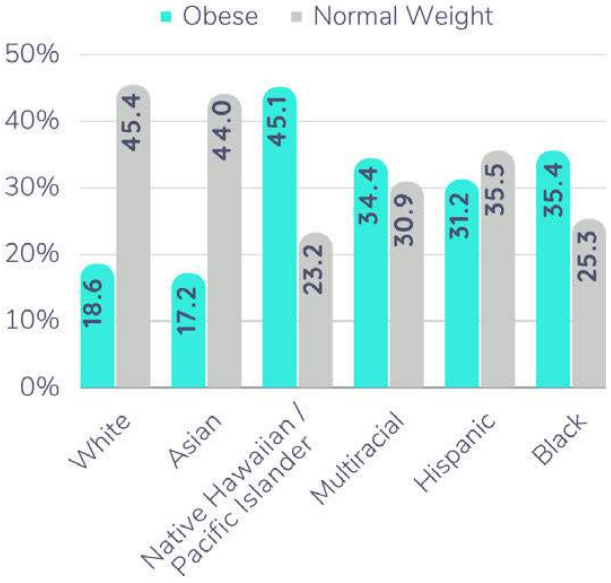


Figure 54. BRFSS (2020) - % obese and normal weight by educational attainment

Figure 55. BRFSS (2020) - % of obesity by household income

Less than $15,000: **30.8%** of adults in this income bracket were obese.

$15,000-$24,999: **25.2%** of adults in this income bracket were obese.

$25,000-$34,999: **21.3%** of adults in this income bracket were obese.

$35,000-$49,999: **26.1%** of adults in this income bracket were obese.

More than $50,000: **23.9%** of adults in this income bracket were obese.

Sources: BRFSS Prevalence & Trends Data 2020

RISK FACTORS

OBESITY - BMI (YOUTH)

2019 Youth Risk Behavior Survey (YRBS):

- **17.8%** of all students surveyed were obese.
- Those most likely to be obese is a male who identifies as Native Hawaiian or Pacific Islander, and is in the 12th grade.

Figure 56. YRBS (2019) - % of obese students by gender

13.6% of males had ≥1 alcoholic drink in past 30 days.

21.9% of females had ≥1 alcoholic drink in past 30 days.

Figure 57. YRBS (2019) - % of obese respondents by ethnicity

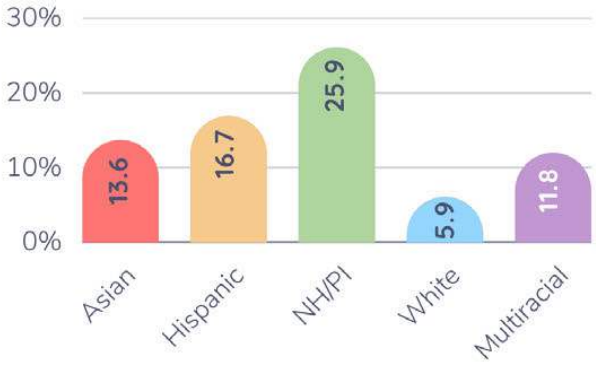


Table 14. YRBS (2019) - number of obese respondents by ethnicity

Race/Ethnicity	# Obese Students
Asian	1.131
Hispanic	992
NH/PI	1,628
White	410
Multiracial	799

Figure 58. YRBS (2019) - % of obese respondents by grade level

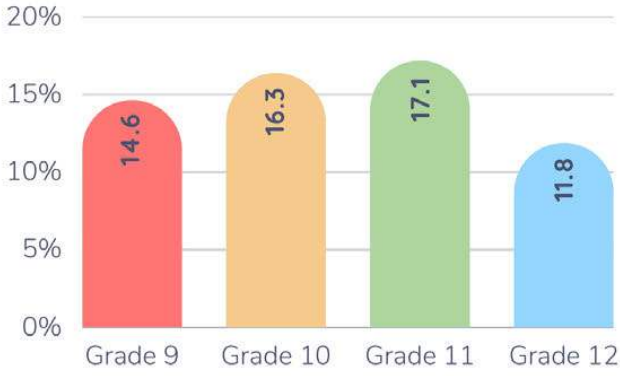


Table 15. YRBS (2019) - number of obese respondents by grade level

Grade Level	# Obese Students
Grade 9	1,306
Grade 10	1,392
Grade 11	1,383
Grade 12	1,016

Sources: High School Youth BRS: Hawaii 2019 Results

RISK FACTORS

PHYSICAL ACTIVITY (ADULT)

2020 BRFSS Highlights:

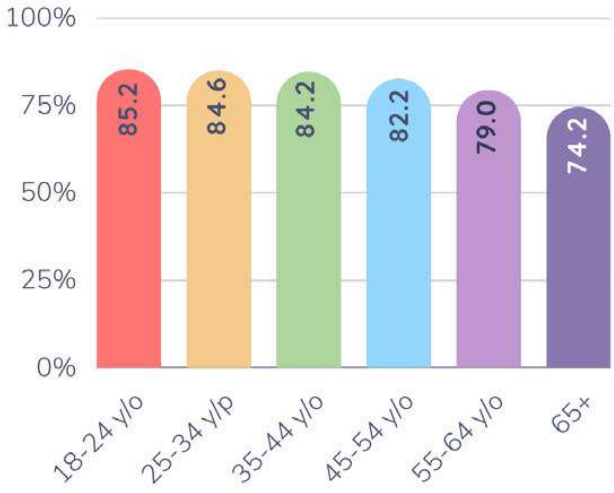
- Out of 7,752 respondents, 80.8% (n=6,366) participated in physical activities a month before the survey, and 19.2% (n=1386) did not.
- The gender that had the highest percentage of those who had participated in physical activities was males (83.4%).
- As age increased, the percentage of those participating in physical activities a month prior to the survey decreased.
- White and Black ethnic groups had the higher percentages (around 88%) of those who participated in physical activities and were higher than the national average of 77.3%.
- As education attainment and annual household income increased, the percentage of those participating in physical activities increased.

Figure 59. BRFSS (2020) - % of physical activity participants by gender

83.4% of males participated in physical activity.

78.2% of females participated in physical activity.

Figure 60. BRFSS (2020) - % of physical activity participants by age



Intersections:

- The individual who was most likely to have participated in physical activity within a month before the survey was a male, between the ages of 18-24, either identifies as black or white, is a college graduate, and has an annual household income of $50,000 or more.
- The individual least likely to have participated in physical activity within a month before the survey was taken is a female, age 65 or older, who identifies as Asian, has not finished H.S., and earns an annual household income less than $15,000.

