

Substance Abuse Epidemiological Profile 2010 Republic of the Marshall Islands



RMI Epidemiological Workgroup

On behalf of the Republic of the Marshall Islands, we hereby endorse the Substance Abuse Epidemiological Profile 2010:

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ACKNOWLEDGEMENTS

This profile resulted from the collaborative efforts of the various agencies and institutions that comprise RMI Epidemiological Outcomes Workgroup (RMI Epi Workgroup) with coordination by Marshall Islands Epidemiology and Prevention Initiatives Inc. (MIEPI). The data contained in this profile were contributed by the members of the RMI Epi Workgroup from primary sources within each specific department or institution.

The RMI Epi Workgroup, represented by members from the MOJ, MOH, MOE, MOIA, EPPSO, CMI, WUTMI, YTYIH, KAHCS, PPP, MIEPI and SSA was formed under a State Epidemiological Outcomes Workgroup (SEOW) grant provided by the US Substance Abuse and Mental Health Services Administration (SAMHSA) through the RMI national government.

In this 2010 National Epi Profile, MIEPI has been able to collect additional substance abuse related data for the SPF SIG Bobrae Project through collaboration with project partners including WUTMI, PPP, and YTYIH. RMI will also continue to improve its RMI Epi Profile to integrate substance abuse treatment, recovery and mental health related data.

ABBREVIATIONS

CDC	Centers for Disease Control and Prevention
CCP	Cancer Comprehensiveness Program
CMI	College of the Marshall Islands
CRA	Community Readiness Survey
DHS	Demographic Health Survey
DUI	Driving Under the Influence
EPPSO	Economic Policy, Planning and Statistics Office
GS	Group Survey
KII	Key Informant Interviews
KAHCS	Kwajalein Atoll Health Care Services
MIEPI	Marshall Islands Epidemiology and Prevention Initiatives
MOE	Ministry of Education
MOF	Ministry of Finance
MOH	Ministry of Health
MOIA	Ministry of Internal Affairs
MOJ	Ministry of Justice
NOMs	National Outcome Measures
NSDUH	National Survey on Drug Use and Health
NTC	National Trading Council
RMI	Republic of the Marshall Islands
SAMHSA	Substance Abuse and Mental Health Services Administration
SEOW	State Epidemiological Outcomes Workgroup
SPC	Secretariat of the Pacific Community
SPF SIG	Strategic Prevention Framework State Incentive Grant
SSA	Single State Agency
YRBS	Youth Risk Behavior Survey
YTYIH	Youth to Youth in Health
WHO	World Health Organization
WUTMI	Women United Together Marshall Islands

LIMITATIONS OF THIS REPORT AND GAPS IDENTIFIED

There continue to be challenges in collecting reliable and timely data (the NOMs and related statistics), both quantity and quality issues exist during data collection and analysis. In some cases, more recent estimates and data are still needed (meaning new surveys must be commissioned and executed). On many occasions, information is not standardized, and therefore, the statistics are presented in context of varying forms at national levels, with some data not meeting basic criteria for validity. In other cases, this data exists, but are unreliable and require further vetting.

Ministry of Health – Health statistics obtained were general, with specific statistics relating to substance abuse impossible to identify. Emergency room statistics relating to alcohol admissions and treatment were not available although given more time we would have been able to identify records. Alcohol emergency records emerging from outpatient departments and the emergency departments need to be better identified and channeled appropriately for future statistical use.

Ministry of Education – The YRBS is the only survey that is done regularly in the RMI related to substance use. It has taken place from 1999 to 2009 (5 surveys). The YRBS was not conducted in 2005. The YRBS however, only captures youth in the formal public school system. The large majority of youth drop outs are not covered. Additionally, collaboration of appropriate questions to be incorporated in the CDC based survey, would improve the results and sharpen the analysis. Dissemination of the analysis would better the performance showing reliable trends. This dissemination process needs to be put in place.

Ministry of Justice – A uniform reporting on substance abuse offenses and prosecution needs to be strengthened. Records of victims and deaths from road accidents cannot be verified clearly, either from MOH or MOJ.

NOMs – many of the NOMs for substance abuse prevention require data that come from the NSDUH, which the RMI currently does not administer. Substitute data will need to be provided, however even substitute data is thin in the RMI.

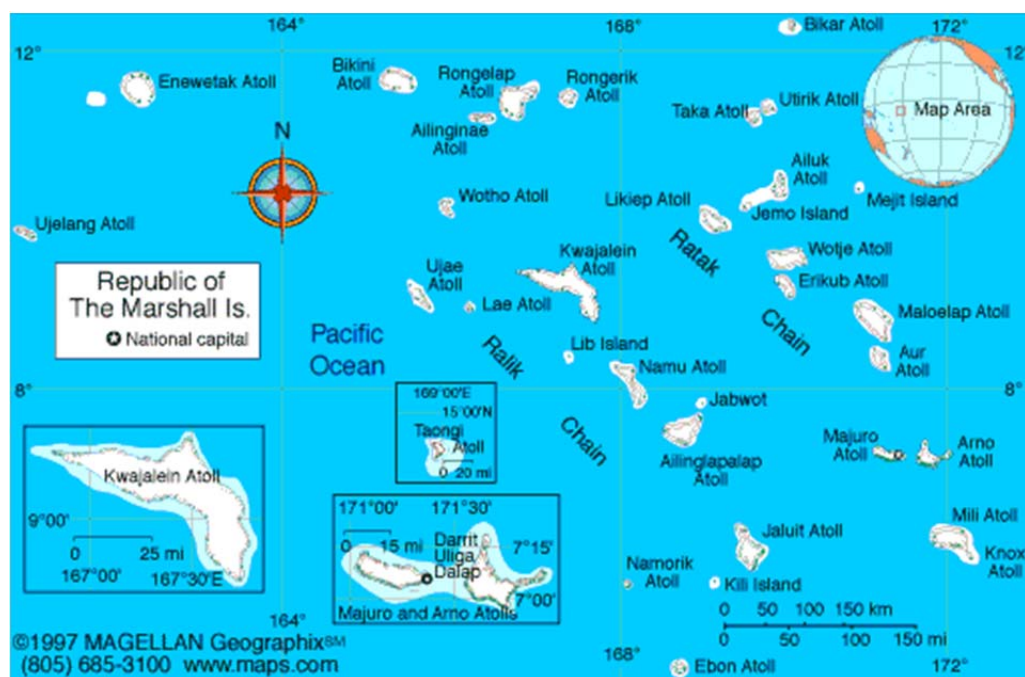
RMI DHS 2007 -- queried men and women about the “justification of violence against women.” However, the authors wondered if anything was lost in translating “justification of violence against women.” It is possible, but not clear, that the intent of the question was to determine what the respondents believe was the “reason” for the violence, as opposed to whether the victim deserved the violence (i.e., that it was “justified”).

Bobrae Project Needs Assessment Tools – Throughout the tools employed for additional data collection (KIIs, CRAs, and Group Surveys), there was difficulty with the translation of certain key words and phrases. National level data was based on information from Majuro, Kwajalein, Jaluit and Ailinglaplap.

MARSHALL ISLANDS GENERAL INFORMATION

Geography

The Republic of the Marshall Islands is located in the central northern Pacific, approximately half-way between Hawaii and Australia. The RMI is made up of a vast archipelago of coral atolls and single coral islands, with an Exclusive Economic Zone of approximately 750,000 square miles.



Source: www.maps.com

Population Characteristics

As of July 2010, the CIA World Factbook estimated the population of the RMI at 65,859.¹ While the RMI has relatively high fertility rates, with a crude birth rate of 29² and a total fertility rate of 4.5³, fertility has fallen over time (albeit slowly). Infant and child mortality remain relatively high at 31⁴ and 14⁵, respectively. As illustrated by the population pyramid graph below, the RMI has a very young population structure. The population under the age of 20 made up some 52% of the total population as of 2007.

¹ Current population estimate provided by www.cia.gov/library/publications/the-world-factbook/geos/rm.html

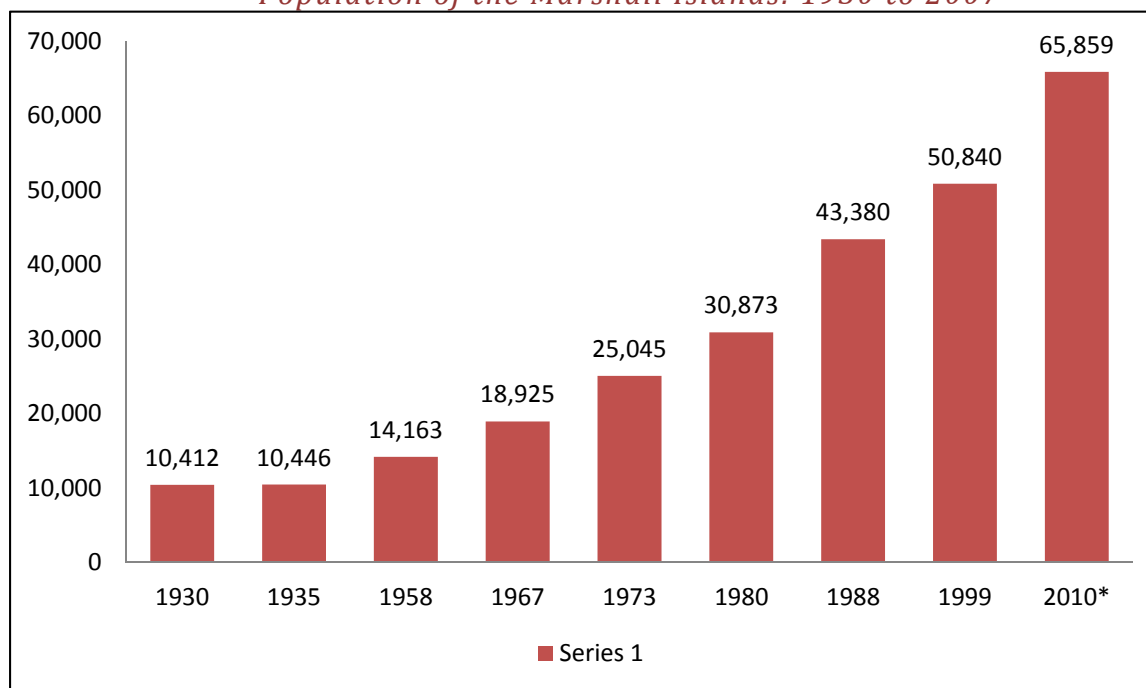
² Crude birth rate estimate from 2008 MOH annual report

³ TFR estimates from Demographic Health Survey 2007, EPPSO

⁴ Infant mortality rate estimate from 2008 MOH annual report

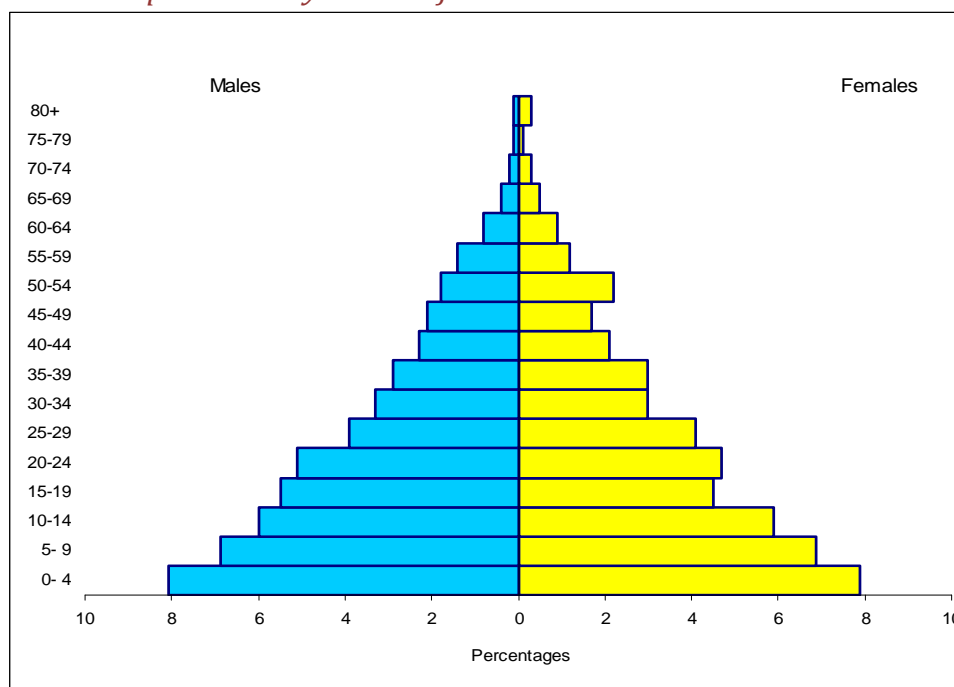
⁵ CMR estimates from Demographic Health Survey 2007, EPPSO. Mortality rates for the 10-year period preceding the survey.

Population of the Marshall Islands: 1930 to 2007



Source: EPPSO and cia.gov (*cia.gov estimate)

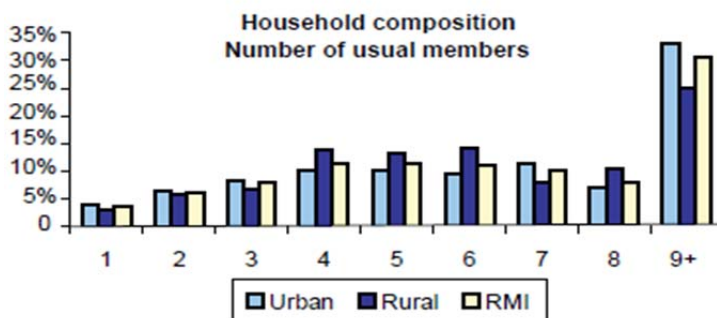
Population Pyramid of the Marshall Islands: 2007



Source: Demographic Health Survey 2007, EPPSO

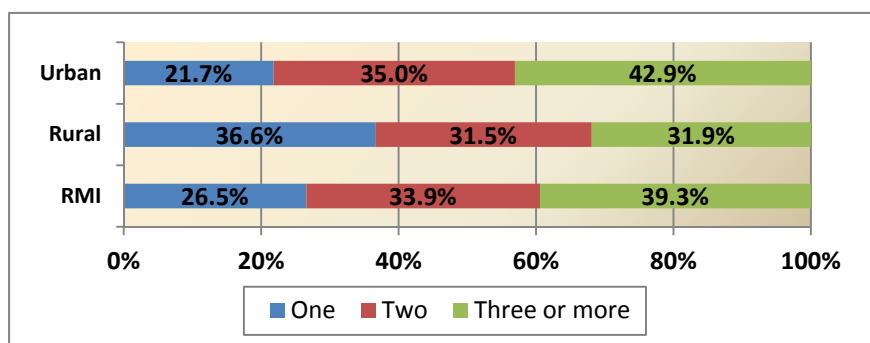
High and sustained rates of outmigration is another prominent demographic feature of the RMI, with around 500 to 1,000 Marshallese migrating to the US every year since 2000 (this is equivalent to nearly 2% of the total population).

Reflecting a young and fast growing population, the average Marshallese household comprises of 7.2 members, with urban households (7.6 members) averaging one member more than households in rural areas.



Most households are headed by men (76%). In urban areas, 33% of households have nine or more members, compared with 25% in rural areas, indicating a need for housing in urban areas. Large household sizes are limited and land area make for dense living conditions, with one quarter of all households using only one room for sleeping.

RMI Household – Number of Rooms Used For Sleeping



Source: Demographic Health Survey 2007

Large household size is not just a reflection of a growing population but is also indicative of specific Marshallese cultural practices. Over 4 in 10 households included one or more children who stayed with neither their natural father nor their natural mother. The percentage was higher in rural areas (50% compared to 44%). Survey results showed that almost one quarter (23.2%) of Marshallese children under 18 were not living with either parent.

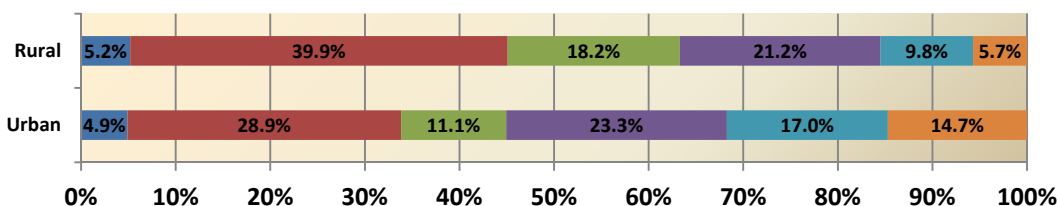
Ethnicity

The ethnic makeup of the RMI is mostly Marshallese, with 98.6% of the population claiming Marshallese ethnicity and citizenship as of the last census (1999). In addition, 0.3% of the population was of other Micronesian ethnicity, 0.8% Asian, and 0.3% of other background.

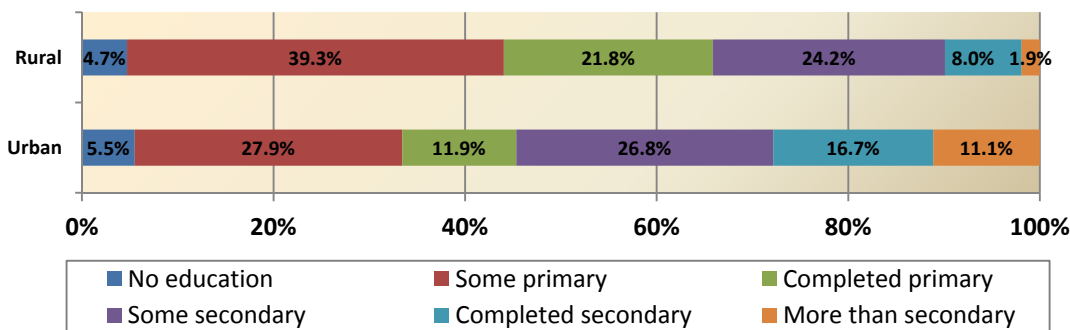
Education

The vast majority of Marshallese attend school, although many do not complete primary school and very few go on to complete secondary or higher education. Starting at age 14, attendance rates decline noticeably for all children.

Male educational attainment



Female educational attainment

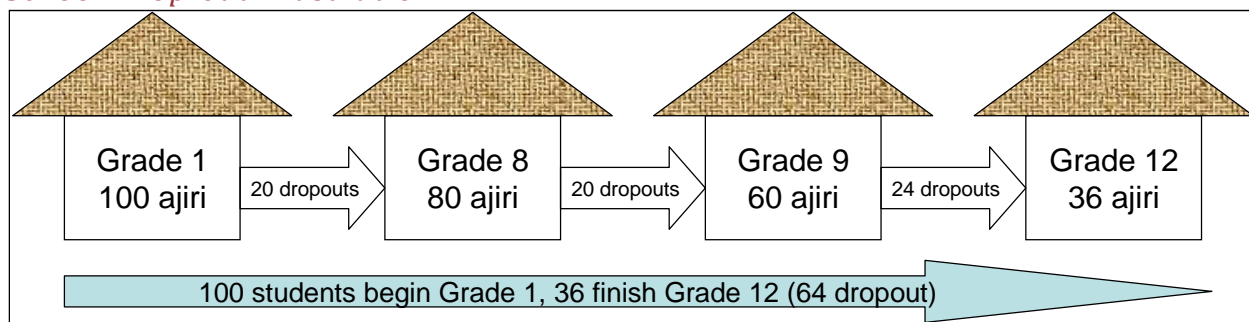


Source: Demographic Health Survey 2007

Overall, primary school attendance is reasonably high but still not universal, as reflected in the net attendance rate of 83%. In urban areas, 81% of children aged 6-12 attend primary school compared with 87% in rural areas.

The RMI struggles to meet its human development goals and the provision of basic education (as required by the Constitution) remains a major challenge. Dropout rates remain extremely high, such that for every 100 children that enter Grade 1, only 36 will go onto finish Grade 12 (a 64% non-completion rate). Only around 40% of adults have completed the full cycle of primary and secondary schooling. According to the 1999 census, the literacy rate for the Marshall Islands was approximately 77%.

School Drop-out Illustration



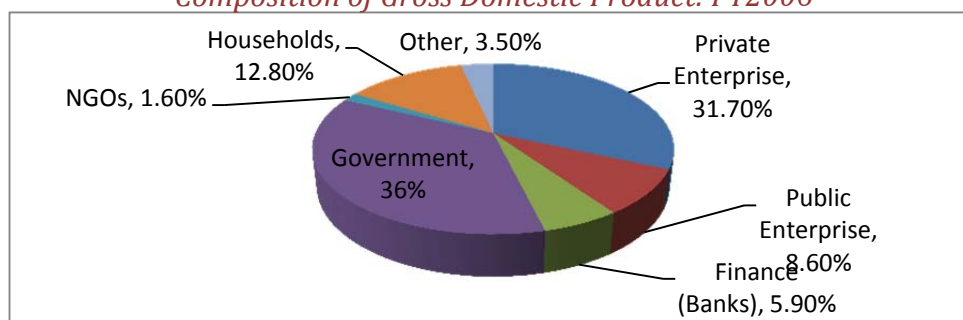
Source: World Bank 2005 Human Development Review, Marshall Islands

Economy and Employment

The RMI economy relies heavily on foreign grants as well as on public (government) expenditure. Nearly two-thirds of the national budget is funded by grants from the US (under the Compact of Free Association) and Republic of China (through a bilateral agreement).

The government accounts for nearly 40% of GDP and remains the largest institutional sector in the economy (see pie chart below).

Composition of Gross Domestic Product: FY2006



Source: EPPSO projection

Employment data trends from the past two censuses (1988 and 1999) show a rapidly increasing working age population and labor force, but at the same time almost no growth in total employed persons. From 1988 to 1999, the number of persons self-reporting employment (formal and non-formal workers) grew only very slightly, from 10,056 to 10,141 (see table below). This pushed the unemployment rate over this period from 12.5 to 30.9%. An estimated in 2004 pegged unemployment at around 34%.⁶

Labor Force Data: 1988 and 1999

	Numbers		Percent	
	1988	1999	1988	1999
Working age population	21,244	28,698	--	--
Economically active	11,488	14,677	54.1%	51.1%
Economically inactive	9,546	14,015	44.9%	48.8%
Not stated	210	6	--	--
Employed	10,056	10,141	87.5%	69.1%
Employee - public sector	3392	3,106	33.7%	30.6%
Employee - private sector	3369	4,115	33.5%	40.6%
Self employed	2484	2,622	24.7%	25.9%
Employer in own farm or business	--	115	--	1.1%
Paid family worker	811	96	8.1%	0.9%
Unpaid family worker	--	87	--	0.9%

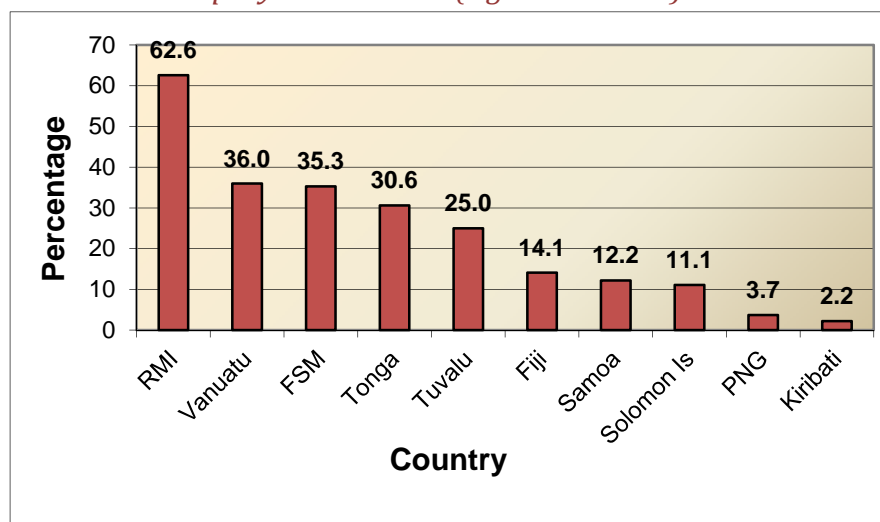
⁶ RMI 2005 Social and Economic Report, Juumemmej.

Unemployed	1,432	4,536	12.5%	30.9%
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Source: 1988 and 1999 RMI Censuses

Unemployment is more prevalent among Marshallese women and youth. As shown below, the RMI has the highest estimated rates of youth (ages 15 to 24) unemployment in the Pacific.

Youth Unemployment Rates (ages 15 to 24): 1999-2000



Source: ADB 2005. Hardship and Poverty in the Pacific Manila.

Formal sector employment has grown steadily over the past decade (although not fast enough to lower the unemployment rate). Public sector employment data again show a dominance of government; with over 4,500 government jobs in FY06 and an estimated 4,600 in FY07 (this includes the national government, public agencies and enterprises, and local governments). Private sector jobs (including the financial sector and banks) have shrunk in recent years, from a peak of nearly 5,300 jobs in FY03 to an estimated 5,100 or so in FY07.

