American Samoa Adult Hybrid Survey





AMERICAN SAMOA GOVERNMENT DEPARTMENT OF HUMAN & SOCIAL SERVICES

"Matagaluega Tautua ma Alagamanuia mo Tagata Lautele"

Talofa lava,

The lack of credible and quality statistics on the behavioral health of American Samoa's population and the desire for updated data on substance use/abuse and consequences prompted the need for a comprehensive approach to combine all subject matters in the American Samoa Hybrid Survey. It marks a milestone in data collection efforts for Behavioral and Mental Health services.

The American Samoa Department of Human and Social Services (DHSS) receives annual funding from the Substance Abuse and Mental Health Services Administration (SAMHSA) of the U.S. Department of Health and Human Services (HHS) to provide substance use/abuse treatment and prevention services. SAMHSA is charged with reducing the impact of substance abuse and mental illness on communities. Examining trends in behavioral health and mental health data is critical to providing the most appropriate and highest quality behavioral health care.

In 2016, the American Samoa Department of Human and Social Services developed a Behavioral and Mental Health survey to meet gaps in data for adult population 18 and older for the National Outcomes Measure requirement for SAMSHA funded projects. This face-to-face interview survey would be the source of statistical information on selfreported use of illegal drugs, alcohol and tobacco and the behavioral and mental health indicators by the residents of American Samoa. However, in 2017 the Pacific Island Health Officers Association (PIHOA) proposed to DHSS to leverage resources, combine the instrument and conduct a hybrid survey with the American Samoa Department of Health (DOH). The hybrid survey approach collects self-reported data on behavior among adults, substance use treatment, mental health service use, initiation of substance use and substance use risk and protective factors as well as physical and biochemical measurements by modifying the Behavioral Risk Factor Surveillance System (BRFSS) Survey and the STEPwise approach to Surveillance (STEPS) Survey.

The results of the survey will assist with DHSS prevention, treatment and recovery programs for behavioral and mental health, substance use, abuse and misuse.

In closing, I would like to express our sincerest appreciation and *fa'afetai tele* to everyone who contributed to this survey as well as our Federal grantor and the American Samoa Department of Health, the Pacific Island Health Officers Association, the Centers for Disease Control and Prevention, the World Health Organization and the Center for Application of Substance Abuse Technologies, University of Nevada Reno who partnered with us in this endeavor.

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"Providing the best possible services for the people we serve."

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FOREWORD

American Samoa, as many of its neighbors in the Pacific Region has been plagued with Non-Communicable Diseases that are currently among the leading causes of death and disability among our people. In order to address this threat to the health of our people there is an urgent need to have accurate information on NCDs. Current and accurate information will inform key planning and decision making in the efforts to mitigate and minimize the impact of NCDs on our Territory.

The NCD Adult Hybrid Survey is a collaborative effort between regional and federal partners such as the World Health Organization, the Centers for Disease Control and Prevention, the Secretariat of the South Pacific Community, the Pacific Islands Health Officers Association, the American Samoa Government through the Department of Health and the Department of Human and Social Services and of course the people of American Samoa.

The NCD Adult Hybrid Survey was an immense undertaking and would not have been possible without the support and collaboration of all of our partners. I take this opportunity to extend my sincere appreciation on behalf of the Department of Health to all those who brought this effort to fruition. Our genuine gratitude is extended to all of the organizations listed above, and to the people of American Samoa for allowing our teams to enter their homes and work places, and for sharing vital information with us that benefits the Territory as a whole.

The NCD Hybrid Survey helps us have a better understanding of both the challenges and opportunities that exist as we strive to improve overall health of our community. It is our hope that our people also have a better understanding of their health as a result of the Survey and every sector of our society can work together towards a healthier American Samoa.

Faafetai Tele,

Motusa Tuileama Nua, Director, Department of Health

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Summary

The aim of this report is to assess the current prevalence of non-communicable diseases (NCDs) and selected risk factors for NCDs, as well as substance use and mental health indicators in American Samoa. We hope that this report enables American Samoa to better understand its burden of these diseases and conditions, monitor trends, and determine who is at greatest risk for poor health in order to improve health through the development of targeted evidence-based interventions.

NCDs such as heart disease, cancer, and diabetes are global issues that result in high burdens of disability and premature death [1]. Additionally, substance use and poor mental health can also



greatly contribute to disability and premature death throughout the world [2]. NCDs, substance use, and poor mental health are highly linked to a number of key risk factors, such as cigarette smoking, tobacco chewing, excessive alcohol consumption, illicit substance use, unhealthy diet, lack of physical activity, overweight/obesity, and emotional trauma [1]. Over the past few decades there have been drastic changes in lifestyle in American Samoa, an island territory of the US in the South Pacific Ocean. American Samoa has shifted from mostly subsistence living and reliance on locally produced crops and fish to a more Western lifestyle that includes sedentary occupation and more reliance on imported foods, as well as the introduction of many illicit substances. This lifestyle shift has resulted in higher burdens of certain risk factors, NCDs, substance use, and poor mental health [3].

The NCDs of concern in the USAPIs include diabetes, heart disease, stroke, cancer, and chronic obstructive pulmonary disease [1,2]. The social determinants of health demonstrate that there is a complex system of factors that are linked to NCDs which include demographic, social, technological, cultural, environmental, biological, economic, and political [4]. However, the four leading risk factors attributable to NCDs globally include unhealthy diets (insufficient consumption of fruit and vegetables, excessive consumption of salt, high fat, and high sugar foods), insufficient physical activity, excessive consumption of alcohol, obesity, and tobacco use [2]. In the Pacific Islands, betel nut (which is carcinogenic to humans) chewing with or without tobacco is also identified as a significant health problem [5].

In American Samoa, there has not been a population-based NCD adult survey since 2004 and there has never been a territorial-wide substance use/mental health survey conducted. These data from 2004 are the only data that American Samoa currently have to estimate NCD or substance use prevalence, therefore a new survey was greatly needed to evaluate progress and establish current prevalence of NCDs and risk factors as well as establish a baseline for many substance use/mental health indicators. This information is vital in order to prioritize public health programs and select appropriate interventions.

American Samoa undertook a novel population-based household survey that combined NCD and associated risk factor indicators and substance use between 2017-2018. A total of 1005 individuals aged 18 years or older participated in the survey. Respondents answered questions about their alcohol and tobacco use, other substance use, dietary habits, physical activity, health access, oral health, health conditions, mental health, and cancer screening. Additionally, height and weight, fasting blood glucose, total cholesterol, and blood pressure were measured.