Sources: BRFSS Prevalence & Trends Data 2020

RISK FACTORS

PHYSICAL ACTIVITY (ADULT)

Figure 61. BRFSS (2020) - % of physical activity participants by ethnicity

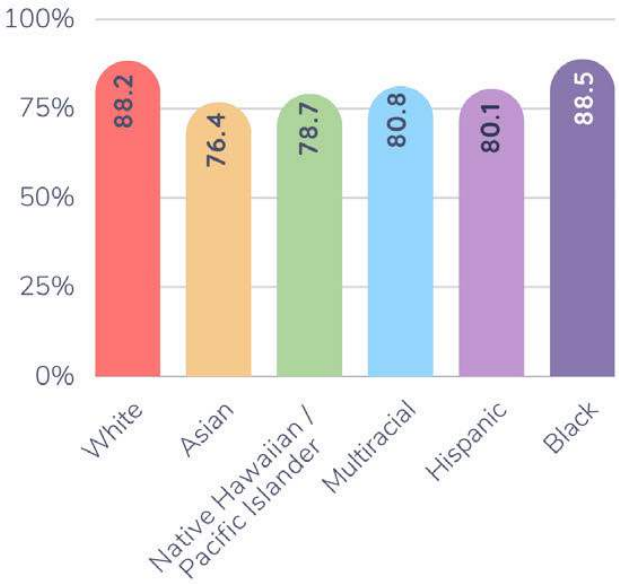


Figure 62. BRFSS (2020) - % of physical activity participants by educational attainment

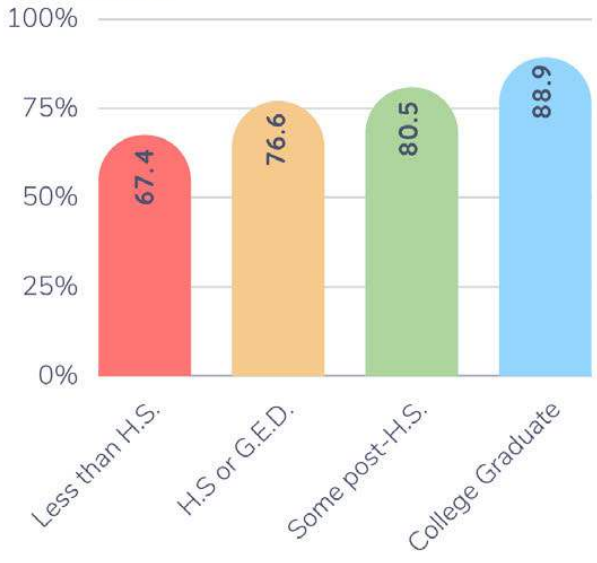


Figure 63. BRFSS (2020) - % of physical activity participants by household income

Less than $15,000: **71.8%** of adults in this income bracket participated.

$15,000-$24,999: **71.5%** of adults in this income bracket participated.

$25,000-$34,999: **71.0%** of adults in this income bracket participated.

$35,000-$49,999: **79.2%** of adults in this income bracket participated.

More than $50,000: **86.1%** of adults in this income bracket participated.

Sources: BRFSS Prevalence & Trends Data 2020

RISK FACTORS

PHYSICAL ACTIVITY (YOUTH)

2019 Youth Risk Behavior Survey (YRBS):

- **19.5%** of all students surveyed participated in physical activity a month before the survey.
- Those most likely to participate in physical activity is a female, who identifies as Asian, in the 12th grade.

Figure 64. YRBS (2019) - % of physically active students by gender

23.1% of males were physically active.

16.1% of females were physically active.

Figure 65. YRBS (2019) - % of physically active respondents by ethnicity

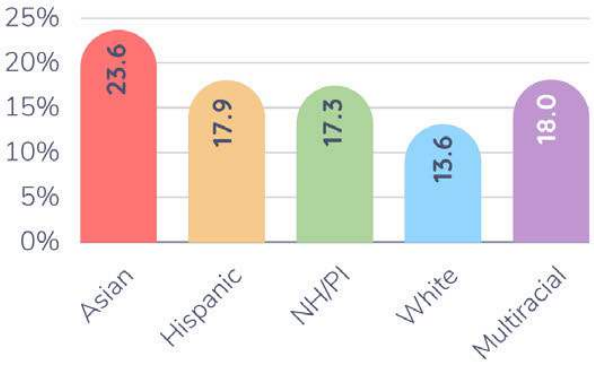


Table 16. YRBS (2019) - number of physically active respondents by ethnicity

Race/Ethnicity	# Physically Active
Asian	1,192
Hispanic	1,022
NH/PI	1,657
White	422
Multiracial	812

Figure 66. YRBS (2019) - % of physically active respondents by grade level

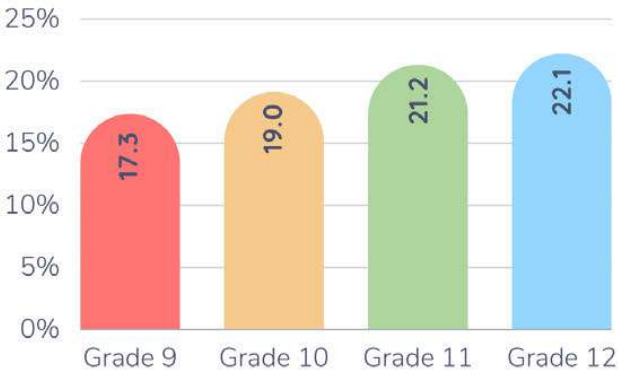


Table 17. YRBS (2019) - number of obese respondents by grade level

Grade Level	# Physically Active
Grade 9	1,374
Grade 10	1,453
Grade 11	1,378
Grade 12	1,015

Sources: High School Youth BRS: Hawaii 2019 Results

RISK FACTORS

DAYS OF FAIR/POOR HEALTH

2020 BRFSS Highlights:

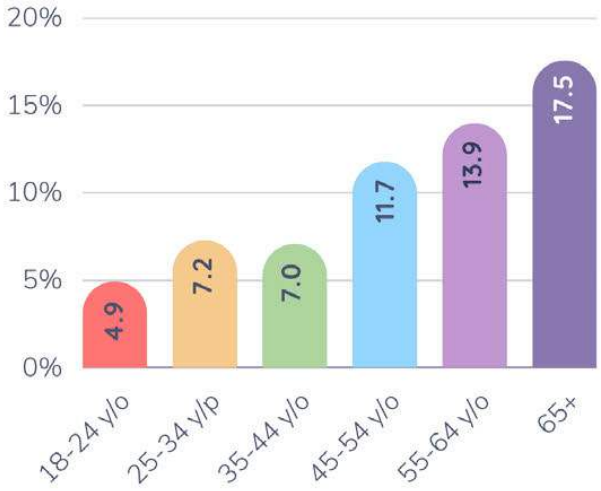
- Out of 7,750 respondents, 88.8% (n=6,824) had good or better health and 11.2% (n=926) had fair or poor health.
- There was no significant difference between males and females who felt good/better or fair/poor.
- The age with the highest percentage of those with fair/poor health was respondents ages 65 and older.
- Native Hawaiians and Pacific Islanders had the highest percentage of those who had a health status of fair/poor health. This was also higher than the national percentage of 13.5%
- As education attainment and annual household income increased, the percentage of those who had fair/poor health status decreased.

Figure 67. BRFSS (2020) - % of fair/poor health by gender

11.2% of males with fair/poor health.

11.1% of females with fair/poor health.

Figure 68. BRFSS (2020) - % of fair/poor health by age



Intersections:

- The individual who is most likely to have days of fair/poor health is either male or female, who is 65 years or older, who identifies as Native Hawaiian or Pacific Islander, and has an educational attainment of less than high school and an annual household income of less than $15,000.
- The individual least likely to have days of fair/poor health is either male or female, who is between 18-24 years of age, who identifies as White, who is a college graduate, and earns an annual household income of $50,000 or more.

