

INTRODUCTION



OVERVIEW

While there is an ongoing deliberation pertaining to when the first Native Hawaiians arrived at the shores of the Hawaiian Islands, as well as, the number of Native Hawaiians on the islands at the time of European contact, it is known that the Native Hawaiian people have endured numerous devastating hardships and catastrophic events that have shaped and reshaped Native Hawaiian society and culture. Much has changed over the past two centuries since western culture placed its mark on Hawai'i and its native people.

Today, Native Hawaiians are perhaps the single racial group with the highest health risk in the State of Hawai'i. This risk stems from high economic and cultural stress, lifestyle and risk behaviors, and delayed or lack of access to health care. Accordingly, it is not surprising to find among Native Hawaiians a high incidence of diseases and ailments, early disability, and premature death.

An overall strategy to improve the well-being of Native Hawaiians ought to focus on two key elements: 1) a systematic identification of health risk factors early in their lives and 2) timely, appropriate, and readily accessible health care. Health statistics perform a vital role in this strategy by 1) identifying high-risk segments of the Native Hawaiian population, 2) ascertaining underlying relationships between risk factors and diseases, 3) identifying barriers precluding access to health care, and 4) assessing the adequacy of available health care services.

HEALTH INDICATORS

This report seeks to review a few of the health statistics of Hawai'i's native people to identify health status and issues. The report is structured on the "life course model" approach, which provides a deep and layered understanding of how health develops over a lifetime and across generations by combining a focus on health parity and social determinants with an understanding of how they interact. The five sections include:

- 1) Infants (hānau)
- 2) Children (keiki)
- 3) Adolescents ('ōpio)
- 4) Adults (mākua)
- 5) Elders (kūpuna)

Through this approach, one can acquire an understanding of how health issues progress from one generation to the next, health issues within each peer group, and address these issues before they progress to the next cohort.

METHODOLOGY

The data utilized in this report were compiled from sources published by various state and federal agencies. When working with statistical data, it is important to distinguish between "population" data sets and "sample" data sets. A list of data sources and terms, with brief descriptions included at the end of the report.

Population-Based Data

Some of the data reported are "population based," meaning the entire population of a specified group (or the entire listing of possible values). For example: How many Native Hawaiian infants were born in the State of Hawai'i in 2017? The "population" in this example is all infants born in the State of Hawai'i in 2017, of which Native Hawaiian infants are a proportion. This type of population-based data is possible because all births in Hawai'i are recorded on birth certificates maintained and reported by the State Department of Health. Some agencies are mandated to document all occurrences of specified events; hence, population-based data exist. The data can be limited by completeness and accuracy, but provisions are utilized to minimize their impact.

However, not all events or issues can be fully documented due to a pressing need, fiscal restraints, population size, time requirements, and resource limitations. In these cases, where population-based efforts cannot be managed, sampling is often conducted.

Sample-Based Data

A sample data set contains a part, or a subset, of a population. The size of a sample is always less than the size of the population from which it is taken. The sample can be used as an estimate of the population, assuming responsible sampling protocols are followed.

To generalize or extrapolate the findings of the sample to the entire population, the sample must be a random sample and be sufficiently large. By its very nature, drawing 100 random samples from the same population, no two samples will be identical; consequently, any conclusions drawn should not be identical, though they should be similar. This uncertainty between a sample and a population can be measured by a means called confidence intervals.

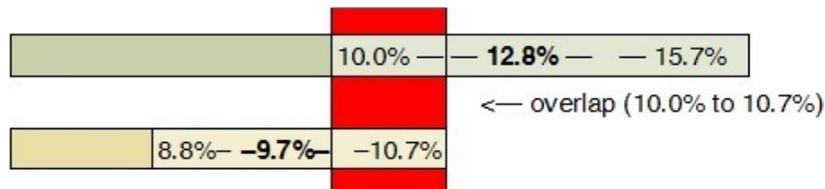
Confidence Intervals

Confidence intervals (CI)/Margins of Error (MOE) are derived from sample statistics. Confidence intervals/margins of error provide a range of values within which one can have confidence that a value of an unknown population parameter one is seeking is located. Confidence intervals are calculated to provide users different levels of confidence that one can have in their sample. There are many confidence levels for intervals. A common confidence level is the "95% confidence interval." For example: What percent of Native Hawaiian adults were obese in 2018? A calculation of a 95% confidence interval could be 38.0-46.8. The confidence interval indicates that you can be 95% confident that the percent for the entire adult Native Hawaiian population falls within the range of 38.0% to 46.8%.

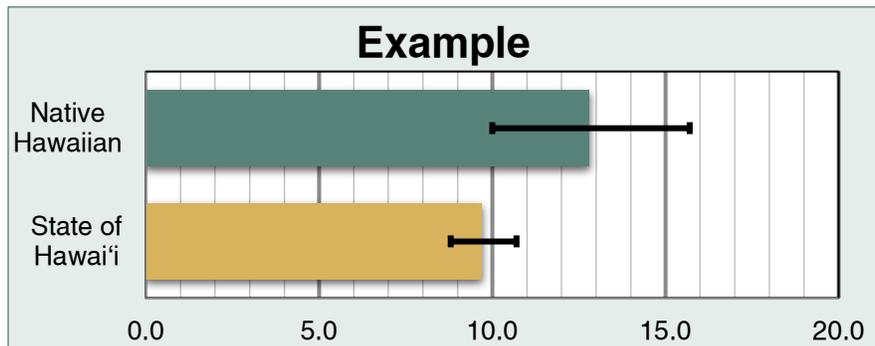
Keep in mind that 95% confidence indicates that about one time in 20 you are likely to get it wrong. You would not know whether this time is the one time in 20. If this is not acceptable, you can increase the confidence level, to have a greater chance of catching the true population value within it. However, greater confidence comes at a cost. Confidence intervals depend on sample size and often an increased sample size means more time, effort, and resources.

Statistical Significance

Determining if there is a difference between two measures or if there has been a change in a measure over time can be problematic at times when utilizing survey data. When confidence intervals do not overlap there is a statistically significant difference between the two measures. When confidence intervals overlap, there may be a statistically significant difference, but tests like the t-test or p-values are needed. For example: Is there a difference between Native Hawaiian and State of Hawai'i adults with diabetes? In 2014, 12.8% of Native Hawaiian adults reported having diabetes, while 9.7% of adults in the State reported having diabetes. It appears that there is a difference, 12.8% compared to 9.7%. But, these numbers are based on survey data. The CI for Native Hawaiian adults is 10.0-15.7, while the state is 8.8-10.7. The two ranges overlap, indicating that there is a possibility that the values are in the overlapping area, if that is the case, there is no difference. However, there is a possibility that the values are not in the overlapping area.



In published reports, graphs with confidence intervals are presented in many ways; below is one example.



Confidence intervals could be shown as bars with little or no labeling to assist interpreting the results.

Another example involving a trend: Was there an increase in the percent of Native Hawaiian adults who reported having diabetes in 2011 and 2014? In 2011, 9.8% of Native Hawaiian adults reported having diabetes. In 2014, 12.8% reported having diabetes. It appears that there was an increase from 9.8% to 12.8%. Again, looking at the CI, in 2011 it was 7.4-12.1, in 2014 it was 10.0-15.7. Because the two ranges overlap, one cannot state for certain that there was a statistical difference. Additional statistical tests are available to further analyze the measures.

Increasing the sample size will alter the confidence intervals. There is a greater chance of identifying the true population value within it. Perhaps there will be a reportable difference at a higher confidence level.

Depending on the reporting standards being used and the degree of accuracy desired, there are those who will overlook the confidence intervals and report changes based on the reported measures. In such cases caution must be taken when considering findings and conclusions.

Icons

The final two columns in the data tables summarize the data related to the health measure. The “Native Hawaiians and State” compares the Native Hawaiian measure relative to the measure for the State of Hawai‘i. It indicates if the Native Hawaiian measure is higher, lower, or at parity relative to the State. It is not a gauge noting that Native Hawaiians are better or worse than the State. Not all lower measures are negative and not all higher measures are positive, it depends on the issue being measured. Moreover, since much of the data presented is based on survey data, there is a statistical margin of error (MOE) associated with each measure. Though a measure may appear higher or lower, due to the MOE the measures may be statistically equal. Measures can be different yet statistically similar or different and statistically different. In the latter case, the measures are noted to have a difference that is “statistically significant.”

Higher	The measure for Native Hawaiians is higher than the measure for the State of Hawai‘i	↑
Parity	The measure for Native Hawaiians is equal or similar to the measure for the State of Hawai‘i	↔
Lower	The measure for Native Hawaiians is lower than the measure for the State of Hawai‘i	↓
Unknown/ Not Applicable/ Insufficient Data	There may be no measure specific for Native Hawaiians	◊
Statistical Significance	There is a statistically significant difference between the measure for Native Hawaiians and the State of Hawai‘i	*

The final column assesses the Native Hawaiian data over time to determine if there is a trend and if the trend is increasing, decreasing, stable, or variable. As with the “Native Hawaiians and State” column, trends may appear to be increasing or decreasing, but due to the MOE, trends may not be what they seem to be. Generally, health-related matters change very slowly, and statistically significant changes may not appear for a long period.

