

**CONSIDERED, MADE A PLAN, AND ATTEMPTED SUICIDE:
BASELINE ESTIMATES
ADULT POPULATION OF HAWAI`I,
HAWAI`I HEALTH SURVEY 2001**

PREPARED FOR
THE ADULT MENTAL HEALTH DIVISION
HAWAI`I DEPARTMENT OF HEALTH

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Honolulu, Hawai`i
February 2003

ACKNOWLEDGEMENTS

We gratefully acknowledge and thank:

- ☞ The Adult Mental Health Division for the addition and funding of the Module on Suicide Ideation and specifically Judith Crockett, Planner – (Adult Mental Health Division).
- ☞ SMS Research who collaborates on planning the survey instrument and collects the telephone survey data.
- ☞ The people of Hawai`i who donated personal time and supplied important information for the survey in order to benefit the population of Hawai`i.

24 HOUR SUICIDE CRISIS HOTLINE NUMBERS:

O`ahu 832 3100

Other Islands 1 800 75 ENTRY (1 800 753 6879)

Suggested Citation: Baker Kromer K., Crockett J., Onaka A.T., Horiuchi B., Liu L., Tottori C., and Dannemiller J. *Considered, Made A Plan, and Attempted Suicide: Baseline Estimates, Adult Population of Hawai`i, Hawai`i Health Survey 2001.* Hawai`i State Department of Health, Office of Health Status Monitoring, Honolulu, Hawai`i, February 2003

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EXECUTIVE SUMMARY

CONSIDERED, MADE A PLAN, AND ATTEMPTED SUICIDE: Baseline Estimates - Adult Population of Hawai`i Hawai`i Health Survey 2001

INTRODUCTION

Death by intentional self-harm (suicide) was the 8th leading cause of death in 2001 and the 7th leading cause of death in Hawai`i for 2000¹ and the 11th leading cause of death nationally in 2000.² The Adult Mental Health Program of the Department of Health added questions relating to Suicide Ideation to the Hawai`i Health Survey (HHS) starting in the year 2000. (*"Suicidal ideation is having thoughts of suicide or of taking action to end one's own life. Suicidal ideation includes all thoughts of suicide, both when the thoughts include a plan to commit suicide and when they do not include a plan".*)³ These questions relate to the adult respondent of the household having considered, having made a plan, and having attempted suicide in the last 12 months. The following Department of Health (DOH), Office of Health Status Monitoring (OHSM), report summarizes the data on Suicide Ideation for the Adult Population of Hawai`i from the HHS for 2001.

The Healthy People 2010 is a collection of national wide health objectives (including suicide rate) and baseline data:⁴

Objective 18-1. Reduce the suicide rate. Target: 5.0 suicides per 100,000 population.

Baseline: 11.3 suicides per 100,000 population occurred in 1998 (age adjusted to the year 2000 standard population).

METHODS

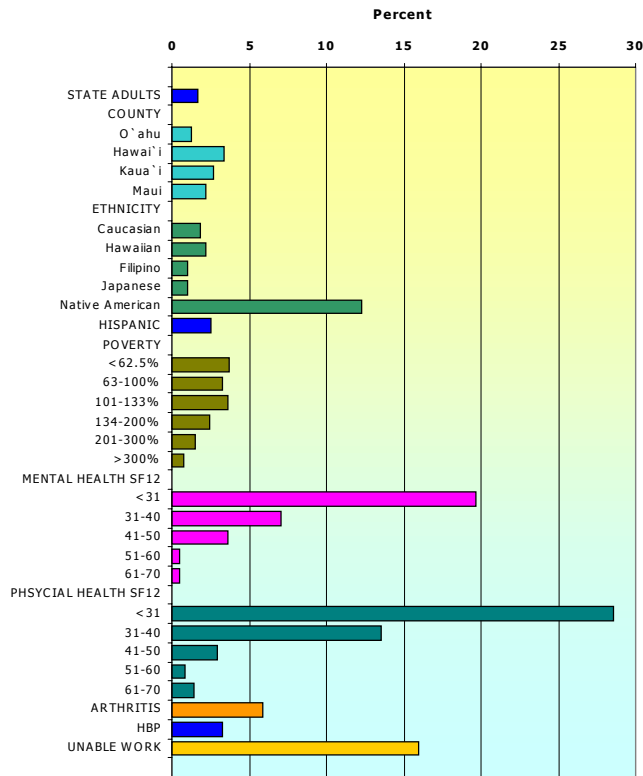
Data came from the Hawai`i Health Survey (HHS), a statewide random telephone survey. The HHS is used by the State Department of Health to collect data on selected health and demographic variables from the population of Hawai`i. There were 5,673 adult respondents, and 5,673 households (16,938 household members). The six questions on suicide ideation were asked only of the respondent. The responses were then weighted and adjusted to provide estimates for the adult population of Hawai`i (881,231). The relationships among suicide ideation and other health and demographic variables were analyzed statistically to determine associations and their significance. Pertinent data are presented in tables and figures.

Table 1. Response to Questions on Suicide Ideation – Weighted and Adjusted Numbers, HHS 2001

Response	1 - Considered		2- Made A Plan			3 - Attempted		
	N**	Col. %	N*	% of Yes**	Col. %	N	% of Yes**	Col. %
Number of Adults that Answered the Question	866,557	100.0	14,914*	101.5	100.0	7,805	53.1	100.0
Yes	14,692**	1.7	7,806	53.1	52.3	2,655	18.1	34.0
No	849,384	98.0	6,782	46.2	45.5	4,844	33.0	62.1
Don't know/ Refused/ Missing	17,155	2.0	326	2.2		306	2.1	
TOTAL^{1,2}	881,231							

*222 more total responses for Made A Plan than the yes for Considered. ¹All respondents (18 Years and older), sample size 5,673. ²Sample numbers provisionally weighted and adjusted for total adult population of Hawai`i, 881,231 (total numbers are adjusted as homeless, Ni`ihau, Kalawao, group quarters, and households without telephones are not represented)

Figure 1. Considered Suicide in the Last 12 Months By Selected Demographic and Health Variables (Variables that were highly associated), for Adult Household Members, HHS 2001



- Groups that had a higher percent of considered suicide than the state adult population: Outer Islands; Native Americans; Native Hawaiians; low poverty values (below poverty); poorer self reported physical and mental health (SF-12® composite scores); had been told by a medical professional that they have arthritis and/or high blood pressure; and were unable to work.
- The above data do not include the homeless, Ni`ihau, group quarters, and households without telephones.
- The prevalence and 95% confidence limits for considered, made a plan, and attempted suicide were 1.7 (1.3-2.2), 0.9 (0.6-1.3), and 0.31 (0.2-0.5) respectively. These estimates are age-adjusted to the population in Hawai`i in 2000. The rate for death by suicide in Hawai`i in 2001 was 1.12 per 100,000.
- Although very little is known about suicide ideation nationally or locally, it is estimated there are 8-25 attempts to every completed suicide.⁵ With the rate of death by suicide in Hawai`i for 2000 of 1.15 per 100,000, a crude estimate of number of attempts (from the present report) to completed suicide was 27, well above the national estimate. However, the source of number of attempts may differ.

24 HOUR SUICIDE CRISIS HOTLINE NUMBERS:

O`ahu	Hawai`i	Kaua`i	Maui	Moloka`i	Lāna`i
832 3100	1 800 75 ENTRY (1 800 753 6879)				

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INTRODUCTION

"Suicide is a tragic and potentially preventable public health problem."⁶ In 2000, suicide was the **11th** leading cause of death in the U.S.; specifically, 10 out of every 100,000 persons died by suicide.²

In Hawai`i in 2000 death by suicide (intentional self harm) was the **8th** leading cause of death for all ages (**7th** in 2000). That means that overall 11.5 people out of every 100,000 died by suicide in Hawai`i in 2000¹, higher than the national rate in 2000.

In 1999, the Surgeon General's Call To Action To Prevent Suicide included the following recommendations:⁷

- Promote public awareness that suicide is a public health problem and as such, many suicides are preventable.
- Use information technology to make facts about suicide and suicide prevention widely and appropriately available to the general public and health care providers.
- Expand awareness of and enhance access to resources for suicide prevention programs in communities.

This report is meant to provide baseline information on the prevalence of having considered, made a plan, and attempted suicide among the adult population of Hawai`i in 2001.

1. BACKGROUND

The Adult Mental Health Program of the Hawai`i Department of Health added questions on Suicide Ideation to the Hawai`i Health Survey (HHS) starting in 2000. The HHS is a statewide randomly generated telephone survey administered through the Department of Health Office of Health Status Monitoring (OHSM), collects information on health and demographic variables of households and persons in Hawai`i.⁸ The HHS, modeled after the National Health Interview Survey, is a source of statewide data on selected demographics and health characteristics including general health status, prevalence of selected chronic health conditions, income, race, household size, household income (and poverty), and insurance status for intercensal years.

OHSM has contracted with SMS Research to conduct a telephone sample survey (1996 to the present). For a more detailed description of the survey instrument and methods, please consult the Procedure Manual of the Hawai`i Health Survey published by SMS Research Inc. and OHSM.⁹

Reducing the suicide rate is a nationwide health objective (Healthy People 2010, A Nationwide Health Promotion and Disease Prevention Agenda.)⁴

Healthy People 2010 Objectives

Mental Health Status Improvement

18-1. Reduce the suicide rate.

Target: 5.0 suicides per 100,000 population.

Baseline: 11.3 suicides per 100,000 population occurred in 1998 (age adjusted to the year 2000 standard population).

Target setting method: Better than the best.

Data source: National Vital Statistics System (NVSS), CDC, NCHS

Baseline data are needed for Hawai`i as well as subsequent data points to measure progress toward the target. As suggested by the Centers for Disease Control and Prevention (CDC), data are needed at all levels of government and/or non-governmental organizations.

2. PURPOSE

This purpose of this report is to provide baseline information on suicide ideation in Hawai`i. Data was gathered from questions on suicide ideation that were added to the 2001 Hawai`i Health Survey. The following basic key questions are posed in order to provide a format for reporting on suicide ideation in Hawai`i.

Suicide Ideation has been defined as: *"Suicidal ideation is having thoughts of suicide or of taking action to end one's own life. Suicidal ideation includes all thoughts of suicide, both when the thoughts include a plan to commit suicide and when they do not include a plan."*¹³

1. How prevalent were: considered, made a plan, and attempted suicide?
2. Was suicide ideation associated with health conditions: e.g. asthma, diabetes, high blood cholesterol, high blood pressure, number of chronic conditions, and general physical and mental health?
3. What demographic variables were associated with considered and made a plan for suicide?
4. Did adults that responded affirmatively to the questions on suicide ideation ask for Hotline information more than adults who did not?
5. Did the responses to questions on suicide differ after September 11, 2001?
6. How do the responses to questions on suicide ideation compare to actual deaths by suicide in Hawai`i for 2001?

METHODS

1. SAMPLING, WEIGHTING, AND ADJUSTMENT OF DATA

The telephone survey allows for sampling of all non-institutionalized residents (all occupied housing units) in the State of Hawai`i, including: those persons in military housing (on and off base), rooming houses, and boarding houses throughout the state. Not included are:^ψ (1) the homeless, (2) all households and individuals and on the island of Ni`ihau, (3) individuals residing in-group quarters, and (4) households without telephones.

The total sample (Table 2) for the year 2001 included 5,673 households (5,673 respondents) with 16,983 household members (1.4% of the mid-year state resident population.) Annual state and county estimates of population, with distributions by island, age, and gender, from the Department of Business, Economic Development, and Tourism (home of the State Data Center) are used to weight the survey data.¹⁰ Outer islands have been oversampled in an alternate year pattern beginning in 1996. In 2001, all outer islands were oversampled. If the sample numerator is less than 5 and/or the sample denominator is less than 50 the data are not reported.