Sources: BRFSS Prevalence & Trends Data 2020

RISK FACTORS

DAYS OF FAIR/POOR HEALTH

Figure 69. BRFSS (2020) - % of fair/poor health by ethnicity

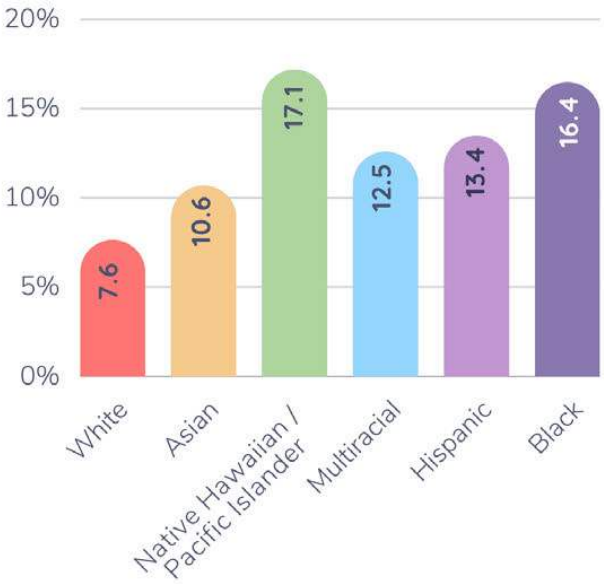


Figure 70. BRFSS (2020) - % of fair/poor health by educational attainment

Figure 71. BRFSS (2020) - % of fair/poor health by household income

Less than $15,000: **24.0%** of adults had days of fair/poor health.

$15,000-$24,999: **16.8%** of adults had days of fair/poor health.

$25,000-$34,999: **12.9%** of adults had days of fair/poor health.

$35,000-$49,999: **11.8%** of adults had days of fair/poor health.

More than $50,000: **7.5%** of adults had days of fair/poor health.

Sources: BRFSS Prevalence & Trends Data 2020

ISSUES & BARRIERS

PERSONAL CARE PROVIDER

2020 BRFSS Highlights:

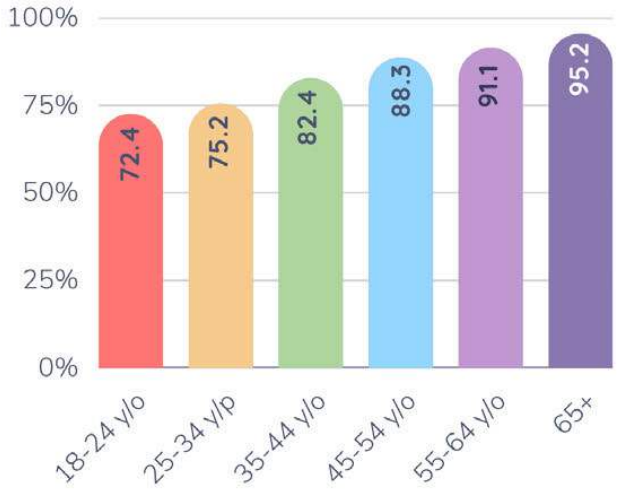
- Out of 7,735 respondents, 73.0% (n=5,694) have at least one doctor as a personal care provider, 12.5% (n=993) have more than one, and 14.5% (n=1,048) do not have a personal care provider.
- Females had the higher percentage of respondents who had at least one personal care provider.
- As age increased, the percentage of those with either one provider or more increased.
- Asians had the highest percentage of those with one provider which was higher than the national percentage (71%).
- As education and annual household income increased, the percentage of those with a provider increased.

Figure 72. BRFSS (2020) - % with at least one personal care provider by gender

81.1% of males had at least one provider.

89.8% of females had at least one provider.

Figure 73. BRFSS (2020) - % with at least one personal care provider by age



Intersections:

- The individual who is most likely to have at least one personal care provider is a female, between the ages of 65 or older, who identifies as Asian, who is a college graduate, and has an annual household income of $50,000 or more.
- The individual least likely to have a provider is a male, between the ages of 18-24, who identifies as Native Hawaiian or Pacific Islander, has not finished high school, and has an annual household income of less than $15,000.

Sources: BRFSS Prevalence & Trends Data 2020

ISSUES & BARRIERS

PERSONAL CARE PROVIDER

Figure 74. BRFSS (2020) - % with ≥1 personal care provider by ethnicity

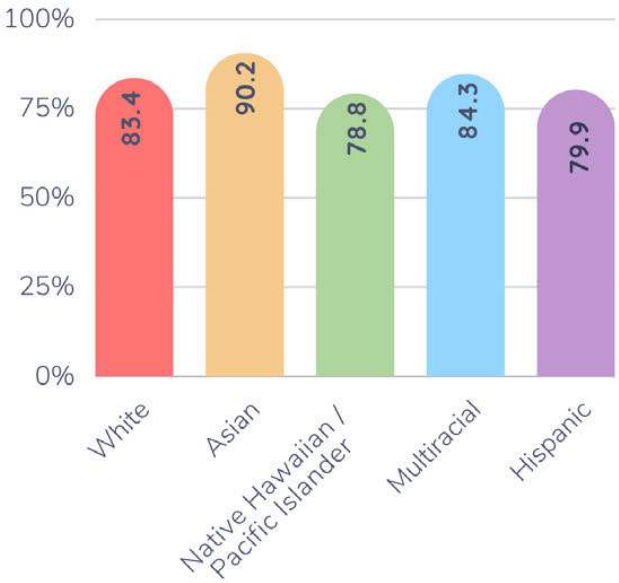


Figure 75. BRFSS (2020) - % with ≥1 personal care provider by educational attainment

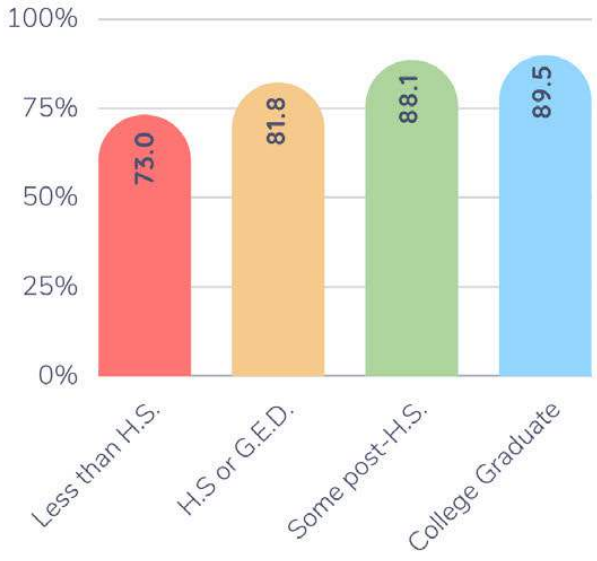


Figure 76. BRFSS (2020) - % with ≥1 personal care provider by household income

Less than $15,000: **75.2%** of adults had at least one personal care provider.

$15,000-$24,999: **77.7%** of adults had at least one personal care provider.

$25,000-$34,999: **83.4%** of adults had at least one personal care provider.

$35,000-$49,999: **86.7%** of adults had at least one personal care provider.

More than $50,000: **88.7%** of adults had at least one personal care provider.

