



Pohnpei Rapid Youth Survey

2023/2024 Report



Department of Health and Social Services Pohnpei State Government

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Office of the Director

This letter is to convey my endorsement of the 2023 Rapid High School Survey (RHSS) report submitted by the NCD Program under Division of Primary Health Care in Pohnpei. This is the fourth time that the NCD program has implemented the RHSS in Pohnpei.

The report inform us the current prevalence of key NCD risk factors, as well as tell us about trends. These trends are important because they tell us whether our current efforts are effective at improving risk factor indicators among youth. It is also easy to understand, making it accessible to a wider audience.

It is evident that the NCD program and PIHOA have put a lot of effort to create this report that is both informative and persuasive. I am confident that it will yield significant benefits for the Department of health and Social Servies in the prevention and control of the NCD crisis in Pohnpei.

Sincerely,

Stuard H. Penias

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Summary

The aim of this report is to present current prevalence of certain risk factors for developing non-communicable disease (NCD), sexually transmitted infections, and teenage pregnancy among high school youth in Pohnpei. The table below contains selected comparable indicators in Pohnpei to Guam, Commonwealth of the Northern Mariana Islands (CNMI), and the United States (US). Green shading represents the location with the “best” prevalence, followed by yellow shading, orange shading, and red shading

	Pohnpei	Guam*	CNMI*	US*
Substance Use	% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
Smoking (within past 30 days)	36.0 (33.8-38.2)	11.9 (19.5-14.8)	6.9 (6.0-8.0)	3.8 (3.3-4.4)
Tobacco chewing (within past 30 days)	20.3 (18.5-22.2)	11.4 (8.8-14.7)	9.0 (7.9-10.1)	2.5 (2.0-3.0)
Alcohol use (within past 30 days)	36.6 (34.4-38.9)	25.3 (21.3-29.8)	26.0 (24.3-27.8)	22.7 (21.1-24.4)
E-cigarette use (within the past 30 days)	42.9 (40.6-45.2)	35.2 (30.0-40.8)	26.4 (24.7-28.2)	18.0 (16.3-19.8)
Sexual Health				
Ever had sexual intercourse	36.0 (33.8-38.2)	37.0 (32.1-42.2)	28.5 (26.7-30.3)	30.0 (27.9-32.1)
Did not use condom at last intercourse (among sexually active)	85.5 (82.6-88.1)	58.4 (50.5-65.9)	61.9 (57.1-66.6)	48.2 (45.7-50.6)
Did not use any method to prevent pregnancy at last intercourse (among sexually active)	64.8 (60.3-69.1)	35.7 (28.2-43.9)	25.0 (20.7-29.8)	13.7 (12.1-15.5)
Overweight/obesity				
Had obesity	22.0 (20.2-24.0)	23.8 (20.9-26.9)	23.4 (21.7-25.1)	16.3 (15.1-17.7)
Were overweight	19.3 (17.5-21.2)	18.3 (15.7-21.2)	19.2 (17.7-20.8)	16.0 (15.2-16.8)
Nutrition/PA				
Did not eat fruit in the past 7 days	14.5 (13.0-16.2)	9.6 (7.6-12.0)	8.8 (7.8-10.0)	6.3 (5.4-7.3)
Did not eat vegetables in the past 7 days	19.9 (18.1-21.8)	11.1 (9.2-13.4)	8.7 (7.7-9.9)	7.9 (7.1-8.7)
Drank a sugary drink 2+ times per day	18.5 (16.7-20.3)	12.1 (9.7-14.9)	7.7 (6.8-8.9)	9.3 (7.7-11.2)
Were not physically active at least 60 min per day on 5+ days	72.9 (70.8-74.9)	67.9 (64.1-71.5)	71.8 (70.1-73.5)	54.7 (52.7-56.7)

* US and CNMI data are from the 2021 YRBS and Guam data are from the 2019 YRBS (most current data available at the time of this report)

Youth Surveillance in Pohnpei

The Rapid Youth High School Survey in Pohnpei can inform us about the current prevalence of key NCD risk factors, as well as tell us about trends. These trends are important because they tell us whether or not our current efforts are effective at improving risk factor indicators among youth.

When we compare the 2015 Pohnpei Rapid High School Survey data to the current 2023 data, we see that there has been a significant improvement in betel nut chewing prevalence. Tobacco chewing prevalence has remained relatively stable with about one out of five high school students currently chewing tobacco. However, the smoking prevalence has increased significantly from 2015 to 2023. There has also been the introduction of e-cigarette use since 2015 and now more than two out of five high school students are currently using e-cigarettes. The overall tobacco use (from smoking or chewing) prevalence has significantly increased from 30.9% to 40.3%, and alcohol use prevalence has increased significantly from 30.3% to 36.6%. These changes in tobacco and alcohol use indicate the need to strengthen substance use prevention efforts among youth and implement larger policies in Pohnpei and throughout the FSM. The most concerning trend is the drastic increase in overweight/obesity from 2015 to 2023 from 27.4% to 41.3%. This suggests that current strategies to address overweight/obesity in youth are not working and should therefore be improved or replaced with more effective, evidence-based strategies.

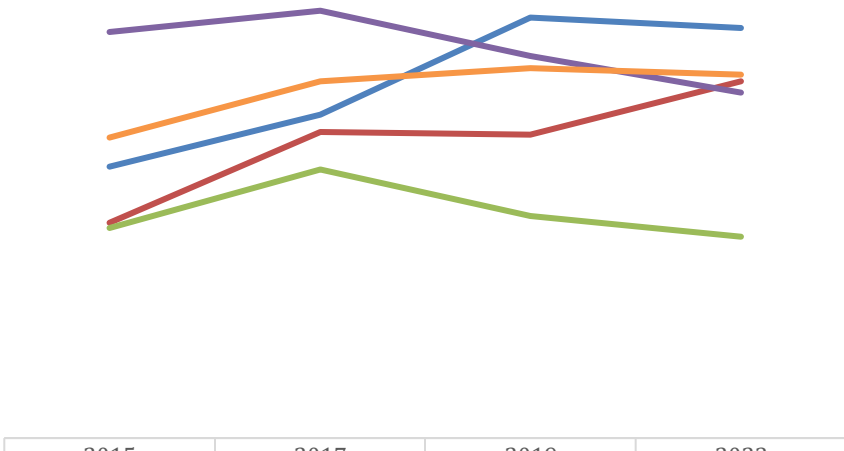
	2015%	2023%	Comparison*
Smoking (within past 30 days)	21.7	36.0	↑
Tobacco chewing (within past 30 days)	21.2	20.3	○
Betel nut chewing (within past 30 days)	40.9	34.8	↓
Any tobacco use (within past 30 days)	30.9	40.3	↑
Alcohol use (within past 30 days)	30.3	36.6	↑
Overweight/obesity	27.4	41.3	↑

*Chi-square tests were used to test for statistically significant differences between 2015 and 2023; p-values<0.05 were considered statistically significant; ↑= indicator got significantly worse from 2015 to 2023; ○= indicator showed no significant change from 2015 to 2023; ↓= indicator got significantly better from 2015 to 2023

Youth Surveillance in Pohnpei

NCD risk factor trends among Pohnpei high school students, 2015-2023

50%
40%
30%
20%
10%
0%



	2015	2017	2019	2023
Overweight/obesity	27.4%	32.6%	42.4%	41.3%
Smoking	21.7%	30.8%	30.6%	36.0%
Tobacco chewing	21.2%	27.1%	22.4%	20.3%
Betel nut chewing	40.9%	43.1%	38.5%	34.8%
Alcohol use	30.3%	35.9%	37.3%	36.6%

The line graph above displays trends of key NCD indicators among Pohnpei youth between 2015-2023. Betel nut chewing and tobacco chewing prevalence has steadily decreased since 2017. However, alcohol use prevalence has increased since 2015, with the largest increase occurring between 2015 and 2017. Both smoking and overweight/obesity prevalence have increased drastically between 2015 and 2023.