Increasing trend	The trend for Native Hawaiians is increasing	↗
Stable trend	The trend for Native Hawaiians is stable, minimal change	→
Variable trend	The trend for Native Hawaiians is variable, changing over time	↕
Decreasing trend	The trend for Native Hawaiians is decreasing	↘
Unknown/ Not Applicable/ Insufficient Data	There may be no trend specific for Native Hawaiians or there may be insufficient data to identify a trend	●
Not Reportable	The estimate has been suppressed because 1) The relative standard error is greater than 50% or when the relative standard error cannot be determined. Consider aggregating years to decrease the relative standard error and improve the reliability of the estimate, 2) the observed number of events is very small and not appropriate for publication, or 3) it could be used to calculate the number in a cell that has been suppressed.	NR

HEALTHY BEGINNINGS (Hānau)

Data Year	Health Measure	Native Hawaiian	State of Hawai'i	Native Hawaiians and State	Recent Native Hawaiian Trend
Maternal Characteristics					
2020 VS	32.8 percent of Native Hawaiian women received initial prenatal care later than the first trimester or not at all.	32.8%	30.9%	↔	→
2020 VS	59.5 percent of Native Hawaiian women received initial prenatal care during their first trimester.	59.5%	62.7%	↓	↘
2020 PRAMS	61.3 percent of Native Hawaiian women who Received Adequate or Better Prenatal Care According to the Kotelchuck or Adequacy of Prenatal Care Utilization Index	61.3% (CI 53.2-68.9)	61.5% (CI 57.4-65.4)	↔	●
2020 VS	5.6 percent of Native Hawaiian mothers were 15 to 19 years of age at the time of delivery.	5.6%	3.0%	↑	↘
2020 PRAMS	39.0 percent of Native Hawaiian women were obese (BMI≥30) preconception weight (BMI status)	39.0% (CI 32.0-46.4)	23.7% (CI 20.5-27.2)	↑ *	↗
2020 PRAMS	34.2 percent of Native Hawaiian women gained recommended amount of weight during pregnancy	34.2% (CI 27.6-41.3)	36.9% (CI 33.1-40.8)	◇	●
2020 PRAMS	2.5 percent of Native Hawaiian women reported having diabetes before pregnancy	2.5% (CI 1.4-4.5)	2.9% (CI 2.0-4.4)	↔	↘
2019 PRAMS	13.5 percent of Native Hawaiian women had gestational diabetes	13.5% (CI 9.0-19.5)	14.0% (CI 11.5-16.9)	↔	↗
2020 PRAMS	6.5 percent of Native Hawaiian women had high blood pressure before pregnancy	6.5% (CI 4.0-10.3)	5.3% (CI 4.0-7.1)	↑	↗

2020 PRAMS	15.2 percent of Native Hawaiian women had asthma before pregnancy	15.2% (CI 10.6-21.2)	10.0% (CI 8.0-12.5)	↑	↘
2020 PRAMS	6.5 percent of Native Hawaiian women had depression before pregnancy	6.5% (CI 4.1-10.3)	7.7% (CI 5.9-9.9)	↓	↗
2015 PRAMS	47.9 percent of Native Hawaiian women experienced 2 or more stressors during pregnancy.	47.9% (CI 41.0-54.9)	39.9% (CI 36.3-43.7)	↑	↘
2020 PRAMS	3.8 percent of Native Hawaiian women experienced physical abuse by husband or partner during the 12 months before pregnancy	3.8% (CI 1.7-8.3)	1.6% (CI 0.9-2.8)	↑	↘
2020 PRAMS	4.5 percent of Native Hawaiian women experienced physical abuse by husband or partner during pregnancy	4.5% (CI 2.2-9.3)	1.4% (CI 0.8-2.7)	↑	↗
2020 PRAMS	17.1 percent of Native Hawaiian women reported that they smoked three months before pregnancy	17.1% (CI 12.2-23.4)	9.6% (CI 7.7-12.0)	↑ *	↘
2020 PRAMS	8.1 percent of Native Hawaiian women reported that they smoked during the last three months of pregnancy	8.1% (CI 4.8-13.2)	3.0% (CI 2.0-4.5)	↑ *	●
2020 PRAMS	9.2 percent of Native Hawaiian women reported that they smoked in the postpartum period (3-6 months after birth)	9.2% (CI 5.8-14.3)	4.1% (CI 2.9-5.7)	↑ *	↘
2020 PRAMS	57.6 percent of Native Hawaiian women reported drinking alcohol in the 3 months before pregnancy	57.6% (CI 50.2-64.6)	55.3% (CI 51.4-59.1)	↑	↘
2020 PRAMS	25.2 percent of Native Hawaiian women reported binge drinking 3 months before pregnancy (having four or more drinks on one occasion)	25.2% (CI 19.2-32.3)	19.2% (CI 16.4-22.4)	↑	↘
2020 PRAMS	5.3 percent of Native Hawaiian women drank alcohol during the last three months of pregnancy	5.3% (CI 3.2-8.5)	6.6% (CI 5.0-8.6)	↓	↘
2020 PRAMS	19.4 percent of Native Hawaiian women who used marijuana or hash in any form during the 12 months before they got pregnant	19.4% (CI 14.2-25.8)	12.7% (CI 10.4-15.3)	↑	●
2020 PRAMS	5.3 percent of Native Hawaiian women who used marijuana or hash in any form during pregnancy	5.3% (CI 3.1-9.0)	2.8% (CI 1.9-4.0)	↑	●
2020 PRAMS	4.8 percent of Native Hawaiian mothers who used marijuana or hash in any form since delivery	4.8% (CI 2.8-8.0)	3.3% (CI 2.3-4.7)	↑	●
2019 PRAMS	52.8 percent of Native Hawaiian women had intended pregnancies	52.8% (CI 45.3-60.1)	58.3% (CI 54.5-62.1)	↓	↗

2020 PRAMS	13.3 percent of Native Hawaiian women reported postpartum depression	13.3% (CI 9.1-18.9)	13.7% (CI 11.2-16.6)	↔	↗
2008 PRAMS	11.2 percent of Native Hawaiian women reported maternal morbidities requiring more than one night in the hospital	11.2% (CI 8.4-14.8)	9.3% (CI 8.0-10.9)	↑	↗
Birth Outcomes					
2012 VS	Native Hawaiian live births to pregnancy ratio (1 live birth per 1.09 pregnancies)	1:1.09 (Birth: pregnancy)	1:1.18 (Birth: pregnancy)	↓	→
2020 VS	36.1 percent of all infants born in the State of Hawai'i were Native Hawaiian	36.1% (Native Hawaiian)	63.9% (Non-Hawaiian)	◇	→
2015 PRAMS	7.8 percent of Native Hawaiian infants were placed in the Infant Placed in a Neonatal Intensive Care Unit (NICU) after birth after birth	7.8% (CI 5.2-11.5)	8.1% (CI 6.5-9.9)	↔	↘
2020 VS	84.7 percent of Native Hawaiian mothers with infants born with a normal birth weight (2,500 - 3,999 grams)	84.7%	85.6%	↓	↕
2020 VS	6.8 percent of Native Hawaiian mothers with infants born with a low birth weight (1,500 - 2,499 grams)	6.8%	6.9%	↔	↕
2020 VS	1.3 percent of Native Hawaiian mothers with infants born with a very low birth weight (<1,500 grams)	1.3%	1.2%	↑	↕
2020 VS	7.4 percent of Native Hawaiian mothers with infants born with a high birth weight (4,000+ grams)	7.4%	6.7%	↑	↕
2020 VS	84.3 percent of Native Hawaiian mothers with infants born Term (37 to <41 weeks gestation)	84.3%	84.0%	↑	↕
2020 VS	1.5 percent of Native Hawaiian mothers with infants born early preterm (<=31 weeks gestation)	1.5%	1.4%	↑	↕
2020 VS	4.8 percent of Native Hawaiian mothers with infants born late/post-term (41+ weeks gestation)	4.8%	6.3%	↓	↕
2020 VS	9.6 percent of Native Hawaiian mothers with infants born preterm (<=31 weeks gestation)	9.6%	8.7%	↑	↕
Infant Beginnings					

2011 PRAMS	NR percent of Native Hawaiian babies received 1-week postnatal check ups	Not Reportable	94.6% (CI 92.4-96.2)	◇	NR
2020 PRAMS	55.6 percent of Native Hawaiian mothers who(exclusive) breastfed for 9 or more weeks	55.6% (CI 48.0-63.0)	55.6% (CI 51.6-59.5)	↔	↗
2020 PRAMS	77.0 percent of Native Hawaiian mothers who slept their infants sleeping on their backs	77.0% (CI 70.4-82.6)	80.1% (CI 76.8-83.0)	↓	↗
Infant Mortality					
2020 VS	Resident Native Hawaiian infant mortality rate (aged <365 days) (6.1 Native Hawaiian infant deaths per 1,000 live Native Hawaiian births)	35 Infant Deaths	74 Infant Deaths	↑	↕
2015 VS	Resident Native Hawaiian neonatal mortality rate (less than 28 days) (4.0 infant deaths per 1,000 live births)	4.0	3.6	↑	↗
2015 VS	Resident Native Hawaiian post-neonatal mortality rate (aged 28 to 364 days) (3.1 post-neonatal deaths per 1,000 live births)	3.1	2.1	↑	↗
2012 VS	Native Hawaiian fetal mortality rate (17.0 fetal deaths per 1,000 live births)	17.0	31.6	↓	↘
2012 VS	Native Hawaiian abortion rate (78.8 abortions per 1,000 live births)	78.8	147.1	↓	↘
Infant Social Determinants of Health					
2019 VS	62.7 percent of resident Native Hawaiian mothers in Hawai'i were not married at the time they delivered	62.7%	38.6%	↑	↘
2015 VS	26.2 percent of resident Native Hawaiian mothers had less than a high school education	26.2%	17.5%	↑	↘
2011 PRAMS	57.1 percent of Native Hawaiian women received medical insurance through Medicaid/QUEST for their delivery	57.1% (CI 51.1-62.9)	36.8% (CI 33.7-40.0)	↑ *	↗
2015 PRAMS	56.7 percent of Native Hawaiian women received medical insurance through Medicaid/QUEST for their prenatal care	56.7% (CI 49.7-63.5)	36.6% (CI 33.2-40.3)	↑ *	↗
2020 PRAMS	38.3 percent of Native Hawaiian women participated in WIC during pregnancy	38.3% (CI 31.5-45.6)	29.5% (CI 26.1-33.1)	↑	↘