Sources: BRFSS Prevalence & Trends Data 2020

ISSUES & BARRIERS

HEALTH CARE COST

2020 BRFSS Highlights:

- Out of 7,737 respondents, 6.0% (n=453) could not see a doctor 12 months before the survey was taken. 94.0% (n=7,284) were able to see a doctor within the past 12 months before the survey.
- The gender with the highest percentage of respondents who were not able to see a doctor due to cost was females (n=247).
- Those between the ages of 25-34 had the highest percentage of those who could not visit a doctor due to cost.
- Native Hawaiians and Pacific Islanders had the highest percentage of respondents who could not visit a doctor.
- Those who did not complete high school and earn an annual household income of less than $15,000 also had the highest percentage of those who could not see a doctor due to cost.
- As more people are unable to visit the doctors because of cost, the less they are being scanned and treated.

Figure 77. BRFSS (2020) - % unable to see a doctor due to costs by gender

5.8% of males unable to see a doctor due to costs.

6.0% of females unable to see a doctor due to costs.

Figure 78. BRFSS (2020) - % unable to see a doctor due to costs by age

Intersections:

- The individual who is most likely to have difficulty visiting a doctor due to cost is a female, between the ages of 25 and 34, who identifies as Native Hawaiian or Pacific Islander, who did not complete high school and earns an annual household income of less than $15,000.
- The individual least likely to have difficulty visiting a doctor due to costs is a male aged 65 and older, who identifies as Black, who is a college graduate, and earns an annual household income of $50,000 or more.

Sources: BRFSS Prevalence & Trends Data 2020

ISSUES & BARRIERS

HEALTH CARE COST

Figure 79. BRFSS (2020) - % unable to see a doctor due to costs by ethnicity

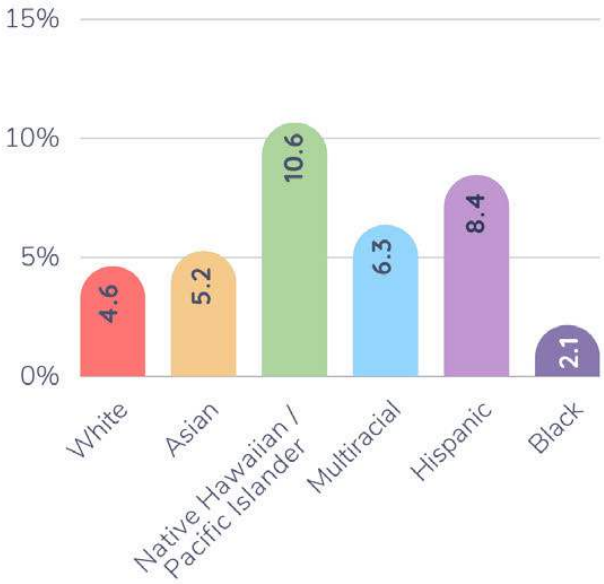


Figure 80. BRFSS (2020) - % unable to see a doctor due to costs by educational attainment

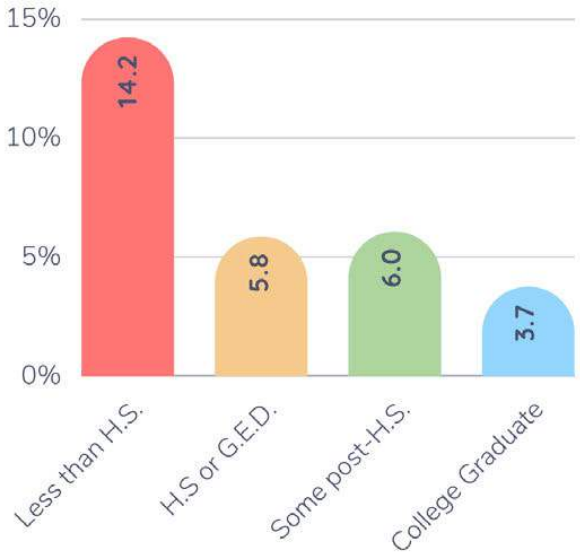


Figure 81. BRFSS (2020) - % unable to see a doctor due to costs by household income

Less than $15,000: **18.7%** of adults could not see a doctor due to costs.

$15,000-$24,999: **13.0%** of adults could not see a doctor due to costs.

$25,000-$34,999: **6.9%** of adults could not see a doctor due to costs.

$35,000-$49,999: **6.5%** of adults could not see a doctor due to costs.

More than $50,000: **2.8%** of adults could not see a doctor due to costs.

Sources: BRFSS Prevalence & Trends Data 2020

ISSUES & BARRIERS

HEALTHCARE COVERAGE

2020 BRFSS Highlights:

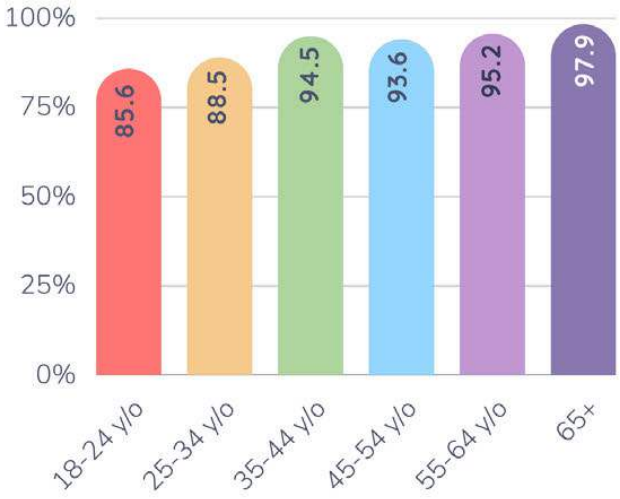
- Out of 7,731 respondents, 93.3% (n=7,280) had healthcare coverage, while 6.7% (n=451) did not.
- Native Hawaiians and Pacific Islanders had the lowest number of respondents who had healthcare coverage (n=589).
- Asian and African American groups had the highest percentage (94.9%) of healthcare coverage.
- As education levels increased from less than high school to college graduate, the number of respondents who had healthcare coverage increased.
- Similarly, as household income increased, the number of those with healthcare coverage increased. However, those who made between $15,000 - $24,999 were less likely to have coverage than those who made less than $15,000.
- Those between the ages of 18 and 24 had the lowest percentage of those who had health coverage as opposed to those older to them.

Figure 82. BRFSS (2020) - % with healthcare coverage by gender

91.5% of males had healthcare coverage.

95.2% of females had healthcare coverage.

Figure 83. BRFSS (2020) - % with healthcare coverage by age



Intersections:

- The individual who is most likely to have healthcare coverage is a female, aged 65 and older, who identifies as Asian or African American, who graduated college and earns an annual household income of more than $50,000.
- The individual least likely to have healthcare coverage is a male, between the ages of 18-24, who identifies as Native Hawaiian or Pacific Islander, who did not complete high school, and earns an annual household income between $15,000-$24,000.