Background

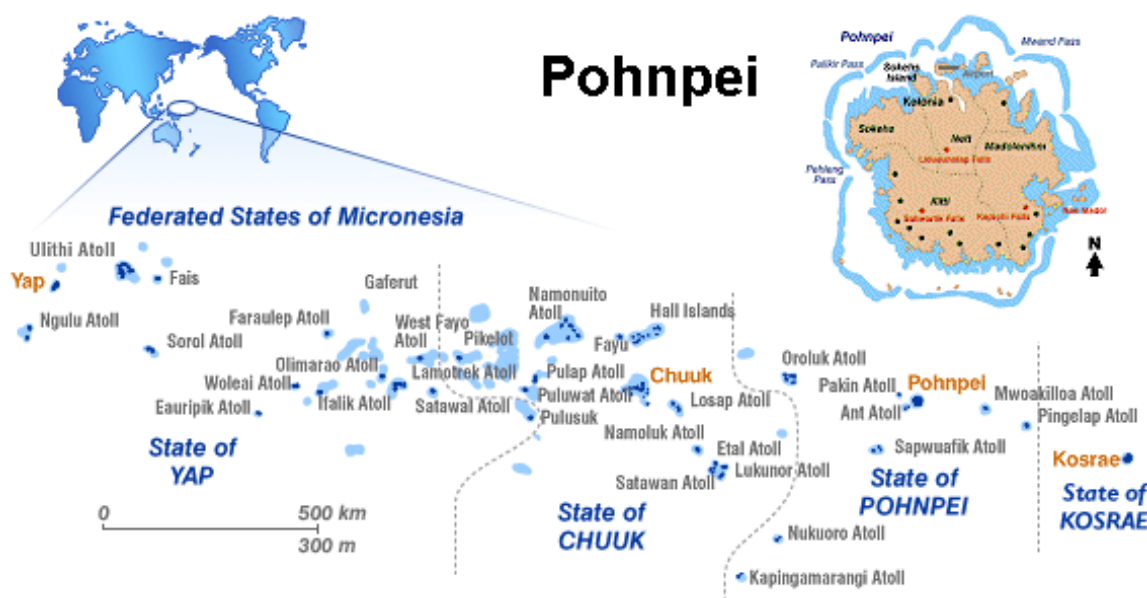


Figure 1. Map of Pohnpei

<https://scubadivingresource.com/destinations/pacific-south-pacific/micronesia/pohnpei/>

Pohnpei is one of the four states of the Federated States of Micronesia (FSM) located in the Pacific Ocean east of the Philippines. Pohnpei is made up of one main island with many small surrounding islets and atolls. The total land area of Pohnpei is 129 square miles. As of 2010, the total population of Pohnpei was 36,196, making it the second most populated state in FSM.

In 2013, Pohnpei State declared a State of Health Emergency due to the epidemic of non-communicable diseases (NCDs). This is largely due to loss of longevity, quality of life, and loss of workforce productivity due to NCDs. There has been a shift away from traditional lifestyle and foods, and that shift negatively impacts the culture and health of Pohnpeians. The majority of the adult population in Pohnpei is now overweight or obese and about one-third of adults smoke tobacco and about one-third of adults chew betel nut.

In 2010, the Pacific Island Health Officers' Association (PIHOA) declared a regional health emergency due to the epidemic of NCDs in the US-Affiliated Pacific Islands (USAPI). The USAPI include American Samoa, Commonwealth of the Mariana Islands (CNMI), Guam, Federated States of Micronesia (FSM), Republic of Palau, and Republic of the Marshall Islands. Stemming from this regional declaration of emergency, all six of these USAPI agreed upon a regional NCD surveillance framework that includes core NCD and risk factor indicators that need to be routinely and consistently collected across the region in order to monitor the progress of local and regional NCD responses. This includes the following core youth indicators to be measured among high school youth every two years: 30-day tobacco smoking, 30-day tobacco chewing, 30-day alcohol use, and overweight/obesity (by physical measurement of height and weight). Therefore, Pohnpei adopted the Pohnpei Rapid Youth High School Survey beginning in 2015 to be implemented biannually. The next Rapid Youth Survey is due during the 2025-2026 school year.

Methodology

The Pohnpei Rapid Youth High School Survey was developed by the Pohnpei State Department of Health Services with assistance from PIHOA (see Annex for copy of the survey). This survey instrument originally contained only core youth NCD indicators (30-day smoking, tobacco chewing, betel nut chewing, and alcohol use and overweight/obesity) in 2015, but expanded in 2017 to also include blood pressure measurement, additional alcohol questions, and reproductive health indicators. Then, in 2019, questions on nutrition and physical activity were also added. The Pohnpei Rapid High School Youth Survey was conducted in all high schools (both public and private) in Pohnpei. All students in grades 9-12 present on the survey day were eligible to participate in the survey.

The Pohnpei Department of Health Services (Pohnpei DHS) staff conducted this survey at each school during the 2023-2024 school year. Prior to data collection, all staff were trained on survey administration to include physical measurements of height, weight, and blood pressure. Pohnpei DHS staff first recorded demographic information of each student in Section 1 of the paper survey form, then took height, weight, and blood pressure measurements of the student and also recorded these in Section 1. Section 2 of the paper survey form was then completed by students confidentially and turned in anonymously to collect information on substance use, nutrition/physical activity, and reproductive health behaviors. Afterwards, Pohnpei DHS staff entered the paper surveys into a Microsoft Excel database. PIHOA provided technical support for cleaning and analyzing these data.

Data on substance use, nutrition/physical activity, reproductive health behaviors are all based on self-report. Measured height and weight were used to calculate Body Mass Index (BMI). BMI percentiles were used to determine BMI categories for those students under 17 years old. Adult BMI calculations were used for those students 18 and older. Overall, all students were classified as underweight, healthy, overweight, or obese. Two blood pressure measurements were conducted on each student, and the average of these two measurements were used to classify each student as normal (<120/80), prehypertensive (120/80-139/89), or hypertensive (140/90 or higher).

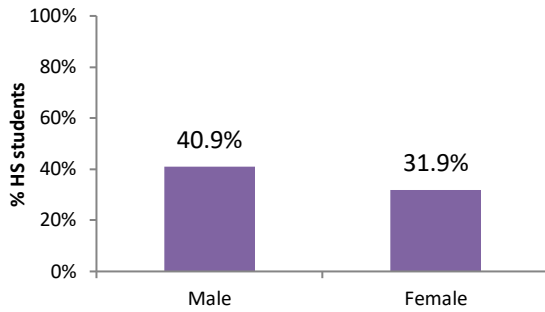
Sample Characteristics (N=1,843)

Demographic Characteristics	N	%
Gender		
Male	834	45.3%
Female	1,009	54.7%
Age		
13-14	387	21.0%
15-16	806	43.7%
17-18	584	31.7%
19+	66	3.6%
Grade		
9	598	32.4%
10	361	19.6%
11	429	23.3%
12	455	24.7%
School		
Calvary Christian Academy (CCA)	71	3.9%
Madolenihmw High School (MHS)	258	14.0%
Nanpei Memorial High School (NMHS)	338	18.3%
Our Lady of Mercy Catholic High School (OLM)	125	6.8%
Pohnpei Island Central School (PICS)	940	51.0%
Pohnpei Seventh Day Adventist School (SDA)	111	6.0%
Total	1,843	

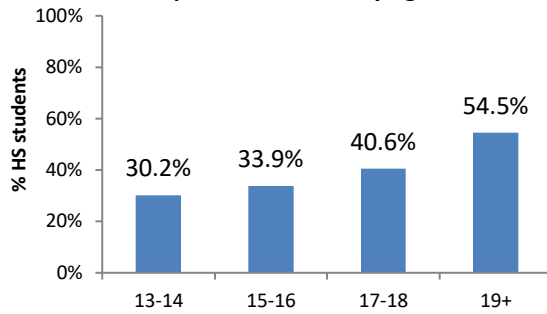
Smoking

Among high school students in Pohnpei, 36.0% are current smokers (smoked in the past 30 days). Male students have a higher smoking prevalence than female students (40.9% vs. 31.9%). Additionally, smoking prevalence increases with age, with the prevalence increasing from ages 13-14 (30.2%) to ages 19+ (54.5%). There also appears to be a lot of variation in smoking prevalence between schools ranging from 11.3% (CCA) to 50.9% (NMHS).