Here are American Samoa's (AS) 2018 Hybrid Survey prevalence data compared to U.S. prevalence data using the most comparable sources available. Aside from alcohol consumption and high cholesterol, all other indicators are worse in American Samoa when compared to the US.

	AS %	US %	Comparison
Current tobacco use (past 30 days)			
Cigarette smoking	21.5	17.1	↑
Current alcohol use (past 30 days)			
Alcohol use (any)	14.7	55.1	\downarrow
Binge drinking (5+ drinks per day)	11.6	17.4	\downarrow
Nutrition			
<5 servings of fruits and vegetables (per day)	78.8	76.6 ¹	1
Health and healthcare			
Fair or poor health (self-reported)	30.9	17.6	1
No medical checkup in the past year	45.2	29.6	1
Oral health			
No dental visit within past year	45.2	33.6 ²	1
Extracted permanent teeth due to decay/disease	64.4	43.1 ²	1
Chronic conditions			
Overweight/obesity	93.5	71.6 ³	1
Diabetes (self-reported + undiagnosed)**	33.6	12.24	1
Hypertension (self-reported + undiagnosed)**	39.8	33.2 ³	1
Measured high total cholesterol (≥240mg/dL)	4.0	11.8 ³	\downarrow
Cancer screening			
No Pap smear in the past 3 years (women 21-65 yo)	70.7	20.22	1
No mammogram in the past 2 years (women 50-74yo)	74.6	22.4 ²	1

Source for US comparison: BRFSS 2017 unless noted with ¹BRFSS 2009, ²BRFSS 2016, ³NHANES 2015-2016 (adults 20+), ⁴NHANES 2011-2014 (adults 20+), **Diabetes prevalence is estimated based on either a self-report of diabetes for which the patient is taking medication and/or a single fasting blood sugar of \geq 126mg/dL during the survey; Hypertension prevalence is estimated based on either a self-report of hypertension for which the patient is taking medication and/or a measured average blood pressure (of 3 readings) of \geq 140/90.

NOTE: Statistically significant differences could not be determined due to the fact that BRFSS comparison data are based on median values of the 50 US States + DC. Therefore, differences of 2% were considered to be comparatively different. A " \uparrow " indicates a worse prevalence in American Samoa compared to the US, and a " \downarrow " indicates a better prevalence in American Samoa compared to the US.

Surveillance in American Samoa:

The table below compares the 2004 American Samoa STEPS results from adults 25-64 years old to the 2018 American Samoa Hybrid Survey <u>limited to</u> <u>adults 25-64 years old for comparison</u>. From 2004 to 2018, cigarette smoking and alcohol consumption prevalence decreased, although binge drinking prevalence and remained about the same. Overweight/obesity and diabetes prevalence remains high in American Samoa. Although there appears to be a decrease in cholesterol prevalence, hypertension prevalence has increased.

2004%	2018%	Comparison
39.4	23.9	\leftarrow
36.5	16.2	\downarrow
10.9	13.0	Ο
93.5	94.7	Ο
47.3	45.4	Ο
34.2	39.7	1
23.4	14.9	\downarrow
	2004% 39.4 36.5 10.9 93.5 47.3 34.2 23.4	2004% 2018% 39.4 23.9 36.5 16.2 10.9 13.0 93.5 94.7 47.3 45.4 34.2 39.7 23.4 14.9

NOTE: Chi-square tests were used for comparison. Any p<0.05 were considered statistically different. A " \uparrow " indicates a statistically significant "worse" change from 2004 to 2018, a " \downarrow " indicates a statistically significant "better" change from 2004 to 2018, and a "O" indicates that there was not a statistically significant change from 2014 to 2018.

***Note that the diabetes estimate is based on a self-report of diagnosed, medicated diabetes and/or a fasting blood glucose of \geq 110mg/dL. This is lower than the normal FBS cutoff for diabetes due to the fact that this calculation was used in the 2004 STEPS report. Therefore, this cutoff was used for comparison purposes in this table only.

Introduction

Non-communicable diseases (NCDs) are the leading causes of morbidity and mortality for adults in the United States Affiliated Pacific Islands (USAPIs) (American Samoa, Guam, Commonwealth of the Northern Mariana Islands [CNMI], Federated States of Micronesia [FSM], Republic of Palau, and Republic of Marshall Islands [RMI]) [5].



On May 25, 2010 the Pacific Island Health Officers Association (PIHOA) declared a Regional State of Health Emergency due to the epidemic of non-communicable diseases in the USAPI due to the fact that NCDs account for around 70-75% of all deaths in the region [1]. The NCDs of concern in the USAPIs include diabetes, heart disease, stroke, cancer, and chronic obstructive pulmonary disease [1,2]. Risk factors for developing NCDs within these island jurisdictions are among the highest in the world. This includes tobacco use, poor diet, sedentary lifestyles, and binge drinking [1]. In most of the USAPIs, betel nut (which is carcinogenic to human) chewing with or without tobacco is also identified as a significant health problem [7].

As previously mentioned, the last NCD adult population-based survey was conducted in 2004. This was a STEPS survey supported primarily by the World Health Organization (WHO). Over time, other support partners have requested NCD and other health indicator data from American Samoa that have not been collected and therefore cannot be provided. Additionally, there has never been a comprehensive, population-based adult survey conducted in American Samoa focused on substance use and mental health indicators.

Although support partners such as Centers for Disease Control and Prevention (CDC), Substance Abuse and Mental Health Services Administration (SAMHSA), and WHO have standardized surveillance systems, they are not always the best fit for American Samoa or the other USAPIs. This is due to the fact that American Samoa is a low-resource setting that lacks technological infrastructure and epidemiological capacity to maintain multiple NCD surveillance systems. Therefore, the USAPIs have shifted to a "hybrid approach" in which key indicators from multiple support partner surveillance systems are integrated into one survey, and multiple partners contribute financially and through technical support to conduct the "hybrid" survey.

For this survey, the American Samoa Department of Health (ASDOH) and the American Samoa Department of Human and Social Services (ASDHSS) combined efforts to collaborate on a hybrid survey that collected both NCD and substance use and mental health indicators that meets the needs of both departments. Technical support was provided primarily by PIHOA. Other technical and financial support was provided by CDC, SPC, SAMHSA, and WHO.