HEALTHY CHILDREN (Keiki)

Data Year	Health Measure	Native Hawaiian	State of Hawai'i	Native Hawaiians and State	Recent Native Hawaiian Trend
Reported Keiki Health Conditions					
2005 YRBS	18.0 percent of Native Hawaiian public middle school children reported being overweight (≥ 85 percentile and < 95 percentile BMI for age and sex)	18.0% (CI 13.6-23.4)	13.7% (CI 10.9-17.2)	↑	●
2005 YRBS	13.2 percent of Native Hawaiian public middle school children reported being obese (≥ 95 BMI for age and sex)	13.2% (CI 8.3-20.4)	12.4% (CI 10.3-15.0)	↑	●
2005 YRBS	31.2 percent of Native Hawaiian public middle school children reported being overweight or obese (> 85 percentile BMI for age and sex)	31.2% (CI 23.0-40.8)	26.2% (CI 21.7-31.1)	↑	●
2017 YRBS	34.8 percent of Native Hawaiian public middle school students have ever had asthma	34.8% (CI 26.7-43.9)	26.3% (CI 23.1-29.7)	↑	●
2017 YRBS	21.1 percent of Native Hawaiian public middle school children currently have asthma	21.1% (CI 14.5-29.7)	14.7% (CI 12.1-17.8)	↑	●
2015 BRFSS	30.7% percent of Native Hawaiian adults who were told that their child had asthma	30.7% (CI 23.3-39.3)	16.8% (CI 14.4-19.6)	↑ *	↗
Modifiable Keiki Risk Behaviors					
2019 YRBS	29.0 percent of Native Hawaiian public middle school children were physically active for a total of 60 minutes or more per day on all of the past 7 days	29.0% (CI 26.2-32.0)	24.0% (CI 22.0-26.0)	↑	↘
2019 YRBS	16.4 percent of Native Hawaiian public middle school students do not have breakfast any day of the week	16.4% (CI 14.5-18.6)	13.6% (CI 12.4-15.0)	↑	↗

2019 YTS	1.9 percent of Native Hawaiian public middle school students who smoked cigarettes on 1 or more days of the past 30 days	1.9% (CI 0.9-3.9)	2.6% (CI 1.3-4.9)	↓	↘
2019 YTS	6.8 percent of Native Hawaiian public middle school students first tried cigarette smoking before age 13	6.8% (CI 4.1-11.0)	7.3% (CI 5.2-10.0)	↓	↘
2019 YRBS	6.9 percent of Native Hawaiian public middle school students engaged in binge drinking within the past 30 days	6.9% (CI 5.4-8.7)	4.6% (CI 3.9-5.4)	↑	↕
2019 YRBS	31.2 percent of Native Hawaiian public middle school students have ever drunk alcohol	31.2% (CI 28.4-34.2)	22.6% (CI 20.5-24.9)	↑ *	↘
2019 YRBS	26.8 percent of Native Hawaiian public middle school students had their first drink before age 13	26.8% (CI 23.9-30.0)	18.2% (CI 16.2-20.5)	↑ *	↘
2019 YRBS	10.0 percent of Native Hawaiian public middle school students have consumed alcohol within the past 30 days	10.0% (CI 8.4-11.9)	7.0% (CI 6.1-8.0)	↑ *	↘
2019 YRBS	3.3 percent of Native Hawaiian public middle school students have ever used any form of cocaine, including powder, crack, or freebase	3.3% (CI 2.2-5.0)	2.8% (CI 2.2-3.5)	↑	↗
2019 YRBS	18.3 percent of Native Hawaiian public middle school students have ever used marijuana	18.3% (CI 15.6-21.3)	10.6% (CI 8.7-12.9)	↑ *	↕
2015 YRBS	6.4 percent of Native Hawaiian public middle school students have ever sniffed glue, breathed the contents of spray cans, or inhaled any paints or sprays to get high	6.4% (CI 4.9-8.4)	6.5% (CI 5.3-7.9)	↔	↘
2019 YRBS	4.2 percent of Native Hawaiian public middle school students have used methamphetamines (also called speed, crystal, crank, or ice)	4.2% (CI 3.0-5.8)	3.7% (CI 3.0-4.4)	↑	↗
2017 YRBS	9.1 percent of Native Hawaiian public middle school students have taken a prescription drug (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription	9.1% (CI 7.5-11.0)	6.8% (CI 5.7-8.0)	↑	↗
2019 YRBS	13.4 percent of Native Hawaiian public middle school students have taken a prescription drug without a doctor's prescription	13.4% (CI 11.2-15.9)	10.6% (CI 9.4%-11.9)	↑	↗
2019 YRBS	18.0 percent of Native Hawaiian public middle school students have consumed alcohol or marijuana within the past 30 days	18.0% (CI 15.6-20.7)	11.9% (CI 10.4-13.6)	↑ *	↘
2019 YRBS	14.9 percent of Native Hawaiian public middle school students ever tried to kill themselves	14.9% (CI 12.8-17.4)	13.0% (CI 11.7-14.4)	↑	↗

2019 YRBS	19.1 percent of Native Hawaiian public middle school students ever made a plan about how they would kill themselves	19.1% (CI 16.6-21.8)	18.7% (CI 16.9-20.7)	↑	↗
2019 YRBS	28.7 percent of Native Hawaiian public middle school students ever seriously thought about killing themselves	28.7% (CI 26.2-31.4)	27.2% (CI 24.7-30.0)	↑	↗
Keiki Mortality					
2020 VS	NR of deaths of resident Native Hawaiian adolescents 1-14 year of age were Native Hawaiian	NR	NR	↑	→
Keiki Social Determinants of Health					
2021 ACS	19.6 percent of Native Hawaiian families with related children under 5 years live in poverty	19.6% (MOE± 10.1)	9.1% (MOE± 3.4)	↑	↗
2021 ACS	34.5 percent of Native Hawaiian families with female householder, no husband present with related children under 5 years only live in poverty	34.5% (MOE± 21.6)	24.3% (MOE± 11.6)	↑	↗
2021 DHS	44.6 percent of those in foster care were Native Hawaiian	44.6% (Native Hawaiian)	55.4% (Non-Hawaiian)	↓	→
2020 CAN	38.0 percent of victims of child abuse and neglect were Native Hawaiian	38.0% (Native Hawaiian)	62.0% (Non-Hawaiian)	◇	↘
2019 YTS	21.5 percent of Native Hawaiian public middle school students receive no spending money per week	21.5% (CI 18.2-25.2)	22.0% (CI 21.1-24.1)	↔	●
2021 ACS	7.1 percent of Native Hawaiians are enrolled in nursery school, preschool	7.1% (MOE± 1.4)	5.1% (MOE± 0.6)	↑	↘
2021 ACS	5.5 percent of Native Hawaiians are enrolled in kindergarten	5.5% (MOE± 1.3)	5.0% (MOE± 0.6)	↔	↗
2021 ACS	45.7 percent of Native Hawaiians are enrolled in elementary school (grades 1-8)	45.7% (MOE± 2.4)	40.8% (MOE± 0.9)	↑	↗
2019 YTS	22.0 percent of Native Hawaiian public middle school students receive no spending money per week	22.0% (CI 20.1-24.1)	21.5% (CI 18.2-25.2)	↓	●
2019 YRBS	63.5 percent of Native Hawaiian public middle school students would describe their grades in school in the past 12 months as mostly A's and B's	63.5% (CI 59.9-66.9)	71.3% (CI 68.2-74.2)	↓ *	↗

2019 YRBS	44.8 percent of Native Hawaiian public middle school students reported that they will definitely complete high school	44.8% (CI 41.6-48.0)	51.8% (CI 49.3-54.3)	↓ *	↘
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HEALTHY ADOLESCENTS ('Ōpio)