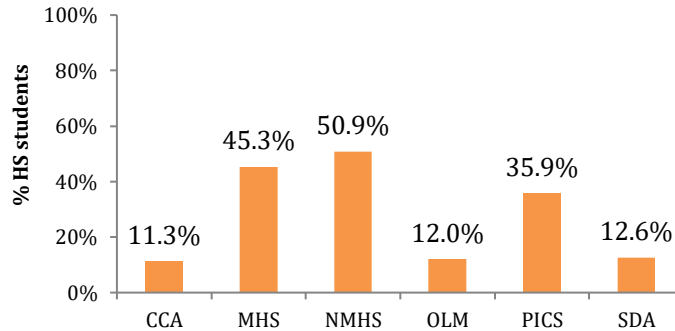
Smoking in the past 30 days among Pohnpei HS students, by gender, 2023



Smoking in the past 30 days among Pohnpei HS students, by age, 2023



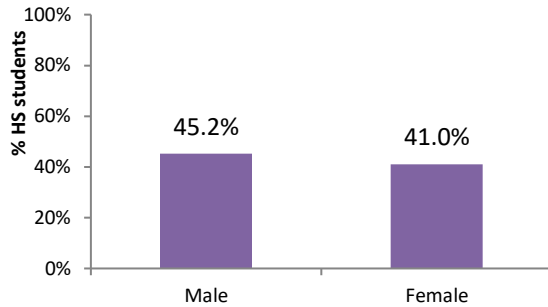
Smoking in the past 30 days among Pohnpei HS students, by school, 2023



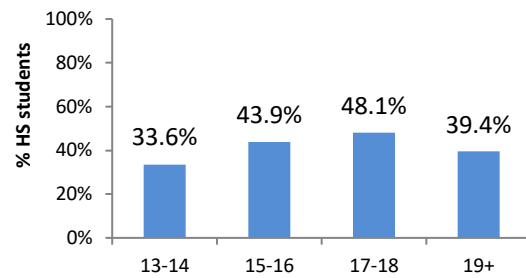
E-Cigarette Use

Among high school students in Pohnpei, 42.9% are current e-cigarette users (used e-cigarettes in the past 30 days). Male students have a slightly higher e-cigarette use prevalence than female students (45.2% vs. 41.0%). E-cigarette use prevalence is highest among the 17-18 year old age group at 48.1%. E-cigarette use prevalence is similar across all schools, ranging from 35.2%-46.2%.

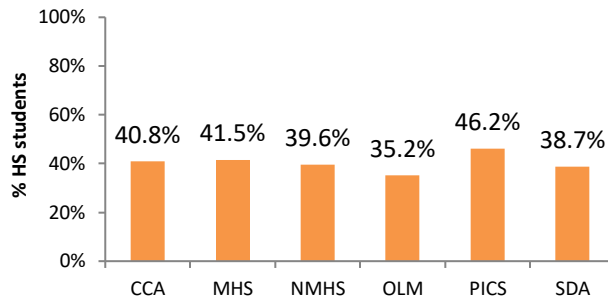
E-cigarette use in the past 30 days among Pohnpei HS students, by gender, 2023



E-cigarette use in the past 30 days among Pohnpei HS students, by age, 2023



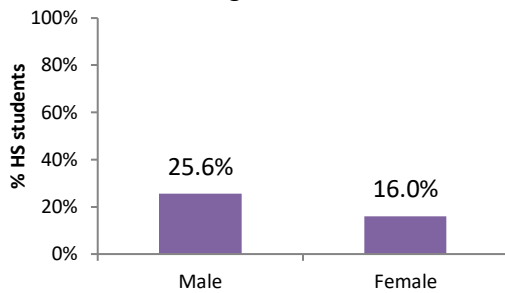
E-cigarette use in the past 30 days among Pohnpei HS students, by school, 2023



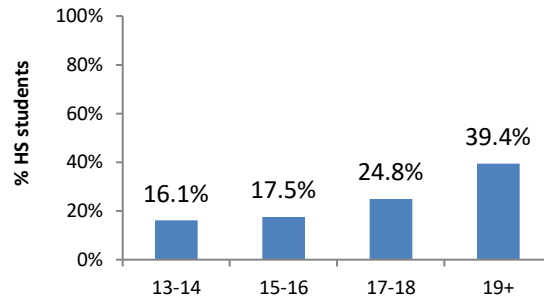
Tobacco Chewing

Among high school students in Pohnpei, 20.3% are current tobacco chewers (chewed tobacco in the past 30 days). This includes chewing tobacco with or without betel nut. Male students have a higher tobacco chewing prevalence than female students (25.6% vs. 16.0%). Tobacco chewing prevalence increases with age, more than doubling from ages 13-14 (16.1%) to ages 19+ (39.4%). Tobacco chewing prevalence varies by school ranging from around 5% at CCA, OLM, and SDA, and over 30% at MHS and NMHS.

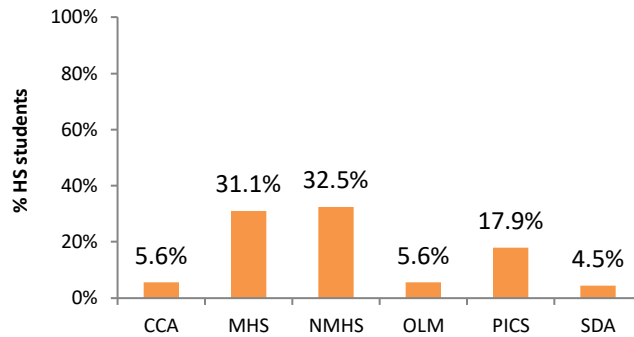
Tobacco chewing in the past 30 days among Pohnpei HS students, by gender, 2023



Tobacco chewing in the past 30 days among Pohnpei HS students, by age 2023

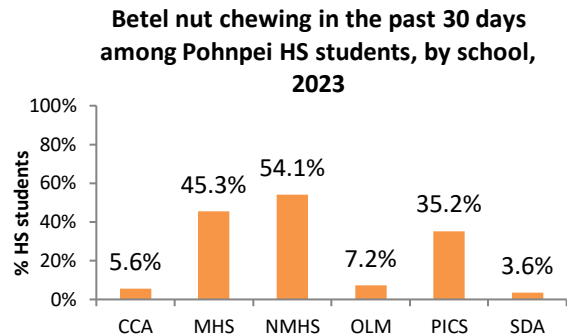
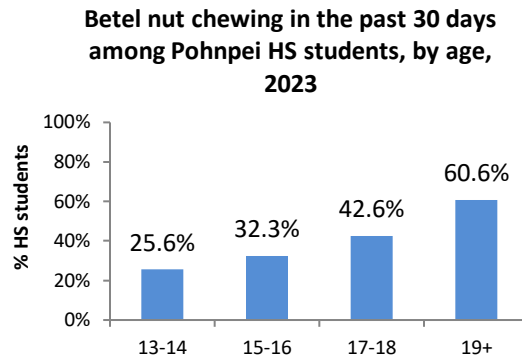
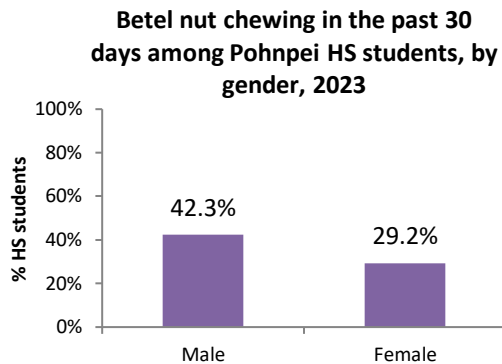


Tobacco chewing in the past 30 days among Pohnpei HS students, by school, 2023



Betel Nut Chewing

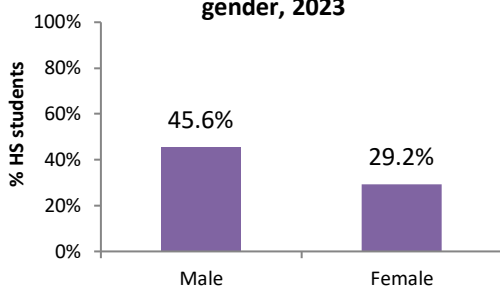
More than one-third (35.2%) of high school students in Pohnpei are current betel nut chewers (chewed betel nut in the past 30 days). Betel nut chewing prevalence is higher among male students (42.3%) compared to female students (29.2%). Betel nut chewing prevalence also increases with age, more than doubling from ages 13-14 (25.6%) to ages 19+ (60.6%). Variation between schools is similar to that observed with tobacco use, ranging from 3.6% at SDA to 54.2% at NMHS.



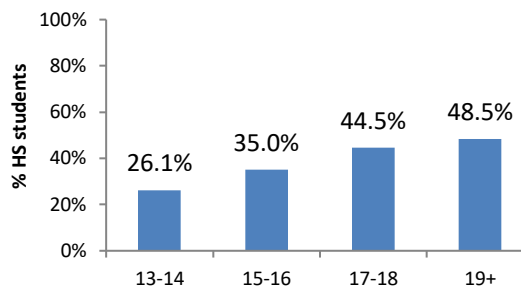
Alcohol Use

More than one-third (36.6%) of high school students in Pohnpei have used alcohol in the past 30 days. Alcohol use prevalence is higher among male students (45.6%) compared to female students (29.2%). Like other substances, prevalence increases with age, almost doubling from ages 13-14 (26.1%) to ages 19+ (48.5%). Alcohol use prevalence varies by school with the lowest prevalence at OLM (14.4%) and highest at NMHS (47.3%).