Sources: BRFSS Prevalence & Trends Data 2020

ISSUES & BARRIERS

HEALTHCARE COVERAGE

Figure 84. BRFSS (2020) - % with healthcare coverage by ethnicity

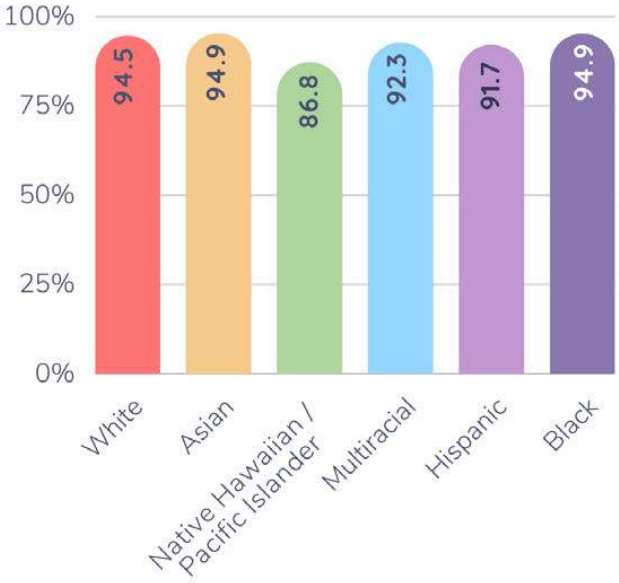


Figure 85. BRFSS (2020) - % with healthcare coverage by educational attainment

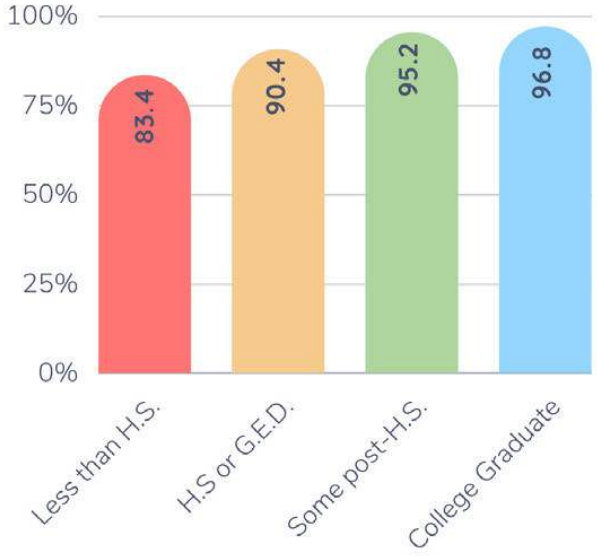


Figure 86. BRFSS (2020) - % with healthcare coverage by household income

Less than $15,000: **87.0%** of adults have healthcare coverage.

$15,000-$24,999: **86.6%** of adults have healthcare coverage.

$25,000-$34,999: **92.0%** of adults have healthcare coverage.

$35,000-$49,999: **92.5%** of adults have healthcare coverage.

More than $50,000: **96.3%** of adults have healthcare coverage.

Sources: BRFSS Prevalence & Trends Data 2020

ISSUES & BARRIERS

HEALTH CARE COST & COVERAGE COMPARISON

Figure 87. BRFSS (2020) - % comparison of inability to pay for medical costs and access to healthcare coverage

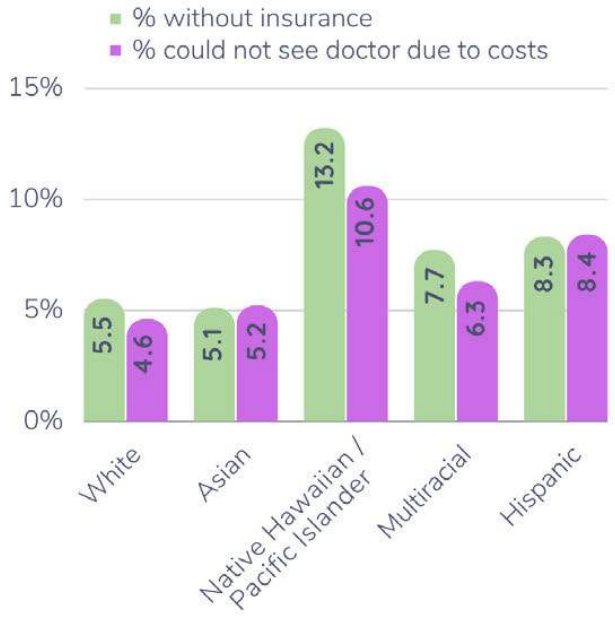
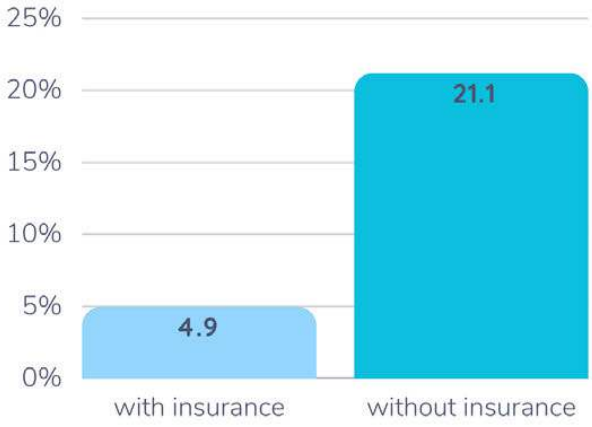


Figure 88. BRFSS (2020) - % unable to see a doctor due to cost by healthcare coverage



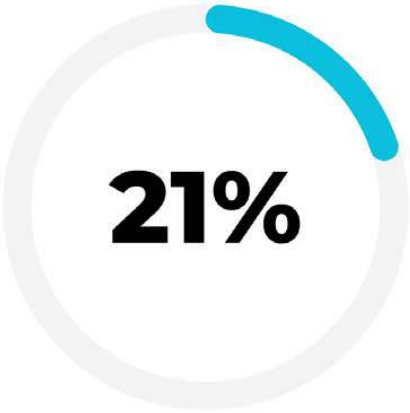
The graph above indicates that those having no healthcare coverage are 4x more likely to be unable to visit a physician because of cost.

13% **Native Hawaiians and Pacific Islanders without health insurance**

11% **Native Hawaiians and Pacific Islanders could not visit a doctor due to cost**

Cost and lack of insurance act as barriers to accessing health care

21% of those without healthcare coverage could not see a doctor due to costs.



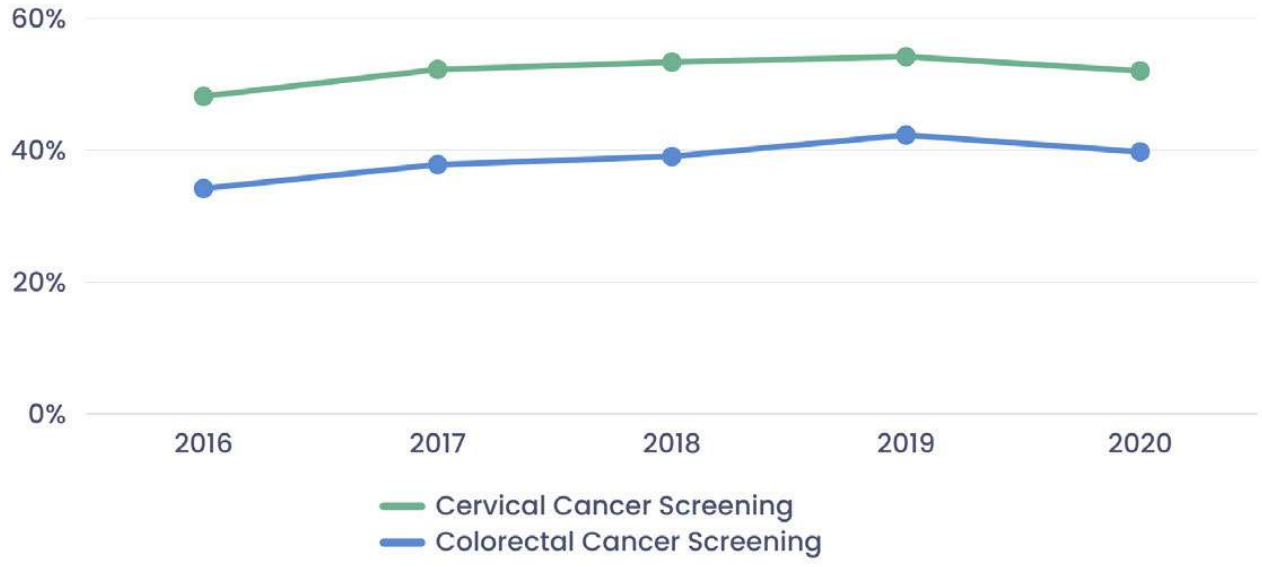
Sources: BRFSS Prevalence & Trends Data 2020

