

Quality and Data Collection Readiness

GBHWC's Drug and Alcohol Branch created a unique system (data source) for data collection, analyzing, and reporting. The system collects data for every client admitted to a level of care provided by the Branch or its contracted providers. Providers are required to submit data on a quarterly and annual basis to GBHWC. The types of data being collected include but not limited to demographics, diagnosis, substance choices, referral source, length of stay, number of times in treatment, transportation or translator needed or not, pre-employment skills needed or not, pregnancy status, as well as other data types. The system also collects the substance treatment NOMs data as required by this block grant program. This is one of the two primary data sources the Branch utilizes to support its data driven substance treatment improvement processes.

Through the data sources mentioned, the Branch was able to utilize the information to identify the needs and gaps of the populations being served. For example, we listed earlier in the Background and Structure of the Service Delivery System section of this application that individuals with substance issues and homeless is a Territory priority population. The data sources does indicate that a significant number of individuals were unemployed or remain homeless or without stable housing after completion of core treatment. Therefore, the D&A Treatment Branch will continue supportive efforts to establish long term sobriety/recovery homes or similar to Oxford Houses. The Branch is confident that priority populations and their needs identified was a result of information provided by stated data sources.

In addition, Guam Behavioral Health and Wellness Center recently implemented in July 1, 2015, an electronic behavioral health records system and collects the Treatment Episode Data Set (TEDS), NOMS, and many other substance related treatment data. The name of the electronic records system is "AWARDS" developed and operated by Foothold Technology based out of New York. "AWARDS" also has a billing component. It will allow GBHWC to collect billing information such as type of medical insurance and what substance abuse services are reimbursable. This will allow GBHWC to use this new source of data to identify needs and gaps in services of the populations being served and make new or improved services data driven.

The Prevention and Training Branch utilizes a number of data feeds, systems evaluation, as well as stakeholders' forums, to determine statewide need for services and works with the island-wide need for services. Its data products are readily acknowledged as comprehensive community resources, and its work has consistently influenced substance abuse policy and program development, prevention resource allocation, services delivery and decision-making at the State government level as well as within individual, institutions, and community organizations.

Utilizing the principles of outcomes-based prevention, Guam's State Epidemiological Outcomes Workgroup (SEOW) was established and charged with overseeing the strategic use of data to inform and guide the island's prevention and early intervention efforts. Throughout 2005, Guam's SEOW undertook a data inventory and collated and reviewed data on substance abuse

consumption patterns and consequences. As a result, the island's first Guam Substance Abuse Epidemiological Profile in 2007 (Epi Profile); with subsequent updates in 2008 thru 2016.

The Guam SEOW is the longest-running data work group in Guam. It is considered the definitive authority on substance abuse epidemiology on the island. Its data products are readily acknowledged as comprehensive community resources, and its work has consistently influenced substance abuse policy and program development, prevention resource allocation, services delivery and decision-making at the State government level as well as within individual agencies, institutions, and community organizations.

The 2016 Profile for Guam represents the work done by the various SEOW members in conjunction with the Governor's PEACE Council and the GBHWC Prevention and Training staff. It documents an ongoing process of data collation and surveillance, with an expanded scope that includes not just data on tobacco, alcohol and other drugs of abuse but also suicide and mental health. Through this publication and its continuing work, the SEOW will continue to provide the local evidence base for effective substance abuse prevention and mental health promotion in Guam.

Key Findings for 2016 Profile for Guam: Substance Abuse

Tobacco

- Tobacco consumption remains higher in Guam than in the US, for both adults and youth. Males smoke more than females; adult female smoking in Guam is similar to male smoking in the US.
- Tobacco use displays marked disparities across socio-economic gradients; the poor and less educated tend to smoke more. Conversely the rich and well educated are more likely to have never smoked.
- Tobacco-related diseases are the major cause of death in Guam today.
- Smokeless tobacco use among adults is nearly double the US rate, and smokeless tobacco use is rising among Guam youth. Micronesians have the highest rates of smokeless tobacco consumption.
- Electronic cigarette use, or "vaping" is high among our youth: One in three (32.2%) of high school students and nearly one in four (23.1%) of middle school students reported current use.
- Tobacco control policies are closely associated with reductions in youth smoking prevalence.

Alcohol

- Current alcohol use is lower in Guam than in the US, but unsafe alcohol use (binge drinking and heavy drinking) among Guam adults surpasses the US rate.
- Current and binge drinking among Guam youth were increasing until alcohol taxes were increased in 2003. A further reduction was noted in 2011, following passage of the law that raised the minimum legal drinking age.
- Alcohol-related arrests comprised 19% of all arrests cleared in 2016. Alcohol was a factor in 17% of all traffic-related deaths in 2016.

Illicit Drugs

- About 12% of adults are current users of marijuana. Current and lifetime marijuana use among Guam students are higher than the US median.
- In 2016, 5.7% of adults reported illicit drug use other than marijuana. About 5% of adults reported taking prescription drugs that were not prescribed for them.
- About 4.5% of Guam high school students report having tried methamphetamines. About 11% reported taking a prescription drug without a doctor's prescription.
- In 2015, about 37% of high school youth reported they had been offered, sold or given an illicit drug on school property.