Formal Sector Employment: FY1997 to FY2007

Sectors	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07 Proi
Public Sector	3,866	3,753	3,706	3,736	3,828	4,051	4,162	4,310	4,441	4,534	4,600
Private Sector and Banks	3,743	3,929	3,941	4,510	4,893	4,974	5,295	5,163	4,535	4,870	5,090
NGOs and others	348	355	361	371	391	387	373	395	398	407	423
Public Sector	49%	47%	46%	43%	42%	43%	42%	44%	47%	46%	45%
Private Sector and Banks	47%	49%	49%	52%	54%	53%	54%	52%	48%	50%	50%
NGOs and others	4%	4%	5%	4%	4%	4%	4%	4%	4%	4%	4%

Source: EPPSO and MISSA, FY2007 projection

DATA CONSTRUCTS AND INDICATORS

This 2010 Epidemiological Profile presents a wide array of constructs and indicators, organized as follows:

AREA	CONSTRUCTS/INDICATORS	
CONSUMPTION	ALCOHOL <ul style="list-style-type: none"> ▪ Alcohol ever consumed ▪ Current alcohol use ▪ Alcohol consumption per drinking day ▪ Largest alcohol consumption per drinking day ▪ Current heavy drinking ▪ Binge drinking ▪ Influencing factors for starting alcohol consumption ▪ Place alcohol obtained from ▪ Alcohol use and sexual intercourse ▪ Current alcohol use among female adults prior to pregnancy ▪ Youth lifetime alcohol use ▪ Youth current alcohol use ▪ Youth episodic heavy drinking ▪ Youth alcohol use before age 13 ▪ Youth alcohol use on school property 	TOBACCO <ul style="list-style-type: none"> ▪ Current smokers ▪ Mean age of smoking initiation ▪ Mean number of years smoking ▪ Types of cigarettes ▪ Mean consumption of manufactured cigarettes ▪ Smokeless tobacco use ▪ Lifetime tobacco use among female adults prior to pregnancy ▪ Youth lifetime cigarette use ▪ Youth lifetime daily cigarette use ▪ Youth current cigarette use ▪ Youth current frequent cigarette use ▪ Youth more than 10 cigarettes per day ▪ Youth tried to quit smoking ▪ Youth current smokeless tobacco use ▪ Youth current tobacco use ▪ Youth cigarette smoking before age 13 ▪ Youth purchased cigarettes at store or gas station ▪ Youth cigarette use on school property ▪ Youth smokeless tobacco use on school property ▪ Regional comparison of youth tobacco use
	ALCOHOL AND TOBACCO <ul style="list-style-type: none"> ▪ Frequency of Substances 	
	OTHER SUBSTANCES <ul style="list-style-type: none"> ▪ Lifetime other substances use among female adults prior to pregnancy 	
	CONSEQUENCES	MORTALITY <ul style="list-style-type: none"> ▪ Leading causes of mortality ▪ Estimated deaths attributable to alcohol and tobacco ▪ Cancer mortality SUICIDE <ul style="list-style-type: none"> ▪ Completed suicides ▪ Attempted suicides ▪ Youth seriously considered attempting suicide ▪ Youth made suicide plan ▪ Youth attempted suicide ▪ Youth suicide attempt required medical attention ACCIDENTS, VIOLATIONS AND OFFENSES <ul style="list-style-type: none"> ▪ Traffic accidents and DUI violations ▪ Alcohol related offenses OTHER CONSEQUENCES <ul style="list-style-type: none"> ▪ Teenage pregnancy

	<ul style="list-style-type: none"> ▪ Domestic Violence ▪ Mental health substance abuse cases ▪ Employment Problems ▪ Employee Termination ▪ Problems identified by Key Informants ▪ Differences between youth and adults ▪ Problems identified by Group Survey respondents 	
PERCEPTION	<p>Alcohol</p> <ul style="list-style-type: none"> ▪ Differences between women and men ▪ Community knowledge of dangers ▪ Harm from alcohol every day ▪ Friends’ approval of alcohol ▪ Family approval of alcohol 	<p>Tobacco</p> <ul style="list-style-type: none"> ▪ Differences between women and men ▪ Community knowledge of dangers ▪ Harm from daily cigarette use ▪ Friends’ approval of tobacco use ▪ Family approval of tobacco use
COMMUNITY READINESS	<p>Synar</p> <ul style="list-style-type: none"> ▪ Retail Violation Rate <p>Acceptance</p> <ul style="list-style-type: none"> ▪ Community acceptance of substance use ▪ Acceptance of youth use ▪ Community support of programs/activities ▪ Agency collaboration/ cooperation <p>Enforcement & Leadership</p> <ul style="list-style-type: none"> ▪ Enforcement of laws ▪ Leadership concern ▪ Leadership support ▪ Role of Iroj <p>General Substance Abuse Awareness</p> <ul style="list-style-type: none"> ▪ Problems caused by substances ▪ Community substance abuse problems ▪ Acknowledgment of substance abuse problems ▪ Substance abuse severity ▪ Youth substance abuse severity ▪ Youth substance abuse problems ▪ Parent/child substance abuse talks ▪ Availability of data ▪ Media participation in substance abuse related issues <p>Desire For Change</p> <ul style="list-style-type: none"> ▪ Plans for expansion ▪ Need for expansion of prevention efforts <p>Knowledge of Prevention Programs</p> <ul style="list-style-type: none"> ▪ Knowledge of prevention programs ▪ Substance abuse prevention among youth ▪ Community substance abuse prevention 	

EXECUTIVE SUMMARY AND KEY FINDINGS

Background. This profile was produced by the RMI Epidemiological Outcomes Workgroup (RMI Epi Workgroup). The RMI Epi Workgroup was formally established by the RMI President and Cabinet on September 20, 2007. Its mission is to collect, analyze and report on substance use incidence, prevalence, and related data and National Outcome Measures (NOMs) to be used by government, non-government, and community organizations for the purposes of planning, ongoing monitoring, and evaluation.

RMI was awarded the five-year Strategic Prevention Framework State Incentive Grant (SPF SIG) in July 2009 through a competitive grant process funded by the Center for Substance Abuse Prevention (CSAP), a division of the U.S. Substance Abuse and Mental Health Administration (SAMHSA). To implement this project (the RMI Bobrae Project), stakeholders from five (5) of the most populated atolls (Majuro, Kwajalein, Ailinglaplap, Jaluit, Wotje) have been convened to use the five-step SPF process to accomplish three (3) primary goals:

- 1. Reduce the onset and/or progression of substance abuse including childhood and underage drinking.*
- 2. Reduce substance abuse-related problems.*
- 3. Build capacity and infrastructure for data-driven substance abuse prevention at the State and community levels.*

Data sources and methodologies. This Epi Profile draws on and synthesizes a number of data sources, including the World Health Organization Non Communicable Disease STEPS Survey (2002), the Secretariat of the Pacific Community Second Generation Surveillance Survey (2006-2007), the RMI and Centers for Disease Control Youth Risk Behavioral Survey (2001, 2003, 2007 and 2009), Ministry of Health (MOH) Annual reports (2001-2008), Police and Criminal Justice Department Reports, the Demographic Health Survey 2007, the National Training Council Employer Training Needs Survey 2009, and Bobrae Project designed tools (Key Informant Interviews, Community Readiness Assessment surveys, and Group Surveys), as well as other administrative records and data sources.

Substance abuse a major issue. It is well known that the abuse of substances, whether it is alcohol, tobacco, illicit drugs, kava/sakau, or betel nut, does exist to varying degrees in our communities. According to the Group Survey, over 90% of community members, regardless of gender, location, or age group, considered substance abuse a problem in the community. In fact, a 2006 RMI survey of 1,205 households showed that almost two-thirds of those surveyed feel that substance abuse is worsening in their communities. Substance abuse has affected our communities, changed lifestyles and increased health consequence issues. This has resulted in the emergence (and re-emergence) of infections like HIV/AIDS, other sexually transmitted infections (STI), and alcohol/tobacco related cancers and other conditions. Tuberculosis (TB) has also spread steadily in the last few years in RMI, and the Centers for Disease Control (CDC) states that substance abuse is one of the factors causing this.

How this profile will be used. Information from data collection, analysis and interpretation in the Epi Profile, will be used as an evidence-based science in the dissemination process and towards prevention of Substance Abuse in our communities. The workgroup will then be able to continue to make progress on issues determined through evaluation. Capacity building and training will be available at the community level on how to use this evidence based information for grass roots participation in the prevention of Substance Abuse. Additionally, this report will be used to inform the SPF SIG Bobrae Project on the current state of the substance abuse issue in the RMI.

Substance abuse and quality of life. Quality of life is affected by conditions of social health. One indicator of increasing significance in RMI is substance abuse. The use of alcohol, tobacco, and other drugs (e.g. marijuana, prescription drugs) is emerging as a serious problem contributing to decreased health status and low quality of life. In addition to contributing to disease and death, abuse of substances is associated with an array of social ills including: domestic violence, low educational achievements, low income, unemployment, and crime. In the Marshall Islands substance abuse is both a precursor to, and a result of, an array of other human problems. Child neglect, gang activities, teenage pregnancy and mental illness have all been linked with substance abuse.

KEY FINDINGS - CONSUMPTION

Consumption can be defined as the use and high-risk use of alcohol, tobacco and illicit drugs.

Current Alcohol Use. Current alcohol use was defined in the WHO STEPS Survey as having any alcohol consumption in the past 12 months. Overall, 19.3% were current consumers, meaning that over 80% of adults in the RMI (ages 15 to 64) were current abstainers from alcohol.

Alcohol Consumption Per Drinking Day. Among current drinkers, 61.3% consumed 6 or more standard drinks per day during the past 12 months, suggesting that most current drinkers are heavy consumers of alcohol.

Current Heavy Drinking. Among current drinkers, 2.2% drank alcohol on 4 or more days in the week prior to the survey.

Binge Drinking. Binge drinking is defined as having 5 or more standard drinks per day for males or 4 or more standard drinks per day for females. Overall 65.7% of current alcohol consumers were binge drinkers.

Youth Current Alcohol Use. The YRBS 2007 reported an overall 41.7% of students had had at least one drink of alcohol on 1 or more of the 30 days preceding the survey (i.e. current alcohol use). The YRBS 2009 showed a negligible overall decrease to 41.4%.

Youth Episodic Heavy Drinking. The YRBS 2007 reported an overall 26.6% of students consuming five or more drinks of alcohol in a row (i.e., within a couple of hours) on 1 or more of the 30 days preceding the survey (i.e., episodic heavy drinking). The YRBS 2009 showed an overall increase to 28.9%.

Youth Alcohol Use Before Age 13. The YRBS 2007 reported that overall, 10.9% of students had their first drink of alcohol (other than a few sips) for the first time before age 13. The YRBS 2009, showed a return to 2003 levels and 10.5% of students trying their first drink of alcohol other than a few sips before age 13 years.

Youth Alcohol Use on School Property. The YRBS 2007 reported 15.3% of student survey respondents had had at least one drink of alcohol on school property on 1 or more of the 30 days preceding the survey. The YRBS 2009 reported an increase to 17.7% of students.

Current Smokers. The WHO STEPS Survey defined current smokers as those who have smoked any tobacco products within the past 12 months. The survey showed that overall 23.1% of adults smoke, with 19.8% of them being current daily smokers and 3.3% current but non-daily. Around 77% had never smoked at all (abstainers).

Mean Age of Smoking Initiation. The survey revealed that the mean age of initiation among current smokers was younger among males, whose mean age for starting smoking was 17.6 compared to 19.9 for females.

Youth Current Cigarette Use. The YRBS 2007 showed that 32.4% of students who responded to the survey said that they had smoked cigarettes on one or more of the 30 days preceding the survey (i.e. current cigarette use). The YRBS 2009 showed small decrease to 31.9%.

Youth Current Frequent Cigarette Use. The YRBS 2007 showed that 13.1% of respondents had smoked cigarettes on at least 20 of the 30 days preceding the survey (i.e. current frequent cigarettes use). The YRBS 2009 exhibited a small rise to 13.4%.

Youth More Than 10 Cigarettes Per Day. The YRBS 2007 indicated that 6.9% of students had smoked more than 10 cigarettes per day on the days they smoked during the 30 days preceding the survey. The YRBS 2009 continued to exhibit an upward trend to 9.5%.

Youth Current Smokeless Tobacco Use. The YRBS 2007 showed that 32% of students had used smokeless tobacco (e.g. chewing tobacco, snuff, or dip) on 1 or more of the 30 days preceding the survey (i.e. current smokeless tobacco use). The YRBS 2009 showed an increase in trend to 33.3%

Youth Current Tobacco Use. The YRBS 2007 showed that 38.8% of students had reported current cigarette use, current smokeless tobacco use, or current cigar use on 1 or more of the 30 days preceding the survey (i.e. current tobacco use). In 2009, the YRBS showed a small increase to 39.5%.

Youth Cigarette Smoking Before Age 13. The YRBS 2007 showed that 6.9% of students had smoked a whole cigarette for the first time before the age 13 years. The 2009 YRBS showed a return to near 2003 levels at 9.3%.

Substances used – Across Interviews and Community Readiness Assessments, alcohol was identified as the most frequently used substance and the substance creating the most problems. On a scale of 1-10 (1=causes no problems, 10=causes many problems), alcohol (including yeast and jemanun) was ranked as an 8.78 by Community Readiness Assessment respondents. Additionally, 73% of interviewee responses identified alcohol as the most frequently used substance.

KEY FINDINGS - CONSEQUENCES

Substance-related consequences can be defined as adverse social, health, and safety issues associated with alcohol, tobacco, or illicit drug use. Consequences include mortality and morbidity and other undesired events for which alcohol, tobacco, and/or illicit drugs are clearly and consistently involved.

Relationship between substance abuse and Domestic violence – 93% of key informants identified that there was a relationship between substance abuse and domestic violence.

Estimated Deaths Attributable to Alcohol and Tobacco. In FY2005, FY2006, and FY2007, there were at least 20, 13, and 18 deaths (respectively) caused by conditions linked to alcohol. This translates into estimated annual alcohol-related death rates as a percentage of all registered deaths of 7.4, 4.5, and 7.2% respectively. Over the same three years, there were at least 16, 7 and 5 registered deaths caused by conditions linked to tobacco. This translates into tobacco related death rates of 5.9, 2.4, and 2.0% respectively.

Completed Suicides. The number of recorded completed suicides over the past eight years has steadily fallen. In 2008, 10 completed suicides were on record, compared to a high of 28 in 2003.

Attempted Suicides. Over the past eight years, the numbers of attempted suicides have followed the completed suicides trend. In 2008, there were 16 attempted suicide cases on record, compared to 42 in 2003.

Traffic Accidents and DUI Violations. Total reported traffic accidents fell over the 2002 to 2004 period for the entire RMI, from 416 to 350. Drunken driving violations numbered 191, 155, and 154 over the period, again generally falling (in absolute terms). Percentagewise, drunken driving violations have accounted for 6.0, 4.0, and 4.9% of all violations.

Alcohol Related Offenses. Drunken and disorderly conduct and disturbing the peace cases in Majuro have increased drastically to 2024 cases in 2008 from just under 500 in 2002 (data for Ebeye and other areas not currently available).

Mental Health Substance Abuse Cases. Mental Health statistics for 2007 show that there were 21 cases treated for substance abuse: 17 for alcohol and 4 for marijuana (all males).

Employer Termination. Employers identified alcohol/substance abuse interfering with job performance as the most important problem related to employee termination at 74%. Excessive absenteeism (which is also believed to be related of alcohol/substance abuse) was reported as the next most common cause for termination of employees at 63%.

DATA SOURCES AND METHODOLOGIES

This Epi Profile draws on and synthesizes a number of data sources. The primary data sources from which this report's substance abuse consumption and consequences analyses were developed include the following:

- World Health Organization Non Communicable Disease STEPS Survey, 2002
- Secretariat of the Pacific Community Second Generation Surveillance Survey, 2006-2007
- RMI and Centers for Disease Control Youth Risk Behavioral Survey, 2003, 2007, and 2009
- Ministry of Health (MOH) Annual reports, 2001-2008
- Demographic Health Survey 2007
- NTC Employer Survey 2009
- Police and Criminal Justice Department Reports
- Bobrae Project 2010 National Needs Assessment tools: KII, GS, and CRA
- Other administrative records and data sources

World Health Organization Non Communicable Disease STEPS Survey, 2002

The World Health Organization Non Communicable Disease STEPS Survey (STEPS Survey) sampling was based on the 1999 census. Two major strata (urban and rural) were chosen, and later it became necessary to further subdivide the two main strata into four sub-strata. The urban stratum was sub-divided into Majuro and Ebeye and the rural stratum was also sub-divided into two substrata: the nuclear exposed 177 atolls and the rest of the outer islands.

Since the four zones were pre-determined, clusters were identified within each stratum, using systemic random cluster sampling resulting in 11 clusters identified throughout the RMI. An overall sample size of 3,064 people in the ages 15 to 64 were targeted.

The survey collected information on some key non-communicable disease risk factors that are linked to many chronic health consequences, including alcohol and tobacco use.

Secretariat of the Pacific Community Second Generation Surveillance Survey, 2006-2007

The Secretariat of the Pacific Community (SPC) has supported 'second generation surveillance' (SGS) surveys across the region to provide baseline data on the prevalence of HIV, STDs and risk behaviors in various population groups. In RMI, three SGS surveys were conducted on: 1) pregnant women; 2) youth (15-24 years); and 3) commercial sex workers. This report summarizes the results of the survey of pregnant women only.

The SGS Prenatal Survey was conducted from May through September, 2006 among pregnant women at first booking to the Majuro Hospital prenatal clinic (PNC). A target sample size of 350 women was established. All women who attended the weekly Majuro Hospital prenatal clinic were asked to participate.

All pregnant women presenting to the PNC for their first prenatal visit were eligible to participate. Participation in the survey was voluntary. After obtaining informed consent, participants were interviewed by trained staff using a standard 24 page questionnaire. The questionnaire is based on the Family Health International 2000 HIV/AIDS/STD Behavioral Survey for Adults and the Centers for Disease Control and Prevention's Pregnancy Risk Assessment Monitoring System Phase 5 core questionnaire. It was modified for use in the Pacific by the University of New South Wales in association with WHO and SPC and further adapted for use in RMI by SPC. The questionnaire included questions on demographic information, sexual history, STD history and current symptoms, alcohol and drug use, and HIV knowledge and attitudes.

Survey data and laboratory results were entered into an Epi-Info version 3.4.3 database. Data were entered by three persons trained by the MOH. To ensure data quality, a 10% random sample of interview forms was double entered and checked for errors.

RMI and Centers for Disease Control Youth Risk Behavioral Survey, 2001, 2003, 2007, and 2009

The Youth Risk Behavior Survey (YRBS) targets high school students in grades 9 to 12. It is engineered by the Center for Disease Control and Prevention (CDC) and conducted by the Ministry of Education (MOE). The 2001, 2003, 2007 and 2009 report summaries of the YRBS are used in this report.⁷ Data from the 2003, 2007, and 2009 surveys were weighted by CDC (allowing for national estimates). YRBS 2001 survey however, queried only 56 out of the 86 questions from the two more recent surveys. The YRBS 2001 survey also remains as unweighted data and can only be said to represent the MIHS students who completed the survey. The YRBS 2001 will only be used for the purpose of providing a longer time line to establish trend comparisons.

The table below illustrates the sample size, response rates, and demographic characteristics of the YRBS 2001, 2003, 2007, and 2009.

RMI YRBS	2001	2003	2007	2009
Student sample size	1062	928	1522	1847
High school response rate	100.0%	100.0%	100.0%	83.0%
Student response rate	75.0%	99.0%	82.0%	88.0%
Overall response rate	75.0%	99.0%	82.0%	74.0%
Male	48.4%	49.2%	49.0%	50.6%
Female	51.6%	50.8%	51.0%	49.4%
Grade 9	35.9%	22.2%	32.8%	31.9%
Grade 10	25.7%	27.5%	24.2%	28.8%
Grade 11	21.6%	26.2%	25.4%	22.4%
Grade 12	16.7%	24.4%	17.4%	16.8%
Race / Ethnicity				
Marshallese	92.6%	90.6%	90.4%	88.7%
Other races	7.4%	9.4%	9.6%	11.3%

⁷ The survey was not administered in 2005

Ministry of Health (MOH) Annual Reports, 2001-2008

The Department of Health Planning and Statistics of the MOH compiles major health indicators annually. These reports do not provide detailed substance abuse consequence data, but do offer some overall health consequence information.

Demographic Health Survey 2007

The RMI Demographic Health Survey 2007 provides national, rural and urban estimates on population and health that are comparable to data collected in similar surveys in other Pacific DHS pilot countries and other developing countries. This information is essential for informed policy decisions, planning, monitoring, and evaluation of programs on health in general and reproductive health in particular at both the national level as well as in the urban and rural areas.

This survey was designed to obtain completed interviews from 1,070 women age 15-49. In addition, males age 15-59 in every second household were interviewed. To take non-response into account, a total of 608 households countrywide were selected, 295 in urban areas and 313 in rural areas. Three questionnaires were administered for the RMI 2007 DHS: the Household Questionnaire, the Women's Questionnaire, and the Men's Questionnaire. These questionnaires were adapted to reflect the population and health issues relevant to Republic of the Marshall Islands as identified at a series of meetings with various stakeholders from government ministries and agencies, NGOs and international donors.

A total of 1,141 households were selected for the sample, of which 1,131 were found to be occupied during data collection. Of these existing households, 1,106 were successfully interviewed, giving a household response rate of 98%.

National Training Council – Employer Training Needs Survey 2009

The National Training Council is one major mechanism for training projects sponsored by members of the private sector, non-government organizations (NGOs), or the state-owned enterprises (SOE's). Consultations with training providers and members of the private sector (in the two areas of construction and tourism) revealed a need to train Marshallese in two key areas: technical/vocational skills and work ethics.

The Employer Training Needs Survey 2009 was designed to identify the types of training the employers believe would most improve the skills and abilities of their employees. Twenty private sector employers on Majuro were interviewed for this survey. The total number of employees included in the data set is 1,097.

Police and Criminal Justice Department Reports

The annual reports of the police departments cover the two urban areas of Majuro and Ebeye, based on annual police records. These reports provide limited substance consumption and consequence information. An additional issue stems from the fact that both urban areas also have local government police forces. Analysis of the local police data also revealed inconclusive and incomplete information.

The Ministry of Justice, through its police forces, is required to enforce all alcohol, tobacco and other substance related legislation. This includes enforcement of the legal drinking age (21 years) and the legal tobacco age (18 years).

Other Administrative Data

This report draws on administrative records and data from public and non-public sources. These data are vetted by the Epi Workgroup to ensure that they are reliable.

Methods for Additional Data Collection

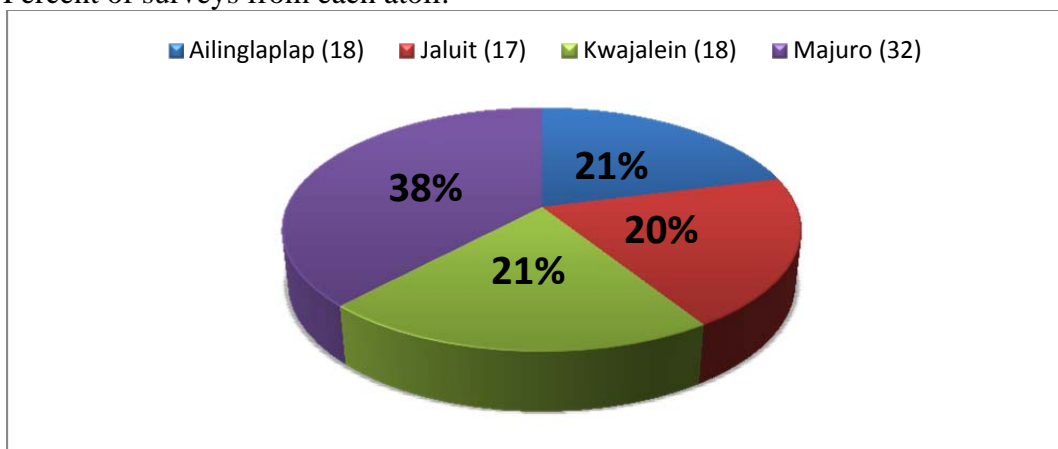
Due to the lack of access to pre-populated data, RMI developed three (3) additional tools to collect the data necessary to obtain a more comprehensive picture of substance abuse issues nationwide. Additional data was gathered by **Bobrae Project** staff on four atoll islands using three (3) different methods of data collection:

1. Community Readiness Assessments

The Community Readiness Assessment for substance abuse prevention was administered on four atolls (Majuro, Kwajalein, Jaluit and Ailinglaplap) to leaders in the community between December 2009 and March 2010. Assessment questions covered topics such as current programs and resources in the community, ratings regarding awareness of substance abuse, and problems caused by specific substances.

Community Readiness Surveys were distributed to the same individuals who completed the Key Informant Interviews. Surveys were sent to respondents along with the letter informing them that they were chosen as key informants. The surveys were collected at the time of the interview.

- ❖ **85** surveys were collected
- ❖ The sample was approximately **61%** male and **39%** female
- ❖ Approximately **88%** of respondents were Marshallese
- ❖ Survey respondents rated themselves an average of **4.3** on a scale of 1-10 when asked to rate their knowledge of substance abuse prevention programs or activities in their communities
- ❖ Percent of surveys from each atoll:



2. Key Informant Interviews

Key informant interviews were administered to individual women, men, and youth on Majuro, Kwajalein, Jaluit, & Ailinglaplap between December 2009 – March 2010 to gather detailed information from key community leaders from across the nation to better understand RMI's substance abuse issue.