CANCER SCREENING IN UNDERSERVED POPULATIONS

Health Center Program Uniform Data System (UDS)

- Shows a breakdown of 15 community health centers and the percentage of patients who have had cervical, breast, and colorectal cancer screenings from 2016 to 2020.
- In total, 145,393 patients were served in 2020 alone which is a decrease from the 159,118 patients served in 2019. This decrease could be due to the COVID-19 pandemic as less people took part in doctor's office visits for fear of the virus. Ultimately leading to less patients being screened for cancer.
- The data indicates that the percentage of patients receiving cancer screening increased from 2016-2019 from the community health centers across the Hawaiian islands. However, from 2019-2020, this decreased for all three screening types.
- From 2016-2019, patients receiving cervical cancer screening increased from 48.18% to 54.19%. Then decreased to 52.04% in 2020.
- From 2016-2019, patients receiving colorectal cancer screening increased from 34.20% to 42.31%. Then decreased to 39.76% in 2020.

Figure 89. Comparison of Cancer Screening from 2016-2020: Cervical and Colorectal Cancer Screening for all Hawai'i clinics



*Breast cancer screening data was only given for the year 2020 for each health center.

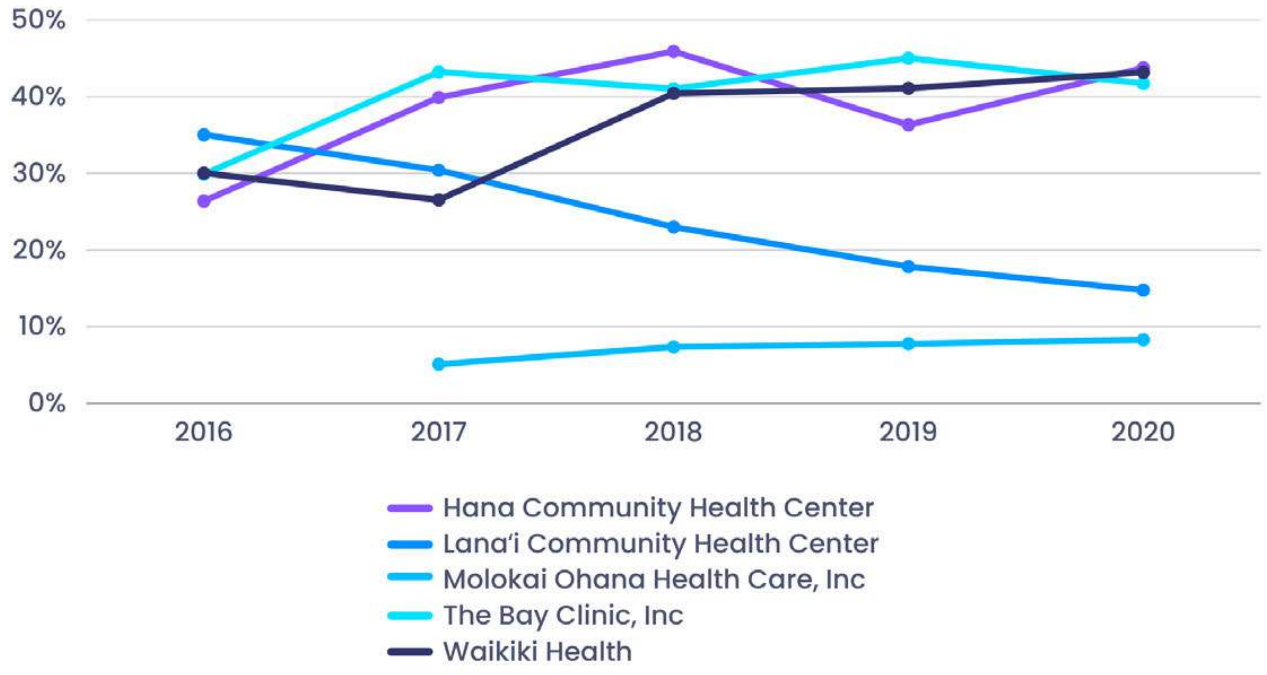
Sources: Hawai'i Health Center Program Uniform Data System (UDS) Data

CANCER SCREENING IN UNDERSERVED POPULATIONS

CERVICAL CANCER

- Five clinics were chosen to show trends of cancer screening between 2016 and 2020.
- Molokai Ohana Health Care had the lowest percentage of patients screened for cervical cancer. Although this has been steadily increasing since 2017, only 8.31% of patients were screened in 2020 which was the lowest of any in Hawai‘i.
- Lana‘i Community Health Center has had a decrease in cervical cancer screening beginning in 2016 from 35.05% to only 14.78% of patients being screened in 2020. The Bay Clinic had a slight decrease of approximately 3.29%, but only from 2019 to 2020. This could be due to the 2020 pandemic.
- Contrastingly, Waikiki Health and Hana Community Health Center both had an increase in cervical cancer screenings from 2019-2020.
- From 2018-2019, Hana Community Health Center had a dramatic decrease in screenings from 45.92% to 36.34%.

Figure 90. Cervical Cancer Screening rates from selected clinics across Hawai‘i from 2016-2020



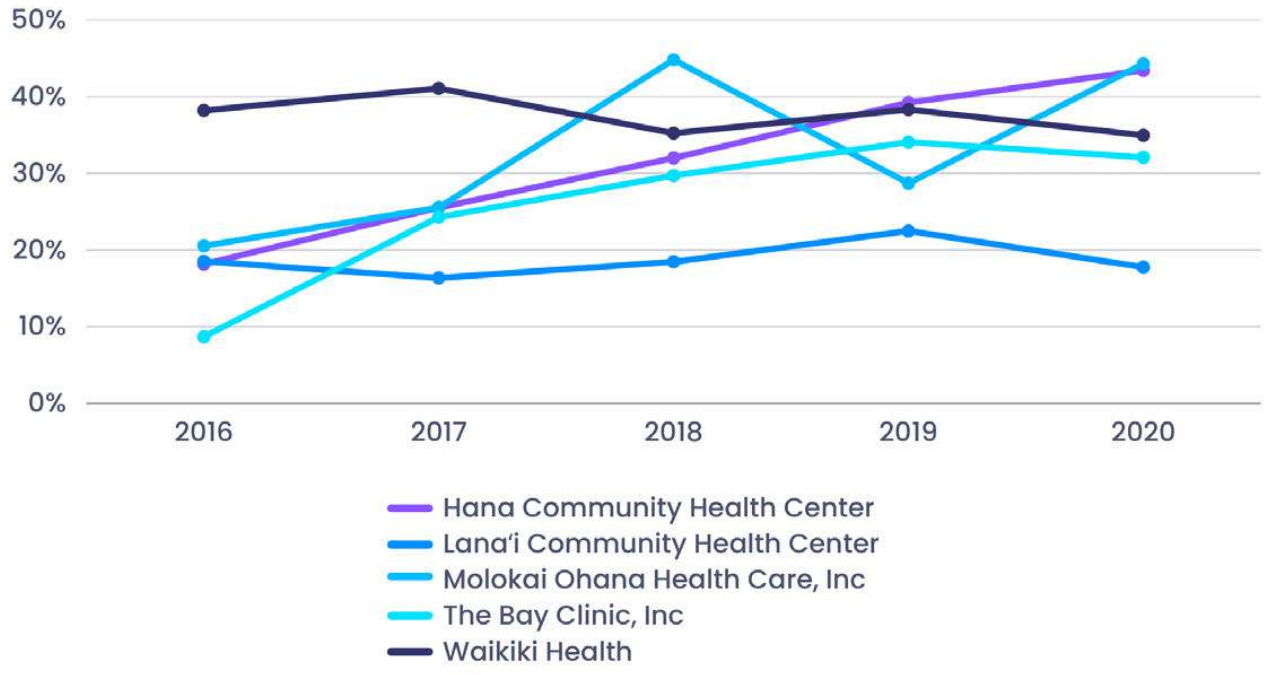
Sources: Hawai‘i Health Center Program Uniform Data System (UDS) Data