American Samoa is comprised of seven islands in the southern Pacific Ocean and is a territory of the United States. It covers a total land area of approximately 76 square miles. There are three geo-political districts: Western District, Eastern District, and Manu'a District, as well as two "unorganized" atolls- Rose Atoll and Swain's Island. The largest island in American Samoa is Tutuila and covers an area of 55 square miles. Pago Pago, located on Tutuila is the the political and commercial center of American Samoa [3].



The total population of American Samoa is 55,519 (2010 census). Over half (53%) of the population of American Samoa is less than 20 years of age [8]. According to the 2010 census, there were 28,170 males (50.7%) and 27,349 (49.3%) females. A majority of the population resides in the Western District with 31,329 residents (56.4%). This is followed by the Eastern district with 23,030 residents (41.5%), then the Manu'a district with 1,143 residents (2.1%). The total fertility rate in American Samoa is 2.7 children born/woman. However, the population is decreasing due to out migration.

Survey Methodology

The American Samoa Hybrid Survey aimed to assess NCD risk factors such as fruits and vegetables consumption, processed meats consumption, sugar sweetened beverages consumption, physical activity levels, tobacco use, alcohol use, healthcare utilization, oral health, as well as NCD conditions by self-diagnosis and cancer screening rates. Additionally, the American Samoa Hybrid survey also collected extensive data on key substance abuse and mental health indicators. Finally, the American Samoa Hybrid Survey collected physical measurement of height, weight, blood pressure, and biochemical measurement of fasting blood glucose and total cholesterol.

The American Samoa Hybrid survey includes questions from validated instruments such as the CDC Behavioral Risk Factor Surveillance System (BRFSS), WHO STEPwise approach to Surveillance (STEPS), CDC National Health and Nutrition Examination Survey (NHANES), SAMHSA National Outcomes Measures (NOMs), as well as locally developed questions as needed.

OBJECTIVES

- 1. Inform the community on NCD and substance use/mental health and risk factor prevalence in American Samoa.
- 2. Use these data to determine whether or not current efforts are succeeding in decreasing risk factors and the prevalence of common NCDs and mental disorders.
- 3. Support further research on NCD and substance use/mental health risk and protective factors in American Samoa.
- 4. To direct policy and program strategies to reduce NCDs and mental health disorders.

TARGET GROUP

Participants eligible for the American Samoa Hybrid survey included all American Samoa residents aged 18 years and over who were able to provide consent.

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Sample Summary

The sample collected was similar to population estimates based on the 2010 Census. Although the sample appears to be slightly more female and a bit older, the comparison population statistics are almost a decade old. Therefore, these data were not weighted.

	Survey sample	2010 Census data (18 and older)
	n=1005	n=32,054
Gender		
Male	452 (45%)	16,019 (50.0)
Female	553 (55%)	16,035 (50.0)
Age group		
18-24 years	108 (11%)	6,147 (19.2)
25-34 years	140 (14%)	6,831 (21.3)
35-44 years	193 (19%)	7,206 (22.5)
45-54 years	224 (22%)	6,065 (18.9)
55-64 years	189 (19%)	3,538 (11.0)
65+ years	151 (15%)	2,267 (7.1)
District		
(total population)		
Eastern	397 (40%)	23,030 (41.5%)
Western	608 (60%)	31,329 (56.4%)
	/	- , (, -)

Demographics

Gender Male	<u>n</u> //3	<u>%</u> // 1
Female	443 552	44.1 54 9
Transgender (Male to Female)	9	0.9
Transgender (Female to Male)	1	0.1
Education		
Less than high school	82	8.2
High school	682	68.0
Associate's degree	130	13.0
Bachelor's degree	66	6.6
Graduate or professional degree	43	4.3
Ethnic Background		
Samoan	942	93.9
Other	61	6.1
Citizenship/Nationality		
United States	96	9.6
United States National	631	63.2
Other	271	27.2
Marital Status		
Single, never married	238	23.7
Married / Common law or domestic partnership	666	66.4
Widowed	65	6.5
Divorced/separated	34	3.4
Employment Status		
Employed for wages	397	39.8
Employed not for wages	18	1.8
Self-employed	55	5.5
Out of work, looking	86	8.6
Out of work, not looking	89	8.9
Homemaker	186	18.6
Retired	144	14.4
Student	23	2.3

Demographics

Industry of Employment (among those employed		
for wages)	<u>n</u>	<u>%</u>
Cannery/fishing	59	14.9
Government	210	53.0
Hospitality	5	1.3
Retail/Wholesale	53	13.4
Other	69	17.4
Military Status		
Active Duty	7	0.7
Reservist	8	0.8
Veteran	28	2.8
Retired	24	2.4
Never Served	937	93.3
Religion		
Congregational Christian Church	360	36.0
Catholic	165	16.5
Methodist	94	9.4
Seventh Day Adventist	37	3.7
LDS/Mormon	152	15.2
Pentecostal/AOG	107	10.7
Baha'i	5	0.5
Jehovah's Witness	10	1.0
Other	61	6.1
None	10	1.0
Household Income		
\$0	62	7.1
\$1 to < \$10,000	303	34.5
\$10,000 to <\$20,000	245	27.9
\$20,000 to <\$30,000	139	15.8
\$30,000 to <\$40,000	64	7.3
\$40,000 to <\$50,000	28	3.2
\$50,000 or more	36	4.1

NOTE: some Ns may not total 1005 due to responses of "don't know" or "refused"

General Health

About one-third (30.9%) of adults in American Samoa self-reported their general health to be fair or poor.



When we examine self-report of fair or poor health by demographics, we found there were no significant differences reported for gender, age, education level, or district.



Self-reported health status among Adults in American Samoa, 2018

Access to Care

Overall, nearly half (45.2%) of adults in American Samoa did not receive an annual checkup in the past year, and 12.3% of adults have never had an annual checkup.

Last Annual Exam among Adults in American Samoa, 2018



Younger adults had a higher prevalence of not having an annual exam. There were no statistically significant differences between gender, education levels, or district.



Oral Health

About two out of every five adults (39.3%) in American Samoa had a dental visit in the past year. About one in every five adults (18.3%) have never seen a dentist. About two-thirds (64.4%) of adults in American Samoa have had at least one tooth removed due to tooth decay or gum disease.



Last Dental Exam among Adults in American Samoa, 2018

Number of Permanent Teeth Removed due to Tooth Decay or Gum Disease among adults in American Samoa, 2018



Overweight / Obesity

Body Mass Index (BMI) is calculated based on height and weight measurements. Based on these measurements, about 93.5% of adults in American Samoa were overweight or obese. The majority (80.2%) of American Samoan adults had obesity.