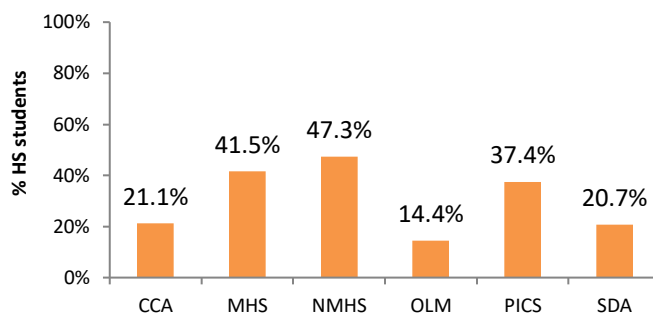
Alcohol use in the past 30 days among Pohnpei HS students, by gender, 2023



Alcohol use in the past 30 days among Pohnpei HS students, by age, 2023



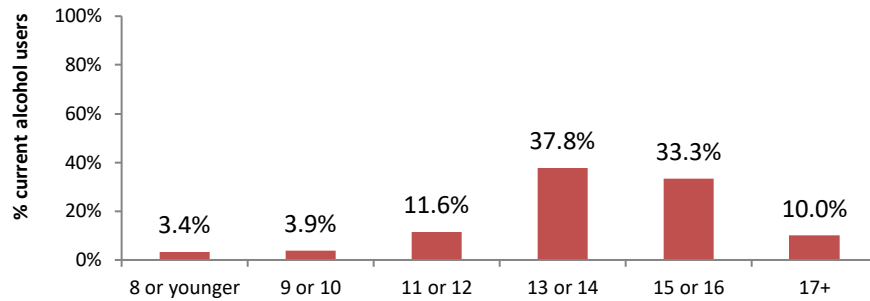
Alcohol use in the past 30 days among Pohnpei HS students, by school, 2023



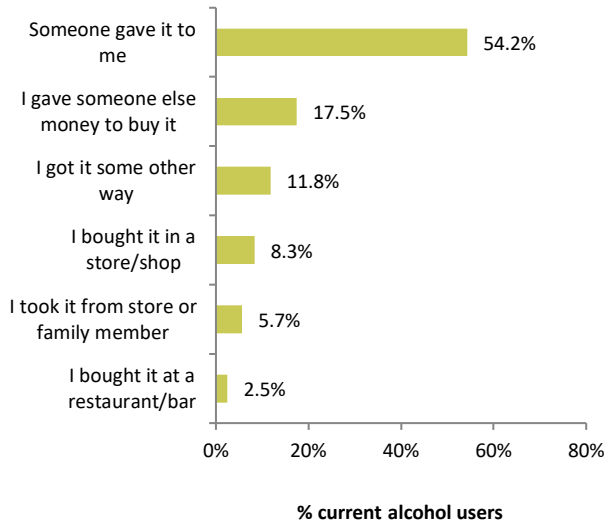
Alcohol Use

The majority (71.1%) of Pohnpei high school students first tried alcohol between the ages of 13 to 16, although 18.8% first tried alcohol at 12 or younger. Over half (54.25%) of high school students in Pohnpei got their alcohol from someone, and another 17.5% gave someone money to buy it for them. About two-thirds of Pohnpei high school students (68.0%) had their first drink of alcohol with friends.

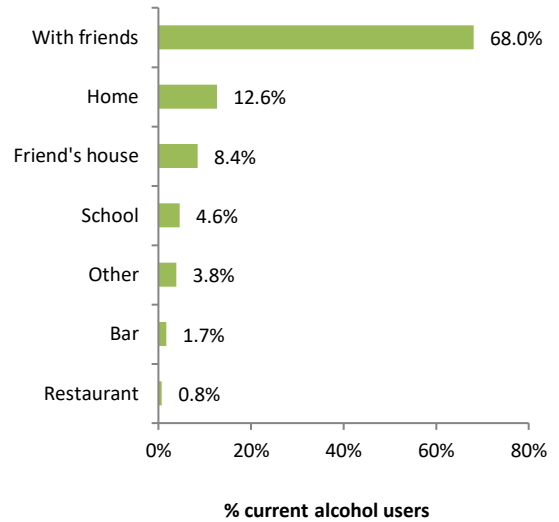
Age first tried alcohol among Pohnpei HS alcohol users, 2023



Where Pohnpei HS current alcohol users usually get their alcohol, 2023



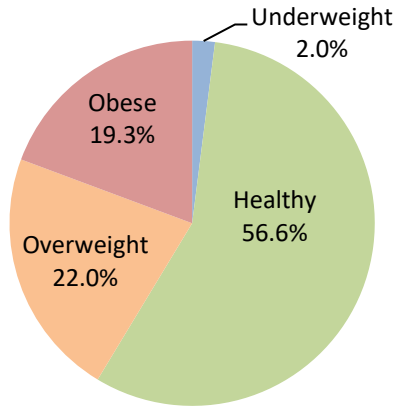
Where Pohnpei HS alcohol users had their first drink, 2023



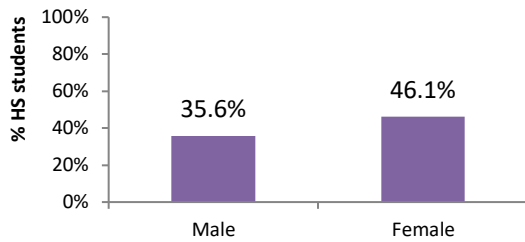
Overweight/Obesity

Two out of five (41.3%) high school students in Pohnpei are overweight or obese. Prevalence of overweight/obesity is higher among female students (46.1%) compared to male students (35.6%). Overweight/obesity is high among all age groups but reaches to over half of students (51.5%) by age 19 and older. Overweight/obesity prevalence varied slightly by school, ranging from 38.8% at PICS to 50.7% at CCA.

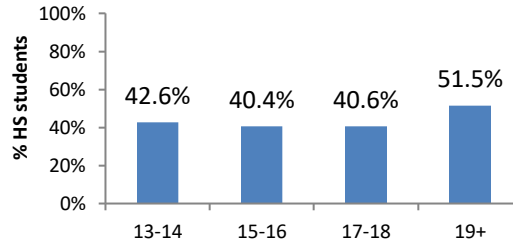
Body Mass Index (BMI) Categories of Pohnpei HS students, 2023



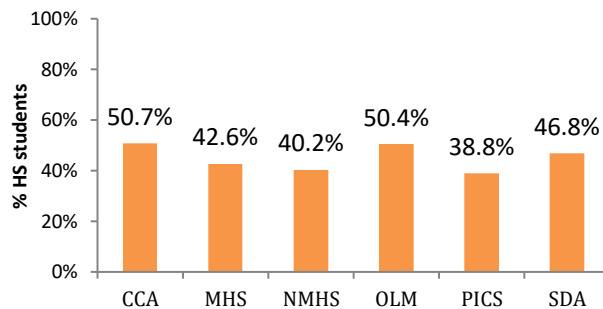
Pohnpei HS student overweight/obesity, by gender, 2023



Pohnpei HS student overweight/obesity, by age, 2023



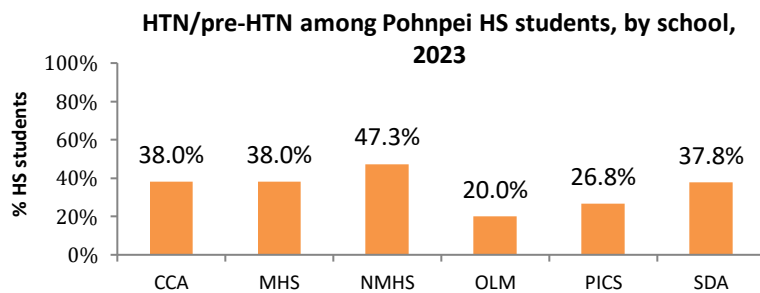
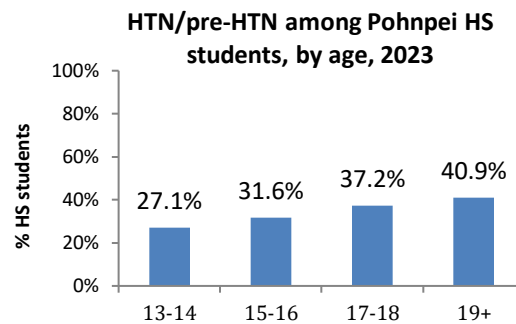
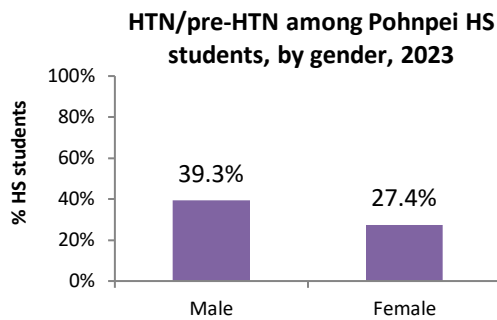
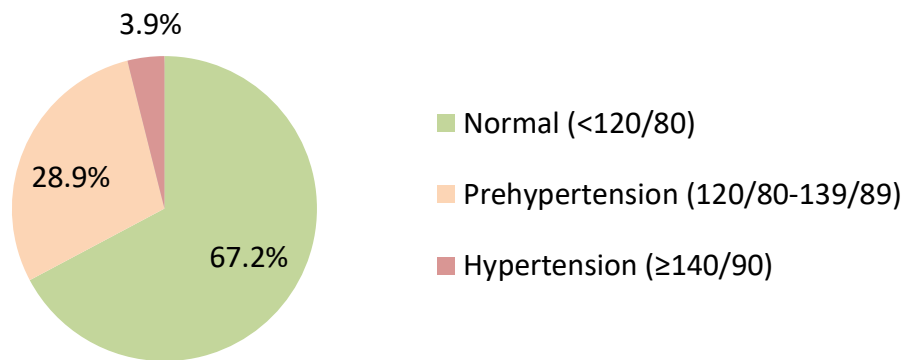
Pohnpei HS student overweight/obesity, by school, 2023