The final weight factor for each respondent is a product of probability of household selection, household non-response, factor for crude completion adjustment, and post-stratification by age-sex-strata. Data are presented for the year 2001. Table 2 summarizes the sample and weighted (adjusted for those not sampled) numbers for households and household members (adults, total household members) by island. The weights for islands and sub-areas that were oversampled were adjusted accordingly.

Although the HHS collects information on household members, questions on suicide were only asked of the respondent (5,673 sample). The sample of respondents was then weighted and adjusted to the adult population of Hawai`i (881,231).

Table 2. Hawai`i Health Survey 2001, Weighted and Adjusted Numbers By Island

Island	Sample				Weighted and Adjusted ²					
	Households/ Respondents ¹		All Household Members		Households		Adult Population of Hawai`i (By Respondent)		Population	
	n	%	n	%	N	%	N	%	N	%
2001 TOTAL	5,673	100.0	16,938	100.0	403,204	100.0	881,231	100.0	1,175,595	100.0
O`ahu	1,948	34.3	6,096	36.0	286,450	71.0	637,487	72.3	845,211	71.9
Hawai`i	1,200	21.2	3,408	20.1	52,985	13.1	107,257	12.2	145,873	12.4
Kaua`i	883	15.6	2,583	15.2	20,147	5.0	42,318	4.8	57,671	4.9
Maui	1,400	24.7	4,104	24.2	40,156	10.0	87,045	9.9	116,158	9.9
Moloka`i	117	2.1	368	2.2	2,305	0.6	4,585	0.5	7,168	0.6
Lāna`i	125	2.2	379	2.2	1,161	0.3	2,539	0.3	3,515	0.3
Maui SUB TOTAL	1,642	28.9	4,851	28.6	43,622	10.8	94,169	10.7	126,840	10.8

¹ Households and Respondents 5,673 (18 Years and older)
² Sample numbers provisionally weighted and adjusted for household, adult, or total population of Hawai`i (total numbers are adjusted as homeless, Ni`ihau, Kalawao, group quarters, and households without telephones are not represented)

Sample and Weighted (and Adjusted) Numbers for Questions on Suicide Ideation

2. SURVEY INSTRUMENT

The survey instrument consists of core questions on health and demographic variables that are asked every year. In addition, questions are added each year on various other health related topics. Suicide Ideation

^ψ The survey population excluded persons in group quarters (those in military barracks, shipboard populations, college dormitories, homes for the aged, prisons, and other unspecified group quarters or institutionalized settings), and the island of Ni`ihau. Because the survey method was conducted by telephone interviewing, the sample effectively excluded homeless persons and persons in households with no working telephone service.

questions were added for part of the year in 2000 and then for the full year of 2001. The questions that were asked are listed in Appendix-1.

3. VARIABLES

(The following definitions are specific to the respondent even though data are collected for most variables on all household members)

A. Health Variables

Body Mass Index (BMI):

Height and weight is asked only of the respondent, thus data are for only the population aged ≥ 18 years. The obesity measure is based on Body Mass Index (BMI). BMI was defined as weight in kilograms divided by height in meters squared (kg/m^2). The National Heart, Lung, and Blood Institute (NHLBI) (June 17, 1998) released the Federal guidelines for the "clinical definition" of overweight and obese: ¹¹

BMI Categories:

➤ Underweight	<18.5
➤ Normal	18.5-25.0
➤ Overweight	25.0-30.0
➤ Obese I	30.0-35.0
➤ Obese II	35.0-40.0
➤ Obese III	>40.0

Chronic Health Conditions:

Respondents are asked: "Have you been told by a physician or medical professional that you have arthritis?" The same question is asked on other health conditions including asthma, diabetes, high blood cholesterol, and hypertension. The number of chronic conditions that a respondent has is also calculated.

Health Related Quality of Life Questions:

Topics covered by the SF-12®¹² questions (Appendix 2, a shortened 12 questionnaire from the SF-36® questionnaire) include self reported general health, limitations caused by physical and/or emotional problems, pain limiting activities, limitations to amount and type of work, and limitations in social activities due to health problems. Scoring for the summary scales MCS-12 (mental component summary scale) and PCS-12 (physical component summary scale) from the 12 questions on health are as outlined in the SF-12® manual.¹² The SF-12® scoring algorithm is a composite score of weighted item responses to the 12 questions on self-reported physical and mental health status. The content validity of the SF-12® compares favorably with that of the longer SF-36® Health Survey.

A higher summary scale value (range 0-100) is an indication of better health for both the mental and physical summary scale. The scores are standardized so that the mean score is 50 and the standard deviation is 10 for the general U.S. population.

B. Demographic and Socioeconomic Variables.

Age:

Respondents (adults) are age 18 or over and they are asked their age at their last birthday. If, when the data are compiled, a person's age is missing, it is imputed using a "hot deck" method: a response from another person with similar demographic and economic characteristics is substituted. All of the respondents in the present study who reported they had considered suicide gave their age. Prevalence of affirmative responses to suicide ideation by ethnicity and health conditions was also calculated by age adjusting within the sub-population (by weighting to the standard age distribution of adults in Hawai'i according to Census 2000) so that comparisons that are not affected by age distribution could be made.

Education:

The respondent's formal education status included the following categories: kindergarten, grades 1-8, grades 9-10, grade 12 (or GED), 1-3 years of college, 4 or more years of college, and unknown or refused. Because of low sample size no schooling, kindergarten, and grades 1-8 were combined.

Employment:

The respondent is asked if they are: currently employed, not employed, retired, a student, a homemaker, or unable to work. Other responses possible are other, don't know, or refused. Up to two responses for this question are possible. The employment status variable is compiled from the above basic question, the military status (whether they have a civilian job), whether they are looking for work, and questions on the number of jobs.

Ethnicity/Race:

The respondent can list up to four ethnicities for both their mother and their father. The choices were White/Caucasian, Hawaiian, Chinese, Filipino, Japanese, Korean, Samoan/Tongan, Black/African American, Native American/Aleut/Eskimo/Inuit, Vietnamese, Asian Indian, Portuguese, and Guamanian/Chamorro. In addition, they can specify another ethnicity if it is not listed, or they can reply they do not know, or refuse to answer.

OHSM codes these eight possible choices for each individual to one ethnicity in order to comply with prior Census rules coding race/ethnicity¹³. Specifically, if Hawaiian is listed for the Mother or Father the person is coded to Hawaiian. Otherwise, the person is coded to the first ethnicity listed (other than Caucasian or unknown) for the Father. If the Father's response is Caucasian and/or unknown, the person's ethnicity is coded to the first ethnicity listed (other than Caucasian or unknown) for the Mother. Lastly, if there are no other responses other than Caucasian or unknown the person is coded to Caucasian. Otherwise, the person is coded to do not know, refused, or missing. Therefore, a person in any of the ethnic categories could be that ethnicity alone or that ethnicity in combination with other ethnicities.

Gender:

The Respondent identifies their gender.

Insurance Status:

Responses to seventeen questions on insurance coverage in the HHS are analyzed to compute a final insurance status (based on insurance status, health plan, drug and dental coverage, type of Medicare coverage, and whether the insurance is provided by the employer.) If the respondent is uninsured, they are asked the reason and the duration.

Marital Status:

Marital status for the respondent includes the following categories: married, a member of an unmarried couple, widowed, divorced, separated, never married, do not know, or refused.

Poverty Status:

Poverty status is determined by using the "poverty guidelines" and takes into account not only total household income but also household size supported by the income. Thus, it is a more useful indicator of actual personal income.

The poverty guidelines are designated for the year in which they are issued and reflect price changes for the prior year. The Hawai`i Health Survey income question is asked also of the prior year. Thus, to compute percent poverty levels the 2001 Poverty Guidelines specific to Hawai`i were used with the 2001 HHS data. Households below 100 percent of the guideline are said to be below the poverty guideline. Individuals in those households are said to be "living below poverty".¹⁴

Poverty guidelines are updated annually in the Federal Register by the U.S. Department of Health and Human Services.¹⁴ The poverty guidelines are used for administrative purposes giving programs such as Head Start, Food Stamp Program, and Children's Health Insurance Program guidelines.

4. DATA ANALYSIS

OHSM analyses, compiles, and reports information from the HHS. Software programs used by OHSM staff include SAS, SUDAAN, MS Word, MS Excel, and PowerPoint. SUDAAN allows the computation of confidence intervals and Chi-Square values based on survey design for large data sets.

RESULTS

Baseline estimates of suicide ideation are presented in relation to the questions posed in the introduction.

QUESTION 1. HOW PREVALENT WERE: CONSIDERED, MADE A PLAN, AND ATTEMPTED SUICIDE?

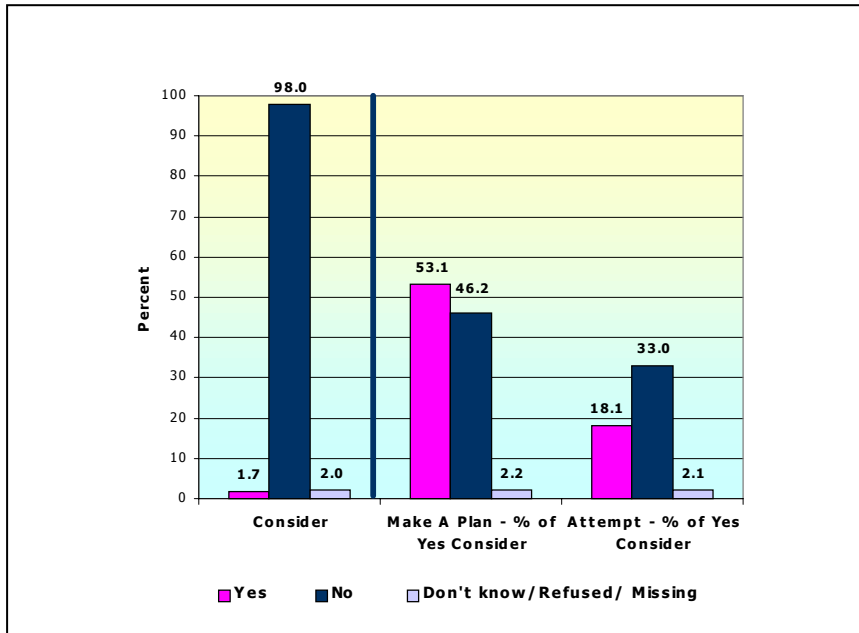
Responses to the basic questions on suicide: considered, made a plan, and actually attempted suicide are shown in the following table and figure. If a respondent considered suicide, they then went on to the subsequent question on whether they had actually made a plan. If the respondent had made a plan, they were asked whether they had attempted suicide and how many times.

Table 3. Responses to Questions on Suicide Ideation for Adult Household Members, HHS 2001

Response	Question					
	1 - Considered		2- Made A Plan		3 - Attempted	
	N**	Col. %	N*	% of Yes**	N	% of Yes**
Number of Adults That Answered						
Question	866,557	100.0	14,914*	101.5	7,805	53.1
Yes	14,692**	1.7	7,806	53.1	2,655	18.1
No (or 0 times for Ques. 3)	849,384	98.0	6,782	46.2	4,844	33.0
Don't know/not sure	222	<0.1	35	0.2		
Refusals	2,259	0.3	291	2.0	306	2.1
Missing [#]	14,674	1.7				
TOTAL^{1,2,3}	881,231					
[*] 222 more total responses were recorded for Question 2 than the yes category in Question 1 (they were no, don't know/not sure, or refused) ^{**} % of total yes responses for the Question Consider [#] The number of respondents that did not answer the questions (skipped the section) ¹ All respondents (18 Years and older), sample size 5,673 ² Sample numbers provisionally weighted and adjusted for total adult population of Hawai'i, 881,231 (total numbers are adjusted as homeless, Ni'ihau, Kalawao, group quarters, and households without telephones are not represented) ³ Row and/or column totals may not sum to totals listed due to rounding Don't know and Refusals were not separated						

Please refer to Appendix 3: for sample numbers.