Higher prevalence of obesity was observed among women, those with less education, as well as those living in the Western District.





Hypertension

About two out of five three adults (39.8%) in American Samoa had high blood pressure (≥140/90) during screening or self-reported having hypertension* for which they took medication.

* Hypertension prevalence is estimated based on either a self-report of hypertension for which the individual is taking medication and/or a measured average blood pressure (of 3 readings) of ≥140/90.



Hypertension prevalence increased with age, with over half (58.4%) of adults 65 years and older having hypertension. There were no significant differences observed by gender, education, or district.



Hypertension Diagnosis & Control

Among the adults in American Samoa classified as having hypertension, about half (52.8%) did not report that they had been diagnosed with hypertension. These individuals are therefore not receiving any treatment for their hypertension. 42.8% of individuals classified as having hypertension reported that they were diagnosed and taking medication for their hypertension, and 4.4% reported that they had been diagnosed, but were not currently on medication for their hypertension.

Diagnosis Status among Adults with Hypertension in American Samoa, 2018 Diagnosed, not on meds 4.4%

on Meds 42.8%

Among those adults who reported that they were diagnosed and taking medication for their hypertension, 40.8% had an uncontrolled blood pressure measurement (average blood pressure [of 3 measurements] during survey was \geq 140/90). This indicates that these individuals with hypertension are not controlled.

52.8%

Control Status among Diagnosed with Hypertension and on Medication in American Samoa, 2018



Diabetes

33.6% of adults had measured high fasting blood sugar (≥126mg/dL) or selfreported having diabetes* for which they were taking medication. 21.8% of adults were found to have pre-diabetes.

*Diabetes prevalence is estimated based on either a selfreport of diabetes for which the patient is taking medication and/or a single fasting blood sugar of 126mg/dL or higher during the survey. Pre-diabetes is estimated based on either a self-report of pre-diabetes and/or a single fasting blood sugar of 100-125 mg/dL during the survey.



Diabetes prevalence increased with age, with a prevalence of 52% among those 65 and older. There were no statistically significant differences between gender, education, and districts.



Diabetes Diagnosis & Control

Among those individuals classified as having diabetes, about half (46.6%) did not report having been diagnosed with diabetes. 44.8% reported having diabetes and currently being on medication for their diabetes, and 8.6% reported that they had been diagnosed with diabetes but were not currently taking medication for their diabetes.



Among those adults in American Samoa who reported being diagnosed with diabetes and currently taking diabetes medication, about two-thirds (65.2%) had high measured fasting blood sugar (fasting blood sugar was 126mg/dL or higher during survey). This indicates that these diabetics are not controlled.



Total Cholesterol

14.5% of adults in American Samoa had "elevated" total cholesterol
(≥200mg/dL) during screening.
However, 4% had "high" total cholesterol (≥240 mg/dL).



Elevated total cholesterol prevalence was highest among women and adults aged 55-65 years. There were no significant differences between education level or district.



Self-Reported Chronic Disease

Self-reported chronic disease prevalence is organized below by most prevalent to least.

	%	95% Confidence Interval	
Gout	8.7	7.0	10.5
Arthritis	6.1	4.6	7.6
Asthma	5.7	4.3	7.1
Heart Attack	3.6	3.4	4.9
Other Heart Condition	3.3	2.2	4.4
Coronary Heart Disease	3.1	2.0	4.2
COPD	2.4	1.5	3.4
Ulcer	2.1	1.2	3.0
Emphysema	1.8	1.0	2.6
Stroke	1.6	0.8	2.4
Cancer	1.0	0.4	1.6

Cigarette Smoking

About one out of five (21.5%) adults in American Samoa reported cigarette smoking in the last 30 days. 38.1% of these adults smoke every day. The average age adults started smoking among current smokers in American Samoa was 21 years old.



Smoking prevalence was highest among men. There were no significant differences between education level or district. There was a significantly lower prevalence of cigarette smoking among adults 65 years and older.



Other Tobacco Use & Smoking Cessation Behavior

About 1% of adults in American Samoa reported using e-cigarettes, personal vaporizer (PV), or electronic nicotine in the past 30 days. 0.5% reported chewing tobacco in the past 30 days.

Other Tobacco Behavior	<u>n</u>	<u>%</u>
Chewed Tobacco in past 30 days	5	0.5
E-cig, PV, or electronic nicotine in past 30 days	11	1.1

Among smokers, about half (49.0%) reported that they wanted to quit. About two-thirds (66.5%) of smokers reported that they tried quitting. In addition, 25.6% reported being aware of the American Samoa Tobacco Quitline.





Second-Hand Smoke Exposure

About one-third (29.5%) of all adults in American Samoa reported any sort of exposure to second-hand smoke (SHS) at home, in a vehicle, or at work in the past 7 days.



The most common place of second-hand smoke exposure was in the home (17.6%). 16.7% of adults reported second-hand smoke exposure in a vehicle and 12.2% of adults reported second-hand smoke exposure at work.



Alcohol Use and Binge Drinking

14.7% of adults in American Samoa reported alcohol use in the past 30 days. 0.6% of adults reported drinking alcohol every day in the past 30 days. 11.6% of adults reported binge drinking in the past 30 days. The average age that adults started drinking among those who drank in the past 30 days in American Samoa was about 21 years old. In addition, among adults who drank in the past 30 days, 25% of them also reported drinking and driving in the past 30 days.

*(binge drinking is defined as drinking 4 or more standard drinks on one occasion for women and 5 or more standard drinks on one occasion for men)



Binge drinking was more prevalent among men and adults 25-34 years old. There was no statistically significant difference in binge drinking by education or district.



Fruit and Vegetable Consumption

A majority of adults (78.8%) consumed less than the recommended daily servings of fruits and vegetables (at least 5 per day), and 15.0% consume no or very little (<1 serving) fruits and vegetables daily.



Very low fruit and vegetable consumption (<1 serving per day) was more prevalent among men and younger adults.



Processed Meat Consumption

Most adults in American Samoa (90%) consumed processed meats (defined as packaged or canned modified mean products such as spam, hotdogs, vienna sausages, etc.) at least once per day. Over half (57.9%) consume processed meats two or more times per day.



Heavy consumption of processed means (2+ times per day) was more prevalent younger adults and less educated adults.





Eastern

Western

Sugar-Sweetened Beverages

Most adults (78.5%) in American Samoa consumed at least one serving of sugarsweetened beverage (SSB) each day. About half (52.9%) consumed 2 or more serving of SSBs daily.