These community leaders selected represented diverse sectors within RMI, including government, non-profit organizations, churches/faith-based organizations etc. Interview questions asked the respondent to give his/her own opinion and provide insight into what was the prevalent view of his/her community. Respondents were asked to assess the most frequently abused substances in the community; community perceptions on substance abuse; if people in the community understand the dangers of substance abuse; the community's knowledge of programs in the community that address substance abuse, and ideas for solving substance abuse problems.

To present the data gathered from the interviews in a concise manner that accurately reflects the content of the interviews, analyses utilized both an in-depth content analysis method on a representative sample of interviews (25% of interviews were randomly selected) and a general quantitative method to categorize the responses in the entire sample of surveys. Results from the survey are presented below.

- ❖ Approximately **85** interviews were conducted: **60** were transcribed and translated by the end of April and included in the preliminary analysis
- ❖ The sample had more male than female respondents (**69.4%** male to **30.6%** female)
- ❖ Percent (total number) of interviews from each atoll:
 - Majuro (33)– **38.8%**
 - Kwajalein (16) – **18.8%**
 - Jaluit (19)–**22.4%**
 - Ailinglaplap (17) – **20%**
- ❖ Sector representation
 - Government (41)– **48.2%**
 - Private business owner (13)– **15.3%**
 - Non-profit organization (6) – **7.1%**
 - Faith based (11)– **12.9%**
 - Landowner (7) – **8.2%**
 - Other (7)– **8.2%**

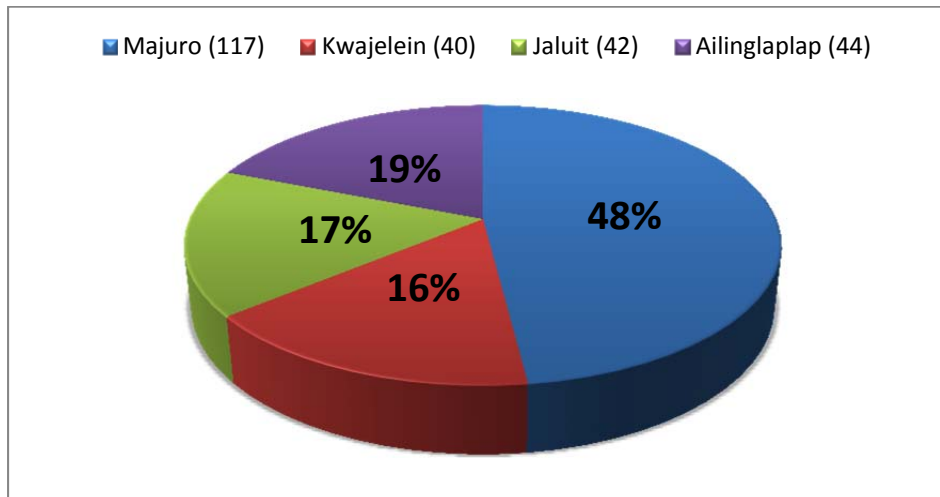
3. Group Surveys

The Group Survey was administered to groups of women, men, and youth on Majuro, Kwajalein (specifically Ebeye), Jaluit, & Ailinglaplap between December 2009 – March 2010. Survey questions covered topics such as substance abuse problems in the community, acceptability of use among family and friends, perception of risk, and possible strategies to address substance abuse.

Results from the survey are grouped by type of question and are broken down by gender, location, and age group. Majuro and Kwajalein were combined, and Jaluit and Ailinglaplap were combined due to similarities. Data are presented for males/females, location, and youth/adults. Statistical tests were performed to test for differences between groups.

- ❖ **243** surveys were collected

- ❖ The sample was split evenly between males and females (**50.4%** and **49.6%**)
- ❖ Approximately a third of the sample was youth (**35.8%** youth, **64.2%** adult)
- ❖ The average age of youth respondents was **18**
- ❖ The average age of adult respondents was **41**
- ❖ Percent of surveys from each atoll:



These tools were developed by the **Bobrae Project staff in conjunction with project technical assistance professionals, and were utilized in both Marshallese and English. They were tested within a community on Majuro, adapted based on feedback, and implemented in 6 communities on four (4) selected atolls (Majuro, Kwajalein, Ailinglaplap and Jaluit).**

CONSUMPTION ANALYSIS

Consumption can be defined as the use and high-risk use of alcohol, tobacco and illicit drugs. Consumption indicators can illustrate patterns of use, initiation of use, regular use, and high-risk use.⁸ The WHO STEPS Survey was based on the 1999 Census; we expect new consumption indicators from the planned 2011 Census.

ALCOHOL CONSUMPTION

Alcohol Ever Consumed. The WHO STEPS Survey revealed that 30.7% of adults had ever consumed alcohol. Males had a higher rate at 48.8% than females at 11.7%. Alcohol ever consumed rates generally declined with age.

Percentage of Population That Ever Consumed Alcohol: 2002

Age	TOTAL	MALE	FEMALE
15-24	31.8%	49.5%	13.9%
25-34	33.2%	53.9%	11.7%
35-44	32.1%	52.6%	11.1%
45-54	22.6%	33.4%	9.7%
55-64	24.3%	44.5%	1.9%
TOTAL	30.7%	48.8%	11.7%

Source: WHO STEPS Survey 2002

Current Alcohol Use. Current alcohol use was defined in the WHO STEPS Survey as any alcohol consumption in the past 12 months. Overall, 19.3% were current consumers, meaning that over 80% of adults in the RMI (ages 15 to 64) were abstainers. As with alcohol ever consumed, there existed a higher proportion of males (33.5%) who had ever consumed alcohol than females (4.5%). Nearly half of males in the 25-34 age group (42.7%) were current consumers. The percentage of current consumers also decreased with age.

Percentage of Current Alcohol Consumers: 2002

Age	TOTAL	MALE	FEMALE
15-24	21.9%	37.1%	6.2%
25-34	23.7%	42.7%	4.0%
35-44	17.0%	30.1%	3.7%
45-54	11.3%	18.4%	2.8%
55-64	6.8%	12.4%	0.6%
TOTAL	19.3%	33.5%	4.5%

Source: WHO STEPS Survey 2002

⁸ As described in the publication “Developing A State Epidemiological Profile for Substance Abuse Prevention: Guidance for State Epidemiological Outcome Workgroups” by the Pacific Institute for Research and Evaluation, February 2008.

Alcohol Consumption Per Drinking Day. Among current drinkers, 61.3% consumed 6 or more standard drinks per day during the past 12 months.

Alcohol Consumption Per Drinking Day During the Past 12 Months, For Current Consumers (standard drinks per day): 2002

	1 drinks	2-3 drinks	4-5 drinks	6+ drinks
MALE	8.8	15.2	12.0	64.0
FEMALE	15.3	29.6	11.7	43.4
TOTAL	10.0	16.9	11.9	61.3

Source: WHO STEPS Survey 2002

Largest Alcohol Consumption Per Drinking Day. Among current drinkers, the mean number of standard drinks consumed on any single occasion was 13.2 per drinking day. Males reported to have consumed more drinks at 13.9 than females at 9.1 drinks per drinking day. There was also a trend for the younger age group to consume more number of drinks per drinking day overall.

Largest Number of Standard Drinks Consumed Per Drinking Day, For Current Consumers: 2002

Age	TOTAL	MALE	FEMALE
15-24	13.5	14.4	9.4
25-34	12.6	13.1	7.3
35-44	14.2	14.4	12.7
45-54	12.9	14.1	3.1
55-64	9.7	9.7	10.0
TOTAL	13.2	13.9	9.1

Source: WHO STEPS Survey 2002

Binge Drinking. Binge drinking is defined as having a mean of 5 or more standard drinks per day for males and a mean of 4 or more standard drinks per day for females. Overall 65.7% of current alcohol consumers were binge drinkers, with a higher proportion for males (67.1%) compared to females (55.0%).

Percentage of Binge Drinkers, For Current Consumers: 2002

AGE	TOTAL	MALE	FEMALE
15-24	59.4%	60.9%	50.9%
25-34	67.3%	68.6%	53.4%
35-44	76.9%	78.6%	63.2%
45-54	72.5%	72.9%	69.2%
55-64	59.9%	57.8%	100.0%
TOTAL	65.7%	67.1%	55.0%

Source: WHO STEPS Survey 2002

For the entire survey population (and not just current drinkers), 12.5% were binge drinkers.

Influencing Factors for Starting Alcohol Consumption. The most common factor that influenced current drinkers to start consuming alcohol was a friend who drank alcohol. Among current consumers, 87.4% said that they started drinking because a friend drank. Nearly one quarter started drinking because they just wanted to try it, the second biggest factor.

Percentage of Things That Influenced Alcohol Consumers To Start Consuming Alcohol, For Current Drinkers: 2002

	Friend drank	Family member drank	Just wanted To try	No influence	Other reasons
MALE	87.6%	3.4%	24.6%	2.9%	0.6%
FEMALE	86.2%	2.8%	26.0%	0%	0.9%
TOTAL	87.4%	3.3%	24.8%	2.5%	0.6%

Source: WHO STEPS Survey 2002

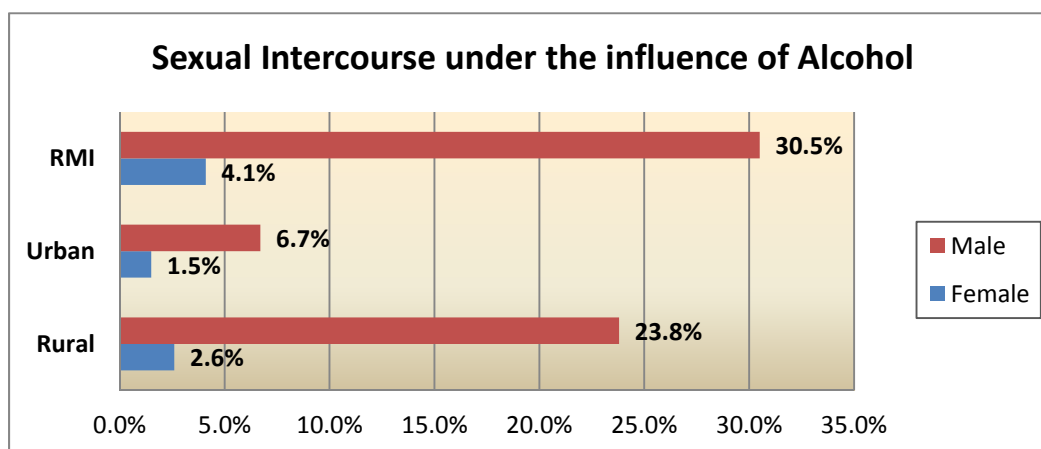
Place Alcohol Obtained From. The most common source of alcohol for current drinkers was stores, where 76.4% of alcohol beverages were consumed. Friends and family was the second most common source.

Place From Which Alcohol Beverages Are Commonly Obtained From, For Current Drinkers: 2002

	Store	Friends and family	Home Brew
MALE	78.0%	16.3%	5.7%
FEMALE	65.0%	30.4%	4.6%
TOTAL	76.4%	18.1%	5.5%

Source: WHO STEPS Survey 2002

Alcohol Use and Sexual Intercourse. Having sex under the influence of alcohol is more common in urban areas. For young women in urban and rural areas it is quite low (2.6% and 1.5%, respectively), while for young urban and rural men, the difference is quite pronounced (23.8% and 6.7%, respectively).



Source: Demographic Health Survey 2007

Seven percent of women and twenty percent of men aged 15-24 reported that they or their partner were drunk the last time they had sex with any partner in the last 12 months.

Current Alcohol Use Among Female Adults Prior to Pregnancy. Of the 302 women who responded to SGS survey on pre-natal women, 232 (76.8%) reported never consuming alcohol in the 12 months before becoming pregnant (see table below). This result, like that from the WHO STEPS survey which showed that nearly 95% of females are not current alcohol users) suggests that the vast majority of women in the RMI do not consume alcohol. However, the difference between the 2002 WHO STEPS survey and this 2006-2007 SGS survey suggests that perhaps the percentage of women who can be considered current drinkers has risen over the past few years. Anecdotal evidence suggests this to be true.

Among the 70 women who reported any alcohol consumption in the 12 months before becoming pregnant, 22 (31.9%) reported 5 or more drinks on a typical day and 21 (30.4%) had 5 or more drinks on one occasion either daily or weekly.

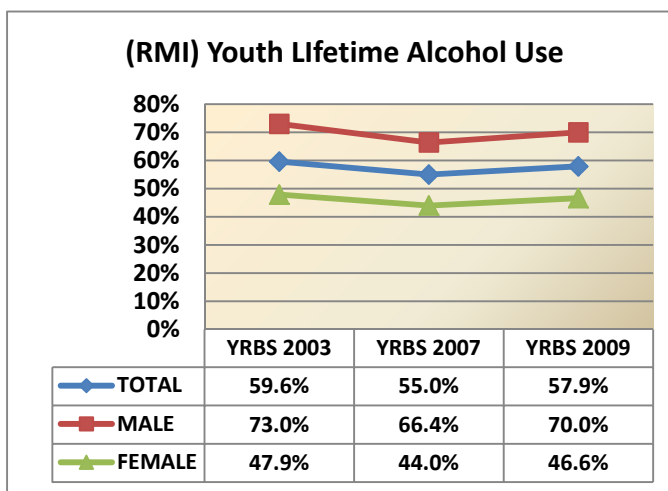
Results of SGS Prenatal Survey for Alcohol, 2006-2007

	Number	(Percent)
Alcohol use in the 12 months before pregnancy		
4 or more times a week	5	(1.7%)
2 to 3 times a week	26	(8.6%)
2 to 4 times a month	11	(3.6%)
Monthly or less	25	(8.3%)
Never	232	(76.8%)
Don't know/no answer/refused	3	(1.0%)

Source: SGS Survey 2006-2007

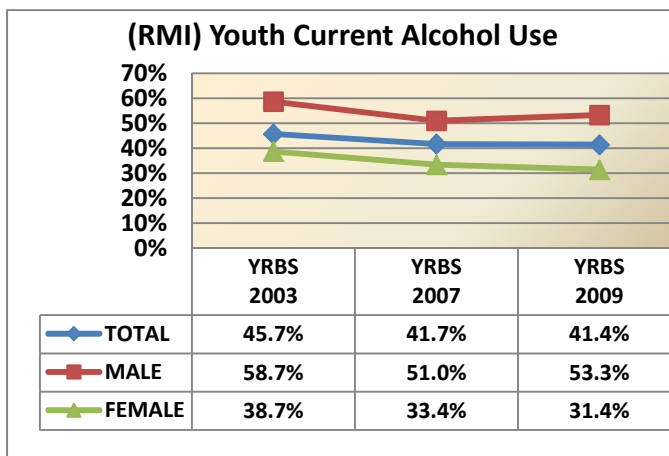
Youth Lifetime Alcohol Use.

In the YRBS 2009, more than half, or 57.9%, of students had at least one drink of alcohol on one or more days during their lifetime. The prevalence rates are substantially higher among males (70%) than females (46.6%). The overall trend shows no improvement. A majority of students have already experimented with alcohol by the time they are in high school.



Youth Current Alcohol Use.

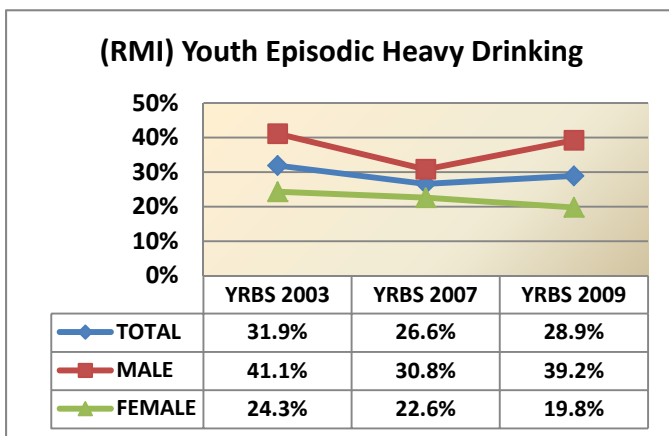
The YRBS 2009 shows that 41.4% of high school students consumed at least one drink of alcohol on 1 or more of the 30 days preceding the survey (i.e. current alcohol use). The prevalence of current alcohol use continues to be substantially higher among males (53.3%) than females (31.4%). The overall trend shows unchanged results from 2007.



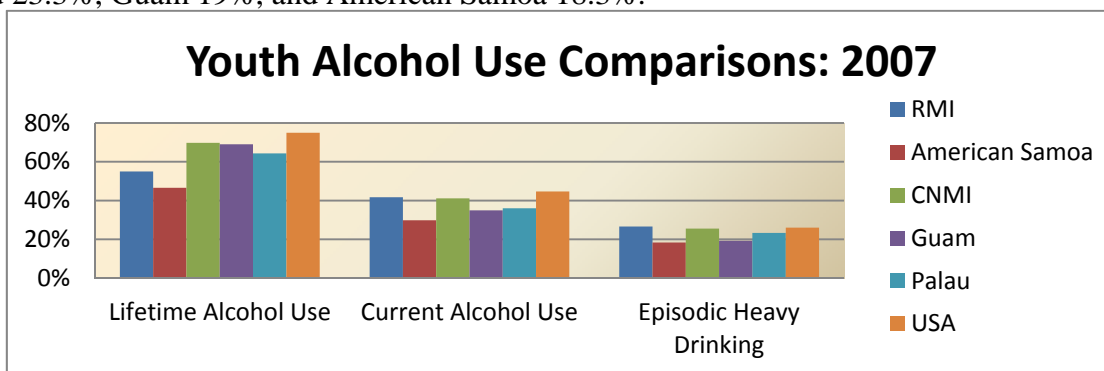
Youth Episodic Heavy Drinking.

Youth Episodic Heavy Drinking, also known as “Binge Drinking,” continues to be a major social problem in the RMI. In the SPF SIG “Bobrae” Project, binge drinking is the top national priority, focusing on the ages of 15-34.

In the YRBS 2009, 28.9% of high school students had consumed 5 or more drinks of alcohol in a row (i.e., within a couple of hours) on 1 or more of the 30 days preceding the survey. The prevalence rate was higher among males (39.2%) than females (19.8%). The overall trend illustrates a returning incline in youth episodic heaving drinking.



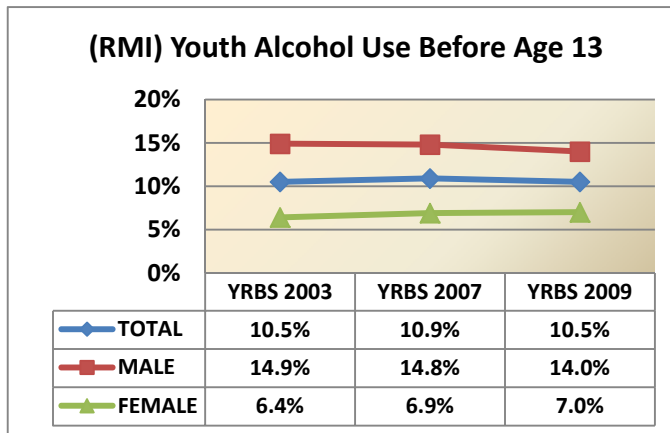
Youth Alcohol Use Comparisons. In analyzing issues of alcohol use/abuse within a nation, it is important to make comparisons with similar samples. In this case, a comparison with Pacific Jurisdictions as well as the United States as a whole is very helpful in understanding the problem in the RMI. It is important to note, that while the RMI does not exhibit the highest rates in lifetime of current alcohol use, it does lay claim to the highest Youth Episodic Heavy Drinking (binge drinking) of the locations in the comparison: RMI 26.6%, USA 26%, CNMI 25.5%, Palau 23.3%, Guam 19%, and American Samoa 18.3%.



Source: CDC (YRBS 2007)

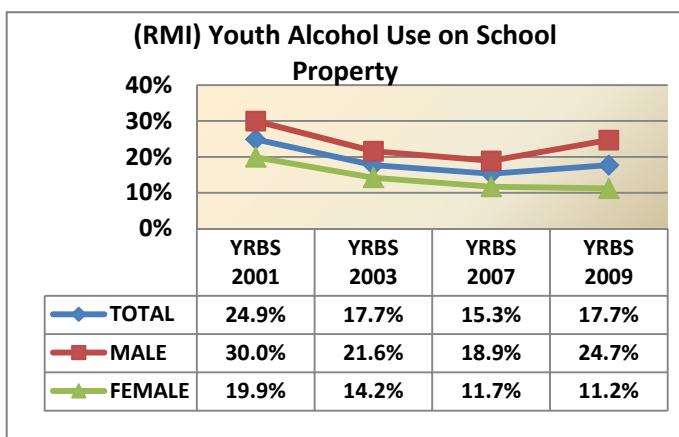
Youth Alcohol Use Before Age 13.

The YRBS 2009 shows that 10.5% of high school students had consumed their first drink of alcohol (other than a few sips) for the first time before age 13. The prevalence of having drunk alcohol before the age 13 years was 14% among males and 7% among female students. The overall trend shows very little change over the time period.



Youth Alcohol Use on School Property.

In the YRBS 2009, nearly one-fifth or 17.7% of high school students had at least 1 drink of alcohol on school property on 1 or more of the 30 days preceding the survey. The prevalence rates were higher in males (24.7%) than females (11.2%). Overall trends show a returning slope, calling for the need to improve enforcement on high school campuses.



TOBACCO CONSUMPTION

Current Smokers. The WHO STEPS Survey defined current smokers as those who have smoked any tobacco products within the past 12 months. The survey showed that overall 23.1% of adults smoke: 19.8% are current daily smokers and 3.3% are current but non-daily. Around 77% had never smoked at all (abstainers).

There were a greater percentage of male current smokers (39.5%) than female current smokers (6.0%). Amongst current smokers, there were also a higher percentage of daily smokers among males (34.7%) than females (4.2%).

The greatest proportion of current daily smokers among males was in the age group 25-34 (40.6%). For females the greatest proportion of current daily smokers was in the age group 35-44 (7.7%).

Current Smoking Status (percentage): 2002

AGE	CURRENT DAILY TOTAL	CURRENT NON-DAILY	DAILY & NON-DAILY	NEVER
15-24	18.2%	4.5%	22.7%	77.3%
25-34	22.7%	2.0%	24.7%	75.3%
35-44	22.9%	3.1%	26.0%	74.0%
45-54	17.5%	3.1%	20.6%	79.4%
55-64	11.4%	2.2%	13.6%	86.4%
TOTAL	19.8%	3.3%	23.1%	76.9%
	MALE			
15-24	33.8%	7.0%	40.8%	59.2%
25-34	40.6%	2.3%	42.9%	57.1%
35-44	37.9%	5.3%	43.2%	56.8%
45-54	28.0%	3.5%	31.2%	68.8%
55-64	18.6%	3.4%	22.0%	78.0%
TOTAL	34.7%	4.9%	39.5%	60.4%
	FEMALE			
15-24	2.4%	2.1%	4.5%	95.5%
25-34	4.3%	1.6%	5.9%	94.1%
35-44	7.6%	0.9%	8.5%	91.5%
45-54	5.0%	2.8%	7.8%	92.2%
55-64	3.3%	0.9%	4.2%	95.8%
TOTAL	4.2%	1.8%	6.0%	94.0%

Source: WHO STEPS Survey 2002

Mean Age of Smoking Initiation. This survey revealed that the mean age of initiation among current smokers was younger among males, whose mean age for starting smoking was 17.6 compared to 19.9 for females. Among males, the earliest mean age for initiation (16.2) was among the 15-24 group. This was also the case for females, where the mean age for initiation (15.9) was among the 15-24 group. This suggests that younger Marshallese are starting to smoke at earlier ages than did older generations.

Mean Age of Smoking Initiation, For Current Smokers: 2002

AGE	TOTAL	MALE	FEMALE
15-24	16.2	16.2	15.9
25-34	18.7	18.5	20.2
35-44	18.4	17.8	21.2
45-54	19.6	19.5	20.3
55-64	18.3	16.9	27.3
TOTAL	17.8	17.6	19.9

Source: WHO STEPS Survey 2002

Mean Number of Years Smoking. The mean number of years a current smoker has smoked for is 13.3 with the mean for males at 13.2 and females at 14.2.

Mean Number of Years Smoking, For Current Smokers: 2002

AGE	TOTAL	MALE	FEMALE
15-24	3.9	3.9	3.4
25-34	10.9	11.1	9.5
35-44	20.6	21.1	18.2
45-54	29.0	29.3	27.3
55-64	39.2	40.2	32.6
TOTAL	13.3	13.2	14.2

Source: WHO STEPS Survey 2002

Types of Cigarettes. The vast majority of current smokers smoked manufactured cigarettes.

Percentage of Total Population Smoking Various Types of Cigarettes, For Current Smokers (percentage): 2002

AGE	Manufactured Cigarettes	Hand-rolled cigarettes	Pipe tobacco	Cigars, cheroots cigarillos
15-24	98.5%	0.5%	0.5%	0.4%
25-34	98.5%	0.6%	0.5%	1.5%
35-44	99.0%	-	0.6%	-
45-54	95.9%	-	-	-
55-64	100.0%	-	-	-
TOTAL	98.4%	0.3%	0.5%	0.6%

Source: WHO STEPS Survey 2002

Lifetime Tobacco Use Among Female Adults Prior to Pregnancy. Lifetime tobacco use, including chewing tobacco, was reported by 64 women (18.5%) in the SGS survey.