CANCER SCREENING IN UNDERSERVED POPULATIONS

COLORECTAL CANCER

- The graph shows that the rate of colorectal cancer screening was significantly lower than the rate of cervical cancer screening in these clinics.
- Hana Community Health Center has had the most significant increase in colorectal cancer screening. In 2016, only 18.17% of patients were screened, which then increased to 43.43% in 2020. (Approximately a 25% increase).
- For Molokai Ohana Health Care, the percentage of patients screened staggered over the five-year period. In 2018, 44.83% of patients were screened, which then decreased in 2019 to 28.72% screened. Then from 2019-2020, the percent increased to 44.29%.
- Lana'i Community Health Center, The Bay Clinic, and Waikiki Health all had a decrease in colorectal screening from 2019-2020. Lana'i had the lowest rate of screening within the five-year period. The percent of screening decreased from 22.50% to 17.77% in just one year.

Figure 91. Colorectal Cancer Screening rates from selected clinics across Hawai'i from 2016-2020



Sources: Hawai'i Health Center Program Uniform Data System (UDS) Data

CANCER SCREENING IN UNDERSERVED POPULATIONS

COMPARISION BY ETHNICITY

Figure 92. Cervical Cancer Screening Comparison between ethnic groups 2019-2020 from Waikiki Health

Figure 93. Colorectal Cancer Screening Comparison between ethnic groups 2019-2020 from Waikiki Health

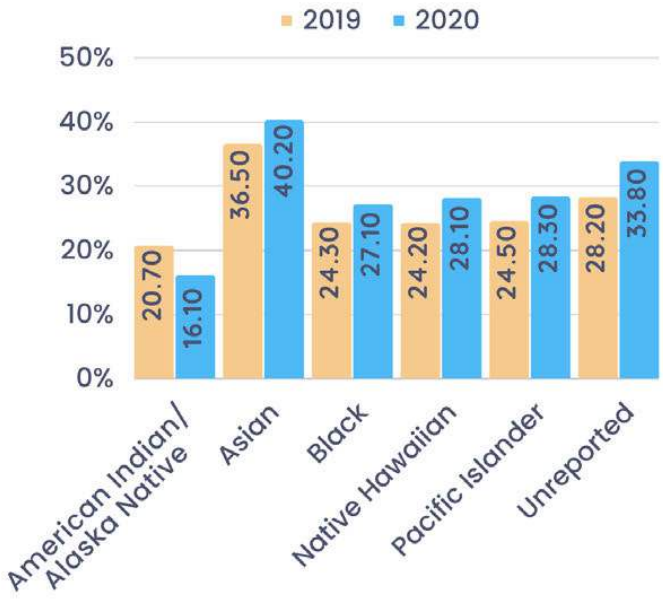
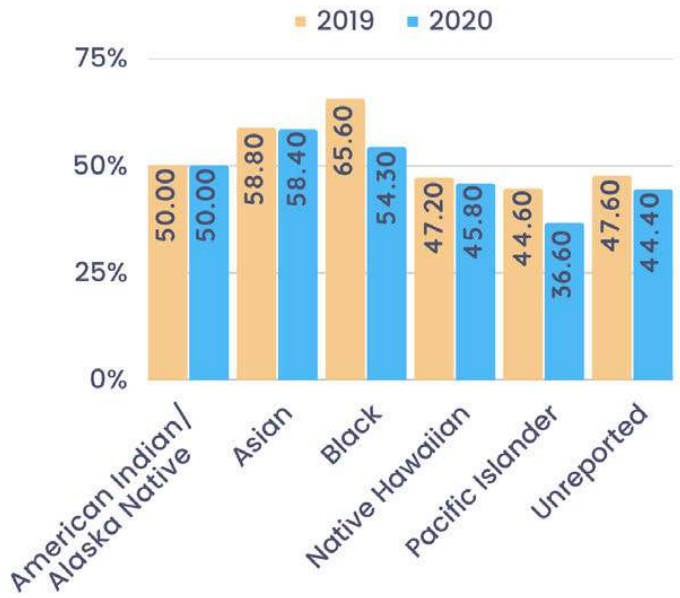


Figure 94. Breast Cancer Screening Comparison between ethnic groups 2019-2020 from Waikiki Health



This data compares different ethnicities and the percentage of those patients who have had either cervical, colorectal, or breast cancer screening at Waikiki Health in 2019 and 2020.

- For cervical and breast cancer screening, a majority of the ethnicities had higher percentages of screenings in 2019 than in 2020.
- Whereas for colorectal cancer, these ethnic groups had a higher percentage of screenings in 2020.

Sources: Hawai'i Health Center Program Uniform Data System (UDS) Data . UHCC FQHC Data