Heavy consumption of SSBs (2+ SSB servings daily) was most prevalent among younger adults, less educated adults, and those living in the Eastern districts.



Physical Activity

In American Samoa, about 24.5% of adults did not engage in any physical activity specifically for exercise in the past month. The top types of physical activity reported were walking (45.3%), Savali (8.4%), Zumba (6.3%), and running (5.7%).



There does not appear to be any significant differences by gender, age, education, or district categories when examining no physical activity specifically for exercise.





Colon Cancer Screening: Colonoscopy

Most adults 50-75 years old in American Samoa (87.7%) have never received a colonoscopy. About 12.3% of adults 50-75 years meet the American Cancer Society recommendation for receiving a colonoscopy every 10 years.



The recommendation for receiving a colonoscopy was met more by older adults, more educated adults, and those living in the Eastern districts.



Colon Cancer Screening: Blood Stool Test

Three-quarters (75.1%) of adults in American Samoa have never received a Blood Stool Test. About 11% of adults 50-75 years old in American Samoa met the American Cancer Society recommendation of receiving a Blood Stool Test once per year.



The recommendation for receiving a Blood Stool Test was met more by older adults, more educated adults, and those living in the Eastern districts.



Any Colon Cancer Screening

Among adults 50-75 years old, 17.6% have had a colon cancer screening. Any colon cancer screening is defined as someone who has had a blood stool test in the past year and/or a colonoscopy in the past 10 years.



Adults 65-75 years old were more likely to have received any colon cancer screening. Adults with more than a high school education as well as adults living in the Eastern district also had a higher prevalence of receiving any colon cancer screening. There was no significant difference between men and women.



Female Cancer Screening: Mammogram & Clinical Breast Exam

About 1 in 4 women (25.4%) aged 50-74 years in American Samoa have received a mammogram in the past two years per US Preventative Task Force (USPTF) recommendation. 67% have never received a Clinical Breast Exam (CBE). There are currently no USPTF guidelines for CBE.



The recommendation for receiving a mammogram was met more by women 65-74 years old and more educated women.



Female Cancer Screening: Pap Smear

About 29.3% of women aged 21-65 years in American Samoa had a Pap Smear in the past 3 years (per USPTF recommendation); Over half (59.2%) have never had a Pap Smear.



The recommendation for receiving a Pap Smear was met more often by more educated women and women 31-40 years old.



Other Drugs Use and Disapproval of Substances

4.4% of adults in American Samoa reported using prescription drugs without doctor's orders, 1.1% reported using marijuana, and less than 1% reported using hallucinogens, inhalants, or heroin / crack / cocaine / methamphetamine.

Other Drug Use Marijuana	<u>%</u> 1.1
Heroin, crack, cocaine, or methamphetamine	0.2
Hallucinogens, such as LSD, PCP or mushrooms	0.0
Inhalants or sniffed/huffed substances such as glue, gasoline, paint thinner, markers, or butane	0.1
Prescription drugs such as tramadol, demerol, oxycodon, codeine (Tylenol 3), or morphine without a doctor's orders	4.4

Participants were asked to assess disapproval of certain substances. Strong disapproval was high among all substances, however almost 10% of adults still approve of cigarette, marijuana, and regular alcohol use.

Disapproval of Substance Use among adults in American Samoa, 2018

Strongly Disapprove Somewhat Disapprove Neither Approve or Disapprove Somewhat Approve Strongly Approve



Perception of Harm

Participants were asked to evaluate risk of certain substances. Illicit substances were seen as most risky, followed by marijuana, prescription drugs, cigarettes, and binge drinking. Use of non-ceremonial Ava was perceived as least risky.



Workplace Policy

In the past 12 months, 8.5% of employed adults in American Samoa were tested by their employers for alcohol or drug use in the past year. 90.4% of adults reported that they would not be more likely to want to work for an employer that tests its employees for drug or alcohol use on a random basis.



Participants who reported using drugs or alcohol in the past 30 days were asked about negative consequences regarding their use of drugs and alcohol. Many of these participants reported negative consequences of their drug and alcohol use.

Negative Consequences of Drug/Alcohol Use among adults in American Samoa, 2018



Depression

Participants were asked questions regarding their mental health status. 7.4% of adults report signs of depression. Signs of depression was defined as having little interest or pleasure in doing things or feeling down, depressed or hopeless nearly every day and/or more than half the days in the past two weeks.



There were no significant differences in prevalence of experiencing signs of depression between gender, age, education, or district categories.



Anxiety

7.7% of adults reported experiencing signs of anxiety. Anxiety was defined as feeling nervous, anxious or on edge, or not being able to stop or control worrying nearly every day and/or more than half the days in the past two weeks.



There were no significant differences in prevalence of experiencing signs of anxiety between gender, age, education, or district categories.



Mental Health

4% of adults in American Samoa reported that they thought about killing themselves, 2% reported that they made plans to kill themselves, and 2% reported trying to kill themselves.



Suicidal Behavior among adults in American Samoa, 2018

Participants were asked about their perceptions of mental health status.

- 91% of adults reported that they disagree that a family member being diagnosed with a mental disorder would bring shame to their family.
- 91% of adults reported that they disagree that they would be too embarrassed to tell anyone that they a mental health problem.
- 74% of adults reported that they disagree that people with mental health problems are likely to be violent. However, 10% of adults strongly agree that people with mental health problems are likely to be violent.

Perceptions of Mental Health Status among adults in American Samoa, 2018



Adverse Childhood Experiences

Participants were asked about mental health risk factors related to childhood trauma (prior to their 18th birthday). These are called Adverse Childhood Experiences (ACEs). The most commonly reported ACEs were living with anyone who was a problem drinker or alcoholic (14.9%), having a parent or adult in the home who regularly swore at you, insulted you, or put you down (11.2%), and having parents who were separated or divorced (6.8%).

Reported Adverse Childhood Experiences (ACEs) among adults in American Samoa, 2018



Adverse Childhood Experiences

69.1% of adults did not report any ACEs. 17.6% of adults reported one ACE, and 12.3% of adults reported 2 to 3 ACEs. 1.0% of adults said yes to 4 or more statements.



More adults in the Eastern district reported yes to one or more of the statements regarding experiences prior to their 18th birthday. There were no significant differences between gender or education levels. There was a significantly lower prevalence among adults aged 55-64.