Blood Pressure

Among high school students in Pohnpei, 3.9% have blood pressure (BP) that indicates hypertension (HTN) (BP=140/90 or higher) and almost one-third (28.9%) have blood pressure that indicates prehypertension (pre-HTN) (BP=120/80-139/89). Prevalence of HTN/pre-HTN is higher among male students (39.3%) compared to female students (27.4%). There is a clear trend of HTN/pre-HTN prevalence with age. Among students 19 years and older, almost two out of five (40.9%) have HTN or pre-HTN. HTN/pre-HTN prevalence varies by school ranging from 20.0% at OLM to 47.3% at NMHS.

Blood Pressure Categories among Pohnpei HS students, 2023



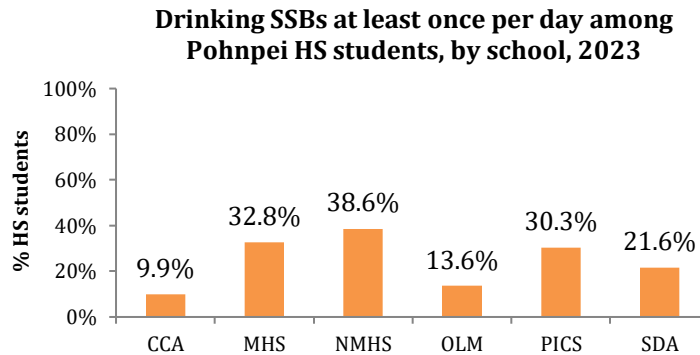
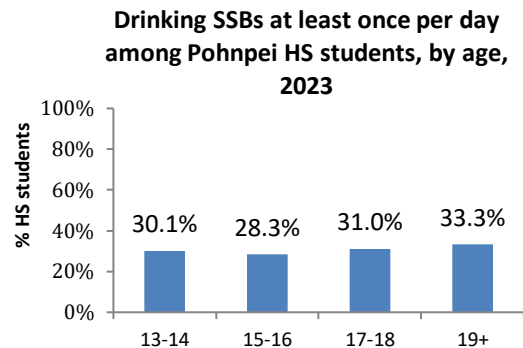
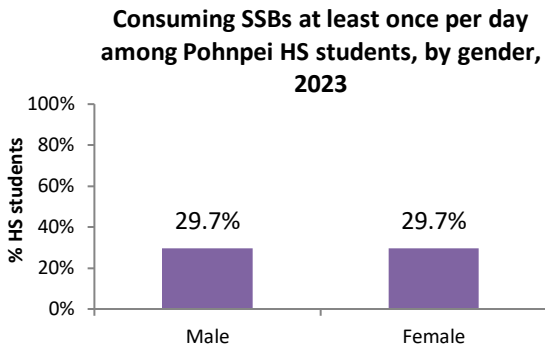
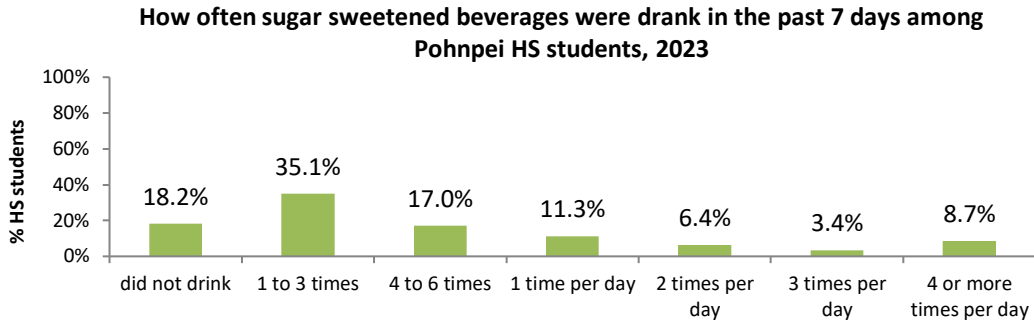
Reproductive Health

Reproductive Health Factors	N	%
Ever had sexual intercourse*		
Yes	662	36.0%
No	1179	64.0%
Number of sexual partners**		
1 person	266	40.3%
2 people	116	17.6%
3 people	54	8.2%
4 people	55	8.3%
5 people	32	4.8%
6 or more people	137	20.8%
Age at first intercourse**		
11 years or younger	55	8.3%
12 years old	52	8.6%
13 years old	107	16.5%
14 years old	111	10.1%
15 years old	132	13.3%
16 years old	113	9.7%
17 years old or older	89	8.4%
Condom use during last intercourse**		
Yes	95	14.5%
No	562	85.5%
Method used to prevent pregnancy during last intercourse**		
No method used	305	46.6%
Birth control pills	13	2.0%
Condoms	95	14.5%
IUD or implant	5	0.8%
Shot, patch, or birth control ring	9	1.4%
Withdrawal or some other method	44	6.7%
Not sure	183	28.0%

Over one-third (36.0%) of high school students in Pohnpei are sexually active. About three out of five (59.7%) of the sexually active students report two or more lifetime sexual partners. Only 14.5% of sexually active students reported using a condom at last intercourse. Almost half (46.6%) of sexually active students reported using no method to prevent pregnancy at last intercourse, and another 28.0% were not sure if they did. More effective methods to prevent pregnancy (such as birth control pills, IUD/implants, shot/patch/ring) are uncommon.

Nutrition: Sugar Sweetened Beverages (SSBs)

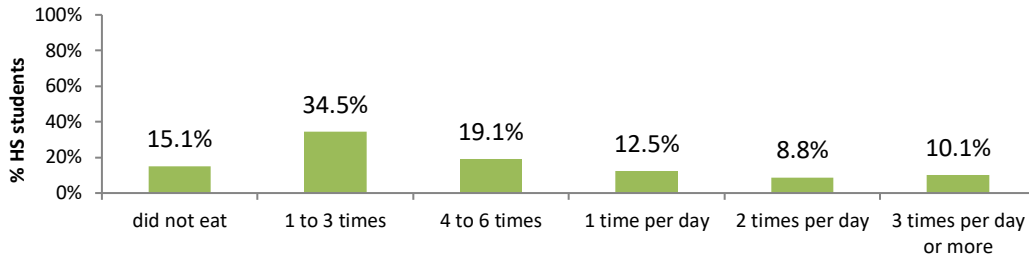
The majority (81.8%) of high school students in Pohnpei consumed sugar sweetened beverages (SSBs) in the past 7 days. About one-third (29.8%) of high school students consumed SSBs at least once per day in the past 7 days. Daily SSB consumption is the same among males and females and similar among all age groups. Daily SSB consumption varies by school ranging from 9.9% at CCA to 38.6% at NMHS.



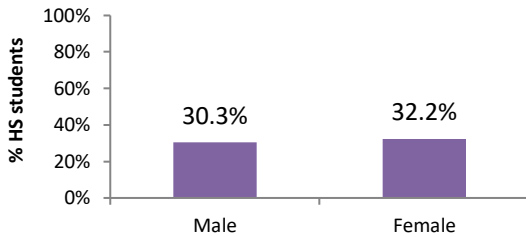
Nutrition: Instant Noodles

The majority (84.9%) of high school students in Pohnpei consumed instant noodles in the past 7 days. Almost one-third (31.4%) of high school students consumed instant noodles at least once per day in the past 7 days. Daily instant noodle consumption was similar among males (30.3%) and females (32.2%). Daily instant noodle consumption was highest among those 19 and older (36.4%). Daily instant noodle consumption varies by school ranging from 17.6% at OLM to 37.0% at MHS.