VACCINE COVERAGE

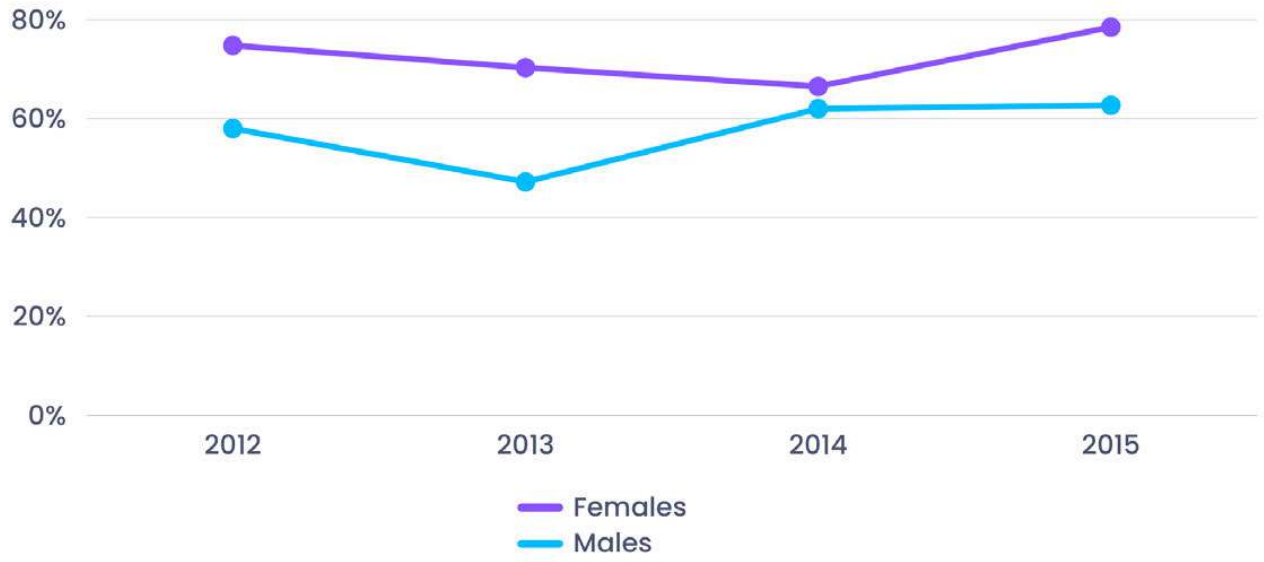
HPV Vaccination

The Center for Disease Control and Prevention (CDC) Teen Vax View Highlights

- For adolescents 13-17 years of age in Hawai'i, there has been an increase in HPV (Human Papilloma Virus) vaccine (3 dose series) administration in the past few decades.
- In 2012, the percent of males who completed the three-dose series was at 58.0% and increased to 62.7% in 2015. For females, the percent of those who completed the three doses in 2012 was at 74.8% and increased to 78.5% in 2015.
    - From 2008-2012, females had an increase of series completion from 64.5% to 74.8%.
    - Males had data only starting in 2012, as many took their first dose of the vaccine starting in 2011.

This increase in HPV vaccination indicates that more of the population is protected from HPV and therefore less likely to develop cervical cancer as an effect of contracting the virus.

Figure 95. HPV Vaccination series completion trend comparison between Males and Females from 2012-2015

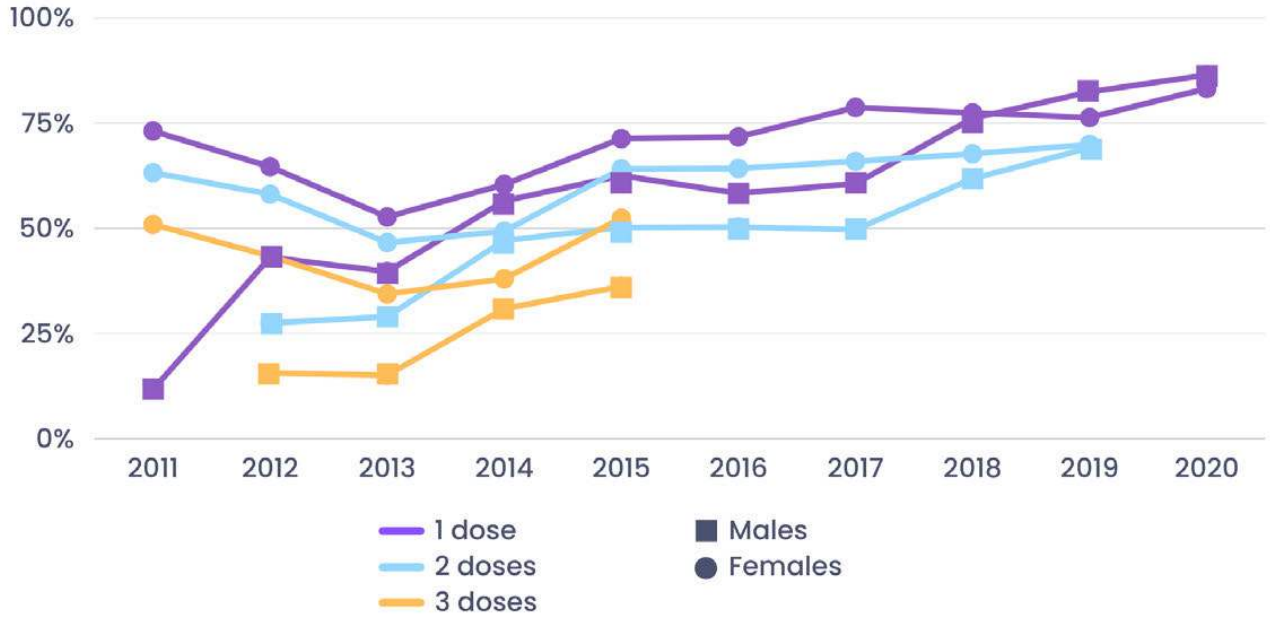


Sources: CDC Teen Vax View

VACCINE COVERAGE

HPV Vaccination

Figure 96. HPV Vaccination Trend comparison between 1, 2, and 3 doses for both males and females



- For all three doses, the percentage of HPV vaccinations has increased since the start of the 2010 decade. Some data may be missing or not provided leading to variations in the graph.
- The percentage of those who have received at least one dose has increased from 11.7% in 2011 for males to 86.4% in 2020. For females in 2011, 73.1% received a first dose which has increased to 83.2% in 2020.
- For the second dose, both males and females have increased the percentage of vaccinated to approximately 70% vaccinated. Males increased from 27.5% to 69.1% in less than a decade.
- The third dose does not have data for the last five years. However, the data provided still indicates an increase in the percentage of vaccinated. Males increased from 15.6% vaccinated in 2012 to 36.2% in 2015. Females increased from 50.9 in 2011 to 52.4% in 2015.

Sources: CDC Teen Vax View

GOALS

GOAL #1

The first goal of the Community Outreach Core is to provide an essential resource to PIPCHE research projects and the Partnership:

- Provide training and technical resources.
- Enhance opportunities for research training.
- Increase knowledge, awareness, and implementation of PIPCHE research.

GOAL #2

The second goal of the Community Outreach Core is to implement evidence-based cancer prevention outreach, resources, and promotion of PIPCHE research.

GOAL #3

The third goal of the Community Outreach Core is to assess the partnership's capacity to design and implement culturally relevant research in Hawai‘i and Guam.

PRIORITY AREAS

#1 - OUTREACH

Implement outreach strategies to engage community members in PIPCHE research processes & provide community buy-in and in-reach strategies that builds capacity across the entire partnership.

- The COC will employ the use of asynchronous training and capacity building methods which include web-based training modules that will provide recruitment, community engagement, health education, behavior change, and measurement and evaluation training.

#2 - SCREENINGS & VACCINATIONS

Increase colorectal and cervical cancer screening and HPV vaccination rates.

- Rural clinics have the lowest rate of cervical cancer screening and most clinics have the lowest colorectal cancer screening rates in Hawai‘i.
- The full dose HPV vaccination series rates, although increasing, are still low for adolescents.
- The COC will conduct qualitative data gathering from decision makers at PIP-serving community clinics.
- Apply provider toolkits, culturally-relevant print & video-based resources to promote client education on screening and prevention.

#3 - DISPARITIES

Address cancer disparities in a contextual/multilevel manner.

- The COC will modify risk factors (behaviors), incorporate social relationships (cultural networks and customs), and build the social (collective efficacy) and institutional capital (provider efficacy) for health promotion.

ACKNOWLEDGMENTS

U54/PIPCHE Community Outreach Core

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