Results of SGS Prenatal Survey for Tobacco: 2006-2007

	Number	(Percent)
Lifetime use		
Tobacco (including chewing)	64	(18.5%)

Source: SGS Survey 2006-2007

Mean Consumption of Manufactured Cigarettes. The mean number of manufactured cigarettes smoked daily was 11.4. More cigarettes were smoked by males (11.9 per day) compared to females (7.3 per day).

Mean Consumption of Manufactured Cigarettes Per Day, For Current Smokers of Manufactured Cigarettes: 2002

AGE	TOTAL	MALE	FEMALE
15-24	8.9	9.3	4.3
25-34	13.2	14.0	5.6
35-44	12.8	13.5	9.3
45-54	11.5	11.7	10.3
55-64	14.5	15.4	8.9
TOTAL	11.4	11.9	7.3

Source: WHO STEPS Survey 2002

Smokeless Tobacco Use. The overall percentage of smokeless (chewing) tobacco users was 8.9%. Males (13.7%) had a higher rate of use of smokeless tobacco than females (4.0%).

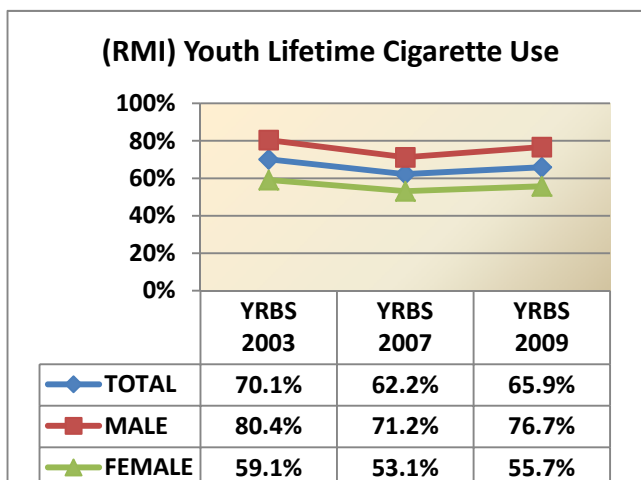
Smokeless Tobacco Use (percentage): 2002

AGE	USERS (DAILY & NON-DAILY) TOTAL	NON-USERS
15-24	13.4%	86.6%
25-34	11.9%	88.1%
35-44	3.2%	96.8%
45-54	0.8%	99.2%
55-64	0.6%	99.4%
TOTAL	8.9%	91.1%
	MALE	
15-24	20.0%	80.0%
25-34	20.2%	79.8%
35-44	4.5%	95.5%
45-54	0.7%	99.3%
55-64	1.2%	98.8%
TOTAL	13.7%	86.3%
	FEMALE	
15-24	6.9%	93.1%
25-34	3.3%	96.7%
35-44	1.8%	98.2%
45-54	1.0%	99.0%
55-64	0.0%	100.0%
TOTAL	4.0%	96.0%

Source: WHO STEPS Survey 2002

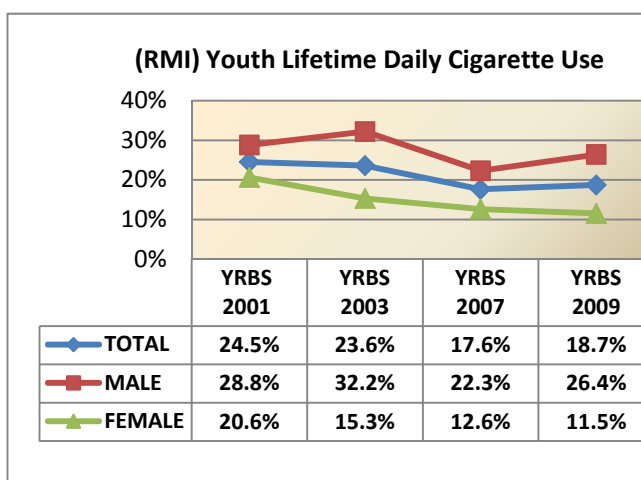
Youth Lifetime Cigarette Use.

In the YRBS 2009, 65.9% of high school students had ever tried cigarette smoking, even one or two puffs, in their lifetime. The prevalence of lifetime cigarette use is substantially higher among male (76.7%) than females (55.7%). The overall trend shows the majority of high school students have already tried using cigarettes.



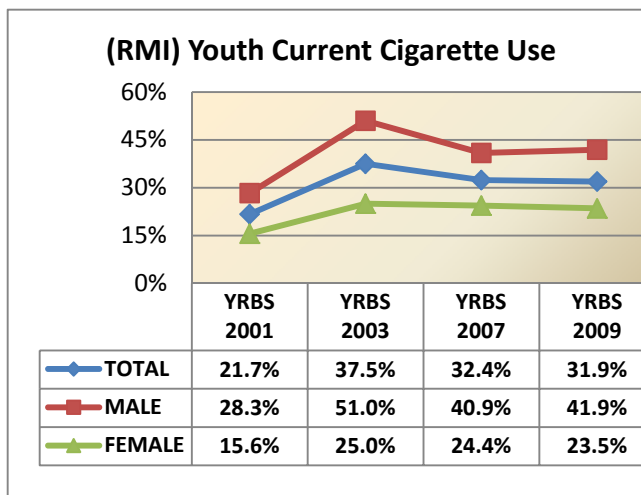
Youth Lifetime Daily Cigarette Use.

In the YRBS 2009, 18.7%, or nearly one-fifth of high school students in the RMI, had ever smoked at least one cigarette every day for 30 days. The prevalence of lifetime daily use is higher among males (26.4%) than females (11.5%). The overall trend shows a steady decline in female lifetime daily cigarette use since 2001.



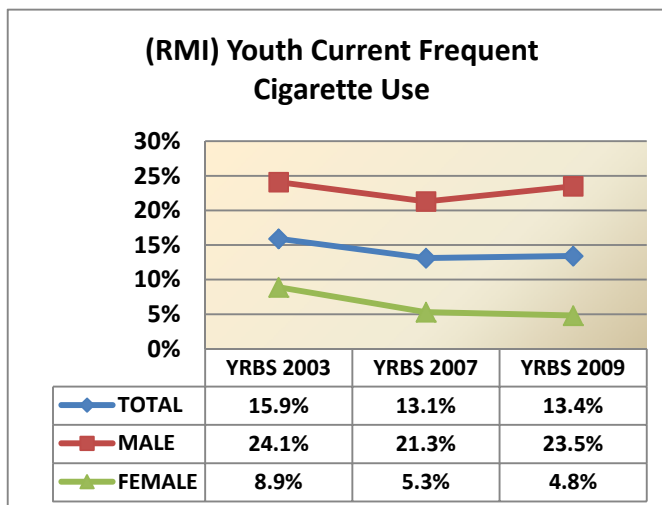
Youth Current Cigarette Use.

In the YRBS 2009, more than a third (31.9%) of high school students have smoked cigarettes on 1 or more of the 30 days preceding the survey. The prevalence of current cigarette use is higher in males (41.9%) than females (23.5%). The overall trend shows a drop from 2003 and a steady rate since then.



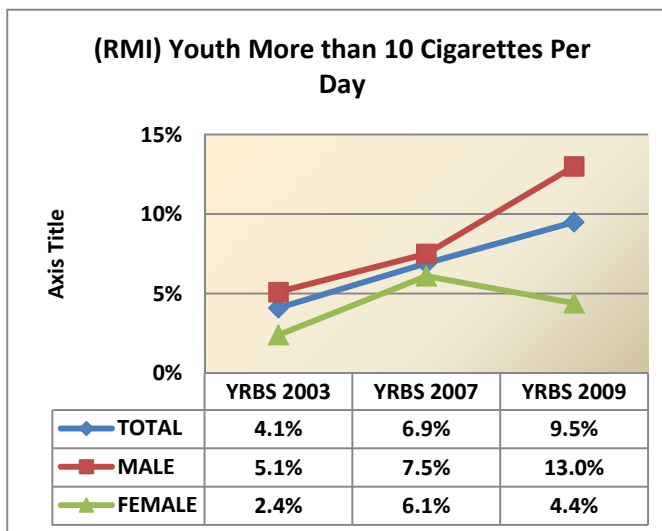
Youth Current Frequent Cigarette Use.

In the YRBS 2009, 13.4% of high school students had smoked cigarettes on at least 20 of the 30 days preceding the survey. The prevalence of current frequent cigarette use is substantially higher in males (23.5%) than females (4.8%), depicting a great gender difference. The overall trend illustrates this disparity, as female current frequent cigarette use has continued to decline.



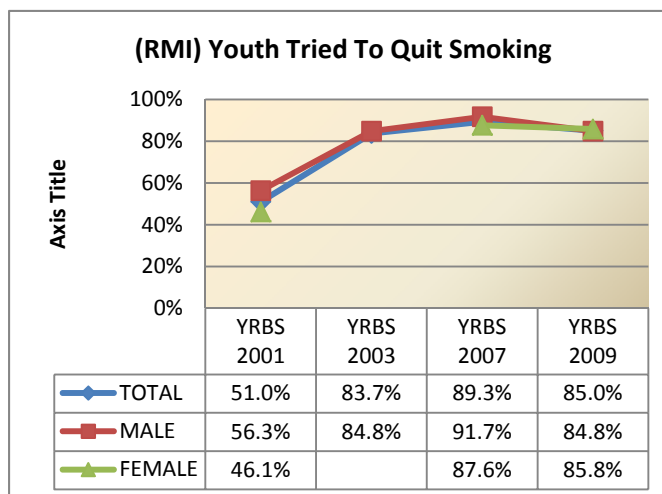
Youth More Than 10 Cigarettes Per Day.

In the YRBS 2009, nearly one in every ten (9.5%) of high school students had smoked more than 10 cigarettes per day on the days they smoked during the 30 days preceding the survey. The prevalence rates show substantial gender differences between males (13%) and females (4.4%). The overall trend shows a growing difference between the genders in 2009.



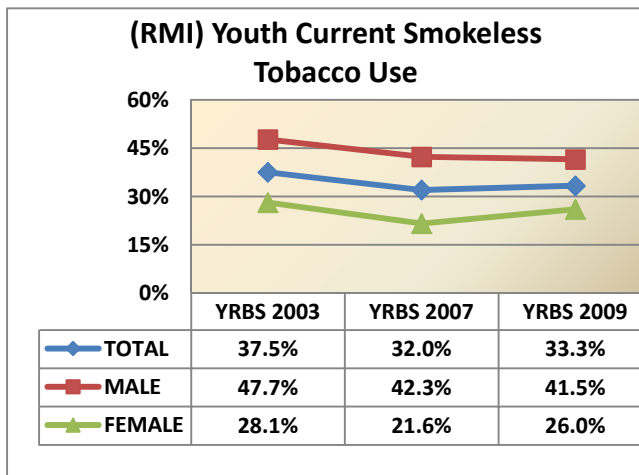
Youth Tried To Quit Smoking.

Among the 31.9% of students who reported current cigarette use in 2001, 85.0% had tried to quit smoking cigarettes during the past 12 months preceding the survey. The prevalence rates show very little gender difference between males (84.8%) and females (85.8%). The overall trend is largely unchanged since 2003, with more than three-quarters of the youth in recent years have wanted to stop smoking.



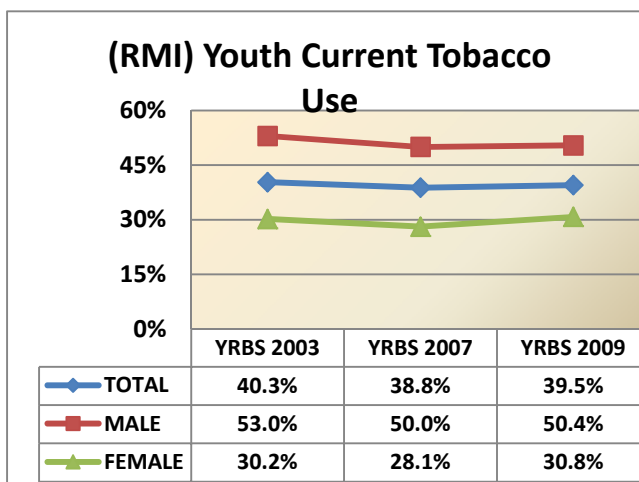
Youth Current Smokeless Tobacco Use.

In the YRBS 2009, one-third (33.3%) of high school students had used smokeless tobacco (e.g. chewing tobacco, snuff, or dip) on 1 or more of the 30 days preceding the survey. The prevalence rates show a substantial gender difference between males (41.5%) and females (26.0%). The overall use remains high with unchanged figures in males and a rise in use among females.



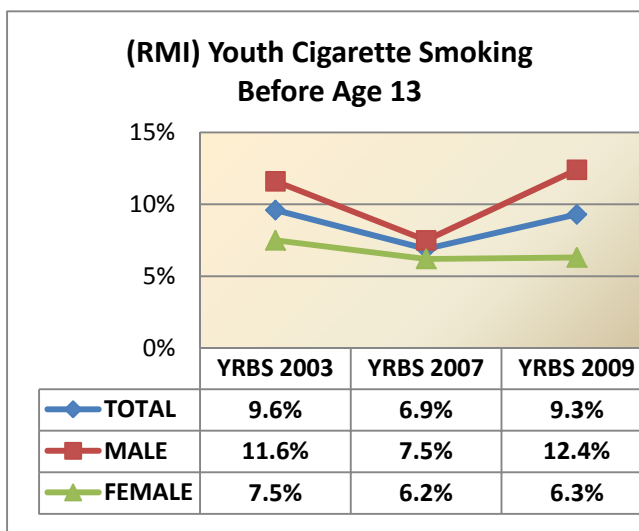
Youth Current Tobacco Use.

In the YRBS 2009, 39.5% of high school students reported current cigarette use, current smokeless tobacco use, or current cigar use on 1 or more of the 30 days preceding the survey (i.e. current tobacco use). The prevalence rates in males (50.4%) and females (30.8%) illustrate that a large number of students are current users. The overall trend shows no general improvement in past years.



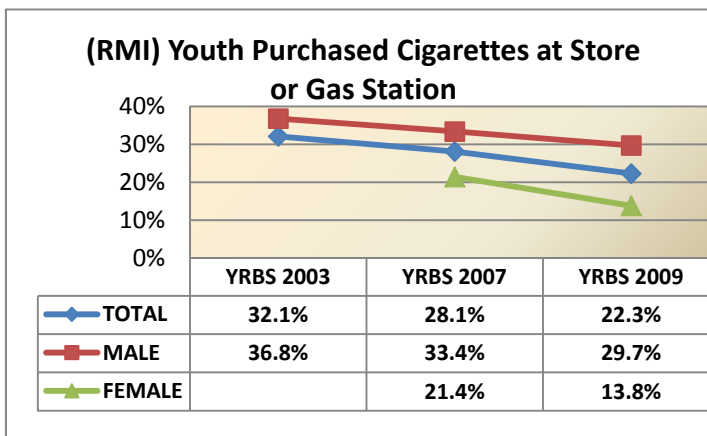
Youth Cigarette Smoking Before Age 13.

In the YRBS 2009, nearly 10% of high school students had smoked a whole cigarette for the first time before they were 13. The prevalence rate is 11.6% among males and 7.5% among female students. The overall trend shows a returning incline in male first time use and near unchanged figures in female first time use.



Youth Purchased Cigarettes At Store or Gas Station.

Data regarding access to cigarettes are reported only for the 31.9% of students under the age of 18 years who reported current cigarette use in the YRBS 2009. More one-fifth or 22.3% of these students usually obtained their cigarettes by purchasing them in a store or gas station during the 30 days preceding the survey.

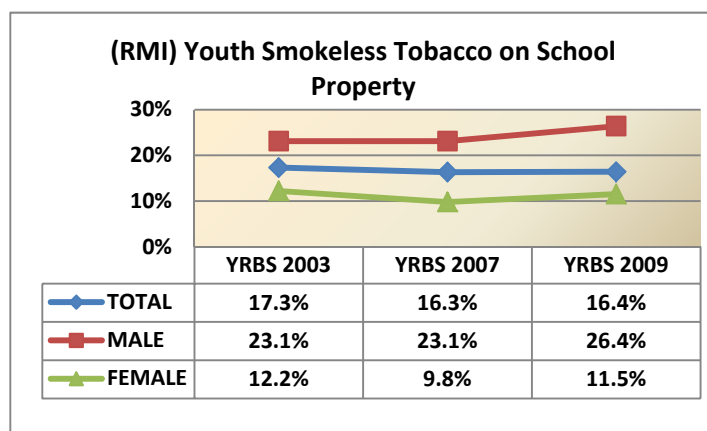


Note that the minimum legal age for purchase of cigarettes is 18 – meaning all of these purchases were done illegally.

The prevalence of having purchased cigarettes in a store or gas station was 29.7% amongst males and 13.8% amongst females. The overall trend declined significantly in 2009, following the drastic drop in the Tobacco Retail Violation Rate in 2009 exhibited in the Synar Survey.

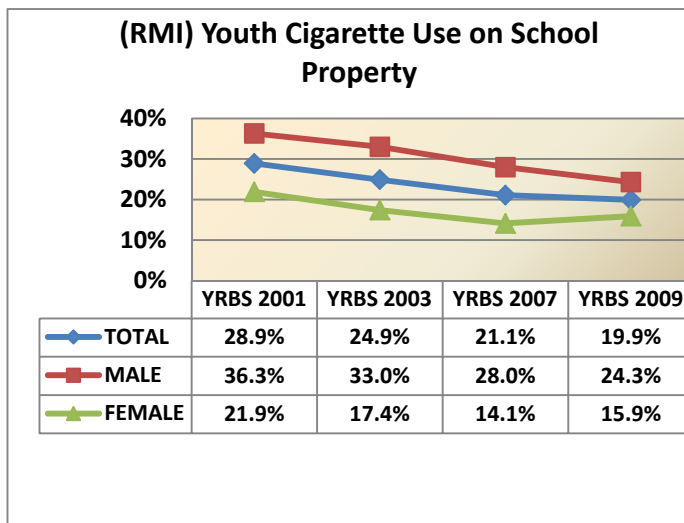
Youth Use of Smokeless Tobacco on School Property.

Under the RMI Ministry of Education, all schools are required to implement strict policies against ATOD use on campus. However, there is still a rise in the use of smokeless tobacco use on school property indicating potential gaps in enforcement. In the YRBS 2009, 16.4% of students had smoked cigarettes on school property on 1 or more of the 30 days preceding the survey. The prevalence rates were higher among males (26.4%) than females (11.5%). The overall trend shows no sign of improvement from previous years.



Youth Cigarette Use on School Property.

Unlike smokeless tobacco use, cigarette use on school property is steadily declining. In YRBS 2009, nearly one-fifth or 19.9% of high school students had smoked cigarettes on school property on 1 or more of the 30 days preceding the survey. The prevalence rates were higher in males (24.3%) than females (15.9%).

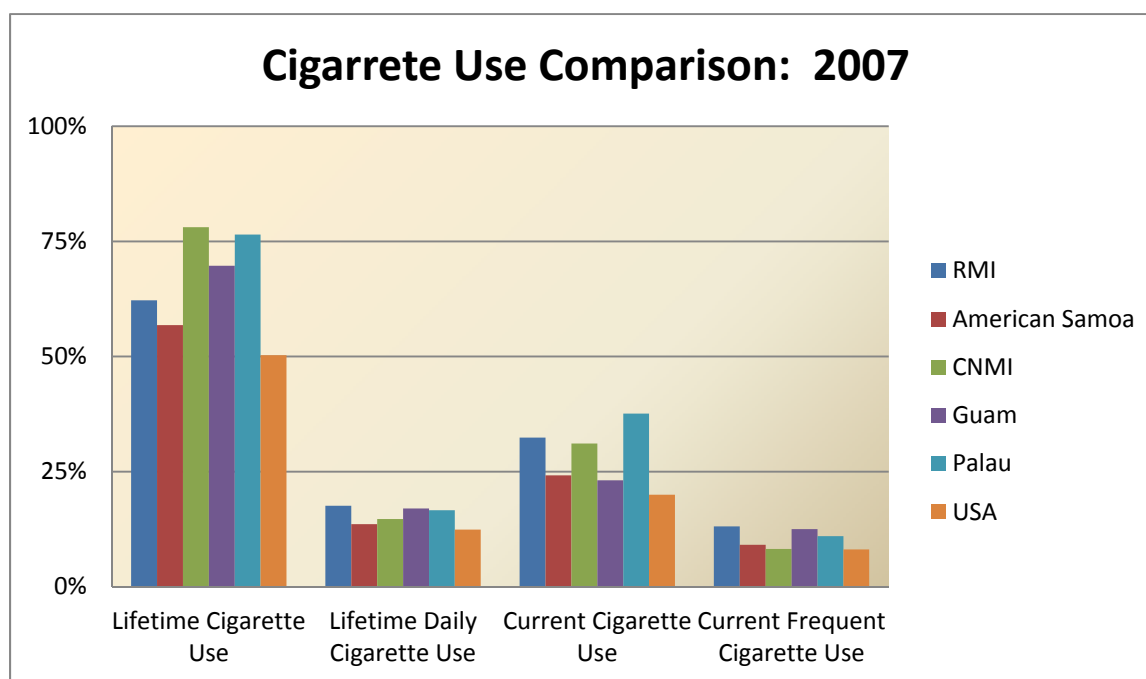


Regional Comparison of Youth Tobacco Use. A comparison between various Pacific Jurisdictions is available below for 2009 in the table, and 2007 for the graph. As in alcohol consumption, the RMI does not necessarily rank at the very top in overall use, but when it comes to extreme use (in the case of tobacco: smoked more than 10 cigarettes a day, and current frequent cigarette use), the RMI is near, if not at, the top of the list for highest prevalence.

Regional Comparison on Youth Tobacco Use, 2009

YRBS 2009	RMI	PALAU	CNMI
Lifetime Cigarette Use	65.9%	79.9%	87.9%
Lifetime Daily Cigarette Use	18.7%	13.7%	25.0%
Current Cigarette Use	31.9%	38.6%	48.8%
Current Frequent Cigarette Use	13.4%	7.1%	16.8%
Smoked more than 10 Cigarettes per day	9.5 %	2.0%	2.0%
Current Smokeless Tobacco Use	33.3%	40.9%	42.5%
Cigarette smoking before Age 13 years	9.8%	24.9%	40.1%
Current Tobacco use	30.8%	N/A	61.2%

Source: YRBS 2009



Source: CDC

SYNAR SURVEY 2008 and 2009

Synar Survey in the RMI

With 70% of the population living on Majuro and Ebeye, nearly all formal tobacco outlets are located on these two islands. It is estimated, based on records of the RMI Ministry of Finance, that over 90% of all retail outlets (and thus tobacco outlets) in the entire country are on Majuro and Ebeye. The outer islands have few established retail outlets and people who consume tobacco products there typically get these products through shipments from Majuro or Ebeye. Thus, tobacco outlets accessible to youth on the islands of Majuro and Ebeye were used as the sampling frame.

SSES Table 1 (Synar Survey Estimates and Sample Sizes)

Synar Survey Estimates and Sample Sizes	2008	2009
Weighted Retailer Violation Rate	93.2%	28.7%
Effective Sample Size	174	112
Target (Minimum) Sample Size	233	112
Original Sample Size	183	206
Eligible Sample Size	157	169
Final Sample Size	129	146
Overall Sampling Rate	66.5%	67.5%

The baseline RMI retailer violation rate (RVR) in 2008 was a disturbing 93.2%. Based on the results of the 2008 Synar activities, aggressive vendor and community education campaigns were developed and implemented in 2009.

In 2009, the second Synar Survey was conducted. Out of a final sample size of 146 stores inspected (112 on Majuro and 33 on Ebeye) the Tobacco Retail Violation Rate dropped drastically to 28.7%. Results suggest vendor campaign was effective however nearly a third of stores still broke the law. Enforcement of tobacco sales to minors' law needs to be strengthened.

SYNAR PROGRAM CHALLENGES

The RMI has yet to develop many components of the Synar program but has made considerable progress in reducing the retail violation rate to 28.7%.

RMI national law (Sale of Tobacco to Minors Act [Title 26, Chapter 2]) penalizes only store owners; however, the law is inconsistently enforced. The RMI does not have a means of tracking sales of tobacco products from wholesalers to retailers. In addition to retail outlets, youth have access to tobacco products through social sources and individuals who sell tobacco (e.g., out of their homes).

OTHER SUBSTANCES CONSUMPTION

Lifetime Other Substances Use Among Female Adults Prior to Pregnancy. The most common substance other than alcohol and tobacco to be used (lifetime) by the surveyed women included betel nut (6.4%), marijuana (2.6%), kava/sakau (1.7%) and other drugs (1.2%).

Results of SGS Prenatal Survey for Other Substances: 2006-2007

	Number	(Percent)
Lifetime use		
Betel Nut	22	(6.4%)
Marijuana	9	(2.6%)
Kava/Sakau	6	(1.7%)
Other drugs	4	(1.2%)

Source: SGS Survey 2006-2007

CONSEQUENCES ANALYSIS

Substance-related consequences can be defined as adverse social, health, and safety consequences associated with alcohol, tobacco, or illicit drug use. Consequences include mortality and morbidity and other undesired events for which alcohol, tobacco, and/or illicit drugs are clearly and consistently involved. Although a specific substance may not be the single cause of the consequence, scientific evidence must support a link to alcohol, tobacco, or illicit drugs as a contributing factor to the consequence.⁹

MORTALITY

Leading Causes of Mortality. The Ministry of Health provides an annual summary of the leading causes of mortality in the RMI. The table below, from the Ministry of Health's annual reports, show the top leading causes of mortality for the 2006 to 2008 period. A number of these causes can be directly or indirectly attributable to either alcohol or tobacco consumption.