Data Year	Health Measure	Native Hawaiian	State of Hawai'i	Native Hawaiians and State	Recent Native Hawaiian Trend
Reported 'Ōpio Health Conditions					
2019 YRBS	38.9 percent of Native Hawaiian public high school students are overweight or obese (>=85 percentile BMI for age and sex)	38.9% (CI 34.0-44.0)	30.8% (CI 27.8-33.9)	↑	↗
2019 YRBS	21.7 percent of Native Hawaiian public high school students are obese (>=95 percentile BMI for age and sex)	21.7% (CI 19.2-24.4)	16.4% (CI 14.6-18.4)	↑ *	↗
2019 YRBS	17.2 percent of Native Hawaiian public high school students are overweight (>=85 percentile and <95 percentile BMI for age and sex)	17.2% (CI 14.0-20.9)	14.4% (CI 12.7-16.2)	↑	↗
2017 YRBS	16.9 percent of Native Hawaiian public high school students currently have asthma	16.9% (CI 14.6-19.4)	12.2% (CI 11.2-13.2)	↑ *	↕
2017 YRBS	37.8 percent of Native Hawaiian public high school students have ever had asthma	37.8% (CI 35.1-40.5)	30.2% (CI 28.3-32.1)	↑ *	↕
2021 ACS	3.1 percent of Native Hawaiian civilian noninstitutionalized population under 18 years reported a disability	3.1% (MOE± 0.9)	3.0% (MOE± 0.6)	↔	↗
Modifiable 'Ōpio Risk Behaviors					
2019 YRBS	33.8 percent of Native Hawaiian public high school students ever felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities during the past 12 months	33.8% (CI 31.1-36.5)	34.7% (CI 32.5-37.0)	↓	↘
2019 YRBS	12.2 percent of Native Hawaiian public high school students tried to kill themselves during the past 12 months	12.2% (CI 10.4-14.2)	10.5% (CI 9.1-12.2)	↑	↘

2019 YRBS	17.4 percent of Native Hawaiian public high school students seriously considered attempting suicide during the past 12 months	17.4% (CI 15.6-19.3)	16.7% (CI 15.2-18.3)	↑	↘
2019 YRBS	15.9 percent of Native Hawaiian public high school students made a plan about how they would kill themselves during the past 12 months	15.9% (CI 14.2-17.9)	14.6% (CI 13.4-15.8)	↑	↘
2019 YRBS	4.2 percent of Native Hawaiian public high school students whose suicide attempt resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse during the past 12 months	4.2% (CI 3.1-5.7)	3.2% (CI 2.5-4.1)	↑	↕
2019 YRBS	19.1 percent of Native Hawaiian public high school students did something to purposely hurt themselves without wanting to die (such as cutting or burning themselves on purpose one or more times) during the 12 months before the survey	19.1% (CI 17.0-21.4)	19.7% (CI 18.0-21.6)	↓	↘
2019 YRBS	23.7 percent of Native Hawaiian public high school students were physically active for a total of 60 minutes or more per day during all of the past seven days	23.7% (CI 21.3-26.3)	17.1% (CI 15.5-18.8)	↑ *	↘
2019 YRBS	15.5 percent of Native Hawaiian public high school students ate fruits and vegetables five or more times per day during the past seven days	15.5% (CI 13.6-17.5)	13.9% (CI 12.5-15.5)	↑	↘
2019 YRBS	28.3 percent of Native Hawaiian public high school students have breakfast every day of the week	28.3% (CI 26.2-30.6)	35.4% (CI 32.7-38.2)	↑	↗
2017 YRBS	8.8 percent of Native Hawaiian public high school students most of the time or always went hungry because there was not enough food in their home (during the 30 days before the survey)	8.8% (CI 7.0-11.1)	6.7% (CI 5.8-7.7)	↑	●
2019 YTS	5.1 percent of Native Hawaiian public high school students who smoked cigarettes on 1 or more days of the past 30 days	5.1% (CI 3.0%-8.6)	3.8% (CI 2.9-5.0)	↑	↘
2019 YTS	9.4 percent of Native Hawaiian public high school students first tried cigarette smoking before age 13	9.4% (CI 6.5-13.4)	6.8% (CI 5.8-8.0)	↑	↘
2015 YRBS	19.2 percent of Native Hawaiian public high school students engaged in binge drinking within the past 30 days	19.2% (CI 16.0-22.4)	13.4% (CI 12.1-14.8)	↑ *	↘
2019 YRBS	56.2 percent of Native Hawaiian public high school students have ever drunk alcohol	56.2% (CI 53.0-59.3)	44.9% (CI 42.1-47.8)	↑ *	↘
2019 YRBS	19.8 percent of Native Hawaiian public high school students had their first drink before age 13	19.8% (CI 16.5-23.6)	15.2% (CI 13.2-17.4)	↑	↘
2019 YRBS	29.9 percent of Native Hawaiian public high school students have consumed alcohol within the past 30 days	29.9% (CI 27.0-33.1)	20.4% (CI 18.1-22.9)	↑ *	↘

2019 YRBS	7.5 percent of Native Hawaiian public high school students have ever used cocaine	7.5% (CI 5.5-10.1)	5.8% (CI 4.9-6.9)	↑	↕
2019 YRBS	5.4 percent of Native Hawaiian public high school students have ever used ecstasy	5.4% (CI 4.1-7.1)	4.5% (CI 3.9-5.2)	↑	↘
2015 YRBS	10.2 percent of Native Hawaiian public high school students have ever used inhalants to get high	10.2% (CI 7.8-12.5)	8.0% (CI 7.0-9.1)	↑	↘
2019 YRBS	6.0 percent of Native Hawaiian public high school students have ever used methamphetamines	6.0% (CI 4.5-8.0)	4.5% (CI 3.7-5.5)	↑	↗
2019 YRBS	16.7 percent of Native Hawaiian public high school students have taken a prescription drug without a doctor's prescription	16.7% (CI 14.7-19.0)	14.4% (CI 12.3-16.9)	↑	↕
2019 YRBS	25.7 percent of Native Hawaiian public high school students who currently use marijuana.	25.7% (CI 22.9-28.8)	17.2% (CI 15.0-19.5)	↑ *	↘
2019 YRBS	50.5 percent of Native Hawaiian public high school students have ever used illicit drugs.	50.5% (CI 47.0-54.1)	39.0% (CI 35.5-42.6)	↑	●
2019 YRBS	40.8 percent of Native Hawaiian public high school students have consumed alcohol or marijuana within the past 30 days	40.8% (CI 37.5-44.2)	28.9% (CI 26.0-31.9)	↑ *	↗
2019 YRBS	24.4 percent of Native Hawaiian public high school students had sexual intercourse with one or more people during the past three months	24.4% (CI 20.5-28.6)	17.6% (CI 15.3-20.0)	↑	↘
2019 YRBS	42.4 percent of Native Hawaiian public high school students responded that they or their partner used condoms the last time they had sexual intercourse, among students who had sexual intercourse during the past 3 months	42.4% (CI 36.7-48.3)	49.4% (CI 44.3-54.4)	↓	↘
2019 YRBS	62.7 percent of Native Hawaiian public high school students used birth control pills, condoms, Depo-provera, Nuva Ring, Implanon, or any IUD, to prevent pregnancy, among students who had sexual intercourse during the past 3 months	62.7% (CI 56.8-68.2)	63.6% (CI 57.9-68.9)	↓	↗
2019 YRBS	4.3 percent of Native Hawaiian public high school students had sexual intercourse for the first time before age 13	4.3% (CI 3.2-5.9)	2.9% (CI 2.2-3.7)	↑	↘
‘Ōpio Mortality					
2020 VS	NR of deaths of resident Native Hawaiian adolescents 15-24 year of age were Native Hawaiian	NR	96 Deaths	◇	●

‘Ōpio Social Determinants of Health					
2021 ACS	30.7 percent of Native Hawaiian children under 18 years live in family households	30.7% (MOE± 2.7)	23.7% (MOE± 0.8)	↑ *	↘
2021 ACS	18.2 percent of Native Hawaiian children under 18 years live in a Married-couple family households	18.2% (MOE± 2.6)	18.3% (MOE± 0.8)	↔	↕
2021 ACS	7.5 percent of Native Hawaiian children under 18 years live in household headed by a female householder, no husband present	7.5% (MOE± 1.8)	4.3% (MOE± 0.6)	↑ *	↗
2021 ACS	15.8 percent of Native Hawaiian families with related children under 18 years live in poverty	15.8% (MOE± 3.9)	12.2% (MOE± 1.4)	↑	↗
2021 ACS	34.0 percent of Native Hawaiian families with female householder, no husband present with related children under 18 years live in poverty	34.0% (MOE± 10.0)	29.1% (MOE± 4.6)	↑	↗
2009 YRBS	61.2 percent of Native Hawaiian public high school students reported that they will definitely complete high school	61.2% (CI 53.7-68.7)	72.3% (CI 69.0-75.6)	↓ *	●
2019 YRBS	35.5 percent of Native Hawaiian public high school students reported that they will definitely complete post high school program such as a vocational training program, military service, community college or 4-year college	35.5% (CI 32.2-38.9)	42.8% (CI 39.4-46.2)	↓	↘
2019 YRBS	66.4 percent of Native Hawaiian public high school students would describe their grades in school in the past 12 months as mostly A's and B's	66.4% (CI 63.0-69.5)	73.0% (CI 69.3-76.5)	↓	↗
2021 ACS	22.9 percent of Native Hawaiians are enrolled in high school (grades 9-12)	24.0% (MOE± 1.9)	20.0% (MOE± 0.7)	↑ *	↗
2021 ACS	17.7 percent of Native Hawaiians are enrolled in college or graduate school	17.7% (MOE± 2.3)	29.1% (MOE± 1.0)	↓ *	↘
2019 YTS	27.7 percent of Native Hawaiian public high school students receive more than \$50 spending money per week	27.7% (CI 24.4-31.3)	24.6% (CI 22.1-27.3)	↑	●
2016 OYS	50.0 percent of admissions to the Hawai'i Youth Correctional Facility were Native Hawaiian	50% (Native Hawaiian)	50% (Non-Hawaiian)	↔	→
2019 CIH	16.4 percent of juveniles arrested for Index Crime Offenses were Native Hawaiian	16.4% (Native Hawaiian)	83.6% (Non-Hawaiian)	◇	↘