Adult Trauma

Participants were also asked about adult trauma in the past 12 months. The most commonly reported trauma experienced was death of someone close to them (36.0%) and customary or religious obligations that caused financial burden (28.9%).



Adult Trauma in American Samoa, 2018

Adult Trauma

About half (46.8%) of adults did not report any major trauma in the past 12 months. 29.2% of adults reported one trauma, 22.3% reported two to three traumas, and 1.6% reported four or traumas.



About half of men (51.7%) and half of women (54.4%) reported at least one trauma in the past 12 months. There were no significant differences between gender, age, education level, or district.





Discrimination

When asked about experiences with discrimination 7.8% of adults reported experiencing discrimination based on nationality, 6.1% based on social status, 4.9% based on gender identity, and 4.8% based on age.

Adults who experienced discrimination based on selected factors in the past 12 months in American Samoa, 2018 100 80 % Adults 60 40 20 7.8 6.1 4.8 4.9 0 Gender Identity Age Social Status Nationality

Protective Factors

When asked about their own village, 95% of adults in American Samoa reported they agree that their village is good to raise children in. 91% agree that people in their village are willing to help one another. 89% reported that their village is at least somewhat safe from crime.

Self-assessment of Village among adults in American Samoa, 2018

Perception of Village Safety among adults in American Samoa, 2018

Protective Factors

The majority of adults in American Samoa reported that their cultural values (79%) and religious values (79%) influence their day-to-day actions at least a little.

About half (53%) of adults in American Samoa reported that they receive the social and emotional support that they needed at least most of the time. 25% reported that they receive support some of the time and 19% reported rarely or never receiving the support they need.

Important notes about survey

Limitations:

- A good portion of the data collected are self-reported, thus bias may exist, specifically regarding more sensitive questions regarding substance use and mental health. Therefore, certain indicators may be under-reported.
- The sample was a bit older and more female than the last Census population estimates. However, the data were not weighted due to the fact that the most recent Census data were outdated.

Strengths:

- Physical and biochemical measurements were conducted for NCD prevalence estimation rather than just self-report.
- Quality and thorough training was provided for all surveyors and partners (including standardization of anthropometric measures height and weight).
- Use of tablets ensured data collection was clean, efficient, and timely.
- There were successful partnerships and collaboration between internal and external stakeholders.

Challenges:

- Houses were randomly selected using electric meter numbers. However, there were challenges locating households, and the meter numbers did not always match with the correct household name or village that was recorded in the meter listings. Future surveys should consider other methods for random household selection.
- The data were originally supposed to be collected entirely in 2017. However, there were data quality issues that surfaced. Therefore, the team had to validate collected data to ensure quality, and additional data were collected in 2018 to replace data that could not be validated.
- Surveyors were originally hired from the community to give opportunities to unemployed individuals. However, these individuals were not invested in the project and therefore did not always follow protocols, resulting in data quality issues previously described. The second round of data collection used DHSS and DOH staff. These individuals were a better fit as surveyors and were invested in the project.

Discussion and Recommendations

This adult Hybrid Survey provides much needed information about the status of NCDs and mental health conditions in American Samoa, which complements data from youth school surveys (which provide a picture of how well we are protecting youth from development of habits that will make them sick in the future) and death rates (which give a picture of the final impact of NCDs).

Comparing the results of the present survey with the 2004 STEPs survey provides a "report card" that tells us whether current efforts to control NCDs and substance use are succeeding. Based on these comparisons, it is evident that a good deal of progress has been made in decreasing the use of tobacco and alcohol, though tobacco use prevalence is still much higher than that in many countries, including the US. On the other hand, the prevalence of overweight/obesity has not improved and is still the highest recorded for any jurisdiction in the world. Accordingly, hypertension prevalence in American Samoa is higher than that in the US and has increased since 2004. Additionally, the diabetes prevalence in American Samoa is almost three times as high as the prevalence in the US. These high burdens of hypertension and diabetes are likely the primary contributors to the large population currently on dialysis in American Samoa.

A large amount of effort has been given to control of NCDs since the 2004 STEPs survey, especially in the areas of health promotion, health education, and the delivery of health services. It is now clear, however, that more needs to be done to address tobacco use, and that much more needs to be done to control overweight/obesity.

The Monitoring Alliance for NCD Action (MANA) Dashboard for American Samoa shows the status of adoption of the critical, evidence-based policies and programs that are known to be effective in controlling NCDs. For both tobacco and overweight/obesity, the Dashboard shows that there is much "unfinished business" in adopting policies that protect the community, especially youth, from the risk factors that cause NCDs.

From the MANA Dashboard, the list of policies that need adoption or strengthening for tobacco include increases in tobacco excise tax, requirements for putting strong health warnings on tobacco packages, and stronger restrictions on tobacco advertisement, promotions, and sponsorship. To combat overweight/obesity measures that need to be done include excise taxes on unhealthy foods (especially sugar-sweetened beverages and processed meats), banning of trans fats in foods, restrictions on marketing of unhealthy foods to children, strong healthy food policies in schools, issuing of dietary guidelines, and stronger enforcement of NCD policies.

In addition to much more aggressive policies to control NCD risk factors, the results of this survey indicate that there is large "protection gap" in the delivery of health services designed to screen for and control the damage done by NCDs. The findings of this survey indicate that only 15% of people

with diabetes and 24% of those with hypertension have their disease under good control, and that only a small fraction of target age groups have been screened for early detection of common cancers (18% for colon cancer, 25% for breast cancer, and 29% for cervical cancer). Much more aggressive efforts are needed to assure that most adults receive the screening services they need for cancer prevention, and to provide the follow-up and care that those with diabetes and hypertension need to protect them from complications and death.

Recommendations:

- Update other components of the American Samoa NCD Monitoring & Surveillance plan, to provide a more complete picture of the status of the NCD crisis in American Samoa. These components include: 1) analysis of NCD death rates from vital statistics data (due every year according to the American Samoa NCD Monitoring & Surveillance Plan; last done in 2016); and 2) high school youth risk factor survey (due every 2 years; last done in 2013).
- 2. Assure that a this Hybrid Adult Survey will be conducted every 5 years, in accordance with the NCD Monitoring & Surveillance Plan (next due in 2023).
- 3. Use the MANA Dashboard as the basis for developing a policy agenda and tracking progress to more effectively address NCDs risk factors, especially overweight/obesity and tobacco use in American Samoa.
- 4. Develop a strategy across health service agencies (especially LBJ Hospital and AS DOH) to monitor care delivery (using the shared EHR), provide expanded outreach, tracking, and accessible services for care of patients with NCDs.
- 5. Provide appropriate services and support for substance use and mental health.