Figure 2. Responses to Questions on Suicide for Adult Household Members, HHS 2001

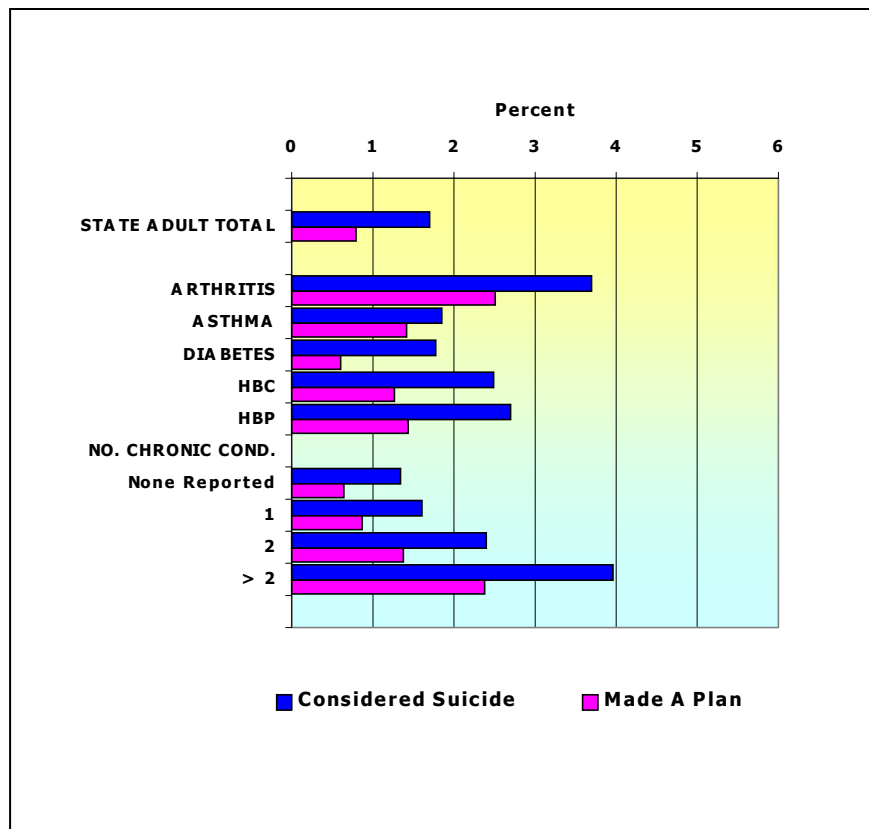


- It is estimated that 1.7% of the adult population considered suicide in Hawai`i in 2001, 0.9% made a plan, and 0.3% actually attempted suicide one or more times. These numbers do not include the homeless and persons in group quarters (Please refer to Methods Page 9.)
- Of those adults that considered suicide, 53% actually made a plan.
- Of those adults that considered suicide, 18.1% made at least one attempt.
- Of those adults that made a plan, 38% actually attempted suicide.
- The sample size for respondents that had attempted suicide was 20 (over half of the sample size of 20 had made multiple attempts), less than the cutoff of 50 for a denominator for presentation of reliable data for the HHS. Therefore, the breakdown by number of attempts is not reliable data and not presented.

QUESTION 2. WAS SUICIDE IDEATION ASSOCIATED WITH HEALTH CONDITIONS: E.G. ASTHMA, DIABETES, HIGH BLOOD CHOLESTEROL, HIGH BLOOD PRESSURE, NUMBER OF CHRONIC CONDITIONS, AND GENERAL PHYSICAL AND MENTAL HEALTH?

Variables based on the respondent's health show an association with the responses to questions on suicide ideation.

Figure 3. Considered and Made A Plan for Suicide By Chronic Health Conditions for Adult Household Members, HHS 2001

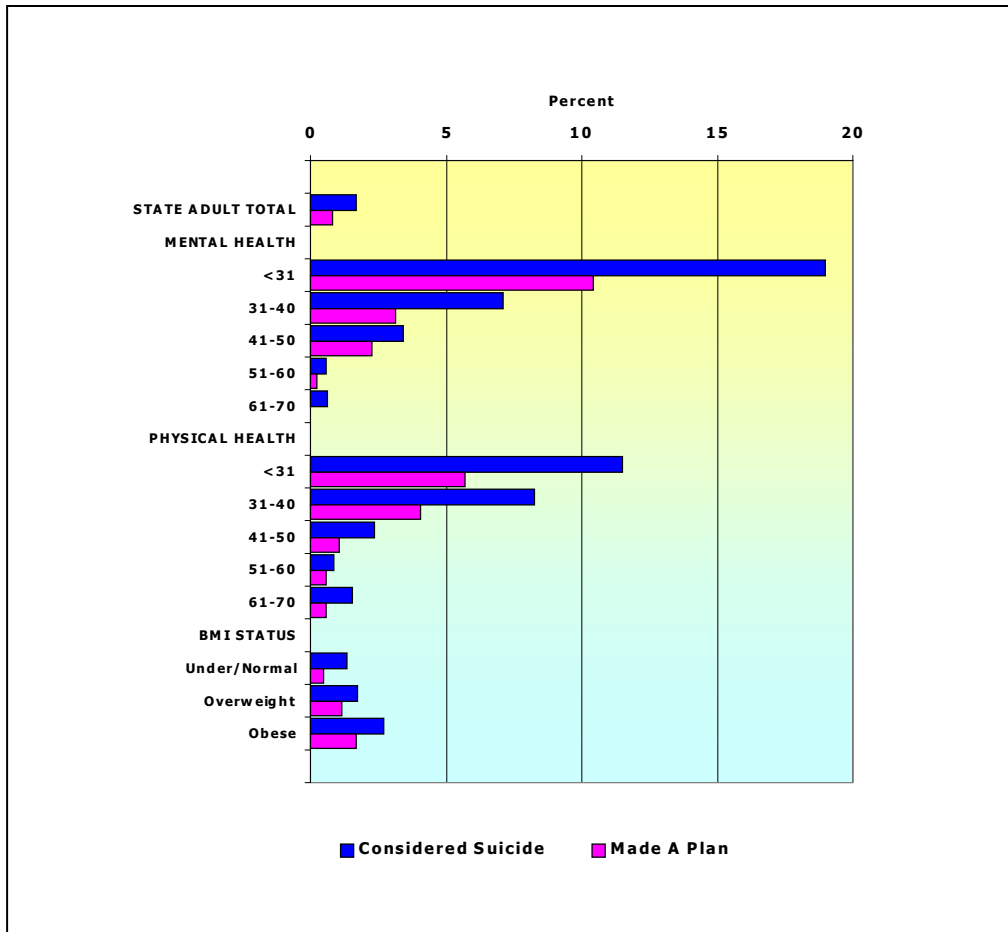


- When compared to the state adult population, adults with arthritis, high blood cholesterol, and/or high blood pressure all showed an increased prevalence of both considered and made a plan for suicide.
- When the above chronic conditions were totaled, those adults with increasing number of health conditions were associated with an increasing prevalence of considered and made a plan for suicide.

Please refer to Appendix 4: for weighted and adjusted numbers, 95% confidence intervals, and age adjusted prevalence.

Figure 4. Considered and Made A Plan for Suicide By SF-12® Health Variables for Adult Household Members, HHS 2001

Please refer to the methods (page 10) for an explanation of scoring for the SF-12® physical and mental health scores. The scores are based on the responses to the 12 questions listed in Appendix 2. The range of scores is 0-100 with a mean of 50 and a standard deviation of 10. **A lower value for the mental and physical SF-12® scores indicates poorer self-reported mental or physical health.**

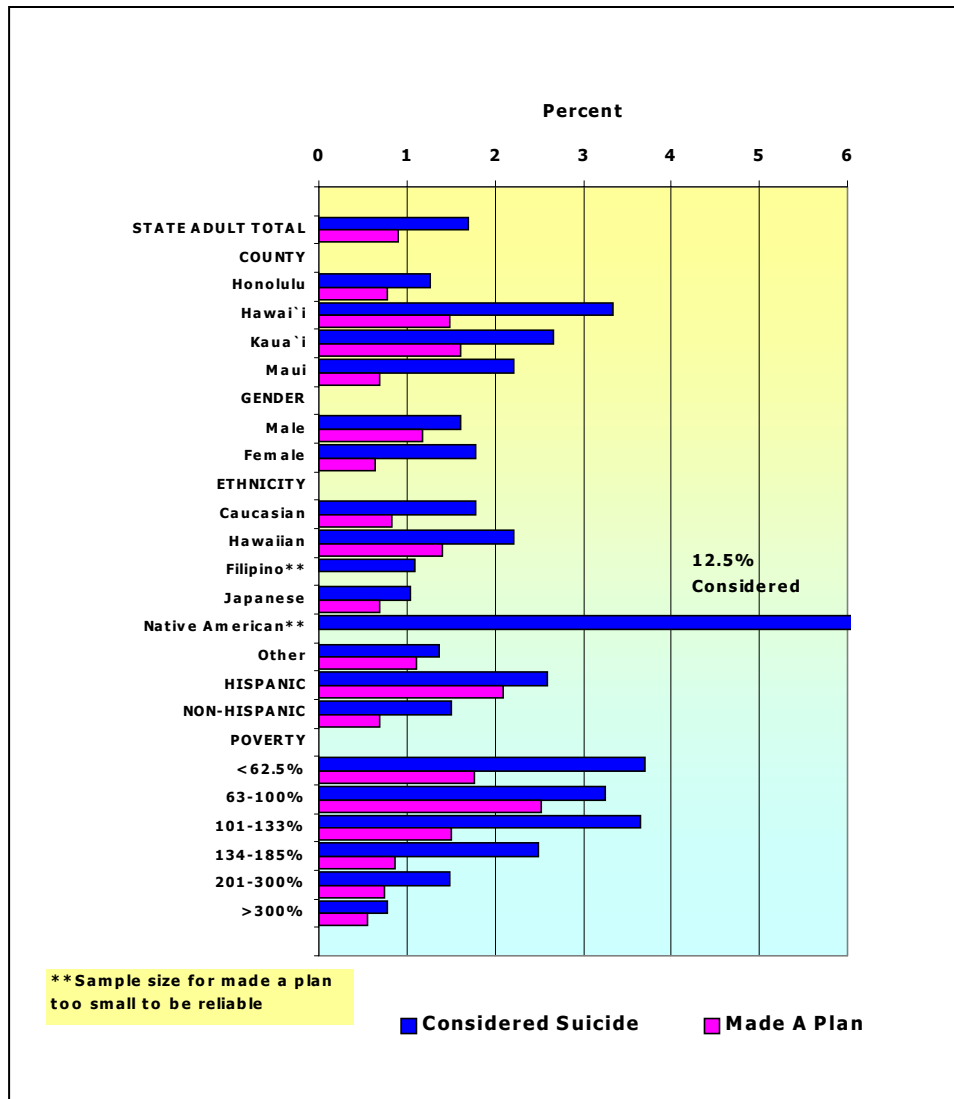


- Lower scores for physical health were associated with increased prevalence of both considered and made a plan for suicide (for scores less than 31, 11.5% considered and 5.7% made a plan).
- The trend was even more pronounced for mental health. Adults with less than a score of 31 had a 19% prevalence of considered suicide and a 10.4% of having made a plan.
- To a lesser degree, BMI (overweight – 1.7%, 1.2% and obese – 2.7%, 1.7%) was also associated with increased prevalence of considered and made a plan for suicide when compared to those classified as underweight or of normal weight (1.4%, 0.5%).

Please refer to Appendix 4: for weighted and adjusted numbers, 95% confidence intervals, and age adjusted prevalence.