2019 CIH	21.9 percent of juveniles arrested for Part II Offenses were Native Hawaiian	21.9% (Native Hawaiian)	78.1% (Non- Hawaiian)	◇	↘
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HEALTHY ADULTS (Mākua)



Data Year	Health Measure	Native Hawaiian	State of Hawai'i	Native Hawaiians and State	Recent Native Hawaiian Trend
Reported Mākua Health Conditions					
2020 BRFSS	6.0 percent of Native Hawaiian adults have been diagnosed with any type of cancer (Age Adjusted Rate)	6.0% (CI 4.8-7.5)	7.6% (CI 6.9-8.3)	↓	↘
2019 BRFSS	2.9 percent of Native Hawaiian adults have been diagnosed with some kind of kidney disease (Age Adjusted Rate)	2.9% (CI 2.1-4.1)	2.6% (CI 2.1-3.2)	↔	↘
2020 BRFSS	20.5 percent of Native Hawaiians adults have been diagnosed with some form of arthritis (Age Adjusted Rate)	20.5% (CI 18.2-23.0)	17.6% (CI 16.6-18.7)	↑	↘
2020 BRFSS	13.7 percent of Native Hawaiians adults have been diagnosed with diabetes (Age Adjusted Rate)	13.7% (CI 11.6-16.0)	9.4% (CI 8.6-10.4)	↑ *	↗
2020 BRFSS	3.3 percent of Native Hawaiians adults have had a heart attack (Age Adjusted Rate)	3.3% (CI 2.4-4.5)	2.2% (CI 1.9-2.7)	↑	↘
2020 BRFSS	3.0 percent of Native Hawaiians adults have coronary heart disease (Age Adjusted Rate)	3.0% (CI 2.1-4.4)	2.4% (CI 1.9-2.9)	↔	↘
2020 BRFSS	3.6 percent of Native Hawaiians adults have had a stroke (Age Adjusted Rate)	3.6% (CI 2.6-4.9)	2.4% (CI 2.0-2.8)	↑	↘
2019 BRFSS	28.5 percent of Native Hawaiians adults have blood high cholesterol (Age Adjusted Rate)	28.5% (CI 25.4-31.8)	25.7% (CI 24.4-27.2)	↑	↘
2019 BRFSS	34.9 percent of Native Hawaiians adults have high blood pressure (Age Adjusted Rate)	34.9% (CI 32.2-37.8)	27.4% (CI 26.1-28.7)	↑ *	↗

2020 BRFSS	14.3 percent of Native Hawaiians adults have been diagnosed with asthma (Age Adjusted Rate)	14.3% (CI 12.1-16.8)	8.6% (CI 7.8-9.5)	↑ *	↘
2020 BRFSS	21.5 percent of Native Hawaiians adults live with at least one disability (Age Adjusted Rate)	21.5% (CI 19.0-24.3)	18.5% (CI 17.3-19.8)	↑ *	↘
2021 ACS	10.9 percent of Native Hawaiian civilian noninstitutionalized population 18 to 64 years reported a disability	10.9% (MOE± 1.4)	8.7% (MOE± 0.5)	↑ *	↗
2020 BRFSS	16.0 percent of Native Hawaiians have health that is fair or poor	16.0% (CI 13.7-18.5)	11.2% (CI 10.3-12.1)	↑ *	↘
2013 BRFSS	7.5 percent of Native Hawaiians adults have experienced rape or attempted rape	7.5% (CI 4.8-10.2)	5.8% (CI 5.0-6.6)	↑	●
2013 BRFSS	12.6 percent of Native Hawaiians adults have experienced physical abuse by a current or former intimate partner	12.6% (CI 9.0-16.1)	9.5% (CI 8.5-10.6)	↑	●
2020 BRFSS	37.9 percent of Native Hawaiian adults aged 45 or older have been injured as a result of an accidental fall within the past 12 months	37.9% (CI 29.0-47.6)	36.1% (CI 32.3-40.1)	↑	↗
2020 BRFSS	41.0 percent of Native Hawaiian adults are obese (BMI≥30) (Age Adjusted Rate)	41.0% (CI 37.7-44.4)	25.1% (CI 23.7-26.6)	↑ *	↗
2020 BRFSS	31.4 percent of Native Hawaiian adults are overweight (25≤ BMI< 30) (Age Adjusted Rate)	31.4% (CI 28.3-34.7)	33.3% (CI 31.8-34.9)	↓	↘
2020 BRFSS	72.4 percent of Native Hawaiian adults are overweight or obese (Age Adjusted Rate)	72.4% (CI 69.4-75.3)	58.4% (CI 56.8-60.0)	↑ *	↘
2020 BRFSS	14.5 percent of Native Hawaiian adults whose mental health was not good on 14 or more days of the past 30 days (Age Adjusted Rate)	14.5% (CI 12.2-17.1)	11.1% (CI 10.1-12.1)	↑	↗
2020 BRFSS	20.8 percent of Native Hawaiian adults whose mental health was not good on 6 or more days of the past 30 days (Age Adjusted Rate)	20.8% (CI 18.2-23.8)	16.7% (CI 15.5-18.0)	↑ *	↗
2020 BRFSS	15.3 percent of Native Hawaiian adults have been diagnosed with a depressive disorder (Age Adjusted Rate)	15.3% (CI 13.1-17.9)	12.8% (CI 11.8-13.9)	↑	↗
2020 BRFSS	2.3 percent of Native Hawaiian adults who were diagnosed with skin cancer (Age Adjusted)	1.1% (CI 0.7-1.6)	4.5% (CI 4.0-5.1)	↓ *	↘

Modifiable Mākuā Risk Behaviors					
2020 BRFSS	9.6 percent of Native Hawaiian women aged 50-74 who had a mammogram 2 years or more years	9.6% (CI 6.4-14.1)	12.5% (CI 10.6-14.7)	↓	↘
2020 BRFSS	88.5 percent of Native Hawaiian women aged 50-74 who had a mammogram within the past 2 years	88.5% (CI 83.5-92.1)	83.7% (CI 81.3-85.8)	↑	↗
2020 BRFSS	87.3 percent of Native Hawaiian women (21-65) ever had a pap smear	87.3% (CI 81.4-91.5)	86.9% (CI 84.6-88.8)	↔	↘
2020 BRFSS	79.5 percent of Native Hawaiian women have had a pap smear within the past 3 years	79.5% (CI 73.5-84.4)	76.1% (CI 73.5-78.5)	↑	↘
2018 BRFSS	17.1 percent of Native Hawaiians ages 50-75 had a sigmoidoscopy or a colonoscopy within the past year	17.1% (CI 13.1-22.0)	15.5% (CI 14.0-17.2)	↑	↕
2018 BRFSS	37.2 percent of Native Hawaiians aged 50-75 who never had a sigmoidoscopy or a colonoscopy	37.2% (CI 32.3-42.5)	31.5% (CI 29.4-33.6)	↑	↘
2020 BRFSS	24.2 percent of Native Hawaiians aged 50-75 had a blood stool test using a home kit	24.2% (CI 20.1-29.0)	21.1% (CI 19.3-22.9)	↑	↕
2020 BRFSS	12.6 percent of Native Hawaiian men aged 40 and older have had a PSA test within the past year	12.6% (CI 9.1-17.2)	21.1% (CI 19.0-23.4)	↓ *	↕
2020 BRFSS	54.0 percent of Native Hawaiians ever had a pneumonia shot	54.0% (CI 46.5-61.2)	61.9% (CI 58.9-64.8)	↓	↘
2020 BRFSS	36.4 percent of Native Hawaiians had a Flu Shot or Spray in the Past 12 Months (18-64)	36.4% (CI 32.7-40.1)	41.1% (CI 39.3-43.0)	↓	↗
2020 BRFSS	17.2 percent of Native Hawaiian adults are current smokers (Age Adjusted Rate)	17.2% (CI 14.7-20.1)	12.2% (CI 11.1-13.4)	↑ *	↘
2020 BRFSS	8.8 percent of Native Hawaiian adults recently stopped smoking (within the last 6 months to a year) (Age Adjusted Rate)	8.8% (CI 5.2-14.6)	10.0% (CI 7.7-13.0)	↓	↗
2020 BRFSS	7.9 percent of Native Hawaiian adult non-smokers were exposed to secondhand smoke within their home or car within the past week (Age Adjusted Rate)	7.9% (CI 6.0-10.4)	4.9% (CI 4.2-5.7)	↑ *	↘
2020 BRFSS	47.4 percent of Native Hawaiian adults have had at least one drink of alcohol within the past 30 days (Age Adjusted Rate)	47.4% (CI 44.0-50.8)	48.1% (CI 46.5-49.8)	↔	↘