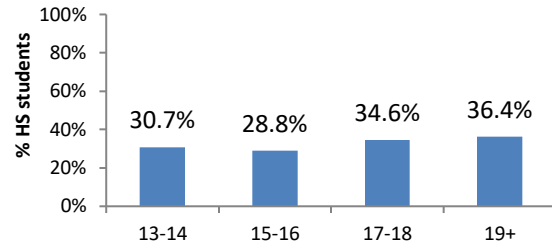
How often instant noodles were eaten in the past 7 days among Pohnpei HS students, 2023



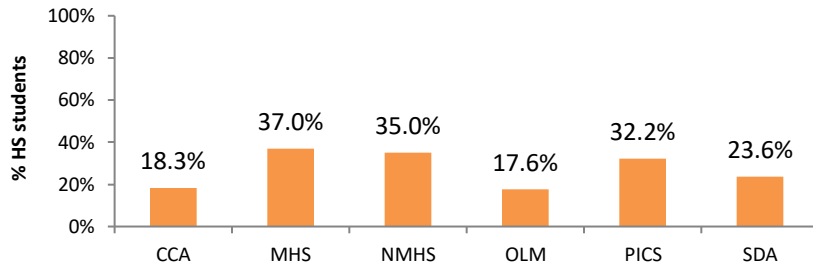
Eating instant noodles at least once per day among Pohnpei HS students, by gender, 2023



Eating instant noodles at least once per day among Pohnpei HS students, by age, 2023



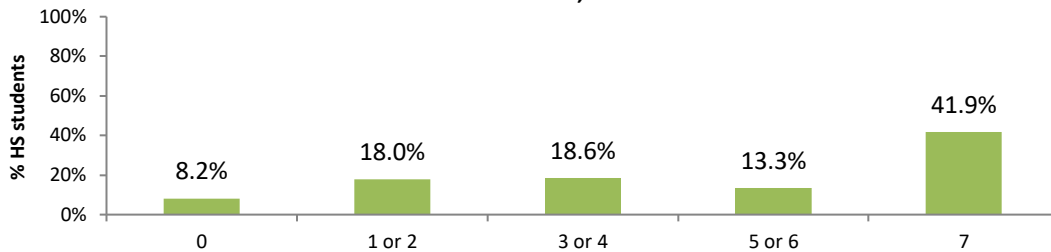
Eating instant noodles at least once per day among Pohnpei HS students, by school, 2023



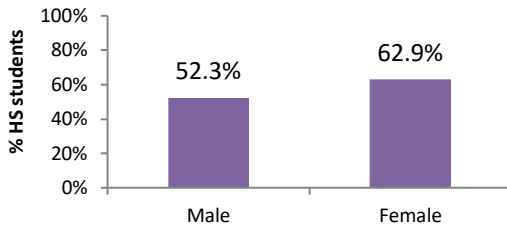
Nutrition: Eating Breakfast

Fewer than half (41.9%) of high school students in Pohnpei ate breakfast every day in the past 7 days. Female high school students had a higher prevalence (62.9%) of not eating breakfast daily compared to males (52.3%). Not eating breakfast daily prevalence was highest among those students 17-18 years old at 61.8%. There was variation in not eating breakfast daily prevalence by school ranging from 51.9% at MHS to 76.1% at CCA.

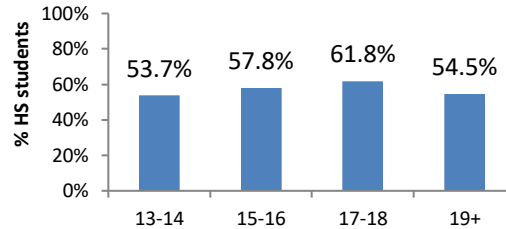
How many days breakfast was eaten in the past 7 days among Pohnpei HS students, 2019



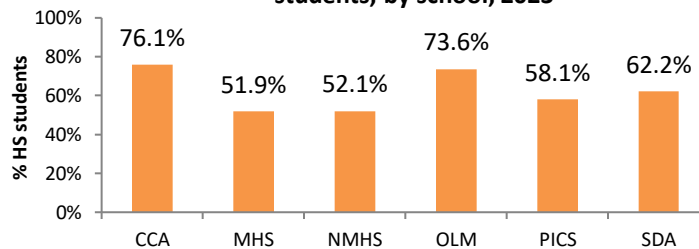
NOT eating breakfast every day among Pohnpei HS students, by gender, 2023



NOT eating breakfast every day among Pohnpei HS students, by age, 2019



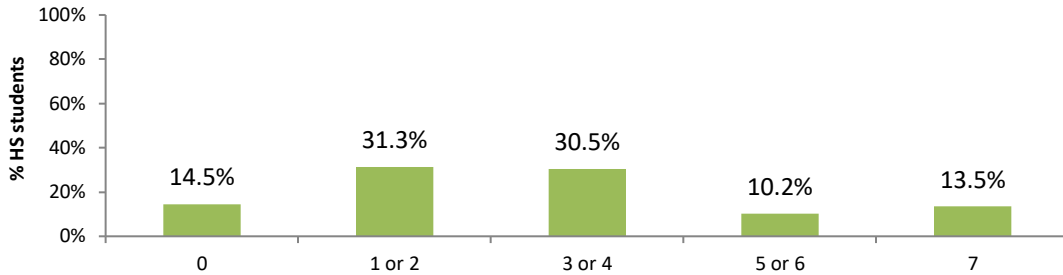
NOT eating breakfast every day among Pohnpei HS students, by school, 2023



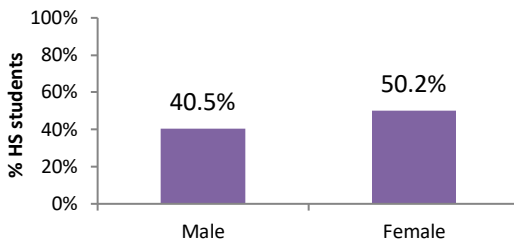
Nutrition: Fruit

Only 13.5% of Pohnpei high school students eat fruit every day. Almost half (45.8%) of high school students in Pohnpei eat fruit 0 to 2 days per week. Female high school students had a higher prevalence (50.2%) of low fruit consumption (<3 days per week) compared to male students (40.5%). Low fruit consumption was similar across all age groups. There was variation in low fruit consumption prevalence by school ranging from 33.4% at NMHS to 56.3% at CCA.

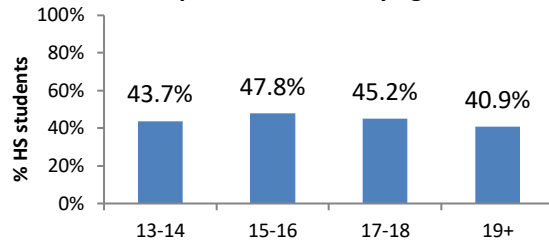
How many days fruit was eaten in past 7 days among Pohnpei HS students, 2023



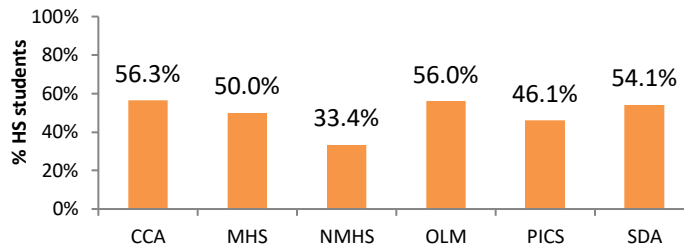
Consuming fruit <3 days/week among Pohnpei HS students, by gender, 2023



Eating fruit <3 days per week among Pohnpei HS students, by age, 2023



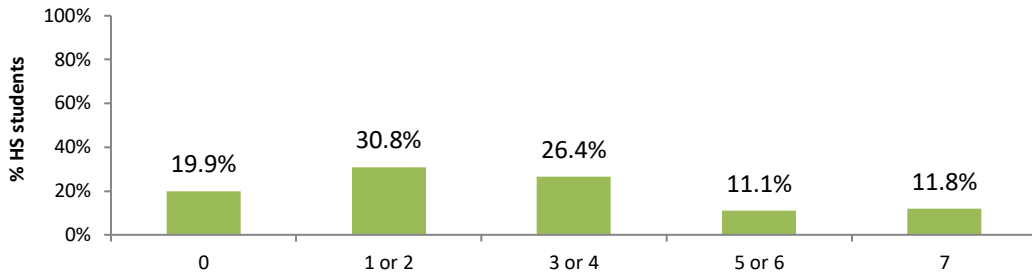
Eating fruit <3 days per week among Pohnpei HS students, by school, 2023



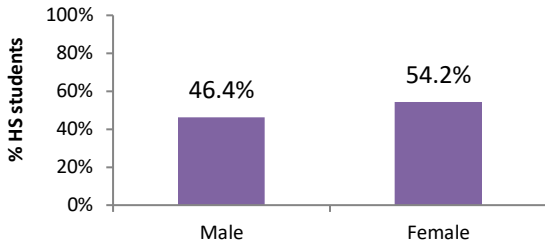
Nutrition: Vegetables

Only 11.8% of Pohnpei high school students eat vegetables every day. More than half (50.7%) of high school students in Pohnpei eat vegetables 0 to 2 days per week. Female high school students had a higher prevalence (54.2%) of low vegetable consumption (<3 days per week) compared to male students (46.4%). Low vegetable consumption was highest among younger high school students (<19 years old). There was variation in low vegetable consumption prevalence by school ranging from 39.4% at CCA to 57.8% at MHS.