QUESTION 3. WHAT DEMOGRAPHIC VARIABLES WERE ASSOCIATED WITH CONSIDERED AND MADE A PLAN FOR SUICIDE?

Figure 5. Considered and Made A Plan for Suicide By Demographic Variables (A) for Adult Household Members, HHS 2001



** Sample sizes for considered (for Chinese, Samoan, Tongans) and made a plan (for Filipino and Native American) were too small to be presented. The sample size for the poverty interval 186-200% was also too small to be reliable.

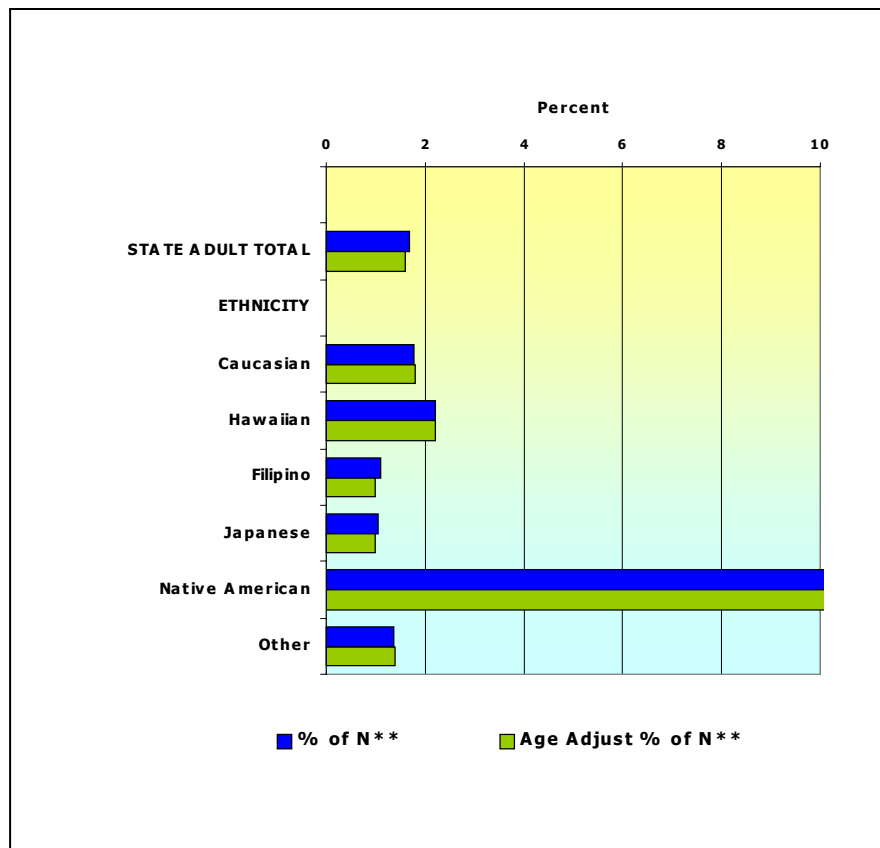
➤ When compared to the state adult population adults on the islands of Hawai'i and Kaua'i had increased prevalence of both considered and made a plan for suicide. Adults on the islands of Lāna'i and Moloka'i had even higher prevalence of both variables, however, the sample for Moloka'i was too low to be reliable.

➤ Females had a higher prevalence of considered suicide (1.8% vs. 1.6%), however males had a higher prevalence of having made a plan (1.2% vs. 0.6%).

- Native Americans had an extremely high prevalence of considered suicide (12.5%) followed by Hawaiians (2.2%) and Caucasians (1.8%). Hispanics had a higher prevalence of considered suicide than non-Hispanics (2.6% and 1.5%).
- Hawaiians had the highest prevalence of having made a plan for suicide. Sample sizes for ethnicity by made a plan were too small for Native Americans and Filipinos to present.
- Both prevalence of considered and made a plan for suicide increased at lower poverty values (higher income per household size).

Please refer to Appendix 5: for weighted and adjusted numbers, and 95% confidence intervals.

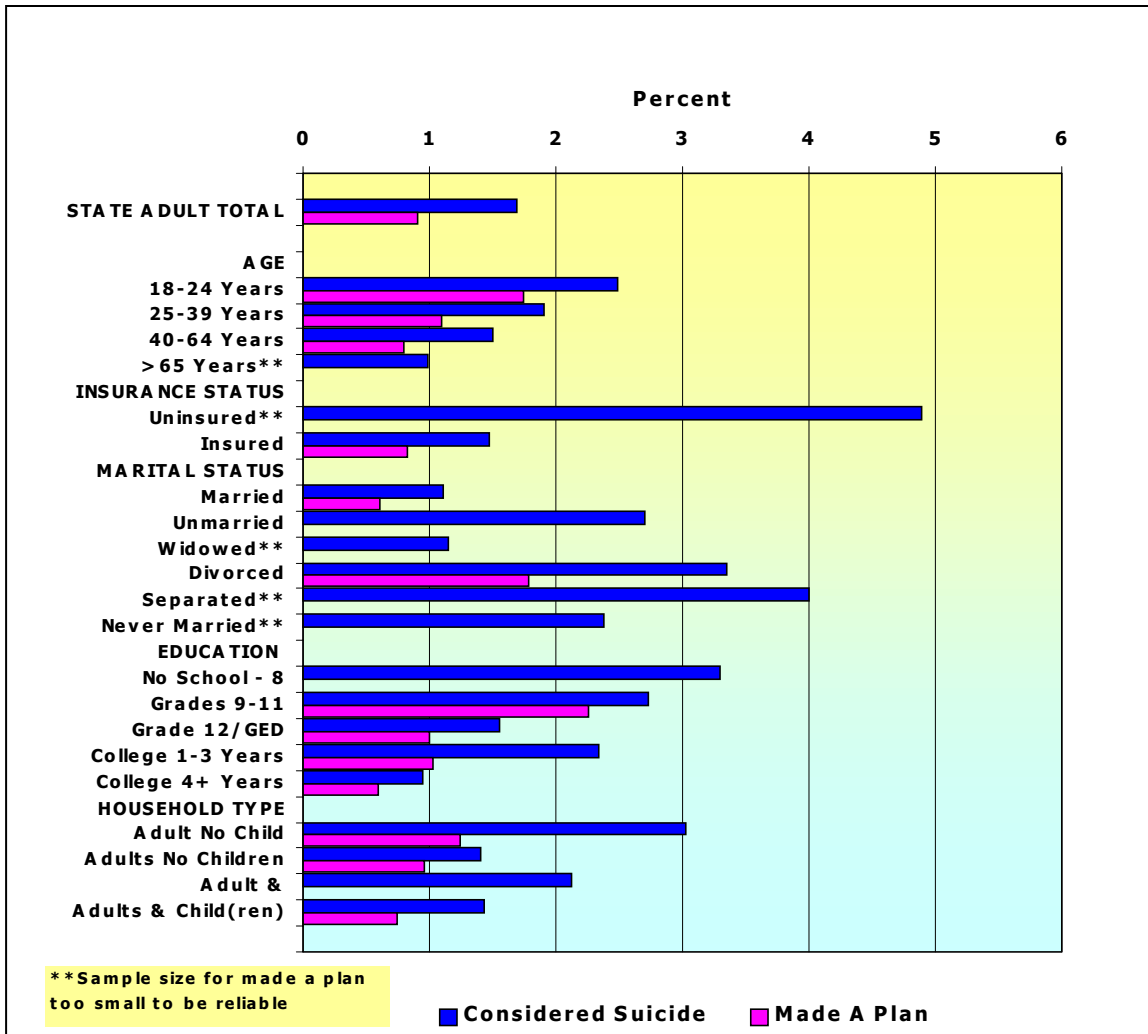
Figure 6. Effects of Age Adjusting on Considered Suicide By Demographic Variables (A) for Adult Household Members, HHS 2001



- Age adjusted prevalence (adjusted to the population of Hawai`i Census 2000) of considered suicide by ethnicity was similar to prevalence not adjusting for age. The major difference is the prevalence of considered suicide for Native Americans increasing even further from 12.5% to 17.9%.
- The patterns of age-adjusted prevalence of considered and made a plan for suicide by health conditions were similar to patterns of prevalence when age was not adjusted.

Please refer to Appendix 5: for weighted and adjusted numbers, 95% confidence intervals, and age adjusted prevalence.

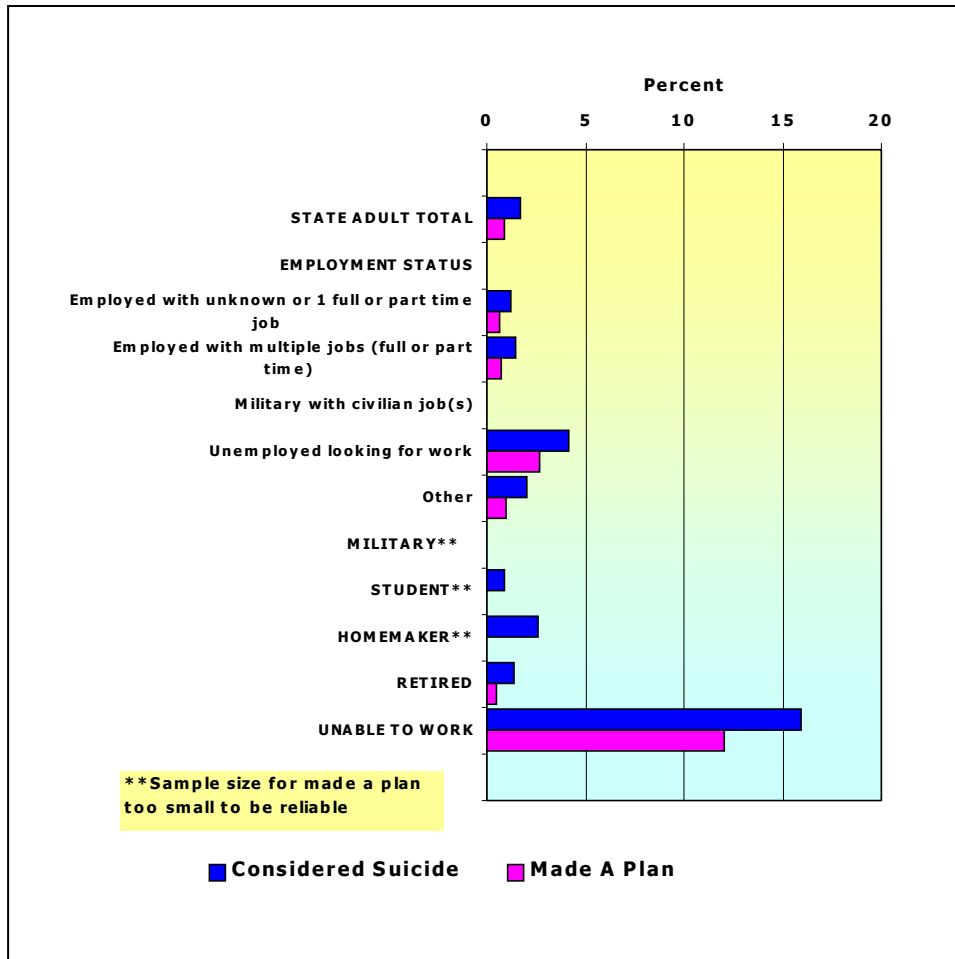
Figure 7. Considered and Made A Plan For Suicide By Demographic Variables (B) for Adult Household Members, HHS 2001



- The prevalence of both considered and made a plan for suicide decreased with increasing age. However, sample size for persons >85 was too small to present.
- The prevalence for considered suicide for the uninsured was much higher than for those insured (4.9%, 1.5%).
- Adults that were members of an unmarried couple, separated, divorced, or never married had a much higher prevalence of having considered suicide than an adult that was married.
- Adults that were divorced had a higher prevalence of having made a plan for suicide than those that were married.
- Consideration of suicide decreased with increasing education.
- An adult in a single adult household (with and without children) had a much higher prevalence of having considered suicide (2.9%) when compared to an adult in a household with multiple adults (1.4%).