Leading Causes of Mortality: 2006 to 2008

2006	2007	2008
Sepsis / Septicemia	Sepsis/Septicemia	Sepsis / Septicemia
Pneumonia	Pneumonia	Cancer (all types)
Cardiopulmonary arrests	Cardiopulmonary arrests	Pneumonia
Cardiorespiratory failure /	Cardiorespiratory Failure	Myocardial Infarction
Arrests	Chronic Renal Failure	Renal Failure/ Cardio
Cancer (all types)	Cerebrovascular Accident	Respiratory Arrest
CHD / CHF	Cancer (all types)	Cardio-Pulmonary Arrest/
Birth asphyxia	Cardiac Arrest	Sudden Cardiac Arrest
Suicide	CHD/CHF	Uremia/ Asphyxia
Acute renal failure		
Hepatitis B		

Source: MOH

Currently, detailed mortality records from the Ministry of Health are not arranged in a fashion that easily lends itself to identification of specific alcohol or tobacco related deaths.¹⁰ This should be a major area of focus for improvement in future profiles.

⁹ As described in the publication "Developing A State Epidemiological Profile for Substance Abuse Prevention: Guidance for State Epidemiological Outcome Workgroups" by the Pacific Institute for Research and Evaluation, February 2008.

¹⁰ Current death records use data categories for each mortality case such as "main cause of death," "due to, or as a consequence of" and "immediate cause of death." However, it remains difficult to tally different causes of death due to coding and classification inconsistencies. This will be a major area of focus for future profiles.

Estimated Deaths Attributable to Alcohol and Tobacco. Nevertheless, some general estimates on the total number of deaths attributable to alcohol and tobacco can be made from the existing records. As shown in the table below, annual numbers of registered deaths have ranged from 250 to 289 over the past three fiscal years.

Close inspection of the death records indicate that in FY2005, FY2006, and FY2007, there were at least 20, 13, and 18 deaths (respectively) caused by conditions linked to alcohol. This translates into estimated annual alcohol-related death rates (as a percentage of all registered deaths) of 7.4, 4.5, and 7.2% for the three years.

For tobacco related deaths, close inspection of the death records shows that over the same three year period, there were at least 16, 7 and 5 registered deaths caused by conditions linked to tobacco. This translates into tobacco related death rates of 5.9, 2.4, and 2.0% over the period.

Again, these are broad estimates only, and further work will be done in the future to refine the causes of mortality analysis.

Prostylization

Estimated Deaths Attributable to Alcohol and Tobacco: 2005 to 2007

Year	Total Registered Deaths	Deaths Attributable to Alcohol	% of total deaths	Deaths Attributable to Tobacco	% of total deaths	Total Deaths due to Alcohol and Tobacco
FY2007	250	18	7.2%	5	2.0%	23
FY2006	289	13	4.5%	7	2.4%	20
FY2005	269	20	7.4%	16	5.9%	36
TOTAL	808	51	6.3%	28	3.5%	79

Note: deaths attributed to alcohol include suicide (nearly all suicides in RMI are linked with alcohol)

Source: MOH, with Epi Workgroup estimates

Cancer Mortality. As reported by the Cancer Comprehensiveness Program (CCP), cancer remains a top five cause of death in the RMI. The MOH has taken the initiative to establish in 2005 the CCP which will develop the cancer regulatory framework and related work for cancer education and prevention.

Current cancer related deaths by type are illustrated in the table below for 2005 and 2006. Over the four year period, there were 26 lung cancer deaths (11 in 2005, 6 in 2006, 4 in 2007, and 5 in 2008).

Cancer Deaths Data: 2005 to 2008

CANCER TYPE	2005			2006			2007*	2008*
	EBEYE	MAJ	RMI	EBEYE	MAJ	RMI	RMI	RMI
BREAST	0	2	2	2	5	7	1	2
CERVICAL	0	4	4	0	6	6	3	4
LUNG	0	11	11	1	5	6	4	5
COLON / RECTAL	0	0	0	0	4	4	3	3
THYROID	0	4	3	0	3	3	0	0
NASOPHARYNGEAL	0	2	2	0	2	2	1	2
STOMACH	0	0	0	0	2	2	0	0
BONE	0	0	0	1	1	2	0	0
LARYNGEAL	1	1	2	0	2	2	0	0
UNKOWN ORIGIN	2	0	2	0	2	2	0	0
LYMPHOMA	1	1	2	0	1	1	1	0
OVARY	0	2	2	0	1	1	2	1
UTERUS	1	4	5	0	1	1	0	0
SALIVARY GLAND	0	0	0	0	1	1	0	0
VULVA	0	0	0	0	1	1	1	0
ORAL	0	1	1	0	1	1	1	0
KIDNEY	0	3	3	0	1	1	1	0
GASTRIC	0	0	0	1	0	1	2	0
PROSTATIC	0	0	0	0	1	1	0	0
LEUKEMIA	1	1	2	0	0	0	1	0
LIVER	1	1	2	0	0	0	2	0
PANCREAS	0	1	1	0	0	0	1	2
BLADDER	0	1	1	0	0	0	0	0
ESOPHAGEUS	0	1	1	0	0	0	0	0
SKIN	0	3	3	0	0	0	1	0
PARA NASAL	0	0	0	0	0	0	1	0
ENDOMETRIUM	0	0	0	0	0	0	1	0
TOTAL CANCER DEATHS	6	43	49	5	40	45	27	22
% OF TOTAL DEATHS			18.2%			15.6%	9.8%	7.4%

*In 2007, reporting changed from Ebeye and Majuro locations, to reports by gender. The total is still listed however.

As shown above, cancer related deaths accounted for 18.2% of registered total deaths in 2005 and 15.6% in 2006.

SUICIDE

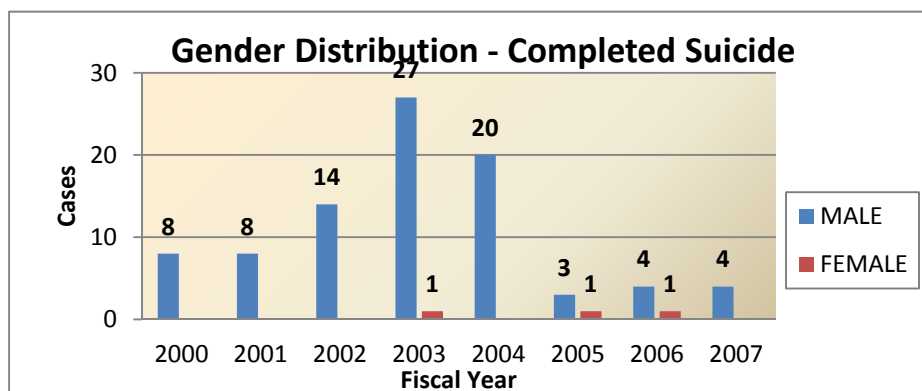
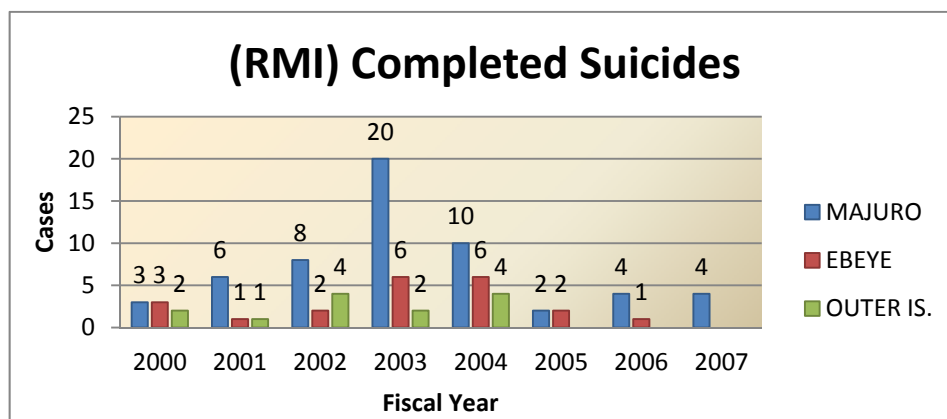
Completed Suicides. It has been established that suicide rates, especially among youth, are consistently higher in the RMI than in the US and other countries. The Mental Health Program at the MOH reported that alcohol was the number one contributing factor of suicidal attempts in the Marshall Islands for the 2007. Additionally, it was noted that all suicides related with alcohol were completed at the height of intoxication. In 2008, 10 completed suicides were on record¹¹, compared to a high of 28 in 2003.

Completed Suicides: 2000 to 2008

YEAR	MAJURO	EBEYE	OUTER IS.	MALE	FEMALE	TOTAL
2000	3	3	2	8	0	8
2001	6	1	1	8	0	8
2002	8	2	4	14	0	14
2003	20	6	2	27	1	28
2004	10	6	4	20	0	20
2005	2	2	0	3	1	4
2006	4	1	0	4	1	5
2007*						6
2008*						10

Source: MOH

*Reporting for 2007 and 2008 reporting methods were changed and no longer distinguish between locations or gender.



¹¹ Although official data shows a decline, it is known that suicides often go unreported. There is widespread concern of suicide data not being entirely complete.

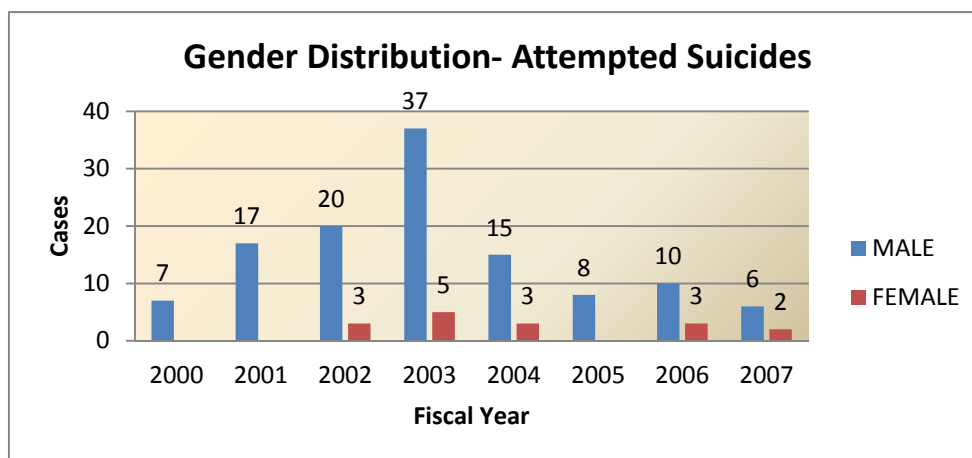
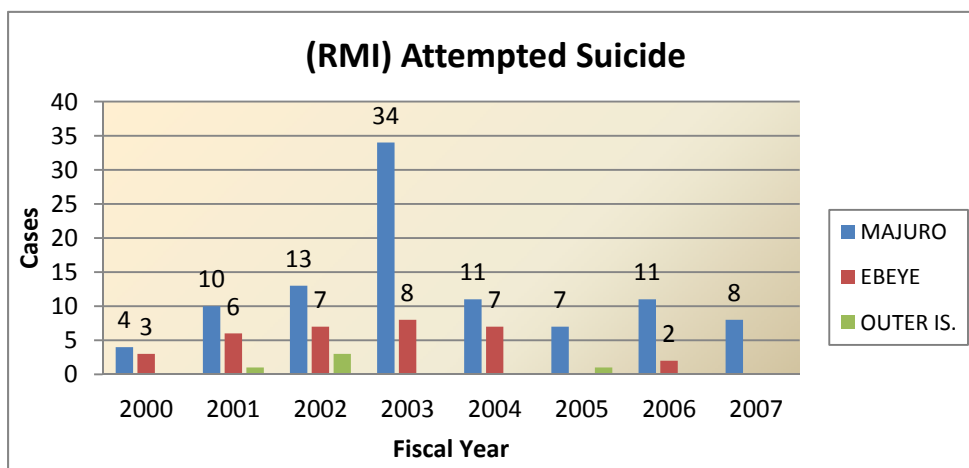
Completed suicides were far more common among males than among females (see graph above). **Attempted Suicides.** Over the past eight years, the numbers of attempted suicides have followed the completed suicides trend. In 2008 only 16 attempted suicides were on record, compared to 42 in 2003.

Attempted Suicide: 2000 to 2008

YEAR	MAJURO	EBEYE	OUTER IS.	MALE	FEMALE	TOTAL
2000	4	3	0	7	0	7
2001	10	6	1	17	0	17
2002	13	7	3	20	3	23
2003	34	8	0	37	5	42
2004	11	7	0	15	3	18
2005	7	0	1	8	0	8
2006	11	2	0	10	3	13
2007*						16
2008*						16

Source: MOH

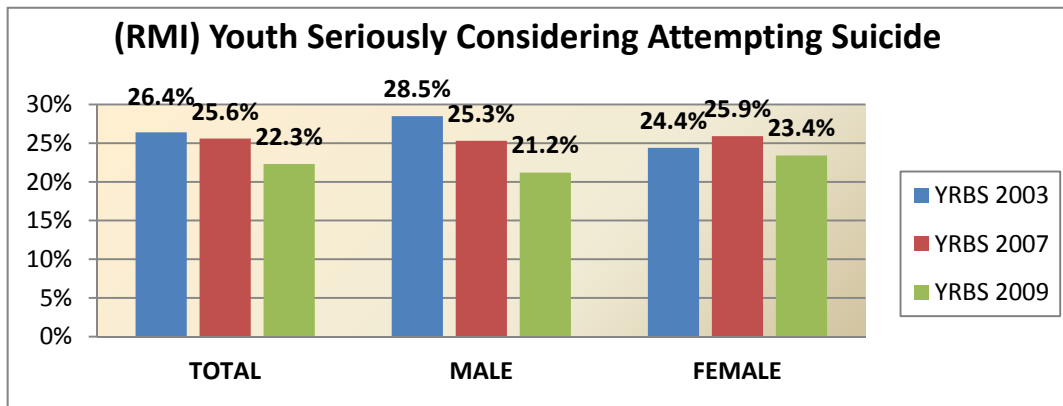
*Reporting for 2007 and 2008 reporting methods were changed and no longer distinguish between locations or gender.



Attempted suicides were far more common among males than among females (see graph above).

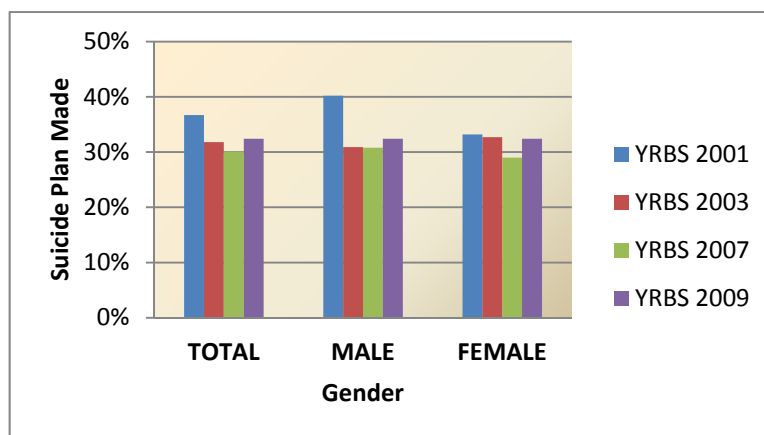
Youth Seriously Considered Attempting Suicide.

The YRBS 2009 showed that 22.3% of high school students had seriously considered suicide during the 12 months preceding the survey. The prevalence of having considered attempting suicide was 21.2% among male and 23.4% among female students. The overall trend shows a slow but steady decline.

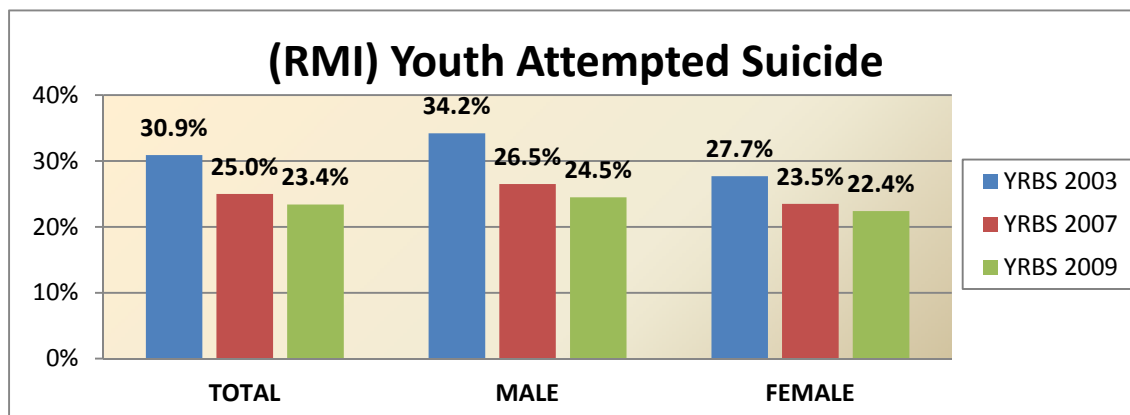


Youth Made A Suicide Plan.

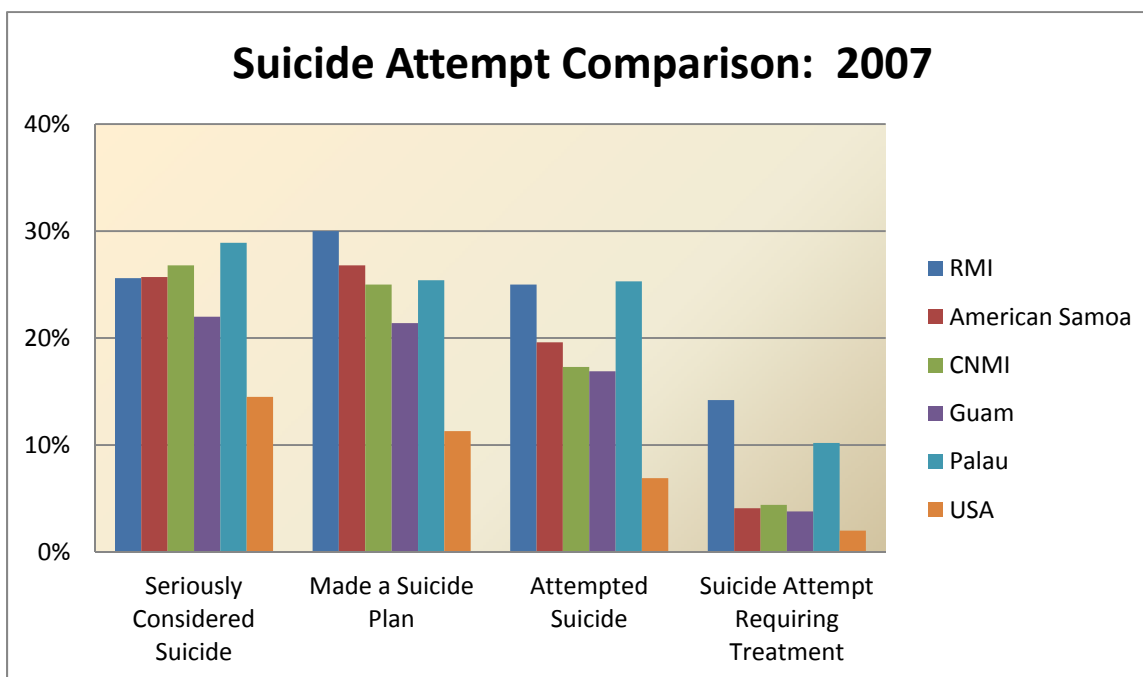
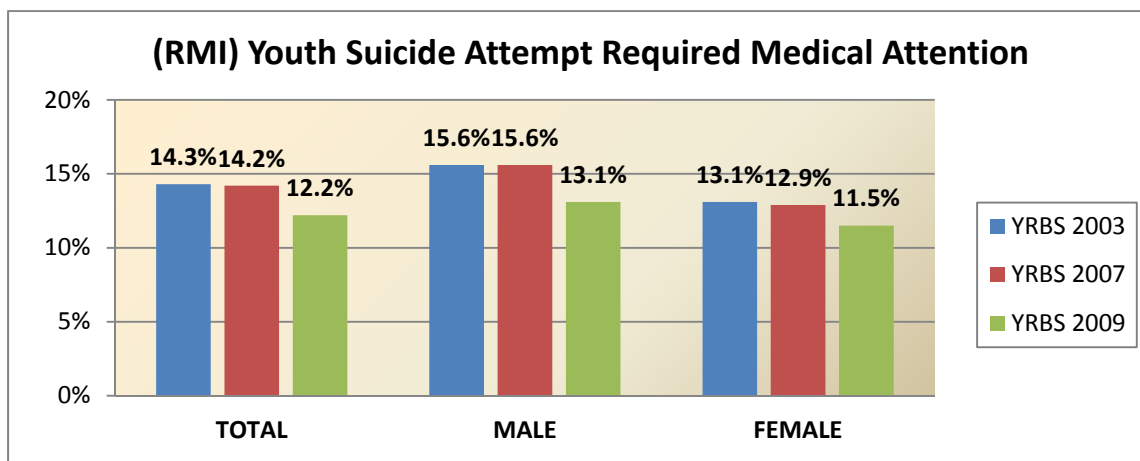
During the 12 months preceding the YRBS 2009 32.4% of students who responded to the survey had made plans about how they would attempt suicide. The prevalence rates show no gender difference. Overall trend remain high at nearly a third of students have made a suicide plan.



Youth Attempted Suicide. The YRBS 2009 showed that 23.4% of students had actually attempted suicide one or more times during the 12 months preceding the survey. The prevalence rate of attempted suicide was 24.5% among male and 22.4% among female students. Although there was a decrease in trend, the rates of attempted suicide remain high over the past survey periods.



Youth Suicide Attempt Required Medical Attention. During the 12 months preceding the YRBS 2009 12.2% of students had made a suicide attempt that resulted in an injury, poisoning, or overdose that had to be treated by a doctor or nurse. The prevalence of having made a suicide attempt that required medical attention was 12.2% among male and 11.5% among female students. Although the trend remains high, there is no data from the Ministry of Health Emergency Room data or otherwise in reference to youth being treated for attempting suicide



Source: CDC

As exhibited above, the RMI shows an extremely high rate of youth making suicide plans, attempting suicide, and especially suicide attempts requiring treatment. The RMI exhibits much higher rates of suicide attempts requiring treatment than any other Pacific Jurisdiction or the United States.

ACCIDENTS, VIOLATIONS AND OFFENSES

Traffic Accidents and DUI Violations. The table below summarizes different types of violations recorded for Majuro, Ebeye and the entire RMI for 2002 to 2004 (more recent data still being evaluated for credibility). Total reported traffic accidents fell slightly over the period for the entire RMI from 416 to 350. Drunken driving violations numbered 191, 155, and 154 over the period, again generally falling (in absolute terms). Percentagewise, drunken driving violations have accounted for 6.0, 4.0, and 4.9% of all violations.

Accidents, DUI, Other Traffic Violation: 2002 to 2004

Type of Violation	2002			2003			2004		
	Maj	Ebeye	RMI	Maj	Ebeye	RMI	Maj	Ebeye	RMI
Traffic accidents	384	32	416	318	27	345	342	8	350
Drunken driving	155	36	191	134	21	155	140	14	154
Other traffic violations	2,183	419	2,602	2,523	821	3,344	2,129	525	2,654
TOTAL	2,722	487	3,209	2,975	869	3,844	2,611	547	3,158
% DUI	5.7%	7.4%	6.0%	4.5%	2.4%	4.0%	5.4%	2.6%	4.9%

Source: MOJ

Alcohol Related Offenses. Drunken and disorderly conduct and disturbing the peace cases in Majuro nearly tripled from just under 500 in 2002 to nearly 1,200 in 2005 (data for Ebeye and other areas not currently available). The percentage of drunken disorderly offenses out of total offenses has escalated at alarming rate over the past three years showing no signs of decline. In 2008, a record of 2024 cases were reported

While the number of all other offenses showed a slight decline over the 2002-2005 period, in 2006 all other offenses increased rapidly. In 2008, 1509 other offenses were reported, nearly four times more since 2002.

Offenses Known to the National Police, Majuro: 2002 - 2008

Offenses	2002	2003	2004	2005	2006	2007	2008
Drunken and disorderly/disturbing peace	460	704	713	1213	1568	1517	2024
All other offenses	444	320	288	242	382	539	1509
TOTAL	904	1024	1001	1455	1950	2056	3533
% Drunken and disorderly/disturbing peace	50.9%	68.8%	71.2%	83.4%	80.4%	73.8%	57.3%

Source: MOJ

Majuro District Court. In addition to National Police data, the Majuro District Court also keeps track of alcohol related cases. Data for the entire year is available for 2007 and 2008 and includes cases involving DUIs, drunken disorderly conduct, open container, drunken underage and drinking in any weto. Between years of 2007 and 2008 there is an increase in all categories. The data for 2009 is only representative of a portion of the year.