Suicide

- The age-adjusted 2016 suicide rate in Guam is 36.6 per 100,000, which is markedly higher than the US rate.
- Suicide deaths in Guam occurred predominantly among younger people. From 2008 to 2016, about 56% of all suicides occurred in those under 30 years of age.
- Chuukese and Japanese have the highest ethnicity-specific suicide rate.
- Most suicides in Guam occurred at home; hanging is the predominant method.
- Guam youth have an elevated likelihood of suicidal ideation and attempts than their US counterparts.
- Alcohol use, mental illness and exposure to violence have been linked to suicide deaths.

Mental Illness

- Almost 14% of Guam adults reported a debilitating mental condition or emotional problem in 2016, but only 6% reported receiving treatment for their condition.
- Symptoms of mental illness were more prevalent among Micronesians, those with lower income and lesser education.
- Persistent sadness among Guam high school students is significantly higher than the US median.

In 2005, Guam's SEOW members began by identifying a set of indicators specific to Guam that delineated alcohol, tobacco and other drug consumption patterns and the consequences related to the use of these substances. The criteria for selection of indicators included the following:

- Relevance
- Availability of data
- Validity of data
- Frequency/regularity of data collection
- Consistency in measurement
- If possible, existence of data disaggregated geographically, by age, sex and/or ethnicity/race

The SEOW also compiled a list of existing datasets from which to extract the data for the selected indicators. Indicators from well-established population-based surveillance systems---such as the Behavioral Risk Factor Surveillance System (BRFSS) and the Youth Risk Behavior Surveillance System (YRBS)---were given the greatest weight.

There are serious data gaps for Guam, and through the years, the SEOW has worked to address these gaps.

- **Adult illicit drug use:** Guam had no data on adult illicit drug use from a population-based survey prior to the SEOW. As a stopgap measure, in 2007 and 2008, GBHWC (formerly DMHSA) commissioned a population-based phone survey of drug use among youth and adults, but this could not be sustained because of the expense. In 2009, the SEOW facilitated a Memorandum of Understanding (MOU) between GBHWC and DPHSS to incorporate selected questions on illicit drug use in the BRFSS. This ongoing MOU (renewed annually since 2010) now provides population-based adult data on illicit drug consumption.
- **Guam ethnicity categories:** Earlier adult tobacco and alcohol data from the BRFSS could not be disaggregated using Guam-specific ethnic categories. The SEOW requested DPHSS to add island-specific ethnic categories as a State-added question in 2008.
- **Expanded youth data:**
- **Out of school youth** - To expand the coverage of youth data, the SEOW will facilitate an agreement between GBHWC and the Department of Youth Affairs (DYA) and Sanctuary, Inc. (a private sector provider of youth drug rehabilitation services) to administer a subset of YRBS questions to all of their clients, representing court-involved youth outside of the school system. **Suicide-related data** - The SEOW undertook a working agreement with the Office of Guam's Chief Medical Examiner to obtain suicide mortality data and with the Guam Memorial Hospital to access suicide-related hospital and Emergency Room admissions data. This year, the SEOW also received data from the National Suicide Hotline on call volumes from Guam.
- **Mental health indicators** – The SEOW has gradually expanded the scope of its data analysis and now includes information on depression, violence, sexual violence and bullying among youth, and depression among adults.
- **LGBTQ population** – SEOW will to expand coverage on data from the Guam's Alternative Lifestyle Association (GALA), a PEACE Partnership for Success Partner, into the Profile. 2014 was the last update on this population.

It is anticipated that over time more behavioral health indicators will be incorporated into the Epi Profile. Currently, selected indicators for the expanded Epi Profile include:

SEOW selected indicators

ALCOHOL Indicators	Consumption	Consequences
	Lifetime use of alcohol by Middle School students	Chronic liver disease death rate
	Current use of alcohol by High School students	Suicide death rate
	Current use of alcohol by 18 and older	Homicide deaths
	Current binge drinking by High School students	% Fatal motor vehicle crashes that are alcohol-related
	Current binge drinking by 18 and older	Violent crime rate
	Current heavy use of alcohol by 18 and older	Property crime rate
	Current binge drinking by LGBTQ	Alcohol abuse or dependence
	Current heavy use of alcohol by LGBTQ	Alcohol-related confinement
	Early initiation of alcohol use	% Alcohol-related participation in treatment programs
	Drinking and driving among High School students	
	Consumption patterns among court-involved youth	
	Use of alcohol on school property by High School students	