Please refer to Appendix 6: for weighted and adjusted numbers, and 95% confidence intervals.

Figure 8. Considered and Made A Plan For Suicide By Demographic Variables (C) for Adult Household Members, HHS 2001

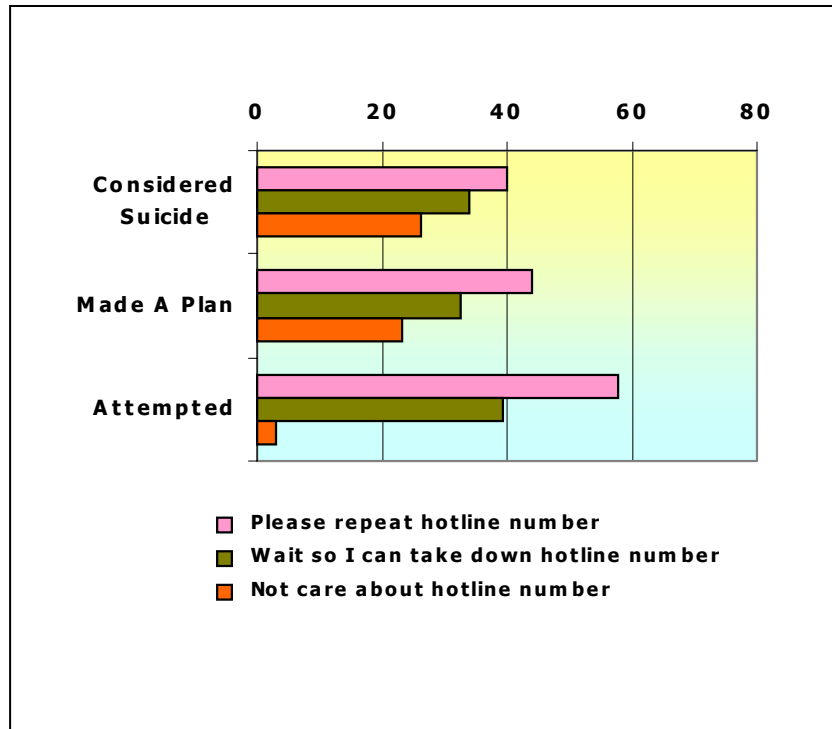


- The highest prevalence of considered and made a plan for suicide occurred among those adults unable to work (16.9% and 12.0%) and unemployed and looking for work (4.2% and 2.7%).
- The prevalence for homemakers that had considered suicide was higher (2.6%) than the average for the adult population in Hawai'i (1.7%).

Please refer to Appendix 7: for weighted and adjusted numbers, and 95% confidence intervals.

QUESTION 4. DID ADULTS THAT RESPONDED AFFIRMATIVELY TO THE QUESTIONS ON SUICIDE IDEATION ASK FOR HOTLINE INFORMATION MORE THAN ADULTS WHO DID NOT?

Figure 9. Considered and Made A Plan for Suicide By Response to Question on HOTLINE for Adult Household Members, HHS 2001



- The percentage of adults that asked for the hotline to be repeated or asked to wait while they could take down the hotline number increased with increasing prevalence of considered and made a plan for suicide.

Please refer to Appendix 8: for weighted and adjusted numbers.

QUESTION 5. DID RESPONSES TO QUESTIONS ON SUICIDE IDEATION DIFFER AFTER 9/11?

Prevalence of having considered and made a plan for suicide decreased after September 11, 2001. It may be an actual decrease, however, the values may not be statistically significant. More analyses need to be done. Other factors such as differential response rates at different levels of income and poverty may have affected the responses.

Please refer to Appendix 9: for weighted and adjusted numbers.

SUMMARY AND STATISTICALLY SIGNIFICANT VARIABLES

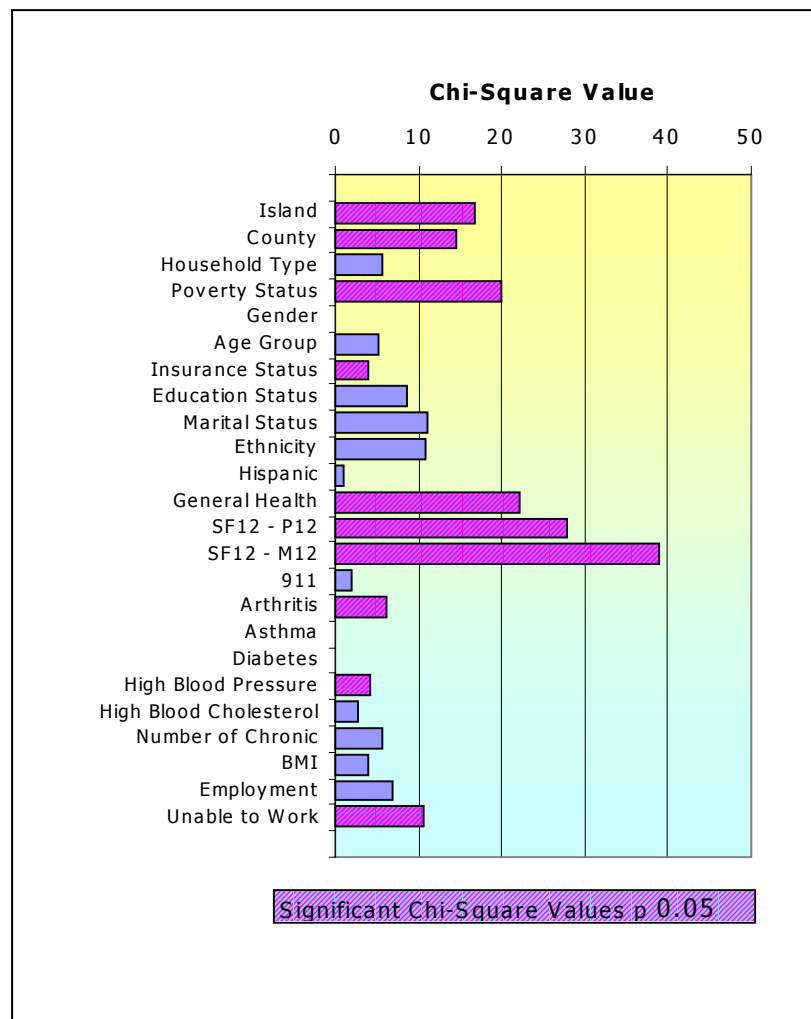
The age adjusted (to the Census Population in Hawai`i – 2000) prevalence and 95% confidence limits for considered, made a plan, and attempted suicide was 1.7% (1.3-3.2), 0.9% (0.6-1.3), and 0.3% (0.2-0.5) respectively for adults in Hawai`i in 2001. Increased prevalence was associated with the following health and demographic variables:



- Health – poorer mental and physical health, obesity, arthritis, high blood cholesterol, high blood pressure, and higher reported number of the surveyed chronic conditions per adult.
- Demographic – early adulthood, outer islands (in particular Hawai`i, Kaua`i, Lāna`i, and possibly Moloka`i), Native Americans, Hawaiians, Caucasians, Hispanics, lower percent poverty, fewer years of formal education, single adult households, the unemployed and looking for work, and those unable to work.

Chi-Square values for considered suicide by health and demographic variables are graphed in Figure 10. Significant Chi-Square values ($p < 0.05$) are noted.

Figure 10. Chi-Square Value for Considered Suicide By Selected Health and Demographic Variables Adult Population of Hawai`i – SUDAAN, HHS 2001





- The above Chi-Square values for the following variables were all significant (p 0.05):
 - * Island, County
 - * Poverty Status
 - * Insurance
 - * General Health Question, SF-12® Mental and Physical health scores.
 - * Arthritis and High Blood Pressure
 - * Unable to Work
- **The most significant values are both the mental and physical health scores (SF-12®).**
- Within some variables some values are highly associated with considered suicide (e.g. Native Americans, Lāna`i , and Kaua`i)

Please refer to Appendix 10: for Chi-Square values.



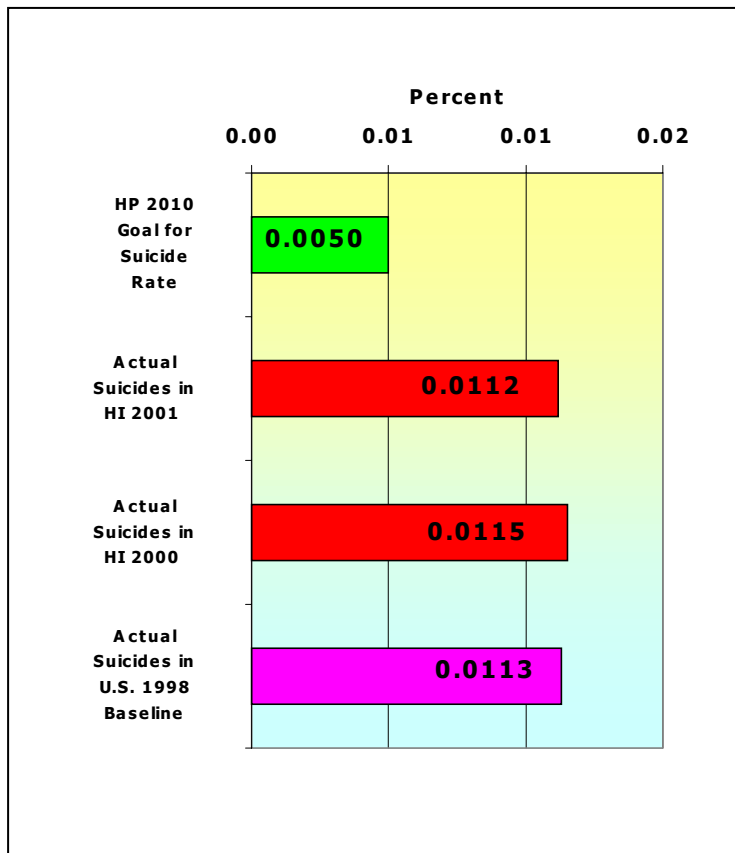
How significant are these values for prevalence of considering suicide?

- Values of the variables mentioned above were associated with a higher prevalence of having considered and made a plan for suicide. The 95 % confidence interval (presented in tables in the Appendices) gives a degree of confidence in the value for prevalence given the methods used.
- Chi-Square values (based on the Wald chi-square statistic) were generated for the considered suicide by health and demographic variables (SUDAAN with consideration of sample design and large sample size). However, the values do not take into consideration interaction among variables. So that when the significance of a health or demographic variable in relation to suicide ideation is calculated given, all other variables are held constant the significance of the variable may change. In addition, the Chi-Square value is for the variable in general; when sub-populations of the variable are considered individually, they may generate a clearer picture of association with suicide ideation (e.g. Native American population).

QUESTION 6. HOW DO THE RESPONSES TO QUESTIONS ON SUICIDE IDEATION COMPARE TO THE ACTUAL RATE OF DEATH BY SUICIDE IN HAWAII IN 2001 AND 2000?

The following figure compares the actual rates of suicide (crude or age-adjusted) of Hawaii's population¹ to that of the U.S. and the Healthy People 2010 Goal⁴.

Figure 11. Healthy People (HP) 2010 Goal for Rate of Suicide, Crude Rate of Suicide in Hawaii for 2001, Age Adjusted Rate of Suicide in Hawaii in 2000, and the Age Adjusted Rate of Suicide for the U.S. in 1998.



- The actual crude and age adjusted rates for suicide in Hawaii are not significantly different than the age-adjusted HP baseline rate for the U.S. population in 1998.
- Hawaii's rate of suicide is much higher than the Healthy People 2010 Goal of 5.0 suicides per 100,000 total population.