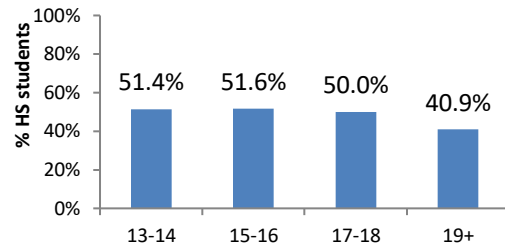
How many days vegetables were eaten in past 7 days among Pohnpei HS students, 2023



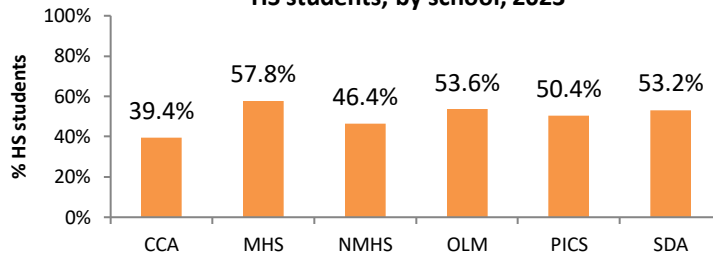
Eating vegetables <3 days per week among Pohnpei HS students, by gender, 2023



Eating vegetables <3 days per week among Pohnpei HS students, by age, 2023



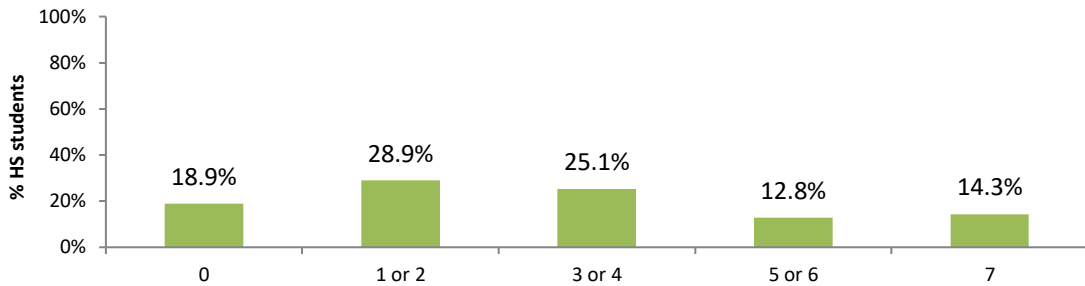
Eating vegetables <3 days per week among Pohnpei HS students, by school, 2023



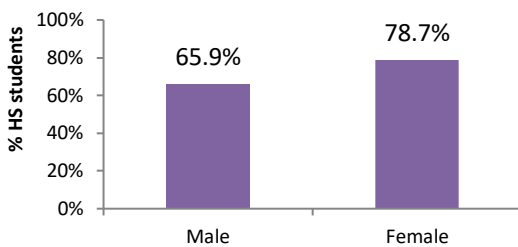
Physical Activity

Only 27.1% of Pohnpei high school students are physically active 5 or more days (at least 60 minutes per day) per week. Almost one out of five students (18.9%) did not participate in any physical activity in the past 7 days. Female high school students had a higher prevalence of low physical activity (78.7%) compared to male students (65.9%). Low physical activity was highest among those high school students 13-14 years old at 74.4%. There was variation in low physical activity prevalence by school ranging from 55.9% at SDA to 84.9% at MHS.

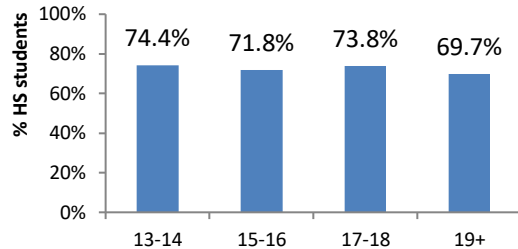
How many days physically active at least 60 minutes per day in the past 7 days among Pohnpei HS students, 2023



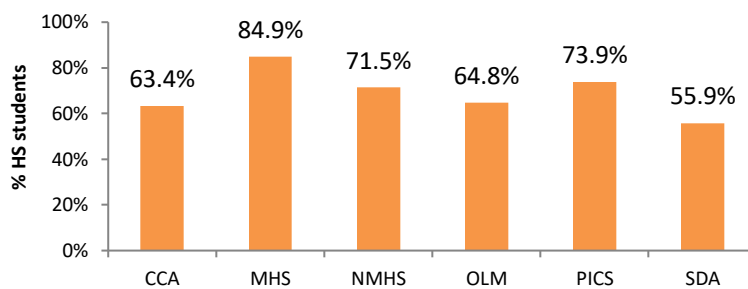
Being physically active <5 days per week among Pohnpei HS students, by gender, 2023



Physically active <5 days per week among Pohnpei HS students, by age, 2023



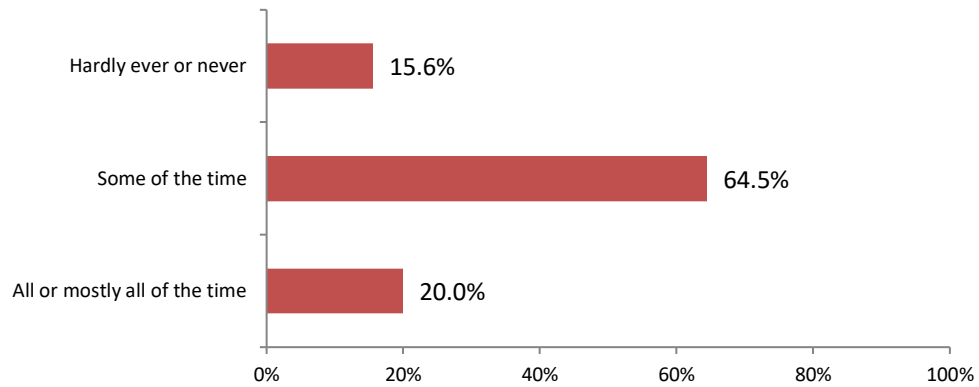
Physically active <5 days per week among Pohnpei HS students, by school, 2023



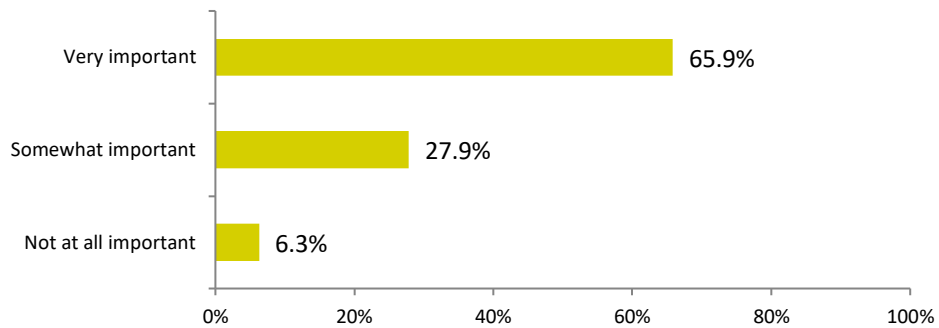
Healthy Food

Two out of three Pohnpei high school students (65.9%) reported they felt that eating healthy food was very important. Most Pohnpei high school students (84.5%) reported that they think about how healthy food is before eating at least some of the time.