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APPENDIX: Details on indicators

Variable	Source question	Classifications used in this report
Gender	Gender	 The following responses were used: Male Female Transgender (Male to Female) Transgender (Female to Male)
Education	What is highest level of formal education you have completed?	 The following responses were used: Less than high school High school Associate's degree completed Bachelor's degree completed Graduate or professional degree completed
Ethnic background	What is your ethnic background?	The following responses were used:SamoanOther
Citizenship/Nationality	What is your citizenship/nationality?	 The following responses were used: United States United States National Other
Marital Status	Which best describes your current marital status?	 The following responses were used: Single, never married Married Common law or domestic partnership Widowed Divorced/separated
Employment Status	Which best describes your current employment?	 The following responses were used: Employed for wages Employed not for wages Self-employed Out of work, looking Out of work, not looking Homemaker Retired Student
Employment Industry	If currently employed for wages, what industry do you work in?	 The following responses were used: Cannery/fishing Government Hospitality Retail/Wholesale Other
Military Status	What is your military status?	The following responses were used: • Active duty

		ReservistVeteran
		Retired
		Never served
Religion	What is your religion?	 The following responses were used: Congregational Christian Church Catholic Methodist Seventh Day Adventist LDS/Mormon Pentecostal/AOG Baha'i Jehovah's Witness Other None
Household Income	Approximately how much was your	The following responses were used:
	household income this past year?	• \$0
		 \$1to<\$10,000 \$10,000-<20,000
		• \$20,000-<30,000
		• \$30,000-<40,000
		• \$40,000-<50,000
		• \$50,000 or more
General Health	Would you say that your general health is	 The following responses were used: Excellent Very good Good Fair or okay Poor or not good
Last doctor visit	About how long has it been since you last	The following responses were used:
	visited a medical provider for an annual	Within past year
	checkup? An annual checkup is a	Within past 2 years
	general physical exam, not an exam for a	Within last 5 years
	specific injury, illness, or condition.	• 5 or more years ago
		Never
Last dental visit	How long has it been since you last visited a dentist or a dental clinic for any reason? Include visits to dental specialists, such as orthodontists.	 The following responses were used: Within past year Within past 2 years Within last 5 years 5 or more years ago Never
Teeth missing	How many of your permanent teeth have been removed because of tooth decay or gum disease? Include teeth lost to infection, but do not include teeth lost for other reasons, such as injury or orthodontics.	 1 to 5 6 or more but not all All None
Body Mass Index	Measured height and weight were used.	BMI is calculated by taking your
category		weight (in kilograms) over your height squared (in centimeters).

Hypertension	Measured blood pressure and self-	We used CDC categories: • Underweight <18.5 • Normal 18.5-24.9 • Overweight 25-29.9 • Obese 30+ Individuals were categorized as having
	reported high blood pressure and medication status was used to categorize hypertension.	hypertension if their measured BP was ≥140/90 and/or if they self-reported being diagnosed with hypertension and were taking medication for their hypertension
High blood sugar or diabetes	Measured fasting blood glucose and self- reported diagnosis of diabetes and medication status was used to categorize high blood sugar/diabetes.	Individuals were categorized as having diabetes if their fasting blood glucose was ≥126mg/dL and/or if they self-reported being diagnosed with diabetes and were on medication for their diabetes.
High Total Cholesterol	Measured total cholesterol was used.	If total cholesterol was ≥190mg/dL the individual was classified as having elevated total cholesterol. If total cholesterol was ≥240mg/dL the individual was classified as having high total cholesterol.
Low HDL Cholesterol	Measured HDL cholesterol was used.	If HDL cholesterol was <40mg/dL the individual was classified as having low HDL.
Coronary heart disease	Have you ever been told by a	Yes or no
Heart Attack	doctor that you have?	
Other heart disease		
Stroke		
Emphysema		
COPD		
Asthma		
Ulcer		
Gout		
Arthritis		
Cancer		
Cigarette Use	During the past 30 days, on how many days did you smoke cigarettes?	0 days= no use 1-29 days= some use 30 days= Everyday use
Want quit cigarette use	Do you want to quit smoking cigarettes?	Yes or no
Try quit cigarette use	During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking cigarettes?	Yes or no
American Samoa Tobacco Quitline	Are you aware of the American Samoa Tobacco Quitline?	Yes or no
Chew tobacco	During the past 30 days, on how many days did you chew tobacco?	0 days = no use 1-30 days = some use

E-cigarette use	During the past 30 days, on how many days did you use E-Cigarettes or a personal vaporizer (PV), or electronic nicotine?	0 days= no use 1-30 days= some use
Home 2 nd hand smoke	During the past 30 days, on how many days did someone other than you smoke tobacco inside your home while you were at home?	0 days= no exposure 1-30 days= some exposure
Work 2 nd hand smoke	During the past 30 days, on how many days did you breathe tobacco smoke at your workplace from someone else other than you who was smoking tobacco?	0 days= no exposure 1-30 days= some exposure
Vehicle 2 nd hand smoke	During the past 30 days, on how many days did you ride in a vehicle where someone other than you was smoking tobacco?	0 days= no exposure 1-30 days= some exposure
Any 2 nd hand smoke exposure	Answered yes to any of the 2 nd hand smoke questions	Yes or no
Alcohol consumption	During the past 30 days, on how many days did you have at least one standard drink of any alcohol?	0 days= no use 1-29 days= some use 30 days= Everyday use
Binge alcohol frequency	 During the past 30 days, how many days did you have: for men: Five or more standard alcoholic drinks? for women: Four or more standard alcoholic drinks? 	0 days= no binge 1-29 days= some binge 30 days= Everyday binge
Drink and Drive	During the past 30 days, on how many days have you driven a vehicle after you've consumed alcohol?	0 days = did not drink and drive 1-30 days = did drink and drive some days
Passenger drink and drive	During the past 30 days, on how many days have you been a passenger in a vehicle with a driver other than yourself who has consumed alcohol?	0 days = was not a passenger in a car with a driver who consumed alcohol 1-30 days = was a passenger in a car with a driver who consumed alcohol
Non-ceremonial ava	During the past 30 days, on how many days did you have at least one standard drink of non-ceremonial ava?	0 days = no non-ceremonial ava 1-30 days = some non-ceremonial ava
Fruit and vegetable consumption	Sum of usual daily fruit consumption and daily vegetable consumption.	<1 serving 1-<3 servings 3-<5 servings 5 or more servings
Processed meat consumption	In a regular day, how many times do you eat processed meats? This does not include canned fish.	0 servings 1 serving 2 or more servings
Watching salt intake	Most of the sodium or salt we eat comes from processed foods and foods prepared in restaurants. Salt also can be added in cooking or at the table. Are you currently watching or reducing your sodium or salt intake?	Yes or no