Please refer to Appendix 11: for values.

When prevalence for adults for considered and made a plan for suicide are compared to the actual crude and age adjusted death by suicide rates by demographic variables for the total population of Hawai`i in 2001 there are (Appendix 12):

- **Similarities:** Outer islands, males, Caucasians, divorced, and never married had higher rates of suicide than the state average.
- **and Differences:**
 - ★ The older population had a higher crude rate of suicide (46-65 years rate 15.8 and >65 years rate 15.2) than the ages 18-45 years in contrast to considered suicide where prevalence decreased with age. That elderly people suffering from illness or disability appear to be at increased risk of death by suicide has been shown elsewhere.¹⁵ Thus, there may be an interaction of variables such as age and mental health.
 - ★ The crude rate for death by suicide for Hawaiians was lower and the crude rate for Japanese was higher when compared to the state average. These values are in contrast to the prevalence for considered and made a plan for Hawaiians and Japanese.
 - ★ Non-Hispanics had a higher prevalence for death by suicide than Hispanics (in contrast to considered and made a plan where Hispanics had a higher prevalence.)

Thus, the pattern for having considered suicide may be different than the pattern for death by suicide. In addition, total death by suicide for the islands of Moloka`i and Lāna`i (combined) and divorced persons is higher than the state average for the adult population that have attempted suicide.

However, the following quote on attempts at suicide is emphasized: "The majority of suicide attempts are expressions of extreme distress and not just harmless bids for attention. A suicidal person should not be left alone and needs immediate mental health treatment."⁶

There are an estimated 8-25 attempted suicides to one completion nationally. "The ratio is higher in women and youth and lower in men and the elderly. Risk factors for attempted suicide in adults include depression, alcohol abuse, cocaine use, and separation or divorce."⁵ The ratio of persons who attempted suicide to death by suicide (using values from the present report and vital statistics) suggest the disturbing statistic that in Hawai`i a crude ratio may be much higher: 27 persons who attempted suicide to 1 completion (Please refer to Appendix 11). However, the national estimate may be based on a different type of data source.

When the patterns for actual suicide in Hawai`i in 2001 are compared to general patterns of actual suicides for the U.S. in 1998 (CDC, NCHS) some patterns are similar; prevalence was higher among Caucasians and non-Hispanics, Native Americans, and males (Please refer to Appendix 13). In addition, mental illness has been shown to be a major factor in death by suicide nationally.¹⁶



Qualifications and possible sources of error in the present study include:

- Small sample size for some variables.
- Response and non-response errors.
- Populations not included (e.g. homeless, group quarters.)
- Variables that may not have been measured.
- Interaction of independent variables.

The present report suggests variables that may be factors in having considered suicide – island of residence, certain ethnic populations (Native American, Hispanic, Hawaiian, and Caucasian), lack of health insurance, poverty status, and mental and physical health. Questions and areas of further study that are generated from this information include:

- What specific SF-12 questions are more highly associated with consideration and attempted suicide?
- Further analysis on ethnic groups including information on full/part and self identified ethnicity.
- Over-sampling outer islands, in particular Moloka`i and Lāna`i.
- Further analysis on the interaction of ethnicity and mental and physical health variables (and also interaction of other variables).

The pattern of suicide ideation (suicidal behavior) is very complex and may involve risk factors that occur in combination and that may vary with age, gender, and ethnic group. The continued collection of data for adults in Hawai`i, will provide larger sample sizes, thus allowing higher statistical significance for comparisons with health and demographic variables and the analysis of trends. In addition, an analysis of number of attempts would be possible.

APPENDIX

A-1: HAWAI`I HEALTH SURVEY 2001 SUICIDE IDEATION QUESTIONS

Q.1079 *The Department of Health's Adult Mental Health Division has a Statewide program known as Healthy Hawaii 2010. One program goal is to reduce the number of suicides in Hawaii. The following few questions will help them develop their plans and programs.*

(2171)

- 1** Enter [1] to continue
- 2** RESPONDENT SAID SKIP SECTION

[IF THE ANSWER IS 2, THEN SKIP TO QUESTION 1083]

Q.1080 *During the past 12 months, did you ever seriously consider attempting suicide?*

[DO NOT READ LIST]

(2172)

- 1** YES
- 2** NO
- 3** DON'T KNOW/NOT SURE
- 4** REFUSED

[IF THE ANSWER IS 2 OR 4, THEN SKIP TO QUESTION 1083]

Q.1081 *During the past 12 months, did you ever make plans about how you would attempt suicide?*

[DO NOT READ LIST]

(2173)

- 1** YES
- 2** NO
- 3** DON'T KNOW/NOT SURE
- 4** REFUSED

[IF THE ANSWER IS NOT 1, THEN SKIP TO QUESTION 1083]

Q.1082 During the past 12 months, how many times did you actually attempt suicide?

[Enter '99' for Don't know/Refused]

No. of times attempted suicide .. ____ (2174-2175)

Q.1083 Just for your information, there is a 24-hour suicide crisis hotline available to anyone who may be thinking about suicide. The hotline number, if you would like to write it down, is 521-4555 (OAHU). PLEASE NOTE THE HOTLINE NUMBERS WERE CHANGED IN 2002. THE PRESENT NUMBERS ARE O`AHU – 832 3100, OTHER ISLANDS 1 800 75 ENTRY (1 800 753 6879)

[DO NOT READ LIST.]

[NOTE: TRY TO ASSESS THE RESPONDENT'S REACTION AND CODE APPROPRIATELY.]

HILO: 935-3393

KONA: 322-7444

KAUAI: 245-1010

MAUI: 244-7407

MOLOKAI: 553-3311

LANAI: 1-800-887-7999

(2176)

- 1 RESPONDENT ASKED HOTLINE NO. TO BE REPEATED**
- 2 RESPONDENT ASKED TO WAIT SO HE /SHE CAN TAKE DOWN THE NO.**
- 3 RESPONDENT DIDN'T SEEM TO CARE ABOUT THE HOTLINE NO.**

A-2: HEALTH RELATED QUALITY OF LIFE QUESTIONS (SF-12)

1. Would you say your health in general is: Excellent, very good, good, fair, poor, or don't know/refused?
2. During a typical day, does your health limit you from moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf?
3. During a typical day, does your health limit you from moderate activities, such as climbing several flights of stairs?

During the past four weeks, have you had any of the following problems with your work or other regular activities as a result of PHYSICAL HEALTH:....

4. Accomplish less than you would like?
5. Limited in the kind of work or other activities you can do?

During the past four weeks, have you had any of the following problems with your work or other regular activities as a result of EMOTIONAL PROBLEMS....

6. Accomplish less than you would like?
7. Didn't do work or other activities as carefully as usual?
8. During the past four weeks, how much did pain interfere with your normal work (including both work outside the home and housework)? (PHYSICAL PAIN)

The following questions are about how you felt during the PAST FOUR WEEKS. How much of the time....

9. Have you felt calm and peaceful?
10. Did you have a lot of energy?
11. Have you felt down-hearted and blue?
12. During the PAST FOUR WEEKS, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting with friends, relatives, etc)?

A-3: SAMPLE NUMBERS FOR RESPONSES TO QUESTIONS ON SUICIDE, HHS 2001

Response	Question ^{1,2}		
	1 - Considered	2- Made A Plan	3 - Attempted
Number of Respondents That Answered Question	5,561	122*	55
Yes	119**	55	20
No (or 0 times for Ques. 3)	5,432	64	34
Don't know/not sure	3	1	1
Refusals	7	2	
Missing	112	5,551	5,618
TOTAL^{1,2}	5,673	5,673	5,673

¹ All respondents (18 Years and older)
² Sample numbers unweighted
* 3 more total responses were recorded for Question 2 than the yes category in Question 1 (they were no, don't know/not sure, or refused)

A-4: PREVALENCE OF CONSIDERED AND MADE A PLAN TO COMMIT SUICIDE BY HEALTH VARIABLES, ADULT POPULATION HHS 2001 WEIGHTED AND ADJUSTED

VARIABLE	Considered Suicide (No Missing Values)						Made a Plan			Total ^{1,2,3} Adult Population		
	Sub-Total	Yes						Yes			N	Col. %
		N	No Age Adjustment		Age Adjustment ⁴		N	% of N**	CI (95%)			
	N**		% of N**	CI (95%)	% of N**	CI (95%)						
Arthritis												
Yes	103,965	3,837	3.7	2.3 - 5.9	5.9	3.3 - 10.2	2,615	2.5	1.3 - 4.7	106,087	12.0	
No	762,591	10,855	1.4	1.1 - 1.9	1.4	1.0 - 1.9	5,191	0.7	0.4 - 1.1	775,143	88.0	
Asthma												
Yes	80,745	1,491	1.8	1.1 - 3.2	2.1	1.1 - 3.8	1,139	1.4	0.7 - 2.8	83,263	9.4	
No	785,811	13,201	1.7	1.3 - 2.2	1.7	1.3 - 2.2	6,667	0.8	0.5 - 1.3	797,968	90.6	
Diabetes												
Yes	64,191	1,134	1.8	0.9 - 3.3	4.2	1.4 - 12.0	388	0.6	0.3 - 1.4	65,436	7.4	
No	802,365	13,558	1.7	1.3 - 2.2	1.7	1.3 - 2.2	7,418	0.9	0.6 - 1.4	815,794	92.6	
HBC												
Yes	182,777	4,551	2.5	1.6 - 3.9	3.5	1.9 - 6.3	2,314	1.3	0.6 - 2.6	187,173	21.2	
No	683,779	10,141	1.5	1.1 - 2.0	1.4	1.0 - 1.9	5,492	0.8	0.5 - 1.3	694,057	78.8	
HBP												
Yes	168,216	4,552	2.7	1.8 - 4.1	3.3	1.9 - 5.6	2,421	1.4	0.8 - 2.7	171,470	19.5	
No	698,339	10,140	1.5	1.1 - 2.0	1.4	1.0 - 1.9	5,385	0.8	0.5 - 1.2	709,759	80.5	
Number of Chronic Conditions												
None of the Above	494,771	6,595	1.3	0.9 - 2.0	1.0	0.7 - 1.5	3,211	0.6	0.3 - 1.3	502,286	57.0	
1	214,684	3,458	1.6	1.0 - 2.5	1.7	1.0 - 2.6	1,874	0.9	0.5 - 1.6	218,143	24.8	
2	101,417	2,436	2.4	1.4 - 4.1	3.1	1.6 - 5.8	1,397	1.4	0.6 - 3.0	103,077	11.7	
> 2	55,684	2,203	4.0	2.0 - 7.5	6.0	2.6 - 13.2	1,324	2.4	0.9 - 6.2	57,724	6.6	
Mental Health SF12												
Don't know/Refused/Missing	27,524	**	**	**	**	**	**	**	**	28,226	3.2	
<31	17,839	3,386	19.0	11.7 - 29.3	19.7	12.5 - 29.5	1,861	10.4	5.0 - 20.3	19,318	2.2	
31-40	37,252	2,646	7.1	4.2 - 11.8	7.0	4.2 - 11.5	1,178	3.2	1.5 - 6.7	37,825	4.3	
41-50	132,976	4,529	3.4	2.1 - 5.4	3.6	2.2 - 6.0	3,002	2.3	1.2 - 4.3	134,673	15.3	
51-60	577,873	3,236	0.6	0.3 - 1.0	0.5	0.3 - 0.9	1,302	0.2	0.1 - 0.6	585,614	66.5	
61-70	72,644	469	0.6	0.2 - 2.2	0.5	0.2 - 1.4	**	**	**	75,126	8.5	
>70	**	**	**	**	**	**	**	**	**	**	**	
	866,555											
Physical Health SF12												
Don't know/Refused/Missing	27,524	**	**	**	**	**	**	**	**	28,226	3.2	
<31	20,313	2,331	11.5	8.6 - 15.2	28.6	22.2 - 35.9	1,160	5.7	2.3 - 13.6	20,408	2.3	
31-40	30,114	2,490	8.3	4.9 - 13.5	13.6	6.0 - 27.8	1,216	4.0	1.8 - 8.9	31,169	3.5	
41-50	82,969	1,979	2.4	1.3 - 4.2	2.9	1.6 - 5.3	877	1.1	0.4 - 2.7	84,869	9.6	
51-60	503,880	4,301	0.9	0.5 - 1.4	0.9	0.5 - 1.5	2,833	0.6	0.3 - 1.1	510,675	58.0	
61-70	201,664	3,074	1.5	0.9 - 2.7	1.5	0.9 - 2.5	1,203	0.6	0.2 - 1.8	205,791	23.4	
>70	**	**	**	**	**	**	**	**	**	**	**	
BMI Status												
Underwgt./Normal	453,828	6,199	1.4	1.0 - 1.9	1.4	1.0 - 1.9	2,259	0.5	0.3 - 0.9	461,531	52.4	
Overweight	272,852	4,739	1.7	1.0 - 2.9	2.0	1.2 - 3.4	3,212	1.2	0.6 - 2.4	277,718	31.5	
Obese	139,877	3,755	2.7	1.7 - 4.3	2.5	1.6 - 3.8	2,335	1.7	0.9 - 3.2	141,982	16.1	
Sample Size	5,561	119					55			5,673		
TOTAL	866,556	14,692	1.7	1.3 - 2.2	1.7	1.3 - 2.2	7,806	0.9	0.6 - 1.3	881,230	100.0	