2020 BRFSS	8.4 percent of Native Hawaiian adults are heavy drinkers of alcohol (men having >2 drinks per day, women having >1 drink per day) (Age Adjusted Rate)	8.4% (CI 6.7-10.5)	8.0% (CI 7.1-9.0)	↔	↘
2020 BRFSS	20.8 percent of Native Hawaiian adults are binge drinkers of alcohol (men having five or more drinks on one occasion and women having four or more drinks on one occasion) (Age Adjusted Rate)	20.8% (CI 18.1-23.8)	17.1% (CI 15.8-18.4)	↑	↘
2020 BRFSS	21.7 percent of Native Hawaiian adults are heavy or binge drinkers (men having >2 drinks per day, women having >1 drink per day) (Age Adjusted Rate)	21.7% (CI 18.9-24.7)	18.9% (CI 17.6-20.2)	↑	↘
2020 BRFSS	3.6 percent of Native Hawaiian adults who drink and drive (Age Adjusted Rate)	3.6% (CI 2.3-5.6)	2.8% (CI 2.2%-3.6)	↔	↘
2020 BRFSS	7.1 percent of Native Hawaiian adults ages 18-64 participate in high HIV risk situations	7.1% (CI 5.4-9.3)	6.6% (CI 5.6-7.7)	↔	●
2020 BRFSS	68.4 percent of Native Hawaiian adults have visited a dentist in the past year (Age Adjusted Rate)	68.4% (CI 65.1-71.5)	74.0% (CI 72.5-75.4)	↓ *	↗
2019 BRFSS	16.0 percent of Native Hawaiian adults consume fruits and vegetables a total of 5 or more times per day	16.0% (CI 13.6-18.7)	17.5% (CI 16.3-18.7)	◇	●
2020 BRFSS	80.0 percent of Native Hawaiian adults participated in leisure time physical exercise during the past month (Age Adjusted Rate)	80.0% (CI 77.2-82.6)	81.6% (CI 80.3-82.8)	↓	↗
2018 BRFSS	29.5 percent of Native Hawaiian adults who received a vaccine to prevent the human papillomavirus or HPV infection, ages 18-26.	29.5% (CI 19.9-41.4)	31.1% (CI 26.2-36.4)	↓	●
2019 BRFSS	43.3 percent of Native Hawaiian adults who received at Least One Hepatitis B vaccine (Age Adjusted)	43.3% (CI 39.3-47.3)	44.2% (CI 42.3-46.2)	↔	●
2019 BRFSS	38.7 percent of Native Hawaiian adults who received at Least 3 Hepatitis B vaccine	38.7% (CI 27.2-51.6)	57.4% (CI 50.4-64.1)	↓	●
2019 BRFSS	4.9 percent of Native Hawaiian adults who received Less than 3 Hepatitis B doses	4.9% (CI 3.6-6.8)	5.6% (CI 4.8-6.5)	↔	●
2019 BRFSS	57.1 percent of Native Hawaiian adults who received at Least no Hepatitis B doses	57.1% (CI 52.9-61.1)	59.7% (CI 57.9-61.4)	↓	●
2020 BRFSS	83.4 percent of Native Hawaiian women aged 21-65 and with a cervical cancer screening	83.4% (CI 77.5-87.9)	80.2% (CI 77.7-82.5)	↓	↘
Mākua Mortality					

2020 VS	3.4 percent of resident Native Hawaiian deaths were 25-34 years	55 Deaths	182 Deaths	↑	↗
2020 VS	4.2 percent of resident Native Hawaiian deaths were 35-44 years	103 Deaths	327 Deaths	↑	↗
2020 VS	9.0 percent of resident Native Hawaiian deaths were 45-54 years	198 Deaths	642 Deaths	↑	↘
2020 VS	18.1 percent of resident Native Hawaiian deaths were 55-64 years	370 Deaths	1,431 Deaths	↑	↘
Mākuā Social Determinants of Health					
2014 BRFSS	84.0 percent of Native Hawaiian adults have an ongoing source of primary health care	84.0% (CI 80.2-87.8)	84.7% (CI 83.4-85.9)	↔	↕
2020 BRFSS	92.6 percent of Native Hawaiian adults ages 18-64 have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans (Age Adjusted Rate)	92.6% (CI 90.8-94.2)	92.7% (CI 91.8-93.6)	↔	↘
2020 BRFSS	85.1 percent of Native Hawaiian adults have a person they think of as their personal doctor or health care provider	85.1% (CI 82.5-87.3)	84.0% (CI 82.7-85.2)	↑	↗
2020 BRFSS	7.2 percent of Native Hawaiian adults needed to see a doctor but could not because of the cost within the past 12 months (Age Adjusted Rate)	7.2% (CI 5.7-9.2)	6.1% (CI 5.4-7.0)	↑	↘
2021 ACS	11.8 percent of Native Hawaiians ages 18-64 years live in poverty	11.8% (MOE± 1.8)	10.9% (MOE± 0.7)	↔	→
2021 ACS	Native Hawaiians unemployment rate in the civilian labor force (9.3 percent)	9.5% (MOE± 1.5)	7.7% (MOE± 0.6)	↑	↘
2021 ACS	Native Hawaiian female unemployment rate in the civilian labor force (8.4 percent)	8.4% (MOE± 2.2)	7.7% (MOE± 0.6)	↔	↗
2021 ACS	93.3 percent of Native Hawaiians aged 25 years and over are a high school graduate or higher	93.3% (MOE± 1.0)	92.9% (MOE± 0.5)	↔	↗
2021 ACS	18.4 percent of Native Hawaiians aged 25 years and over have a bachelor's degree or higher	18.4% (MOE± 1.5)	35.3% (MOE± 0.8)	↓ *	↗
2021 ACS	19.8 percent of Native Hawaiian households are headed by a female householder, no husband present	19.8% (MOE± 2.6)	12.3% (MOE± 0.8)	↑ *	↗

2021 ACS	6.4 percent of Native Hawaiians served on active duty in the US Armed Forces	6.4% (MOE± 0.7)	8.0% (MOE± 0.4)	↓ *	↘
2019 CIH	25.3 percent of adults arrested for Index Offenses were Native Hawaiian	25.3% (Native Hawaiian)	74.7% (Non-Hawaiian)	◇	↘
2019 CIH	22.0 percent of adults arrested for Part II Offenses were Native Hawaiian	22.0% (Native Hawaiian)	78.0% (Non-Hawaiian)	◇	↕
2021 DHS	29 percent of Native Hawaiian adults (18-64) received cash benefits for food, clothing, shelter, and other essentials from the General Assistance program	29% (Native Hawaiian)	71% (Non-Hawaiian)	↓	→
2021 DHS	29 percent of Native Hawaiian households were provided crucial food and nutritional support from the Supplemental Nutrition Assistance Program (SNAP) [formerly known as Food Stamps]	29% (Native Hawaiian)	71% (Non-Hawaiian)	↓	→
2021 DHS	29 percent of Native Hawaiian received benefits from the Temporary Assistance for Needy Families (TANF) / Temporary Assistance for Other Needy Families (TAONF) programs.	29% (Native Hawaiian)	71% (Non-Hawaiian)	↓	→

HEALTHY AGING (Kūpuna)



Data Year	Health Measure	Native Hawaiian	State of Hawai'i	Native Hawaiians and State	Recent Native Hawaiian Trend
Reported Kūpuna Health Conditions					
2016 BRFSS	NR percent of Native Hawaiian adult men aged 40 and older told had prostate cancer	Not Reportable	4.5% (CI 3.0-6.6)	◊	●
2021 ACS	33.0 percent of Native Hawaiian civilian noninstitutionalized population 65 years and over with a reported disability	33.0% (MOE± 4.8)	31.5% (MOE± 1.3)	↑	↘
Modifiable Kūpuna Risk Behaviors					
2018 BRFSS	86.0 percent of Native Hawaiian women aged 40 and older have had a mammogram within the past two years	86.0% (CI 80.3-90.3)	87.0% (CI 85.0-88.8)	↔	→
2020 BRFSS	17.3 percent of Native Hawaiian men aged 40 and older have ever had a prostate-specific antigen (PSA) test within past 2 years	17.3% (CI 13.1-22.5)	25.4% (CI 23.1-27.9)	↓*	↘
2018 BRFSS	71.0 percent of Native Hawaiian adults aged 50-75 have had a colorectal screening	71.0% (CI 66.0-75.5)	75.1% (CI 73.1-77.1)	↓	↗
2020 BRFSS	58.2 percent of Native Hawaiian adults aged 65 and older have had a flu shot or spray in the past 12 months	58.2% (CI 51.0-65.0)	63.4% (CI 60.5-66.1)	↓	↗
2020 BRFSS	54.0 percent of Native Hawaiian adults aged 65 and older who had a pneumonia shot within the past year	54.0% (CI 46.5-61.2)	61.9% (CI 58.9-64.8)	↓	↘