TOBACCO Indicators	Consumption	Consequences
	Current smoking by Middle School students	Deaths from lung cancer
	Current smoking by High School students	Deaths from chronic obstructive pulmonary disease (COPD) and emphysema
	Current smoking by 18 and older	Deaths from cardiovascular and cerebrovascular diseases
	Current smoking by LGBTQ	Tobacco-related cancer prevalence
	Current smokeless tobacco use by Middle School students	
	Current smokeless tobacco use by High School students	
	Current smokeless tobacco use by adults	
	Lifetime daily cigarette use by Middle School students	
	Current daily cigarette use by High School students	
	Current daily cigarette use, 18 and older	
	Early initiation of tobacco use	
	% vendors selling to minors	
	Quit attempts in the past year	
	Use of cigarettes and smokeless tobacco	

products on school property

DRUGS	Consumption	Consequences
Indicators	Lifetime use of marijuana by Middle School students Lifetime and current use of marijuana by High School students Early initiation of marijuana use Lifetime and current use of marijuana by adults Lifetime and current use of marijuana by LGBTQ Lifetime use of cocaine by Middle School students Lifetime and current use of cocaine by High School students Lifetime use of inhalants by Middle School students Lifetime use of inhalants by High School students Lifetime use of methamphetamines or “ice” by Middle School students Lifetime and current use of methamphetamines or “ice” by adults Lifetime and current use of other drugs by adults Lifetime and current use of other drugs by LGBTQ Lifetime use of steroids or other prescription drugs by High School students Illegal drug use on school property Other drug use patterns among court-involved youth % US Probation Office drug testing positive for any drug Drug seizures per year by type and amount of drug	Property crime rate Violent crime rate Drug abuse or dependence Drug-related arrests

SUICIDE	Vital Statistics	Related Data
Indicators	Suicide mortality rate Demographic characteristics of suicide deaths % of suicide deaths involving alcohol use % of suicide deaths involving other drug use	Suicidal ideation among school youth Suicidal ideation among LGBTQ Suicidal attempts among school youth

	Suicidal attempts among LGBTQ % of school youth reporting persistent sadness % of school youth identifying themselves as bi- or homosexual
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MENTAL HEALTH	Prevalence
Indicators	Prevalence of depressive symptoms among High School students Prevalence of depressive symptoms among adults % students threatened or injured by a weapon in school in the past 12 months % students in a physical fight in the past 12 months % students forced to have sexual intercourse, lifetime % students subjected to partner violence in the past 12 months % students bullied on school property in the past 12 months % students electronically bullied in the past 12 months % LGBTQ bullied for their sexual preference, lifetime

At present, Guam’s SEOW tracks data on substance abuse consumption and consequences and suicide from the following data sources:

Data sources

Data Source	Frequency	Agency	Data Type
Behavioral Risk Factor Surveillance System (BRFSS)	annual	DPHSS	Adult tobacco and alcohol use, illicit drug use, depression
Youth Risk Behavior Surveillance System (YRBS)	biannual	Guam Dept. of Education (GDOE)	Youth tobacco, alcohol and drug use; suicidal ideation and attempts; bullying, sexual violence, violence
Modified YRBS	annual	DYA	Youth tobacco, alcohol and illicit drug use
Synar annual tobacco vendors’ compliance survey	annual	GBHWC	Vendor compliance to prohibition of tobacco sales to minors
Vital Statistics	annual	DPHSS	Leading Causes of Mortality
Guam Cancer Facts and Figure, Cancer Registry	2008-2012	DPHSS	Cancer prevalence and mortality
Guam Uniform Crime Report	annual	Guam Police Department	Alcohol and drug-related crime

US Probation Office Client Random Drug Testing Statistics	annual	Guam US Probation Office	Adult drug offenders random drug testing results
Suicide Mortality Report	monthly	Chief Medical Examiner's Office	Suicide deaths and associated data
GALA, Inc. Assessment Report	2014	GALA, Inc.	Tobacco, alcohol and drug use among LGBTQ; suicidal ideation and attempts; physical violence

LESBIAN, GAY, BISEXUAL, TRANSGENDER (LGBT) COMMUNITY

The SEOW identified a data gap regarding substance abuse and mental health data from the local lesbian, gay, bisexual and transgender (LGBT) community in 2012. In 2014, under the Partnership for Success (PFS) grant, Guam's Alternative Lifestyle Association (GALA), Inc. collaborated with the GBHWC PEACE Office to conduct the first GALA Health and Wellness Survey among the local LGBT community.

The survey was comprised of questions borrowed from CDC's BRFSS, PEW Research, the DPHSS Pacific Islands HIV Test form and the Suicidal Behaviors Questionnaire (SBQ). It was reviewed by a community review panel and was granted ethics clearance from the University of Guam's (UOG) Institutional Review Board, Committee on Human Subjects Review.

Survey participants were those who self-identified as lesbian, gay, bisexual and/or transgender over the age of 18, who could provide legal consent for themselves. The data collection period was from August 2014 to December 2014. A convenience, non-probability sampling scheme was employed using a modified version of the Respondent Driven Sampling technique.

A total of 237 surveys were completed. Two surveys were discarded because the respondents self-identified as straight after they completed the survey. In addition, one survey was partially completed but was still included in the data analysis. Survey Results was incorporated in 2015 Guam Epi Profile.