¹ All respondents (18 Years and older), sample size 5,673
² Sample numbers provisionally weighted and adjusted* for total adult population of Hawai'i
* (total numbers are adjusted as homeless, Ni'ihau, Kalawao, group quarters, and households without telephones are not represented, see HHS Procedure Manual 2001)
³ Row and/or column totals may not sum to totals listed due to rounding
⁴ Age Adjustment For Hawai'i's 2000 Census Population
**Number of cases in sample numerator or denominator too small for reliability - not shown

**A-5: PREVALENCE OF CONSIDERED AND MADE A PLAN TO COMMIT SUICIDE BY
DEMOGRAPHIC VARIABLES A, ADULT POPULATION HHS 2001 WEIGHTED AND ADJUSTED**

VARIABLE	Considered Suicide (No Missing Values)						Made a Plan			Total ^{1,2,3} Adult Population		
	Sub-Total	Yes						Yes			N	Col. %
		N**	N	No Age Adjustment		Age Adjustment ⁴		N	% of N**	CI (95%)		
	% of N**			CI (95%)	% of N**	CI (95%)						
COUNTY												
O`ahu	630,460	7,970	1.3	0.8 - 1.9			4,931	0.8	0.4 - 1.4	640,175	72.6	
Hawai`i	106,677	3,555	3.3	2.4 - 4.6			1,583	1.5	0.9 - 2.4	108,748	12.3	
Kaua`i	41,817	1,111	2.7	1.7 - 4.0			674	1.6	0.9 - 2.8	42,938	4.9	
Maui	92,824	2,056	2.2	1.5 - 3.2			619	0.7	0.3 - 1.3	94,591	10.7	
Maui Island	85,408	1,754	2.1	1.3 - 3.1			511	0.6	0.3 - 1.2	87,045	9.9	
Moloka`i	4,485	**	**	**			**	**	**	4,585	0.5	
Lāna`i	2,509	109	4.3	1.8 - 10.2			**	**	**	2,539	0.3	
Gender												
Male	425,424	6,819	1.6	1.1 - 2.4			5,016	1.2	0.7 - 2.0	432,740	49.1	
Female	441,134	7,874	1.8	1.3 - 2.4			2,790	0.6	0.3 - 1.5	448,492	50.9	
ETHNICITY												
Caucasian	264,314	4,710	1.8	1.2 - 2.7	1.8	1.2 - 2.7	2,189	0.8	0.4 - 1.7	267,606	30.4	
Hawaiian	145,094	3,222	2.2	1.3 - 3.8	2.2	1.2 - 3.9	2,039	1.4	0.7 - 2.9	147,662	16.8	
Filipino	107,808	1,177	1.1	0.5 - 2.5	1.0	0.4 - 2.1	**	**	**	109,926	12.5	
Japanese	187,301	1,939	1.0	0.5 - 2.0	1.0	0.5 - 2.2	1,266	0.7	0.3 - 1.8	191,337	21.7	
Native American	13,226	1,654	12.5	6.3 - 23.4	12.3	6.2 - 22.8	**	**	**	13,257	1.5	
Other	142,999	1,955	1.4	0.6 - 3.1	1.4	0.6 - 3.3	1,637	1.1	0.5 - 2.8	145,628	16.5	
Don't know/Refused/Missing	5,814	**	**	**	**	**	--	--	--	5,814	0.7	
HISPANIC												
Yes	92,323	2,359	2.6	1.1 - 5.7			1,919	2.1	0.8 - 5.2	92,323	10.5	
No	785,324	12,046	1.5	1.2 - 2.0			5,887	0.7	0.5 - 1.1	785,324	89.1	
Don't know/Refused/Missing	3,583	**	**	**			--	--	--	3,583	0.4	
POVERTY												
<62.5%	73,054	2,697	3.7	2.2 - 6.1			1,290	1.8	0.8 - 3.8	74,634	8.5	
63-100%	59,151	1,921	3.2	1.7 - 6.3			1,492	2.5	1.1 - 5.8	61,113	6.9	
101-133%	46,779	1,704	3.6	1.9 - 6.9			704	1.5	0.5 - 4.1	47,116	5.3	
134-185%	95,677	2,389	2.5	1.4 - 4.5			825	0.9	0.3 - 2.4	97,822	11.1	
186-200%	19,811	**	**	**			--	--	--	20,236	2.3	
201-300%	161,889	2,418	1.5	0.8 - 2.7			1,200	0.7	0.3 - 1.8	165,143	18.7	
>300%	410,196	3,191	0.8	0.4 - 1.5			2,296	0.6	0.2 - 1.3	415,167	47.1	
Sample Size		119					55					
TOTAL	866,557	14,693	1.7	1.3 - 2.2	1.6	1.2 - 2.0	7,807	0.9	0.6 - 1.3	881,231	100.0	

¹ All respondents (18 Years and older), sample size 5,673
² Sample numbers provisionally weighted and adjusted* for total adult population of Hawai`i
*(total numbers are adjusted as homeless, Ni`ihau, Kalawao, group quarters, and households without telephones are not represented, see HHS Procedure Manual 2001)
³ Row and/or column totals may not sum to totals listed due to rounding
⁴ Age Adjustment For Hawai`i's 2000 Census Population
**Number of cases in sample numerator or denominator too small for reliability - not shown
-- No reported cases

**A-6: PREVALENCE OF CONSIDERED AND MADE A PLAN TO COMMIT SUICIDE BY
DEMOGRAPHIC VARIABLES B, ADULT POPULATION HHS 2001 WEIGHTED AND ADJUSTED**

VARIABLE	Considered Suicide (No Missing Values)			Made a Plan			Total ^{1,2,3} Adult Population		
	Sub-Total	Yes						N	Col. %
		No Age Adjustment			Yes				
		N	% of N**	CI (95%)	N	% of N**	CI (95%)		
N**									
Age									
18-24 Years	107,906	2,676	2.5	1.3 - 4.5	1,874	1.7	0.8 - 3.8	110,189	12.5
25-44 Years	344,126	6,554	1.9	1.3 - 2.9	3,644	1.1	0.6 - 2.0	348,379	39.5
45-64 Years	264,350	3,974	1.5	1.0 - 2.2	2,055	0.8	0.4 - 1.4	267,821	30.4
>65 Years	150,176	1,488	1.0	0.5 - 1.9	**	**	**	154,843	17.6
Insurance Status									
Uninsured	58,434	2,857	4.9	2.5 - 9.5	**	**	**	59,480	6.7
Insured	803,617	11,835	1.5	1.1 - 1.9	6,611	0.8	0.6 - 1.2	817,213	92.7
Don't know/Refused/Missing	4,505	--	--	--	--	--	--	4,536	0.5
Marital Status									
Married	486,774	5,415	1.1	0.7 - 1.7	2,963	0.6	0.3 - 1.2	494,483	56.1
A Member/Unmarried Couple	23,402	631	2.7	1.0 - 7.4	**	**	**	23,650	2.7
Widowed	61,934	708	1.1	0.4 - 3.4	**	**	**	63,760	7.2
Divorced	75,597	2,532	3.3	1.9 - 5.7	1,351	1.8	0.8 - 3.9	76,228	8.7
Separated	15,114	**	**	**	**	**	**	15,228	1.7
Never Married	201,574	4,803	2.4	1.5 - 3.8	2,902	1.4	0.7 - 2.8	205,553	23.3
Donk./Ref./Missing	2,161	--	--	--	--	--	--	2,327	0.3
Education									
No School - 8 Grade	20,705	689	3.3	1.1 - 9.3	--	--	--	21,182	2.4
Grades 9-11	36,374	992	2.7	1.3 - 5.8	819	2.3	0.9 - 5.4	37,795	4.3
Grade 12/GED	285,241	4,429	1.6	1.0 - 2.4	2,870	1.0	0.5 - 1.9	290,463	33.0
College 1-3 Years	242,474	5,666	2.3	1.6 - 3.5	2,476	1.0	0.5 - 2.0	246,747	28.0
College 4+ Years	278,957	2,634	0.9	0.5 - 1.8	1,641	0.6	0.2 - 1.5	282,041	32.0
Don't know/Refused/Missing	2,807	**	**	**	--	--	--	3,004	0.3
Household Type									
One Adult No Children	134,898	4,090	3.0	2.0 - 4.6	1,671	1.2	0.6 - 2.5	138,144	15.7
Adults No Children	371,576	5,203	1.4	0.9 - 2.2	3,564	1.0	0.5 - 1.8	377,423	42.8
One Adult With Children	33,346	708	2.1	0.7 - 6.1	**	**	**	33,537	3.8
Adults With Children	326,736	4,691	1.4	0.9 - 2.2	2,434	0.7	0.4 - 1.4	332,127	37.7
Sample Size	5,561	119			55			5,673	
TOTAL	866,556	14,692	1.7	1.3 - 2.2	7,806	0.9	0.6 - 1.3	881,231	100.0

¹ All respondents (18 Years and older), sample size 5,673
² Sample numbers provisionally weighted and adjusted* for total adult population of Hawai'i
*(total numbers are adjusted as homeless, Ni`ihau, Kalawao, group quarters, and households without telephones are not represented, see HHS Procedure Manual 2001)
³ Row and/or column totals may not sum to totals listed due to rounding
**Number of cases in sample numerator or denominator too small for reliability - not shown
-- No reported cases

**A-7: PREVALENCE OF CONSIDERED AND MADE A PLAN TO COMMIT SUICIDE BY
DEMOGRAPHIC VARIABLES C, ADULT POPULATION HHS 2001 WEIGHTED AND ADJUSTED**