Cases heard at Majuro District Court: 2007 - 2009

Offense	2007	2008	2009
DUI	105	130	50
Drunken Underage	135	161	11
Open Container	79	119	6
Drunken Disorderly Conduct	0	120	13
Drinking in any Weto(village)	14	27	2

Source: Majuro District Court

Teenage Pregnancy. Teenage pregnancies remain high and steady in the RMI. Over the past decade or so, the number of teens who have become pregnant has ranged from 200 to 300. As a percentage of total births, teen births have hovered between 17 and 18% since 2001, with no discernible downward trend overall. Teenage pregnancies amongst RMI teens subsequently remain high indicating that 1 in 4 girls and young women aged 15-19 in 2007 were either pregnant or already given birth to their first child.

Teenage Pregnancy Cases Among Total Births: 2001 to 2006

YEAR	2001	2002	2003	2004	2005	2006
TEEN BIRTHS	282	239	266	253	299	269
TOTAL BIRTHS	1,561	1,355	1,565	1,502	1,623	1,568
TEENS % OF TOTAL BIRTHS	18.1%	17.6%	17.0%	16.8%	18.4%	17.2%

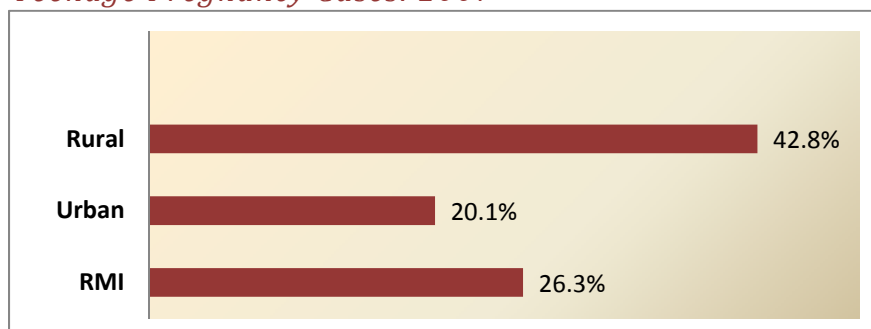
Source: MOH

In 2007, the definition of a teenage pregnancy case was changed to only include mothers under the age of 18. This makes true comparisons between time periods difficult to ascertain. Additionally, Low Birth Weight (under 5 lbs 8 oz) and Very Low Birth Weight (under 3 lbs 3 oz), which are often associated with tobacco and other illicit substance use during pregnancy, were included in MOH reports for 2007 and 2008 (as exhibited in the table below) for both general pregnancies and teen pregnancies.

Teenage Pregnancy Cases Among Total Births: 2007 and 2008

Year	2007		2008	
TEEN BIRTHS	97		83	
TOTAL BIRTHS	1591		1526	
TEENS % OF TOTAL BIRTHS	6.1%		5.4%	
	Teen	General	Teen	General
LBW	24	206	19	210
VLBW	1	12	1	18

Source: MOH

Teenage Pregnancy Cases: 2007

Source: Demographic Health Survey 2007

Mental Health Substance Abuse Cases. The Mental Health program has been successful in securing partnership networks with several leaders including Salvation Army, Reformed Congregational Church, Assembly of God Church, and the Full Gospel Church. Through collaboration with the churches the Mental Health staff serves about 318 clients annually.

Mental Health statistics for 2007 show that there were 21 cases treated for substance abuse: 17 for alcohol and 4 for marijuana (all males).

Mental Disorder Data: 2007

MENTAL DISORDER	MALE	FEMALE	TOTAL
Alcohol / Substance abuse -	21	0	21
Alcohol	17	0	
Marijuana	4	0	

Source: MOH

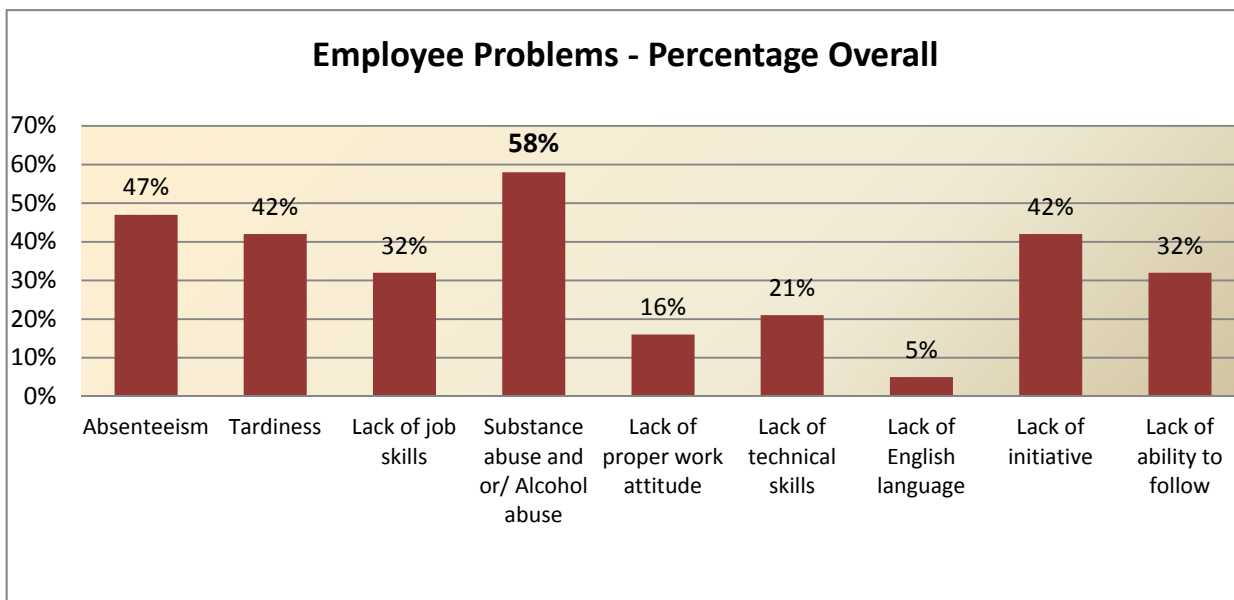
Mental Health Cases: 2007 and 2008

Fiscal Year	Majuro	Ebeye	Outer Islands	RMI
2007	214	20	6	240
2008	283	20	11	314

Source: MOH

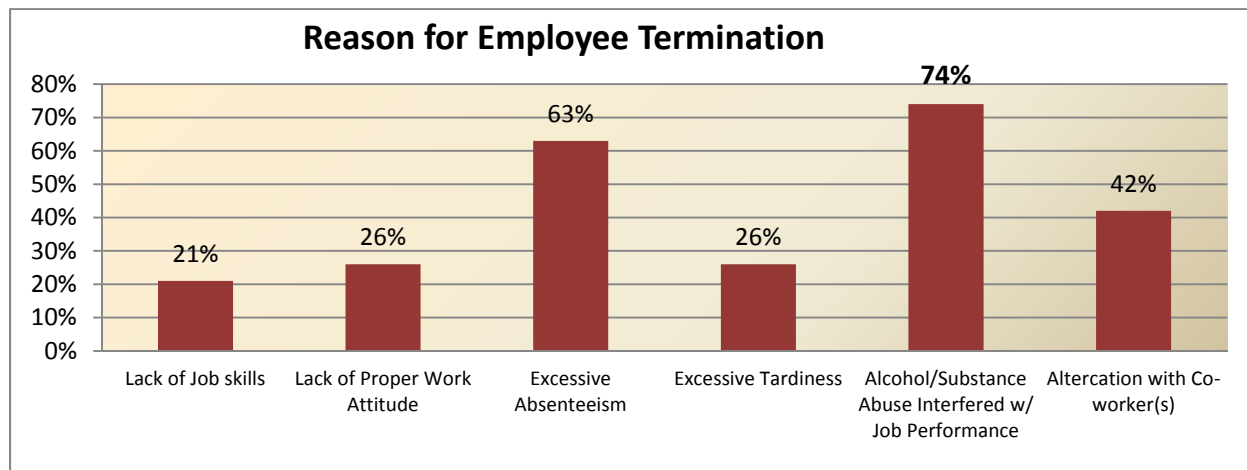
While not all Mental Health Cases have been directly linked to substance abuse in the Marshall Islands, it is important to realize that in many instances substance abuse plays a key role in the lives of those with Mental Health issues.

Employment Problems. The most common problem identified by employers is alcohol/substance abuse at 58%. While the second most common problem was Absenteeism at 47%– which most employers believed is related to the alcohol/abuse problem.



Source: NTC Employer Training Survey 2009

Employee Termination. High employee turnover (“attrition”) was reported by the NTC in 2009 as a major problem for most of the employers. The most important problem related to employee termination is alcohol/substance abuse interfering with job performance (74%). Excessive absenteeism (63%) was reported as the next most common cause of termination of employees; which most employers relate to alcohol abuse.

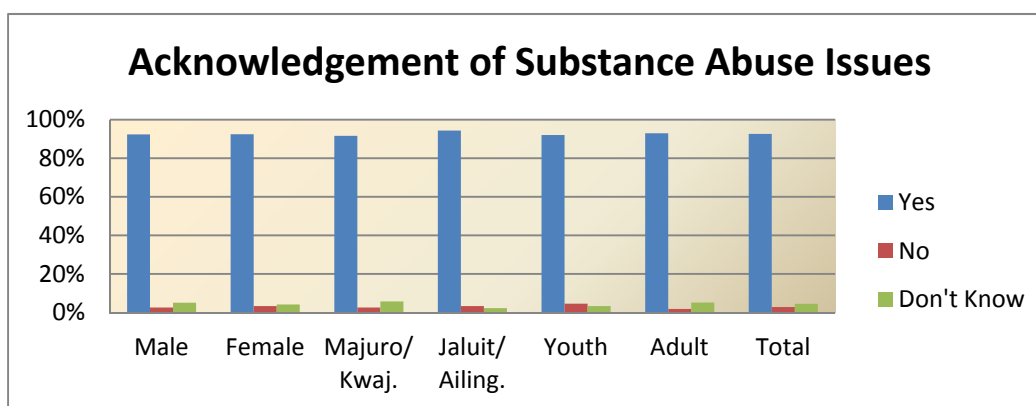


Source: NTC Employer Survey 2009

COMMUNITY READINESS ANALYSIS

Community Readiness looks at the willingness and readiness of a community to begin to make changes regarding substance abuse problems. Community Readiness is also useful in determining the awareness that people have of substance abuse issues within that community. Readiness of a community can be determined by examining such indicators community knowledge of prevention efforts, leadership, community beliefs, community knowledge, and resources for prevention.

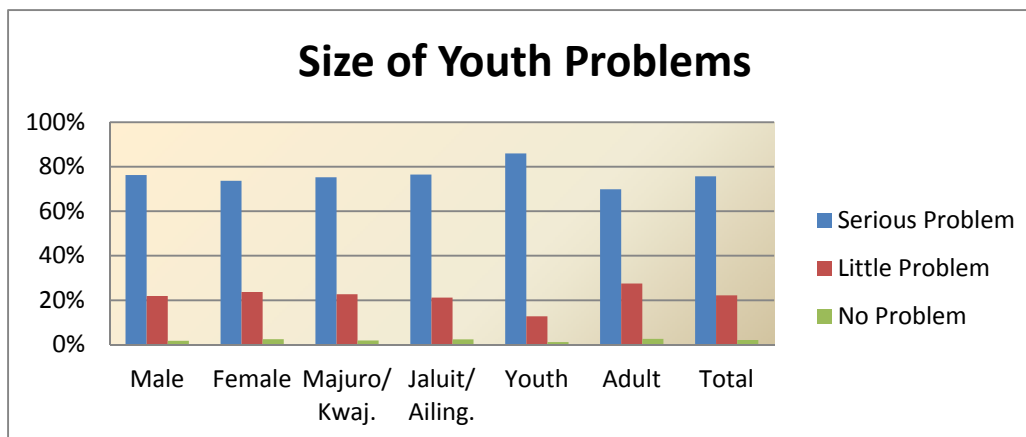
Acknowledgment of substance abuse issues. Group survey respondents were asked to identify whether substance abuse was indeed an issue in their community. Across all respondents, regardless of age, location, or sex, substance abuse was identified as a problem. 92.6% of all respondents reported that it is a problem. Males (92.3%), females (92.4%), people from Majuro/Kwajalein (91.6%), people from Jaluit/Ailinglaplap (94.3%), youth (92%), and adults (92.9%) were all in agreement about this issue.



Source: GS 2010

N=241

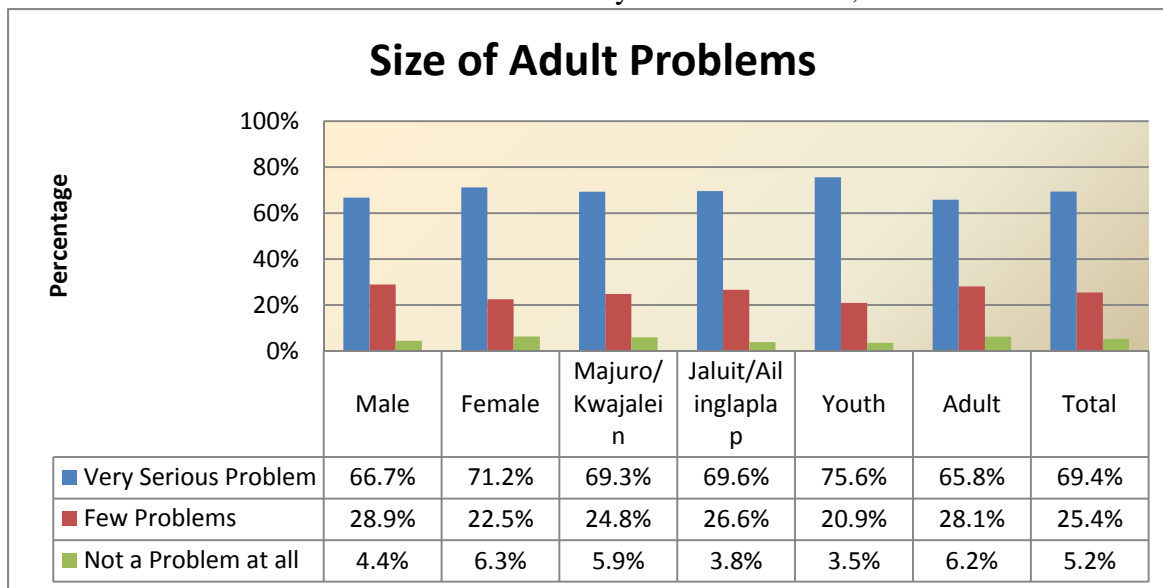
Size of problem for youth. Group survey respondents were asked to determine how big of a problem substance abuse is for youth. They were asked to respond with No Problem, Little Problems, or Serious Problem. Three-quarters (75.7%) of respondents stated that youth substance abuse was a serious problem. The only significant difference was between youth (86% claimed it was a serious problem) and adults (69.9% claimed it was a serious problem).



Source: GS 2010

N=241

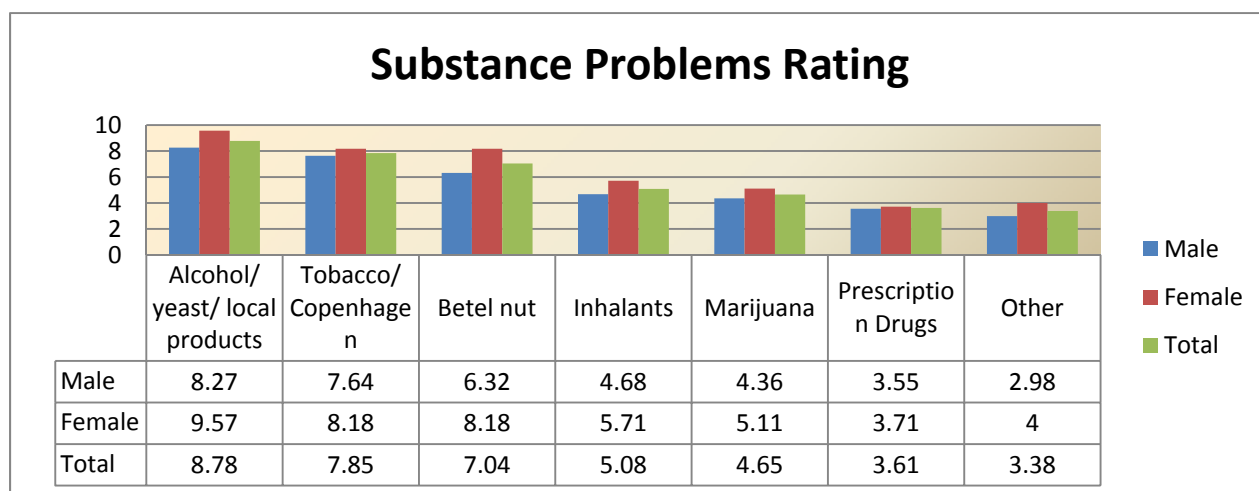
Size of problem among adults. Group survey respondents were also asked to determine the size of the problem for adults within their community. They could rank the problem with the following options: Very Serious Problem, Few Problems, or Not a Problem at All. Nearly all respondent saw that at there were at least some problems caused by substance abuse by adult (94.8% said that substance abuse was either a Very Serious Problem, or caused Few Problems).



Source: GS2010

N=232

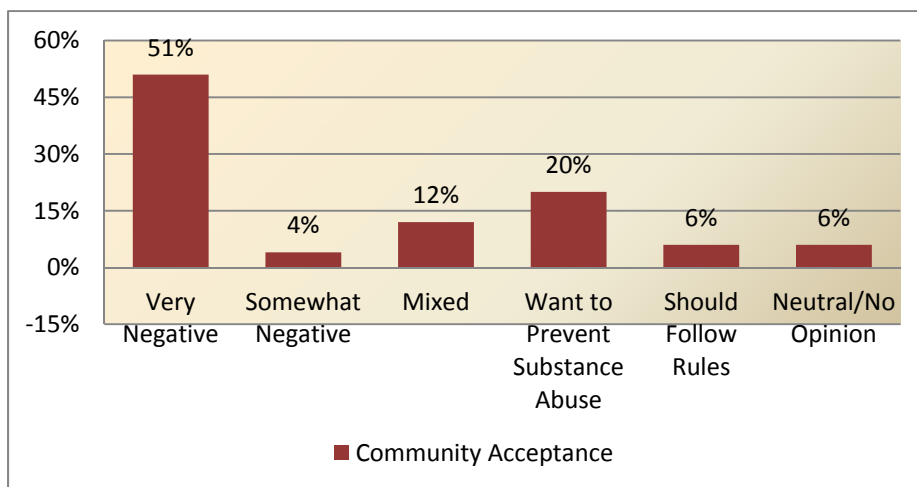
Problems from a given substance. Respondents to the Community Readiness Assessment were asked to give each substance a ranking of 1 (Causes no problems) to 10 (Causes many problems) for each of the provided substances: alcohol/yeast/local products, marijuana, inhalants, tobacco/Copenhagen, betel nut, prescription drugs, and other (cocaine, heroin, etc.). Alcohol was ranked highest by a great deal (8.78), followed by tobacco/Copenhagen (7.85) and betel nut (7.04).



N=83	N=80	N=77	N=75	N=78	N=75	N=70
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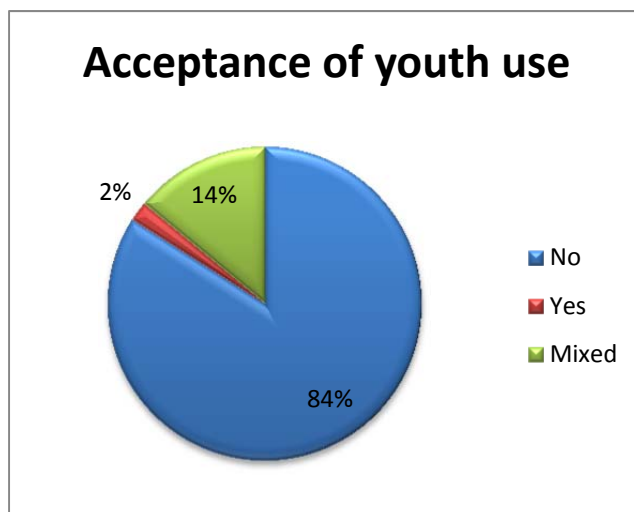
Source: CRA 2010

Community opinions of alcohol, tobacco, betel nut or drugs. Key informants were asked what the community thinks about substance abuse. A majority of responses indicated that the key informant believed the community had a negative opinion towards substance abuse. Only 18% of responses indicated a mixed opinion or a neutral/no opinion; 26% of responses suggested that the community wanted to prevent substance abuse, or that people in the community should follow rules regarding substance abuse.



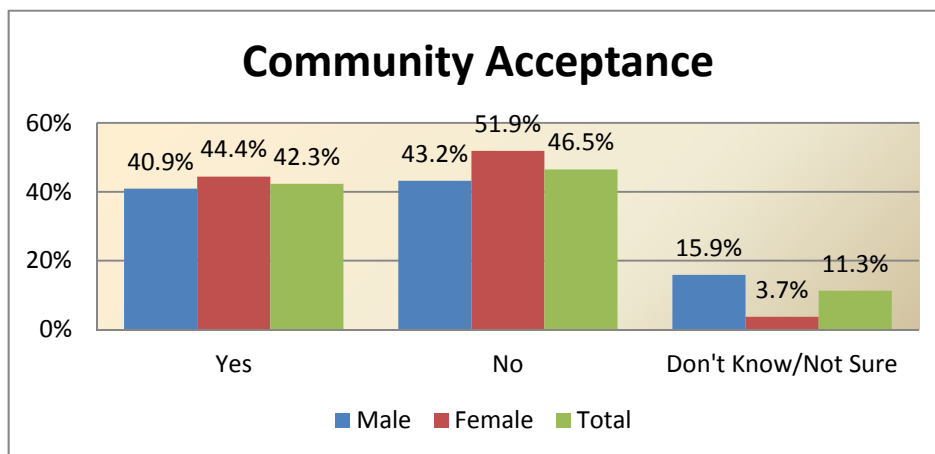
Source: KII 2010

Acceptance for youth use. When asked about the acceptability of youth using certain substances, the key informant responses indicate that 84% of answers were that youth use of substances is unacceptable to adults. The responses categorized as “mixed” reflect the opinion that while most communities view youth use as unacceptable, adults may do little to prevent youth use, showing some acceptance of the behavior.



Source: KII 2010

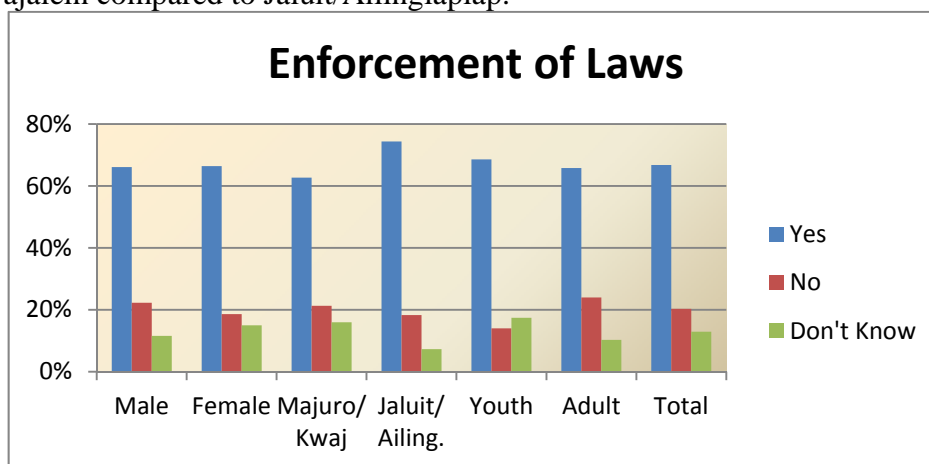
Community acceptance. Community acceptance examines whether community members believe there is any time when smoking, drinking or chewing should be accepted. Just under half of all respondents believe that smoking, drinking or chewing should not be accepted at any time (46.5%).



Source: CRA 2010

N=80

Laws and enforcement of laws. Group survey respondents were asked whether their community enforces laws or policies about alcohol, tobacco, betel nut or drugs. About two-thirds (66.8%) of respondents stated that they were enforced. Additionally, it is possible to determine the differences in opinions between youth and adults, male and female, and Majuro/Kwajalein compared to Jaluit/Ailinglaplap.