How often healthy food is considered before eating among Pohnpei HS students, 2023



Eating health food importance among Pohnpei HS students, 2023



Discussion

Based on the data presented in this report, it is clear that many risk factors are highly prevalent among youth in Pohnpei and most of these risk factors are getting worse. This indicates a great need to evaluate current efforts in order to develop more effective, evidence-based school programs.

Tobacco use through smoking and chewing (with betel nut) is a significant concern given that these prevalence rates are much higher than other jurisdictions in the region and **two out of five high school youth are using tobacco**. Additionally, **over one-third of high school youth in Pohnpei are using alcohol**. There are clear trends in these use patterns, highlighting the need to prioritize certain high schools in Pohnpei for intervention. Additionally, substance use begins early in Pohnpei, so interventions in youth prior to high school should be considered.

Two out of five high school youth in Pohnpei are overweight or obese and one-third already have hypertension or pre-hypertension. Among students 19 and older, almost half are overweight or obese. Due to the fact that youth who are overweight or obese in adolescence are more likely to be overweight or obese in adulthood compared to healthy weight adolescents, it is important to prevent overweight/obesity in high school students.

Daily consumption of sugar sweetened beverages (30%) and instant noodles (31%) is higher than daily consumption prevalence of fruit (14%) and vegetables (12%). Additionally, only one out of four youth in Pohnpei get the recommended amount of physical activity. Physical activity programs in schools, sports programs, school nutrition, and healthy school food policies are effective ways to prevent overweight/obesity among youth.

About one-third high school students in Pohnpei are sexually active. **Few students regularly use condoms, and only about one-quarter are using methods to prevent pregnancy**. Effective modern methods such as birth control pills, implants, IUDs, and Depo are highly under-utilized by students. Education about and access to methods to prevent sexually transmitted infections and teenage pregnancy are greatly needed among high schools in Pohnpei.

Recommendations

Overall, the Pohnpei Rapid High School Survey continues to collect much needed data from Pohnpei high school youth. It is highly recommended that **this survey continues to be conducted on a regular, biannual basis**.

High school programs around substance use, nutrition, physical activity, and reproductive health should be strategically evaluated. Additionally, Pohnpei State and FSM National policies regarding these topics should also be reviewed. These data can be a powerful asset to motivate higher level change, especially regarding tobacco, alcohol, and unhealthy food legislation that potential to greatly reduce risk factor prevalence among youth in Pohnpei. **Without high-impact action, these risk factors will continue to rise** among youth, and continue into adulthood, resulting in high adult risk factor and disease prevalence that greatly contribute to morbidity and mortality in Pohnpei and burden the healthcare system.

Acknowledgements

Pohnpei State Department of Health and Social Services

Pohnpei State Department of Education

- Madolenihmw High School (MHS)
- Nanpei Memorial High School (NMHS)
- Pohnpei Island Central School (PICS)

Private High Schools

- Seventh Day Adventist
 - Principal, staff, and students
- Calvary Christian Academy
 - Principal, staff, and students
- Our Lady of Mercy Catholic High School
 - Principal, staff, and students

Pacific Islands Health Officers' Association

Annex

Students will first be interviewed and measured by trained Survey Staff to complete questions 1-15 in the shaded box. Then, students will complete questions independently, and then submit forms into a designated box. **No names are to be collected.**

SECTION 1: To be completed by NCD Survey Staff:

1. Date (M/D/Y):	_____ / _____ / _____
2. Name of School:	_____
3. Grade:	9 10 11 12 (circle one)
4. Name of Class or Section:	_____
5. Gender:	Male Female (circle one)
6. Age (years)	_____ years
7. Residence (Municipality):	_____
8. Staff Member Initials:	_____

9. Height:	_____ inches
10. Weight:	_____ pounds
11. Blood Pressure Reading 1	_____ / _____
12. Blood Pressure Reading 2	_____ / _____
13. Blood Pressure Reading 3	_____ / _____
14. Blood Pressure Reading AVG	_____ / _____
15. Staff Member Initials:	_____

This section is for the student to complete (Do not put your name on this sheet. All information is confidential.)

16. During the **past 30 days**, did you **smoke** any tobacco? (circle one) **Yes No**
17. During the **past 30 days**, did you chew **at least one betel nut**? (circle one) **Yes No**
18. During the **past 30 days** did you **chew** any tobacco with or without betelnut)?
(circle one) **Yes No**
19. During the past 30 days did you **use any electronic vapor products including e-cigarettes, vapes, vape pens, e-cigars, ehookahs, hookah pens, and mods.**
(circle one) **Yes No**
20. During the **past 30 days**, did you have **at least one drink of alcohol**?
(circle one) **Yes No**
21. During the past 30 days, how did you **usually** get the alcohol you drank? (circle one)
- (a) I did not drink alcohol during the past 30 days
 - (b) I bought it in a store or shop
 - (c) I bought it at a restaurant or bar
 - (d) I gave someone else money to buy it for me
 - (e) Someone gave it to me
 - (f) I took it from a store or family member
 - (g) I got it some other way
22. During the past 30 days, on how many days did you have 4 or more drinks of alcohol in a row, that is within a couple of hours (if you are **female**) or 5 or more drinks of alcohol in a row, that is, within a couple of hours (if you are **male**)? (circle one)
- (a) 0 days
 - (b) 1 day
 - (c) 2 days
 - (d) 3 to 5 days
 - (e) 6 to 9 days
 - (f) 10 to 19 days
 - (g) 20 or more days

23. **How old** were you when you had your **first drink of alcohol other than a few sips**? (circle one)

- (a) I have never had a drink of alcohol other than a few sips
- (b) 8 years old or younger
- (c) 9 or 10 years old
- (d) 11 or 12 years old
- (e) 13 or 14 years old
- (f) 15 or 16 years old
- (g) 17 years old or older

24. **Where** did you have your **first drink of alcohol beverage other than a few sips**? (circle one)

- (a) I have never had a drink of alcohol other than a few sips
- (b) Restaurant
- (c) Home
- (d) School
- (e) Bar
- (f) With friends
- (g) Friend's house
- (h) Other: _____ (please fill in if other)

25. During the past 7 days, how many times did you **drink a can, bottle, or glass of soda, such as Coke, Pepsi, or Sprite**? (Do not count diet soda or diet pop.) (circle one)

- (a) I did not drink soda during the past 7 days
- (b) 1 to 3 times during the past 7 days
- (c) 4 to 6 times during the past 7 days
- (d) 1 time per day
- (e) 2 times per day
- (f) 3 times per day
- (g) 4 or more times per day

26. During the past 7 days, how many times did you **eat instant noodles** (raw or cooked)? (circle one)

- (a) I did not eat instant noodles during the past 7 days
- (b) 1 to 3 times during the past 7 days
- (c) 4 to 6 times during the past 7 days
- (d) 1 time per day
- (e) 2 times per day
- (f) 3 or more times per day

27. During the past 7 days, on how many days did you eat fruit? (circle one)

0 1 2 3 4 5 6 7

28. During the past 7 days, on how many days did you eat vegetables? (circle one)

0 1 2 3 4 5 6 7

29. During the past 7 days, on how many days did you eat breakfast? (circle one)

0 1 2 3 4 5 6 7

30. During the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.) (circle one)

0 1 2 3 4 5 6 7

31. Before you eat, how often do you think about how healthy your food is?

- (a) All or mostly all of the time
- (b) Some of the time
- (c) Hardly ever or never

32. How important is eating healthy food to you?

- (a) Not at all important
- (b) Somewhat important
- (c) Very important

33. Have you ever had sexual intercourse? **Yes** **No** (circle one) **IF NO, STOP HERE!**

34. **How old** were you when you had **sexual intercourse for the first time?** (circle one)

- (a) I have never had sexual intercourse
- (b) 11 years old or younger
- (c) 12 years old
- (d) 13 years old
- (e) 14 years old
- (f) 15 years old
- (g) 16 years old
- (h) 17 years old or older

35. During your life, with how many people have you had sexual intercourse?

- (a) 1 person
- (b) 2 people
- (c) 3 people
- (d) 4 people
- (e) 5 people
- (f) 6 or more people

36. The last time you had sexual intercourse, did you or your partner use a condom?

- (a) I have never had sexual intercourse
- (b) Yes
- (c) No

37. The last time you had sexual intercourse, what one **method** did you or your partner use **to prevent pregnancy**? (Select only one response.)

- (a) I have never had sexual intercourse
- (b) No method was used to prevent pregnancy
- (c) Birth control pills
- (d) Condoms
- (e) An IUD (such as Mirena or ParaGard) or implant (such as Implanon or Nexplanon)
- (f) A shot (such as Depo-Provera), patch (such as Ortho Evra), or birth control ring (such as NuvaRing)
- (g) Withdrawal or some other method
- (h) Not sure