VARIABLE	Considered Suicide (No Missing Values)				Made a Plan			Total ^{1,2,3} Adult Population	
	Sub-Total	Yes			Yes	Yes	N	Col. %	
		N	No Age Adjustment						
			% of N**	CI (95%)					
Employment Status									
Employed with unknown or 1 full or part time job	442,594	5,500	1.2	0.8 - 2.0	2,950	0.7	0.3 - 1.3	449,395	51.0
Employed with multiple jobs (full or part time)	72,028	1,036	1.4	0.7 - 3.0	517	0.7	0.3 - 1.5	72,584	8.2
Military with civilian job(s)	1,963	--	--	--	--	--	--	1,963	0.2
Unemployed looking for work	46,784	1,944	4.2	1.9 - 8.8	1,263	2.7	1.0 - 7.4	47,120	5.3
Other	303,188	6,212	2.0	1.5 - 2.9	3,077	1.0	0.6 - 1.7	310,169	35.2
Military									
Yes	41,640	--	--	--	--	--	--	42,167	4.8
No/Don't know/Refused/Missing	824,917	14,692	1.8	1.4 - 2.2	7,806	0.9	0.7 - 1.3	839,064	95.2
Student									
Yes	46,602	430	0.9	0.3 - 2.4	**	**	**	47,786	5.4
No/Don't know/Refused/Missing	819,955	14,262	1.7	1.3 - 2.3	7,537	0.9	0.6 - 1.3	833,445	94.6
Homemaker									
Yes	39,270	1,030	2.6	1.2 - 5.6	**	**	**	39,998	4.5
No/Don't know/Refused/Missing	827,287	13,663	1.7	1.3 - 2.1	7,348	0.9	0.6 - 1.3	841,233	95.5
Retired									
Yes	175,249	2,474	1.4	0.8 - 2.4	786	0.4	0.2 - 1.2	180,020	20.4
No/Don't know/Refused/Missing	691,307	12,218	1.8	1.3 - 2.3	7,020	1.0	0.7 - 1.5	701,211	79.6
Unable to work									
Yes	16,069	2,564	16.0	9.3 - 25.9	1,935	12.0	6.2 - 22.2	16,987	1.9
No/Don't know/Refused/Missing	850,488	12,128	1.4	1.1 - 1.9	5,871	0.7	0.4 - 1.1	864,244	98.1
Sample Size	5,561	119			55			5,673	
TOTAL	866,557	14,692	1.7	1.3 - 2.2	7,807	0.9	0.6 - 1.3	881,231	100.0

¹ All respondents (18 Years and older), sample size 5,673
² Sample numbers provisionally weighted and adjusted* for total adult population of Hawai'i
*(total numbers are adjusted as homeless, Ni`ihau, Kalawao, group quarters, and households without telephones are not represented, see HHS Procedure Manual 2001)
³ Row and/or column totals may not sum to totals listed due to rounding
**Number of cases in sample numerator or denominator too small for reliability - not shown
-- No reported cases

**A-8: SUICIDE IDEATION – PREVALENCE OF CONSIDERED AND MADE A PLAN TO COMMIT SUICIDE BY RESPONSE TO QUESTION ON SUICIDE HOTLINE, ADULT POPULATION HHS 2001
WEIGHTED AND ADJUSTED**

Question	Please repeat hotline number		Wait so I can take down hotline number		Not care about hotline number		Total ^{1,2,3} Adult Population
	N	Row %	N	Row %	N	Row %	N
Consider Suicide							
Yes	5,865	39.9	4,972	33.8	3,856	26.2	14,693
No	296,027	34.9	170,111	20.0	383,246	45.1	849,384
Don't know/Not sure	--	--	**	**	**	**	222
Refused	**	**	--	--	**	**	2,259
Missing	**	**	**	**	**	**	14,674
Made A Plan							
Yes	3,444	44.1	2,550	32.7	1,813	23.2	7,807
No	2,386	35.2	2,477	36.5	1,918	28.3	6,781
Don't know/Not sure	**	**	--	--	--	--	**
Refused	--	--	--	--	**	**	**
Missing	297,826	34.4	170,653	19.7	397,838	45.9	866,317
Times Attempted							
0	1,913	39.5	1,202	24.8	1,729	35.7	4,844
1-10	1,530	57.6	1,041	39.2	83	3.1	2,654
Don't know/Not sure/Refused	--	--	**	**	--	--	**
Missing	300,247	34.4	173,130	19.8	400,047	45.8	873,425

¹ All respondents (18 Years and older), sample size 5,673

² Sample numbers provisionally weighted and adjusted* for total adult population of Hawai`i

* (total numbers are adjusted as homeless, Ni`ihau, Kalawao, group quarters, and households without telephones are not represented, see HHS Procedure Manual 2001)

³ Row and/or column totals may not sum to totals listed due to rounding

**A-9: COMPARISON OF RESPONSE TO QUESTIONS ON SUICIDE IDEATION BEFORE AND AFTER
SEPTEMBER 11, 2001, ADULT POPULATION HHS 2001 WEIGHTED AND ADJUSTED**

Question	Before 9/11			After 9/11			Total ^{1,2,3} Adult Population	
	N	Col. %	CI (95%)	N	Col. %	CI (95%)	N	Col. %
Q 1 Considered Suicide								
Yes	10,817	1.9	± 0.29 1.4 - 2.5	3,875	1.3	± 0.31 0.8 - 2.1	14,692	1.7
Q 2 Made a Plan								
Yes	5,553	1.0	± 0.23 0.6 - 1.5	2,253	0.8	± 0.26 0.4 - 1.5	7,806	0.9
TOTAL	582,323	100.0		298,908	100.0		881,231	100.0

¹ All respondents (18 Years and older), sample size 5,673
² Sample numbers provisionally weighted and adjusted* for total adult population of Hawai`i
*(total numbers are adjusted as homeless, Ni`ihau, Kalawao, group quarters, and households without telephones are not represented, see HHS Procedure Manual 2001)
³ Row and/or column totals may not sum to totals listed due to rounding

A-10: CHI SQUARE VALUES SUDAAN, ADULT POPULATION HHS 2001 WEIGHTED AND ADJUSTED

A-10: Chi Square Values SUDAAN, Adult Population HHS 2001 Weighted and Adjusted			
Variable	Chi-Square Value	P-Value	d of f
Island	16.8	<0.01	5
County	14.4	<0.01	3
Household Type	5.6	0.13	3
Poverty Status	20.1	<0.01	6
Gender	0.2	0.68	1
Age Group	5.2	0.16	3
Insurance Status	3.9	0.05	1
Education Status	8.7	0.12	4
Marital Status	11.0	0.05	5
Ethnicity	10.8	0.06	5
Hispanic	0.9	0.35	1
General Health	22.3	<0.01	4
SF12 - P12	27.7	<0.01	5
SF12 - M12	38.9	<0.01	5
911	1.9	0.17	1
Arthritis	6.1	0.01	1
Asthma	0.1	0.78	1
Diabetes	<0.1	0.87	1
High Blood Pressure	4.1	0.04	1
High Blood Cholesterol	2.6	0.11	1
Number of Chronic Conditions	5.6	0.14	3
BMI	3.9	0.15	2
Employment	6.8	0.08	3
Unable to Work	10.6	<0.01	1

No Missing Values Included in Chi Square Calculation
*** Significant Chi-Square Values are in Bold**
**** Interactions of the above variables are not included**

A-11: PREVALENCE OF CONSIDERED, MADE A PLAN, AND ATTEMPTED SUICIDE (ADULT POPULATION HHS 2001); HEALTHY PEOPLE 2010 GOAL, THE SUICIDE RATE FOR US (1998)¹, AND THE SUICIDE RATE FOR HAWAI`I (2001 AND 2000)²

Variable	Adult Population ^{1,2} in Hawai`i (HHS 2000)	Suicide Ideation Question - Affirmative Responses						Actual Suicides ^{3,4}
		Considered		Made A Plan		Attempted		
		N	% CI (95%)	% CI (95%)	% CI (95%)	% CI (95%)		
Age Adjusted to Adult Population in Hawai`i 2000	881,230	1.7	1.3 - 2.2	0.9	0.6 - 1.3	0.3	0.2 - 0.5	
Age Adjusted to Adult Population in the US 2000		1.8	1.3 - 2.4					
<hr/>								
HP 2010 Goal							0.0050	
U.S. 1998 Baseline							0.0113	
Hawai`i 2001							0.0112	
Hawai`i 2000							0.0115	
Ratio Attempts to Suicides 2000								27.0
<hr/>								
¹ All respondents ² Sample numbers provisionally weighted and adjusted* for total adult population of Hawai`i *(total numbers are adjusted as homeless, Ni`ihau, Kalawao, group quarters, and households without telephones are not represented, see HHS Procedure Manual 2001) ³ Expressed as number per hundred rather than the usual number per 100,000 for means of comparison ⁴ Includes all ages								

¹Department of Health and Human Services. *Health People 2010 objectives*.
<http://www.health.gov/healthypeople/document/tableofcontents.htm#partb>.

²Office of Health Status Monitoring. *Vital Statistics Annual Report Hawai`i 2000*. Hawai`i Department of Health, March 15, 2002.
http://www.state.hi.us/doh/stats/vr_00/death1.html

A-12: TOTAL SUICIDES (VS 2001, RESIDENTS ONLY) BY DEMOGRAPHIC VARIABLE FOR THE POPULATION OF HAWAI`I (UNADJUSTED WEIGHTED HHS 2001 DATA) - DATA SOURCE: HAWAI`I DEPARTMENT OF HEALTH, OFFICE OF HEALTH STATUS MONITORING VITAL STATISTICS.

Variable	Number	Population of Hawai`i	Rate per 100,000 of Population	Rate per 100 (%) of Population
Island of Residence				
O`ahu	92	876,156	10.5	0.01
Hawai`i	19	148,677	12.8	0.01
Kaua`i	10	58,463	17.1	0.02
Maui	10	117,452	8.5	0.01
Lāna`i and Moloka`i	5	10,789	46.3	0.05
Age				
18-25 Years	17	132,356	12.8	0.01
26-45 Years	47	365,474	12.9	0.01
46-65 Years	42	266,268	15.8	0.02
>65 Years	23	151,672	15.2	0.02
Other/Unknown	7	295,767	2.4	<0.01
Gender				
Male	103	608,671	16.9	0.02
Female	33	602,866	5.5	0.01
Ethnicity				
Caucasian	50	269,548	18.5	0.02
Hawaiian/Part Hawaiian	23	274,361	8.4	0.01
Filipino	19	192,039	9.9	0.01
Japanese	31	242,389	12.8	0.01
All Other	10	217,819	4.6	<0.01
Unstated/Ref./Unk.	2	15,381	13.0	0.01
Hispanic				
Hispanic	7	126,788	5.5	0.01
Not Hispanic	128	1,078,691	11.9	0.01
Unknown	1	6,057	16.5	0.02
Marital Status				
Never Married	57	230,031	24.8	0.02
Married	52	541,322	9.6	0.01
Widow(er)	7	54,881	12.8	0.01
Divorced	18	58,691	30.7	0.03
Other/Unknown	2	326,612	0.6	<0.01
TOTAL	136	1,211,537	11.2	0.01
<p>Values in Bold are Above the State Suicide Rate Per 100,000 of 11.225 Variables filled in are above the State Average for Attempted Suicide (HHS 2001)</p>				

**A-13: SUICIDE RATE PER 100,000 FOR TOTAL U.S. POPULATION IN 1998 - DATA SOURCE:
NATIONAL VITAL STATISTICS SYSTEM (NVSS), CDC, NCHS.**

Total Population U.S., 1998	Suicides Rate per 100,000
TOTAL	11.3
Race and ethnicity	
American Indian or Alaska Native	12.6
Asian or Pacific Islander	6.6
Asian	DNC
Native Hawaiian and other Pacific Islander	DNC
Black or African American	5.8
White	12.2
Hispanic or Latino	6.3
Not Hispanic or Latino	11.8
Black or African American	6
White	12.8
Gender	
Female	4.3
Male	19.2
Education level (aged 25 to 64 years)	
Less than high school	17.9
High school graduate	19.2
At least some college	10
Age (not age adjusted)	
10 to 14 years	1.6
15 to 19 years	8.9
20 to 24 years	13.6

DNA = Data have not been analyzed. DNC = Data are not collected.
DSU = Data are statistically unreliable.
Note: Age adjusted to the year 2000 standard population.

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