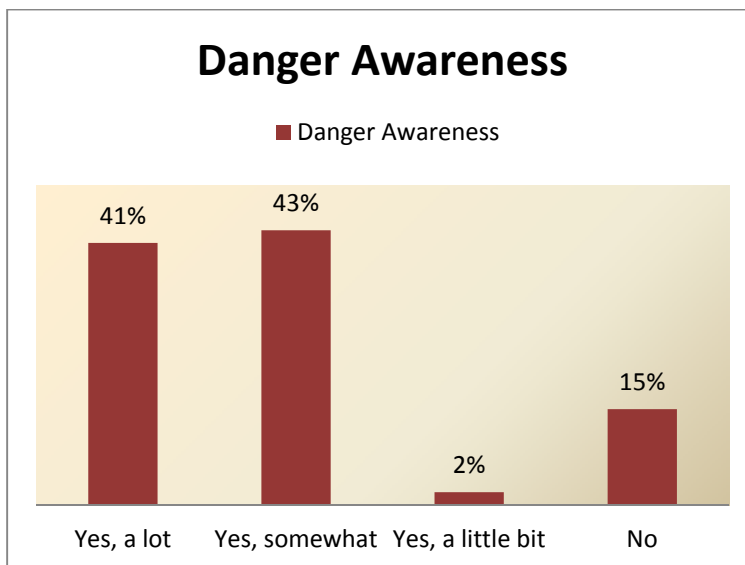


Source: GS 2010

N=232

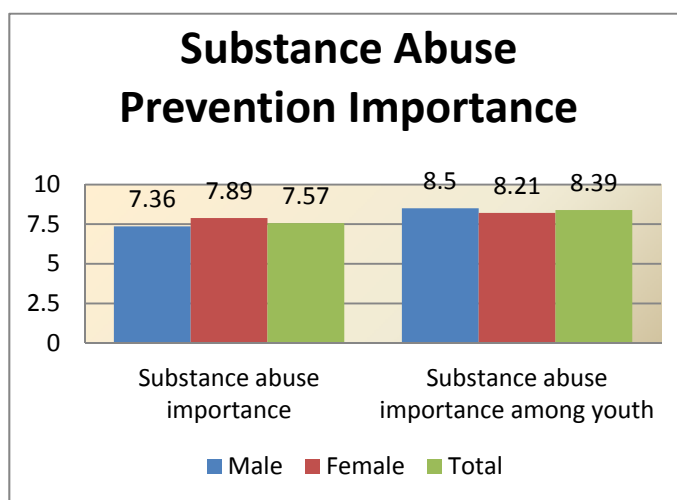
Additionally, key informants were asked what laws existed and how they were enforced. When asked what the laws in the community about substance abuse are, 84% of respondents identified that laws exist, some mentioned specific enforcement of underage drinking such as fines and 11% of responses identified that laws exist but they are not enforced. Four percent of responses did not know what the laws in the community were. The following question in the key informant interview asked respondents to identify how the laws are enforced, 38% of responses indicated laws are enforced via fines or jail time, 22% identified that laws are enforced through compliance (at customs or compliance checks with vendors), 24% indicated laws are not enforced, and 16% indicated laws are enforced sporadically.

Awareness of dangers. Key informants were asked whether or not they believed people in their community knew about the dangers of substance abuse. 43% of the responses indicated that community members were somewhat aware, while 41% indicated that community members knew a lot about the dangers of substance abuse.



Source: KII 2010

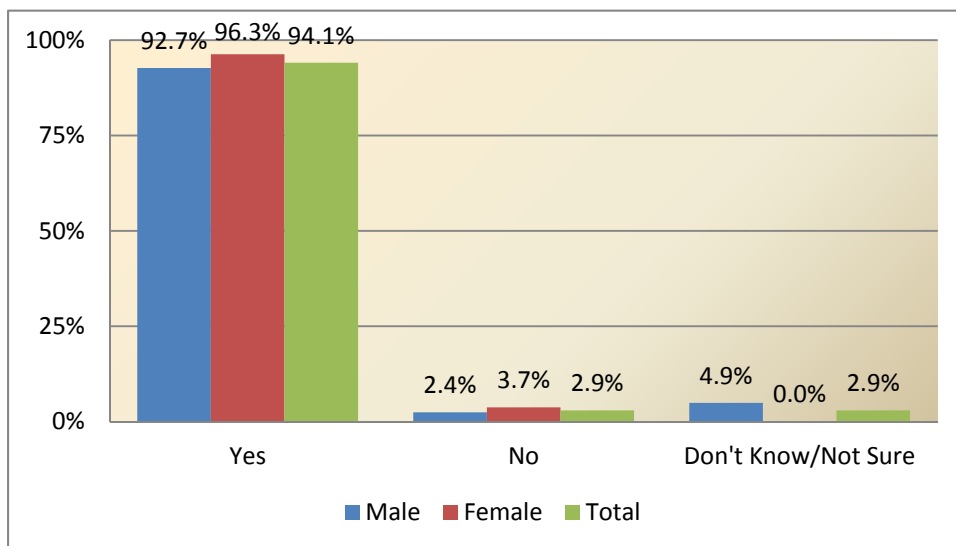
Importance of substance abuse prevention. The importance of substance abuse prevention is broken into two different components: what community members think about substance abuse prevention, and how important it is to a given community to prevent substance abuse among youth between 15 and 24. Respondents were asked to rank their responses between 1 and 10, with 1 meaning not important and 10 meaning very important. Respondents ranked both components quite high. The average ranking for what community members think about substance abuse was 7.57, while the average ranking for importance of substance abuse among youth was 8.39.



Note 1. 1 = Not important; 10 = Very important
Source: CRA 2010

N=84

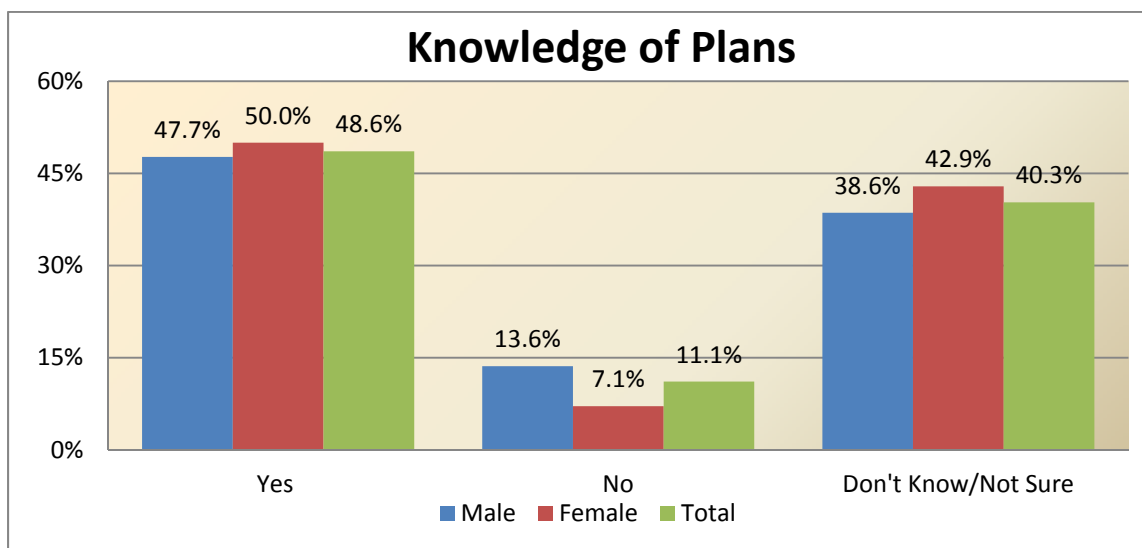
Expansion need. Community Readiness Assessment respondents were asked whether they believed there was a need to expand the substance abuse prevention efforts in their community. Nearly all respondents (94.1%) stated that there is a need to expand these efforts.



Source: CRA 2010

N=81

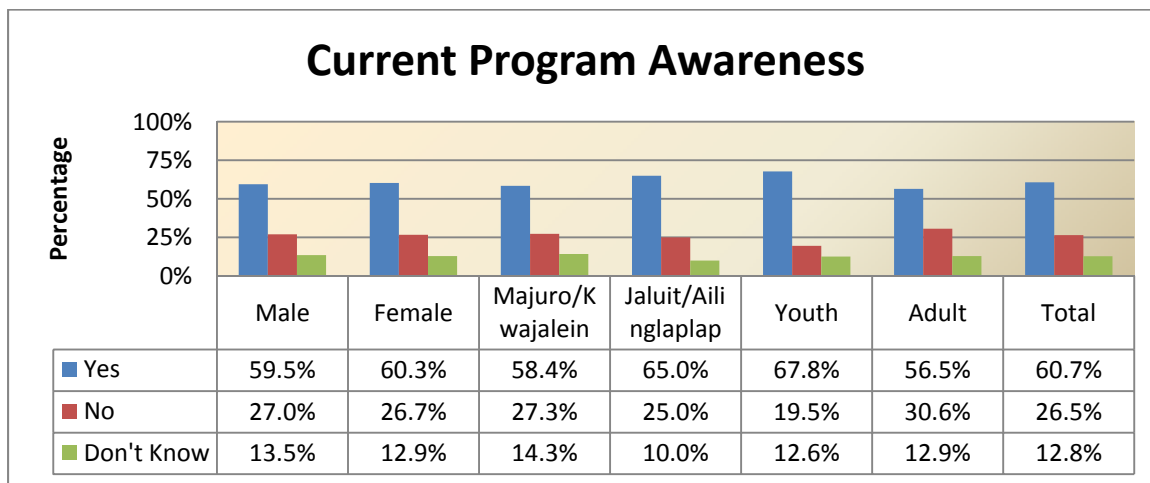
Knowledge of plans. The community readiness assessment asked respondents whether there were plans to start new substance abuse prevention programs in their community. Over half of respondents claimed that they either did not know of any programs or that none existed (51.4% combined).



Source: CRA 2010

N=85

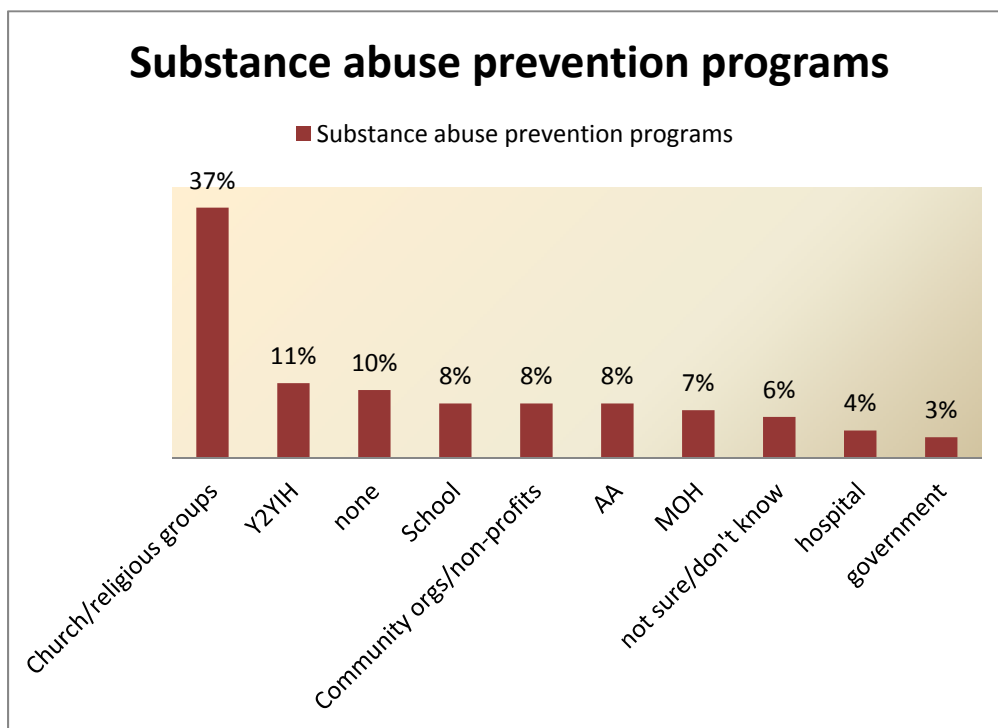
Knowledge of current programs. Nearly two-fifths (39.3%) of group survey respondents stated that they either didn't know of any programs or that there were no programs when asked if there are programs in their community to help people with substance abuse problems.



Source: GS 2010

N=234

Current programs. Key informants were asked to identify substance prevention programs that exist in their community. Some responses identified the program by name such as Alcoholics Anonymous (AA) or Youth to Youth in Health (Y2YIH). Other responses identified the organization that provided programs or other assistance for substance abuse prevention such as local churches, the hospital and schools. Ten per cent of respondents said there were no programs available for substance abuse prevention.



Source: KII 2010

Key informant identified readiness aspects:

Religious and Cultural Leaders: Approximately half of these key informants responded that people in the community did come to them for help with substance abuse problems, and they provided assistance through counseling or “talking.”

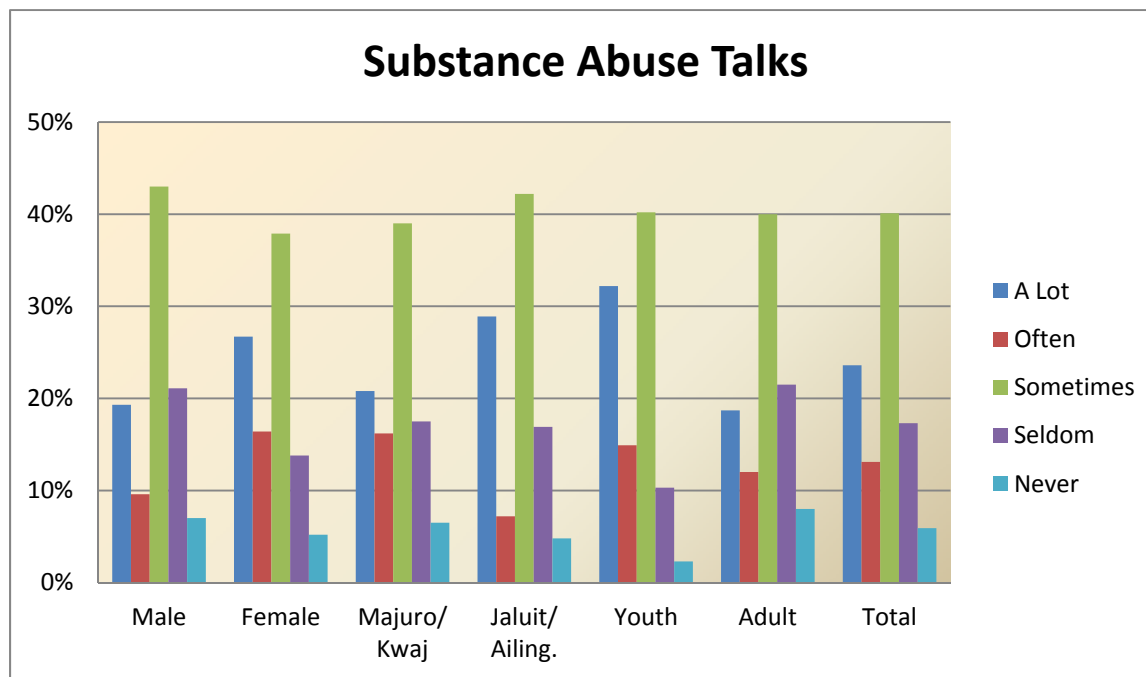
Police: Police key informants indicated their biggest obstacle to enforcing substance abuse related laws was a lack of financial and infrastructure resource and the low salary provided to the police force.

Educators: All educators interviewed responded that there were policies on substance abuse at the schools and at the Ministry of Education. Few respondents offered specific policy examples.

Doctors and Healers: The key informants interviewed stated they had observed issues with low-birth weight babies and injuries related to alcohol or drug use.

Landowners: All landowners interviewed felt that substance abuse had a negative impact on the culture. They specifically noted the effect of betel nut consumption and the marks it made on the land.

Parent/guardian talks with children about substance abuse. Group survey respondents were asked to rank how often parents and guardians talk to their children about the problems of alcohol, tobacco, betel nut, and other drugs. They were asked to rank on a scale of 1 to 5: 1 = Never; 2 = Seldom; 3 = Sometimes; 4 = Often; and 5 = A lot. Overall, respondents responded that these talks occurred Sometimes (overall average of 3.31). A significant difference was found between youth (3.64) and adults (3.12), as well as between males (3.13) and females (3.46).



Source: GS 2010

N=237

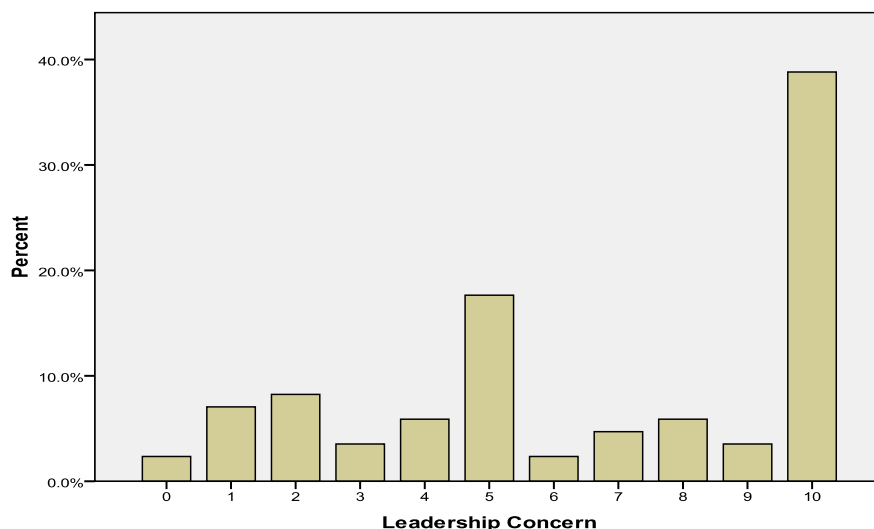
Differences between genders. Key informants respondents were asked their perspective on how the community views substance abuse by gender, whether there were differences between men and women and their substance use. A majority of responses expressed the opinion that use by women was seen as culturally inappropriate and therefore viewed more negatively than men’s use. Nineteen percent of responses thought that use between the genders was becoming similar, 15% of responses indicated that men cause more problems than women with their drinking, and 10% of responses indicated that men become more violent than women when they are drinking.

Table 3
What are differences between women and men using these things?

	Women’s use is not culturally appropriate and seen as worse	Use between genders is becoming similar	Men cause more problems than women when they are drinking	Men become violent when they drink	Women are more susceptible to the effects of alcohol	There are no differences
	44%	19%	15%	10%	6%	6%

Source: KII 2010

Concern of leaders. Respondents of the Community Readiness Assessment were asked to rank how much of a concern substance abuse prevention is to the leadership within their communities. They were asked to rank this indicator on a scale of 1 to 10, with 1 meaning no concern and 10 meaning very large concern. On average respondents stated that leaders had a fair amount of concern (6.39).



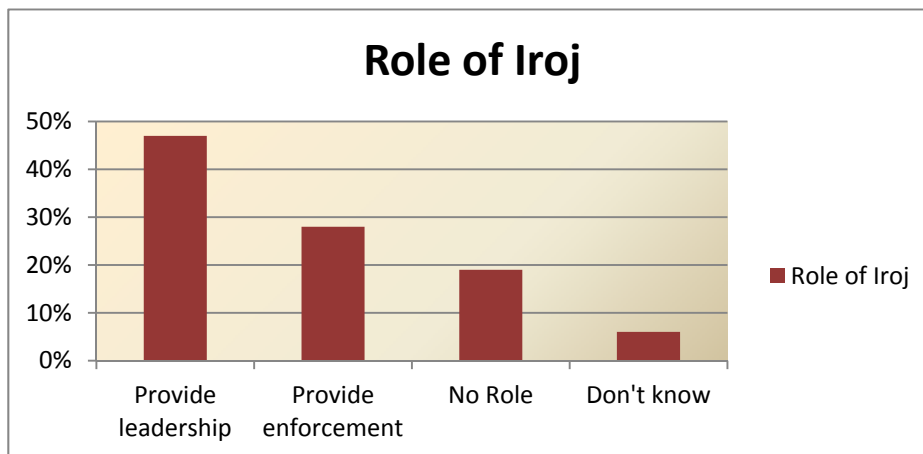
Note 1. On average, male respondents ranked leadership concern at 6.41, while females ranked leadership concern at 6.36. The average for all respondents combined was 6.39.

1 = No Concern; 10 = Very Large Concern; 0 = No Response

Source: CRA 2010

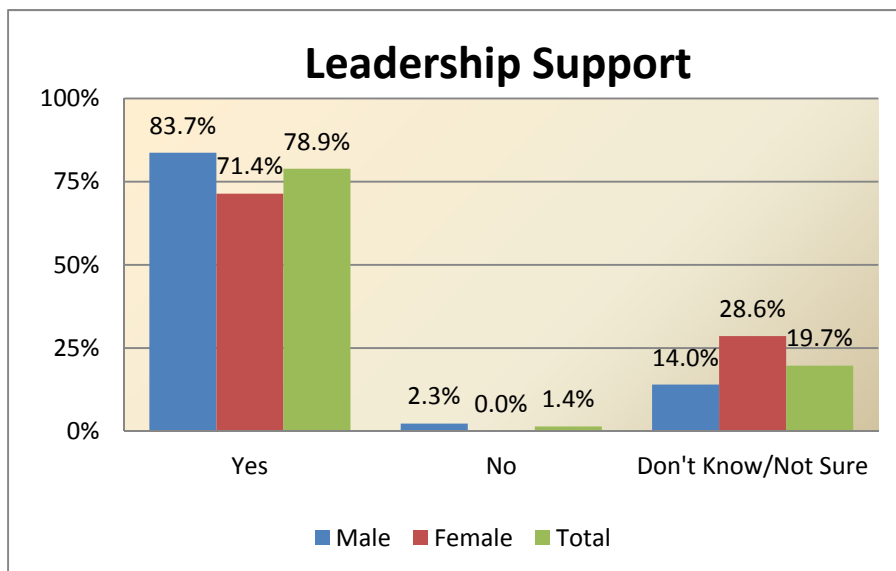
N=83

Role of Iroj. When asked what the role of Iroj should be, 47% of key informants responded that the role of Iroj is to provide leadership in their area/community on substance abuse prevention, 28% indicated that Iroj should provide enforcement, and 19% stated that there was not a role for Iroj in substance abuse prevention.



Source: KII 2010

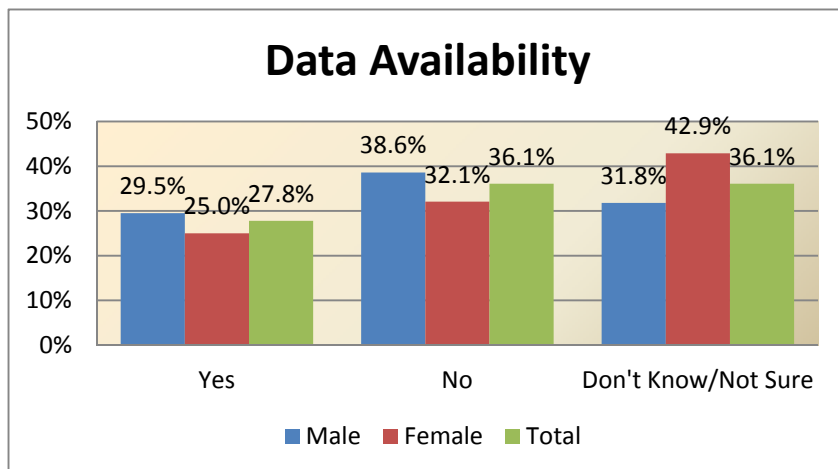
Leadership support. Community Readiness respondents were asked whether they thought leaders in their community would support new substance abuse prevention programs or activities. Over three quarters of all respondents (78.9%) stated that leaders would be open to supporting new programs or activities.



Source: CRA 2010

N=82

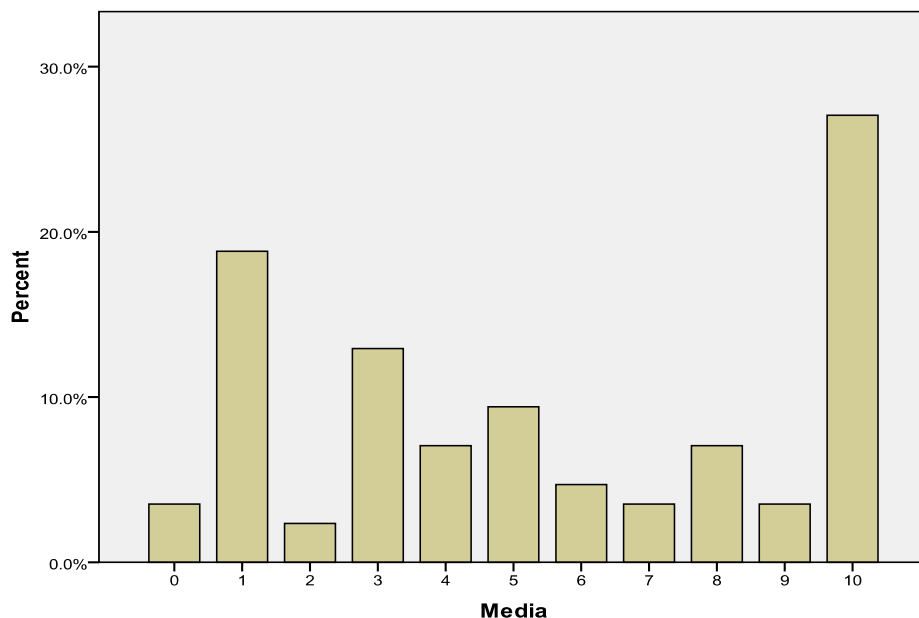
Knowledge of available data. Respondents were asked to identify whether or not they were aware of any specific substance abuse data that is available within their communities. Nearly three quarters (72.2%) of respondents stated either that there was no data or that they did not know whether there was data available.



Source: CRA 2010

N=83

Influence of media. Community Readiness Assessment respondents were asked to rank how much they thought local media informed and educated the community on substance abuse related issues. This includes such forms of media as radio or newspapers. They were asked to rank on a scale of 1 (None) to 10 (A lot). The average response was 5.43.