Sugar-sweetened beverage consumption	In a regular day, how many sugary drinks do you drink? This does not include diet drinks made with artificial sweeteners. During the past 30 days, other than your	0 servings 1 serving 2 or more servings 0 days = no physical activity
Physical Activity	regular job, on how many days did you participate in any physical activities or exercises such as running, Zumba,TaeBo, sports, walking, or going to the gym, specifically for exercise?	1-29 days = some physical activity 30 days = everyday physical activity
Colonoscopy screening	How long has it been since your last colonoscopy?	 The following responses were used for those adults 50+: Within past year Within past 2 years Within past 3 years Within last 5 years Within past 10 years 10 or more years ago Never
Blood stool test	A blood stool test is a test that determines whether the stool contains blood. How long has it been since your last blood stool test?	 The following responses were used for those adults 50+: Within past year Within past 2 years With past 3 years Within last 5 years 5 or more years ago Never
Mammogram screening	How long has it been since you had your last mammogram?	 The following responses were used for those women 50-74: Within past year Within past 2 years Within past 3 years Within past 5 years 5 or more years ago Never
Clinical breast exam	A clinical breast exam is when a doctor, nurse, or other health professional feels the breasts for lumps. How long has it been since your last clinical breast exam?	 The following responses were used for those women: Within past year Within past 2 years Within past 3 years Within last 5 years 5 or more years ago Never
Pap smear screening	How long has it been since you had your last Pap test?	 The following responses were used for those women 21-65: Within past year Within past 2 years Within past 3 years Within last 5 years 5 or more years ago

		Never
Prescription drug use	During the past 30 days, report on how	No use= 0 days
Inhalant drug use	many days you used any of the following	Use= 1 or more days
LSD drug use	substance:	
Heroin drug use		
Marijuana drug use		
Perceptions of drugs as risky	 How much do people risk harming themselves physically and in other ways when they engage in the following behaviors? Cigarettes Alcohol Marijuana Non-ceremonial ava Heroin Prescription drugs without doctor's orders 	 The following response were used: Great risk Moderate Slight No risk
Disapproval of drug use	 How much do you approve or disapprove of the following substances? More than 1 pack of cigarettes per day Marijuana more than once a month 2 or more alcohol beverages a day 	 The following response were used: Strongly disapprove Somewhat disapprove Neither Approve or Disapprove Somewhat Approve Strongly Approve
Talk with child about drug use	During the past 30 days, have you talked with your own child or other children in your household about the dangers or problems associated with the use of Tobacco, Alcohol, or Other drugs?	Yes or no
Employer alcohol/drug test	In the past 12 months, have you been tested by your employer for alcohol or drug use?	Yes or no
Likelihood to work for employer who drug tests	Would you be more likely to want to work for an employer that tests its employees for drug or alcohol use on a random basis?	Yes or no
Drug and alcohol use	 During the past 12 months have you Spent a lot of time using alcohol or drugs, getting over the effects of alcohol or drugs, or trying to get alcohol or drugs? Did using the same amount of alcohol or drugs have less effect than before, or did it take more to feel the same effect? Did your use of alcohol or drugs cause you to give up or spend less time doing important activities like working, going to school, taking care of children, doing fun things such as hobbies and 	Yes or no

	 sports, and spending less time with friends and family? Did your use of alcohol or drugs cause you to have emotional or psychological problems such as feeling uninterested in things, depressed, suspicious of people or paranoid? Did you try to stop using, or cut down on use of alcohol or drugs but found that you couldn't? Did alcohol or drug use cause you to do things that got you in trouble with the law? Did you have any problems with family or friends that were probably caused by alcohol or drug use? 	
Mental Health	 Over the past 2 weeks, how often have you been bothered by any of the following problems? Little interest or pleasure in doing things Feeling down, depressed or hopeless Feeling nervous, anxious or on edge Not being able to stop or control worrying 	 The following responses were used: Not at all Several days More than half the days Nearly everyday
Mental Health - suicide	 Have you Thought about trying to kill yourself? Made plans to kill yourself? Tried to kill yourself? 	 The following responses were used: Never Yes, in the past 12 months Yes, but more than 12 months ago
Perceptions about Mental Health	 If a member in my family was diagnosed with a mental disorder, it would bring shame to my family. I would be too embarrassed to tell anyone that I had a mental health problem. People with mental health problems are likely to be violent. 	 The following responses were used: Strongly disagree Somewhat disagree Somewhat agree Strongly agree
Risk and Protective Factors	 Prior to your 18th birthday did you experience any of the following? Did you live with anyone who was depressed, mentally ill, or suicidal? Did you live with anyone who was a problem drinker or alcoholic? Did you live with anyone who served time or was sentenced to serve time in a prison, jail, or other correctional facility? Were your parents separated or divorced? 	Yes or no

	 Did a parent or adult in your home regularly swear at you, insult you, or put you down? Did any adult or other person outside of the family ever touch you sexually against your wishes or force you to touch them sexually? Did any older or stronger member of your family ever touch you or had you touch them sexually? 	
Trauma in past year	 Have you experienced any of the following in the past 12 months? Being diagnosed as having a serious physical illness Death of someone close to you Spouse/partner conflict (including divorce or separation) Excessive debt Being fired or laid off from a job Customary and/or religious obligations such as a wedding, funeral, graduation or chief/matai title installment that caused a financial burden 	Yes or no
Discrimination	 Have you experienced discrimination based on the following factors in the past 12 months? Gender identity Age Nationality Social status 	Yes or no
Cultural Values	To what extent do your cultural values influence your day-to-day choices and actions?	 The following responses were used: Not at all A little Some Very much
Religious Values	To what extent do your religious values influence your day-to-day choices and actions?	 The following responses were used: Not at all A little Some Very much
Village	 This is a good village to raise children in. People in this village are willing to help one another In general, how safe from crime to do you consider your village to be. 	 The following responses were used: Strongly disagree Somewhat disagree Somewhat agree Strongly agree

Support	How often do you get the social and emotional support you need?	 The following responses were used: Rarely or never Some of the time Most of the time
		All of the time