2020 BRFSS	NR percent of Native Hawaiian men aged 65 and older reported flu shot in past year, pneumonia vaccination ever and either a colonoscopy/ sigmoidoscopy in 10 years or fecal occult blood test (FOBT) in past year	Not Reportable	58.3% (CI 44.8-70.6)	◇	●
2020 BRFSS	NR percent of Native Hawaiian adult women 65 and over reported flu shot in past year, pneumonia vaccination ever and either a colonoscopy/ sigmoidoscopy in 10 years or fecal occult blood test (FOBT) in past year plus a mammogram in past 2 years	Not Reportable	53.0% (CI 42.2-63.4)	◇	●
Kūpuna Mortality					
2020 VS	60.6 percent of resident Native Hawaiian deaths were 65 years and over	1,363 Deaths	9,247 Deaths	↓	↗
Kūpuna Social Determinants of Health					
2021 ACS	10.1 percent of Native Hawaiians 65 years and over live in poverty	10.1% (MOE± 3.1)	9.4% (MOE± 1.0)	↔	↕
2021 ACS	38.4 percent of Native Hawaiians have Social Security income	38.4% (MOE± 2.9)	37.2% (MOE± 0.8)	↑	↗
2021 ACS	29.3 percent of Native Hawaiians have retirement income	29.3% (MOE± 3.0)	30.7% (MOE± 1.0)	↓	↗
2021 ACS	7.0 percent of Native Hawaiians living with grandchild(ren)	7.0% (MOE± 1.1)	5.6% (MOE± 0.4)	↑	↘
2021 ACS	35.2 percent of Native Hawaiians living with grandchild(ren) are responsible for grandchild(ren)	35.2% (MOE± 7.7)	23.0% (MOE± 3.6)	↑ *	↗
2021 DHS	4 percent of Native Hawaiians (65+) received benefits for food, clothing, shelter, and other essentials from the Aid to the Aged, Blind, and Disabled program.	4% (Native Hawaiian)	96% (Non-Hawaiian)	↓	→

SOURCES



American Community Survey (ACS)	<p>The American Community Survey (ACS) is an on-going nation-wide statistical survey, sent to approximately 295,000 addresses monthly. The survey-based data collects information on ancestry, educational attainment, income, language proficiency, migration, disability, employment, and housing characteristics. These data are used by many public, private, and nonprofit stakeholders to allocate funding, track shifting demographics, and learn about local communities. All published American Community Survey (ACS) margins of error are based on a 90-percent confidence level. (US Bureau of the Census)</p>
Behavioral Risk Factor Surveillance System (BRFSS)/ Hawai'i Behavioral Risk Factor Surveillance System (HBRFSS)	<p>Behavioral Risk Factor Surveillance System (BRFSS) is an on-going nation-wide phone surveillance system. The survey-based surveillance system tracks health risks in the US as a way of improving the general population's health. (US Centers for Disease Control and Prevention). The Hawai'i Behavioral Risk Factor Surveillance System (HBRFSS) is the implementation of the BRFSS in the State of Hawai'i. [The Behavioral Risk Factor Surveillance System (BRFSS) uses a 95% confidence interval.]</p> <p>Note: In 2018, the Hawaii Department of Health (DOH) revised how it collects race/ethnicity information in the Behavioral Risk Factor Surveillance System (BRFSS). The new methodology better aligns with national data collection standards and complies with the race/ethnicity algorithm used by the Office of Health Status Monitoring in DOH. Data from 2011-2017 has been harmonized with 2018 data to be consistent across survey years and instruments. Hawaii-IBIS will be supporting this dimension going forward. (Hawai'i State Department of Health)</p>
Centers for Disease Control and Prevention (CDC)	<p>The Centers for Disease Control and Prevention (CDC) is the leading public health institute of the US. Its main function is to protect public health and safety through the control and prevention of disease, injury, and disability. The CDC focuses national attention on developing and applying disease control and prevention. Unless noted, all published CDC reports are based on a 95-percent confidence level. (US Department of Health and Human Services)</p>
Child Abuse and Neglect (CAN)	<p>The annual <i>Child Abuse and Neglect (CAN)</i> reports provide population-based data on the reported and confirmed cases of child abuse (physical, sexual, psychological), neglect (including medical), and threatened harm in the State of Hawai'i and its counties. (Hawai'i State Department of Human Service)</p>
Crime in Hawai'i (CIH)	<p>The annual <i>Crime in Hawai'i Uniform Crime Reports</i> provide comprehensive population-based data and analysis to the Attorney General and other criminal justice agencies, legislators, crime prevention and community mobilization groups, academic and research institutions, service providers, news media, and the general public. (Hawai'i State Department of the Attorney General)</p>

Hawai'i Health Data Warehouse (HHDW)/ Hawaii-IBIS	The Hawai'i Health Data Warehouse (HHDW) administers the design, creation, and management of a centralized data warehouse, standardizes the collection and management of Hawai'i's health data. The HHDW is the primary portal for the Hawai'i Behavioral Risk Factor Survey System (HBRFSS), Hawai'i Health Survey (HHS), Hawai'i Pregnancy Risk Assessment Monitoring System (HPRAMS), Vital Statistics (VS), Youth Risk Behavioral Survey (YRBS), Youth Tobacco Survey (YTS), and others. (Hawai'i State Department of Health)
Hawai'i School Health Survey (HSHS)	The bi-annual Hawai'i School Health Survey (HSHS) is a joint effort between the Hawaii Departments of Health and Education to monitor the health status and needs of public-school students in grades 6 through 12 (middle school, high school). The HSHS coordinates the Youth Risk Behavioral Survey (YRBS) and Youth Tobacco Survey (YTS) under one umbrella to minimize disruption in the schools and maximize the health information collected. (Hawai'i State Department of Health, Department of Education)
Office of Health Status Monitoring (OHSM)	The Office of Health Status Monitoring is responsible for the compilation of vital statistics (VS) births and deaths in the State of Hawai'i. (Hawai'i State Department of Health)
Office of Youth Services (OYS)	The Office of Youth Services (OYS) provides programs and services for Hawai'i's at-risk youth, to prevent delinquency, reduce recidivism, and maximize opportunities. The OYS operates the Hawai'i Youth Correctional Facility (HYCF), a facility to provide care and custody of at-risk youth committed to the State by the Family Courts. (Hawai'i State Department of Human Services)
Pregnancy Risk Assessment Monitoring System (PRAMS)/ Hawai'i Pregnancy Risk Assessment Monitoring System (HPRAMS)	The Pregnancy Risk Assessment Monitoring System (PRAMS) is an on-going population-based surveillance system designed to identify and monitor maternal experiences, attitudes, and behaviors from preconception, throughout pregnancy and into the interconception periods. (US Centers for Disease Control and Prevention). The Hawai'i Pregnancy Risk Assessment Monitoring System (HPRAMS) is the implementation of PRAMS in Hawai'i. [The Pregnancy Risk Assessment Monitoring System (PRAMS) uses a 95% confidence interval.] (Hawai'i State Department of Health)
United States Census Bureau (USCB)	The US Census Bureau is the leading agency responsible for producing data about the American people and economy. The Census Bureau's primary mission is conducting the US Census every ten years, which allocates congressional seats to the states based on their population. In addition to the decennial census, the Census Bureau continually conducts dozens of other censuses and surveys, including the American Community Survey (ACS), the US Economic Census (EC), and the Current Population Survey (CPS). The Bureau's various censuses and surveys help allocate federal funds and help states, local communities, and businesses make informed decisions. (US Department of Commerce)
Youth Risk Behavioral Survey (YRBS)	A national school-based survey conducted by the CDC in conjunction with the State of Hawai'i Department of Health. The bi-annual YRBS monitors health conditions and risk behaviors among public middle and high school students, grades 6 through 12. [The Youth Risk Behavioral Survey (YRBS) uses a 95% confidence interval.] (Hawai'i State Department of Health, Department of Education)
Youth Tobacco Survey (YTS)	Also known as NYTS (National Youth Tobacco Survey), the bi-annual NYTS was designed to provide data on long, intermediate, and short-term indicators key to the design, implementation, and evaluation of comprehensive tobacco prevention and control programs. (Hawai'i State Department of Health, Department of Education)

TERMS



Age-adjustment	An age-adjusted rate is a form of a rate that controls for age effects, allowing better comparability of rates across geographic areas. Age-adjustment may also be used to control for age effects when comparing across several years of data, as the age distribution of the population changes over time.
Birth Weight	Birth weight is the body weight of a baby at its birth. <ul style="list-style-type: none">• Normal birth weight is 2500–4200 g (5lbs, 8oz – 9lbs 4oz)• Low birth weight (LBW) is less than 2500 g (5lbs, 8oz)• Very low birth weight (VLBW) is less than 1500 g (3lbs, 5oz)• Extremely low birth weight (ELBW) is less than 1000 g (2lbs 3oz)
Body Mass Index (BMI)	Body mass index (BMI) is a ratio of body weight (kg) to height (m ²) expressed in units of kg/m ² . If weight is in pounds (lbs.) and height in inches (in), multiply the ratio by 703. <ul style="list-style-type: none">• Underweight if BMI is less than 18.5• Normal weight if BMI is 18.5 to <25• Overweight if BMI is 25.0 to <30• Obese if BMI is 30.0 or higher
Child Abuse or Neglect	The acts or omissions of any person who, or legal entity which, is in any manner or degree related to the child, is residing with the child, or is otherwise responsible for the child's care, that have resulted in the physical or psychological health or welfare of the child, who is under the age of eighteen, to be harmed, or to be subject to any reasonably foreseeable, substantial risk of being harmed. (Section 350-1, Hawai'i Revised Statutes)
Civilian Labor Force	Consists of people classified as employed or unemployed, excluded from the employed are people whose only activity consisted of work around the house or unpaid volunteer work for religious, charitable, and similar organizations; also excluded are all institutionalized people and people on active duty in the US Armed Forces. (US Bureau of the Census)
Confidence Interval (CI)	A range of values for a measure, e.g., a rate, constructed so that this range has a specified probability (95%) of including the true value of the measure. The specified probability is called the confidence level, and the end points of the confidence interval are called the confidence limits. Unless noted, all published CDC reports are based on a 95-percent confidence level.
Crime Index	The ten Part I Offenses reported in the Uniform Crime Reporting (UCR) Program to represent the status of crime in the US: murder and non-negligent manslaughter (the latter term is not used in Hawai'i), rape, robbery, aggravated assault, burglary, larceny-theft, motor-vehicle theft, arson, human trafficking: commercial sex acts, and human trafficking: involuntary servitude. (Hawai'i State, Department of the Attorney General) (US Federal Bureau of Investigation)

Disability Status	Disability is defined as the product of interactions among individuals' bodies; their physical, emotional, and mental health; and the physical and social environment in which they live, work, or play. Disability exists where this interaction results in limitations of activities and restrictions to full participation at school, at work, at home, or in the community. (US Bureau of the Census)
Educational Attainment	ACS respondents are classified according to the highest degree, or the highest level of school completed. (US Bureau of the Census)
Employment Status	The series of ACS questions on employment status was designed to identify, in this sequence: (1) people who worked at any time during the reference week; (2) people on temporary layoff who were available for work; (3) people who did not work during the reference week, but who had jobs or businesses from which they were temporarily absent (excluding layoff); (4) people who did not work during the reference week, but who were looking for work during the last four weeks and were available for work during the reference week; and (5) people not in the labor force. (US Bureau of the Census)
Family Households	<p>A family consists of a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption. (US Bureau of the Census)</p> <ul style="list-style-type: none"> • Married-Couple Family – A family in which the householder and his or her spouse are listed as members of the same household • Female Householder, No Husband Present – A family with a female householder and no spouse of householder present • Male Householder, No Wife Present – A family with a male householder and no spouse of householder present
Fetal Death	Fetal death is death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, that did not, after complete separation from the mother, breathe or show any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or movement of voluntary muscle. (Section 338-1, Hawai'i Revised Statutes)
Hawaiian Home Lands (HHL)	<p>Not to be confused with the Department of Hawaiian Home Lands (DHHL), though both are interrelated. The Department of Hawaiian Home Lands (DHHL) is a department of the State of Hawai'i, while Hawaiian Home Lands (HHL) is a geographic term utilized by the US Census Bureau. The Census Bureau treats Native Hawaiian areas in the same manner as American Indian, Alaska Native areas, producing specialized reports and studies.</p> <p>"Hawaiian Home Lands (HHL) are areas held in trust for Native Hawaiians by the state of Hawaii, pursuant to the Hawaiian Homes Commission Act of 1920, as amended. The Census Bureau obtains the names and boundaries for HHLs from state officials. The names of the home lands are based on the traditional ahupua'a names of the Crown and government lands of the Kingdom of Hawai'i from which the lands were designated or from the local name for an area. Being lands held in trust, HHLs are treated as equivalent to off-reservation trust land areas with the American Indian Trust Land/Hawaiian Home Land Indicator coded as "T." Each HHL is assigned a national four-digit census code ranging from 5000 through 5499 based on the alphabetical sequence of each HHL name, a five-digit Federal Information Processing Series (FIPS) code in alphabetical order within the State of Hawai'i, and an eight-digit National Standard (ANSI) code." (US Bureau of the Census)</p>

High Blood Pressure (HBP)	<p>High blood pressure (HBP) is a common disease in which blood flows through blood vessels (arteries) at higher-than-normal pressures.</p> <ul style="list-style-type: none"> • Normal: Systolic less than 120 and Diastolic less than 80 • Prehypertension: Systolic 120–139 or Diastolic 80–89 • High Blood Pressure (Stage 1): Systolic 140–159 or Diastolic 90–99 • High Blood Pressure (Stage 2): Systolic 160 or higher or Diastolic 100 or higher • Hypertensive Crisis: Systolic Higher than 180 or Diastolic Higher than 110
Household	<p>A household includes all the people who occupy a housing unit. A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live separately from any other people in the building, and which have direct access from the outside of the building or through a common hall. (US Bureau of the Census)</p>
Householder	<p>One person in each household designated as the householder. In most cases, this is the person or one of the people in whose name the home is owned, being bought, or rented.</p> <ul style="list-style-type: none"> • A family householder is a householder living with one or more individuals related to him or her by birth, marriage, or adoption. (US Bureau of the Census)
Infant Death	<p>A death of an infant during the first 0–364 days of life. The infant mortality rate (IMR), is the number of deaths of children under one year of age per 1000 live births.</p> <ul style="list-style-type: none"> • Infant death is the death of an infant before one year of life • Neonatal death is the death of an infant during the first 0–27 days of life • Early neonatal is the death of an infant less than 7 days of life • Late neonatal is the death of an infant between 7 to 27 days of life • Post neonatal death is the death of an infant during the first 28–364 days of life • Perinatal death is the number of fetal deaths + neonatal deaths
Juvenile	<p>Person under the age of 18. (Hawai'i State, Department of the Attorney General)</p>
Live Birth	<p>Live birth is the complete expulsion or extraction from its mother of a product of conception that did, after the complete expulsion or extraction from its mother, breathe or show any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or movement of voluntary muscle, whether or not the umbilical cord was cut or the placenta attached. (Section 338-1, Hawai'i Revised Statutes)</p>
Margin of Error (MOE)	<p>A margin of error (MOE) is the difference between an estimate and its upper or lower confidence bounds. Confidence bounds can be created by adding the margin of error to the estimate (for the upper bound) and subtracting the margin of error from the estimate (for the lower bound). All published American Community Survey (ACS) margins of error are based on a 90-percent confidence level. (US Census Bureau, 2008).</p>
Medicaid	<p>Medicaid is a health care program that assists low-income families or individuals in paying for long-term medical and custodial-care costs. Medicaid is funded primarily by the federal government and operated by States. (US Department of Health and Human Services)</p>

MedQUEST	The Med-QUEST program provides eligible low-income adults and children access to health and medical coverage through managed care plans. The QUEST program is designed to provide Quality care , Universal access , Efficient utilization , Stabilizing costs , and to Transform the way health care is provided to recipients. (Hawai'i State Department of Human Services)
Own Child	A never-married child under 18 years who is a son or daughter by birth, a stepchild, or an adopted child of the householder. (US Bureau of the Census)
Part I Offenses	Offenses which make up the Crime Index: murder, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and arson; plus, the offense of manslaughter by negligence. (Hawai'i State, Department of the Attorney General) (US Federal Bureau of Investigation)
Part II Offenses	All criminal offenses not classified as Part I Offenses: other assault, curfew and loitering, disorderly conduct, driving under the influence, drug abuse violations, embezzlement, forgery and counterfeiting, fraud, gambling, liquor laws, offenses against the family and children, prostitution and commercialized vice, runaways, sex offenses, status offenses, suspicion, stolen property, vagrancy, vandalism, weapons offenses, etc. (Hawai'i State, Department of the Attorney General) (US Federal Bureau of Investigation)
Poverty Status	The Census Bureau uses a set of dollar value thresholds that vary by family size and composition to determine who is in poverty. (US Bureau of the Census)
Poverty Status of Households	The data on poverty status of households were derived from answers to the income questions. Since poverty is defined at the family level and not the household level, the poverty status of the household is determined by the poverty status of the householder. Households are classified as poor when the total income of the householder's family is below the appropriate poverty threshold. (US Bureau of the Census)
Prenatal Care (PNC)	Prenatal care (PNC) is preventive healthcare with the goal of providing regular check-ups that allow doctors or midwives to treat and prevent potential health problems throughout the course of the pregnancy while promoting healthy lifestyles that benefit both mother and child.
Premature Births	Normally, a pregnancy lasts about 40 weeks. A premature birth or preterm birth is when a baby is born too early, before 37 weeks of pregnancy have been completed. <ul style="list-style-type: none"> • Preterm birth less than 37 weeks gestation • Late preterm birth 34-36 weeks gestation • Early preterm birth 32-33 weeks gestation • Very early preterm birth less than 32 weeks gestation
Race Alone	People who responded to the question on race by indicating only one race are referred to as the race alone population, or the group who reported only one race. (US Bureau of the Census)
Race alone or in any Combination	The concept "race alone or in any combination" applies only to detailed race groups, such as American Indian and Alaska Native tribes, detailed Asian groups, and detailed Native Hawaiian and Other Pacific Islander groups. For example, Korean alone or in any combination includes people who reported a single response (e.g., Korean), people who reported Korean and another Asian group (e.g., Korean and Vietnamese), and people who reported Korean in combination with one or more other non-Asian race groups (e.g., White, Black or African American, American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, or Some Other Race). (US Bureau of the Census)

Related Child	Any child under 18 years old who is related to the householder by birth, marriage, or adoption. Related children of the householder include ever-married as well as never-married children. Children, by definition, exclude persons under 18 years who maintain households or are spouses or unmarried partners of householders. (US Bureau of the Census)
Risk factor	An aspect of personal behavior or lifestyle, an environmental exposure, or an inborn or inherited characteristic that is associated with an increased occurrence of disease or other health-related event or condition.
Social Determinants of Health (SDH)	The social determinants of health are the circumstances in which people are born, grow up, live, work, and age, as well as the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics. (UN, World Health Organization)
Unemployment Rate	The unemployment rate represents the number of unemployed people as a percentage of the civilian labor force. (US Bureau of the Census)
Women, Infants, and Children (WIC)	WIC is a Federal funded program operated by States to provide supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk. (US Department of Health and Human Services) (Hawai'i State Department of Human Services)



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