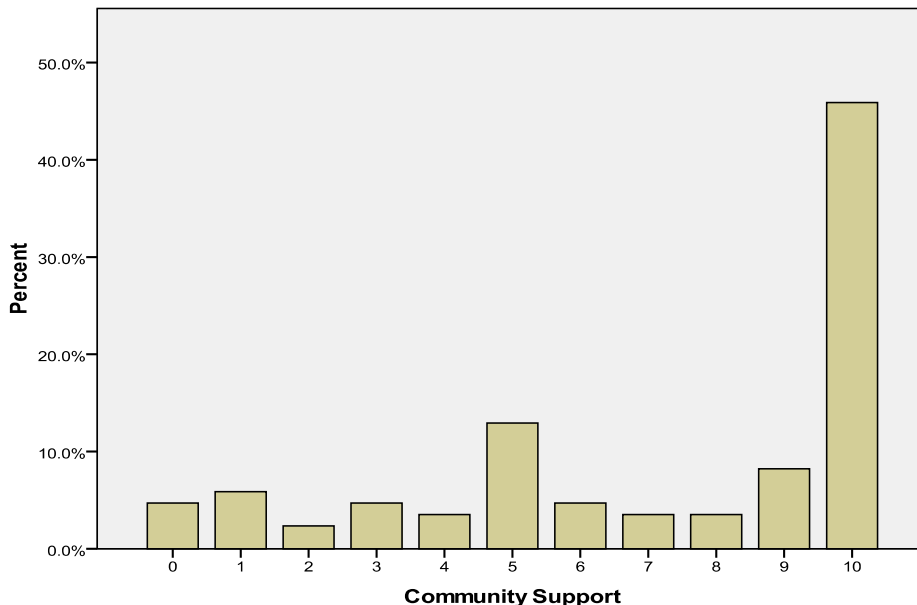


Note 1. The average response for males was 5.25, while the average response for females was 5.71. The overall average was 5.43.

1 = None; 10 = A lot; 0 = No Response
Source: CRA 2010

N=82

Support of the community. Respondents on the Community Readiness Assessment were asked to rate how supportive people in the community are towards substance abuse prevention programs or activities. The rating was from 1 (Not Supportive) to 10 (Very Supportive). The average rating for all respondents was 6.99, indicating a fair amount of support for programs or activities.

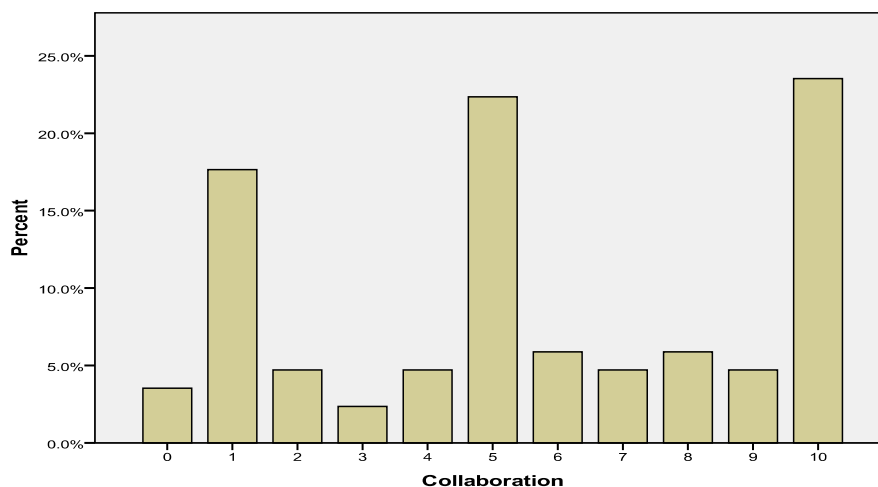


Note 1. 1 = Not Supportive; 10 = Very Supportive; 0 = No response. The average for males was 7.45, for females was 6.25, and the average combined was 6.99

Source: CRA 2010

N=81

Community collaboration. The Community Readiness Assessment asked respondents to rate how much cooperation occurs between government agencies, NGOs, traditional leaders, and religious leaders to work on substance abuse prevention, where 1 is No Collaboration and 10 is Extensive Collaboration. The average rating for all respondents was 5.43, indicating there is some collaboration.



Note 2. 1=No Collaboration; 10=Extensive Collaboration; 0=No Response. The average for males was 5.61, females was 5.14, and the average for all respondents was 5.43.

Source: CRA 2010

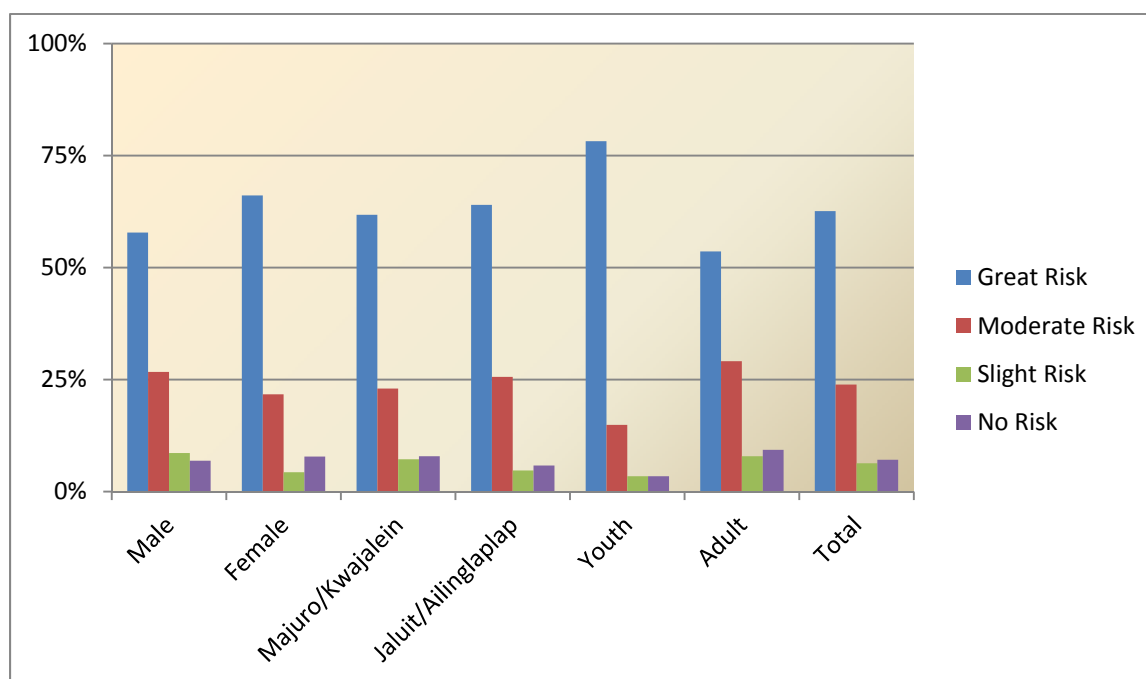
N=82

PERCEPTION ANALYSIS

An important part of determining a community's substance abuse issue is gaining an insight into how that community thinks about substance abuse as a whole. Such insight can be referred to as perception, and includes the following types of indicators: approval of friends or family, perceived risk, knowledge of dangers, awareness of prevention programs, opinion toward the problem, among other things. Perception data was obtained through interviews, as well as community readiness surveys and group surveys.

Alcohol

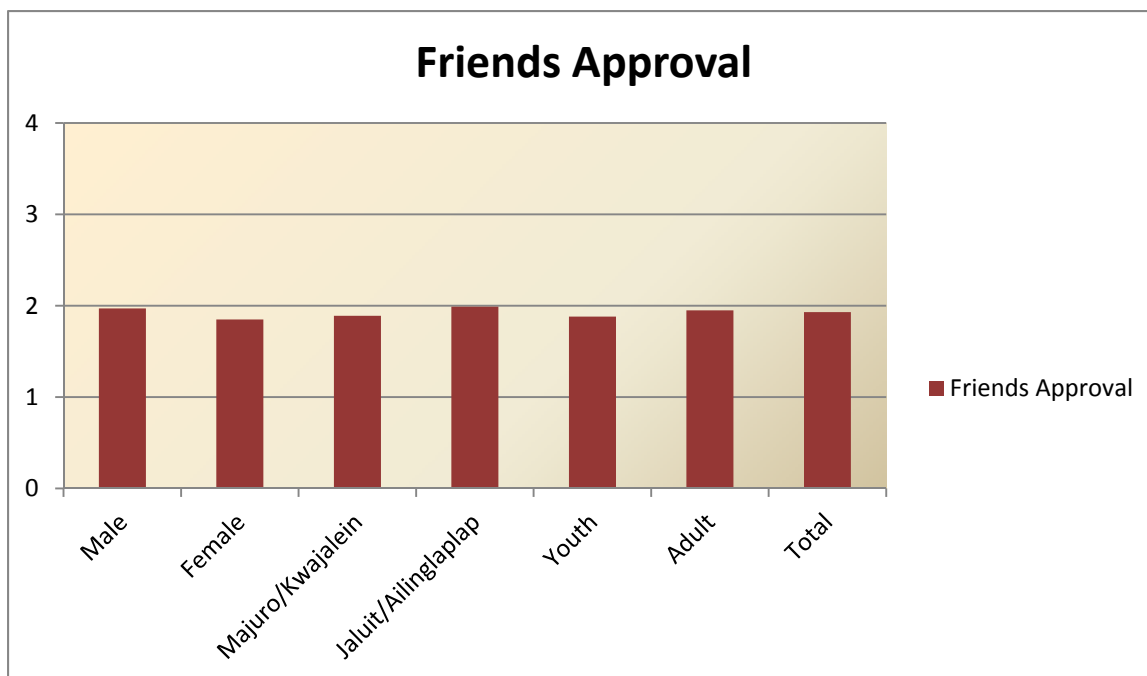
Risk from 1 or 2 drinks every day. Group survey respondents were asked to rank how much people in their community risk harming themselves if they drink 1 or 2 alcoholic drinks every day. They were given choices from 1 to 4, with 1 being No Risk, 2 being Slight Risk, 3 being Moderate Risk, and 4 being Great Risk. The average of all responses was 3.42, indicating a perception of fairly high risk. The only significant difference was between youth (3.68) and adults (3.27).



Source: GS 2010

N=237

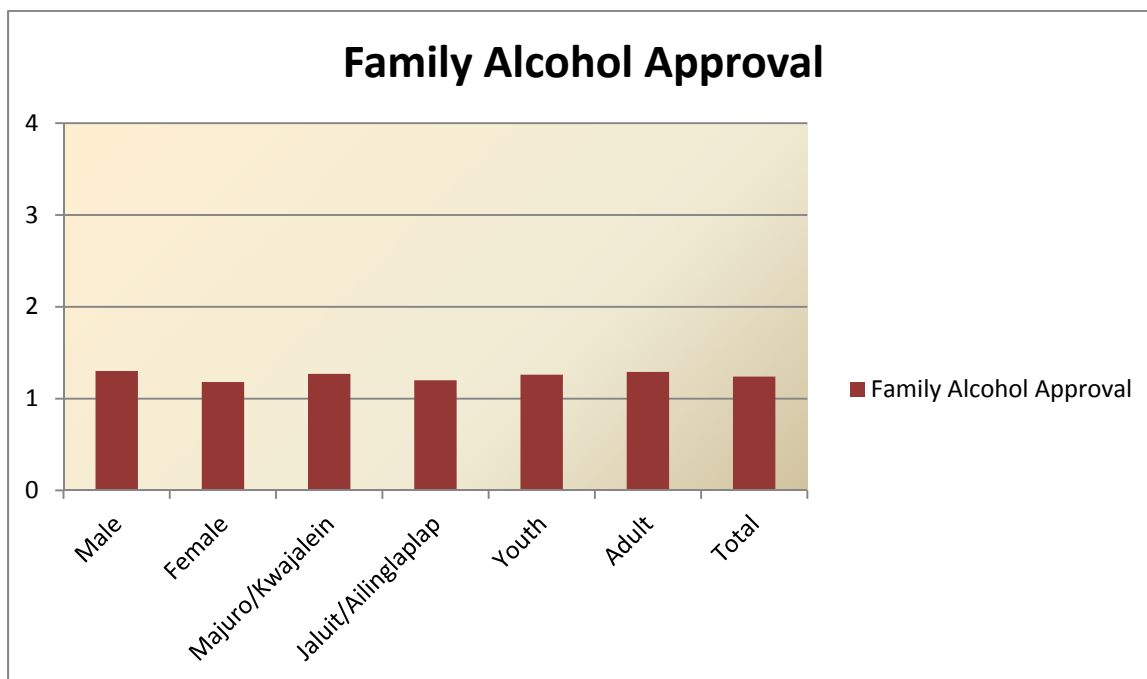
Friends approval. Group survey respondents were asked to rank how wrong their friends think it is to drink alcohol. The available options were 1 = Very wrong, 2 = Wrong, 3 = A little bit wrong, and 4 = Not wrong at all. The average response was 1.93.



Source: GS 2010

N=239

Family approval. Group survey respondents were asked to rank how wrong their family thinks it is to drink alcohol. The available options were 1 = Very wrong, 2 = Wrong, 3 = A little bit wrong, and 4 = Not wrong at all. The average response was 1.24, indicating they think family is quite disapproving of alcohol use.

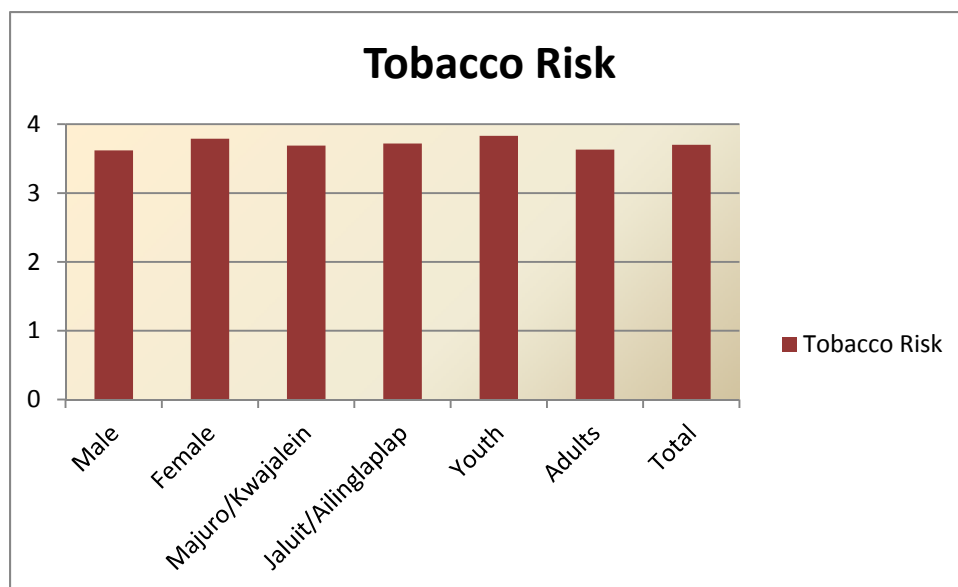


Source: GS 2010

N=239

Tobacco

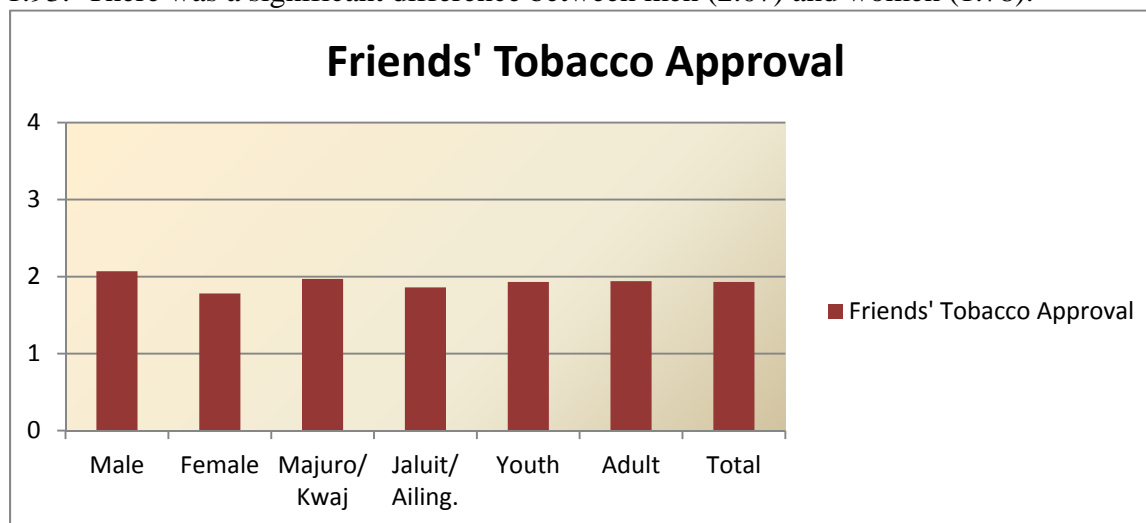
Risk from smoking 1 or 2 packs per day. Group survey respondents were asked to rank how much people in their community risk harming themselves if they smoke 1 or 2 packs of cigarettes per day. The average response for all respondents was 3.7. Over three-quarters (77.2%) of respondents said people put themselves at Great Risk if they smoke 1 or 2 packs per day. There significant differences between males (3.62) and females (3.79), and youth (3.83) and adults (3.63).



Source: GS 2010

N=237

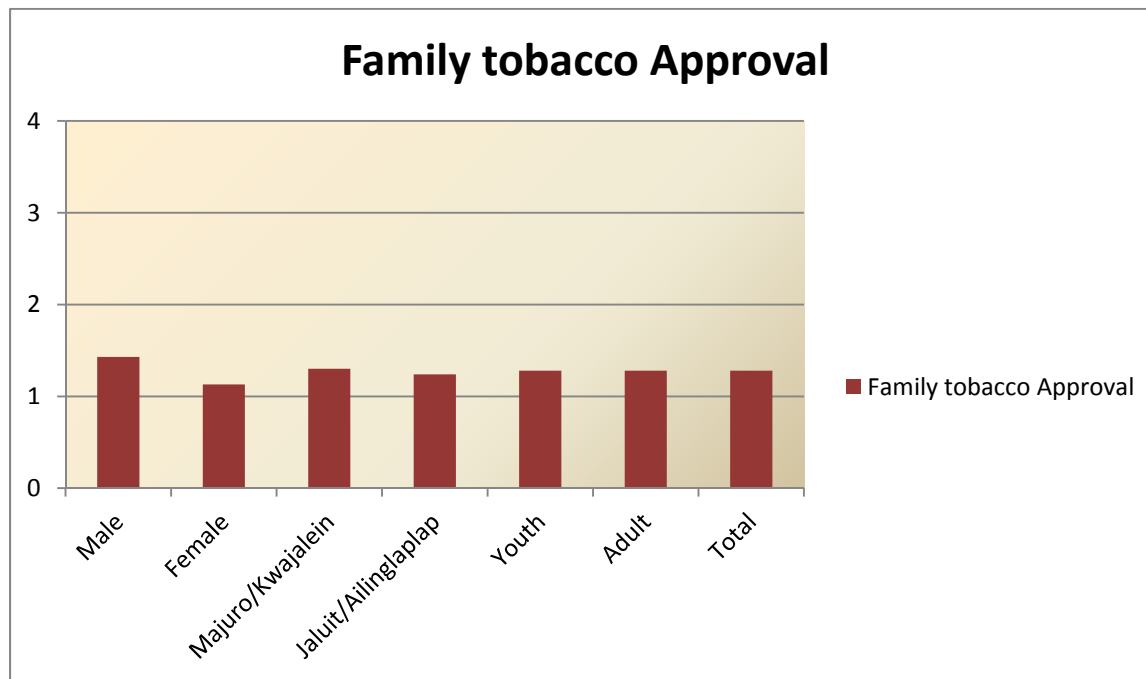
Friends' tobacco approval. Group survey respondents were asked to rank how wrong their friends think it is to smoke tobacco or use Copenhagen. The available options were 1 = Very wrong, 2 = Wrong, 3 = A little bit wrong, and 4 = Not wrong at all. The average response was 1.93. There was a significant difference between men (2.07) and women (1.78).



Source: GS 2010

N=237

Family tobacco approval. Group survey respondents were asked to rank how wrong their family thinks it is to smoke tobacco or use Copenhagen. The available options were 1 = Very wrong, 2 = Wrong, 3 = A little bit wrong, and 4 = Not wrong at all. The average response was 1.28, indicating they think family is quite disapproving of alcohol use. There was a significant difference between men (1.43) and women (1.13).



Source: GS 2010

N=238

NATIONAL PRIORITIZATION PROCESS

In early May, 2010, the RMI SPF SIG Bobrae Team collaborated with partners and community members during a three-day strategic planning workshop to select the following three substance abuse issues for potential project focus:

- Binge Drinking (ages 15-34)
- Youth Smoking (ages 15-24)
- Male Youth Smokeless Tobacco (Copenhagen) (ages 15-24)

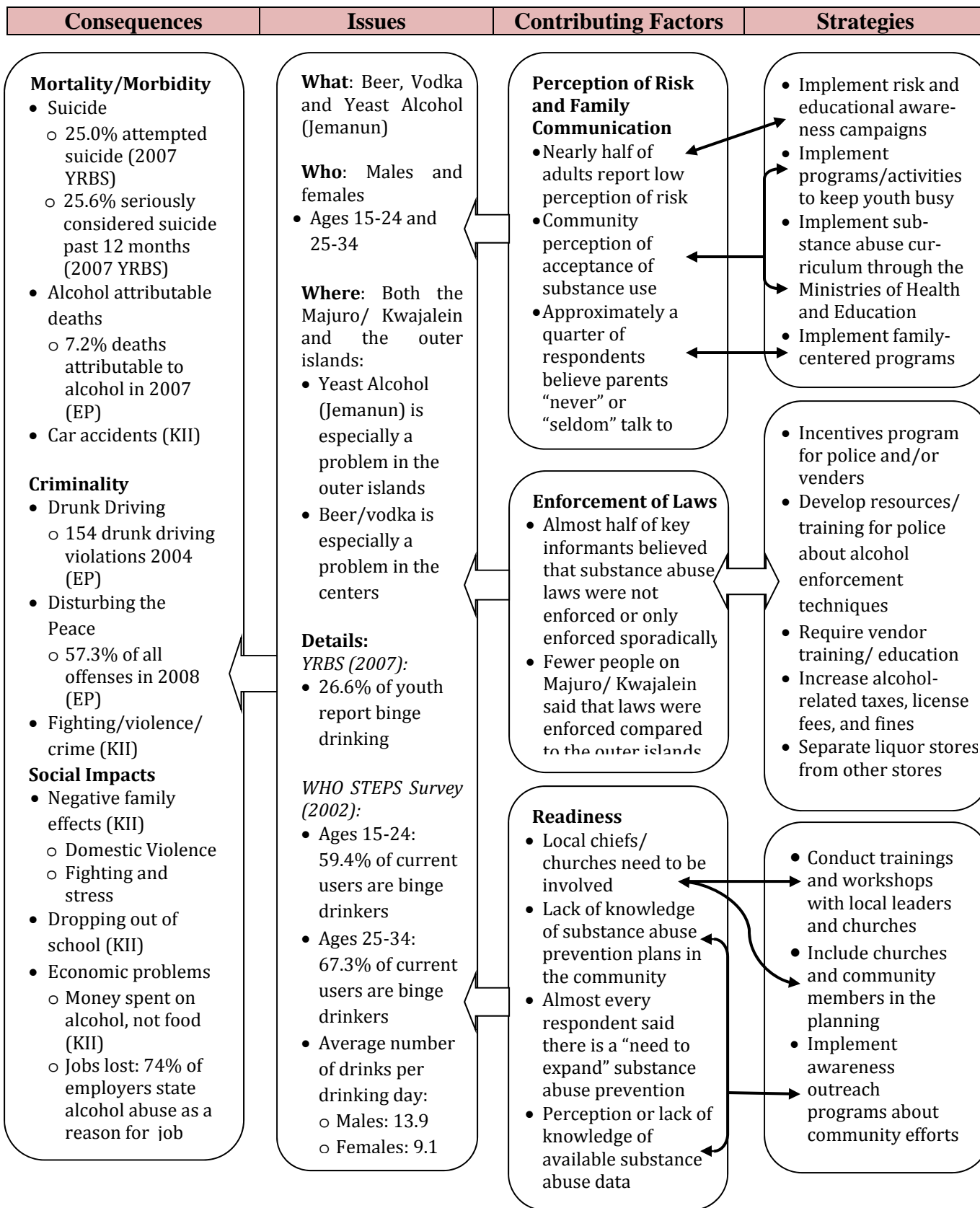
These issues were selected based on a systematic analysis of the needs assessment indicators, small workgroup review, and group discussion. Additionally, priorities were determined using a series of predetermined criteria, which were ranked on a scale of 1-3, depending of the severity of the substance or lack thereof. These criteria were selected because they most accurately reflected the areas of greatest impact to the affected communities nationwide.

Criteria for Determination of Priority Issue(s)

1. **Data Reliability/Availability:** Data reliability/availability is based on currently collected data indicators, data sources, and their reliability.
2. **Prevalence:** Prevalence is based on the percentage of people in the target age range who report having used the substance ever in their life and the percentage of those who report currently using the substance.
3. **Seriousness:** Seriousness is based on how much (amounts) or how often (frequency) people in the target age range report using the substance.
4. **Severity of Consequences:** Severity is based on how serious the consequences of use of the substance are. For example, death is more serious than illness.
5. **Community Concern:** The concern of the community is based on which substance was rated as most problematic on the community readiness assessments, and which substance was mentioned most frequently as the most commonly used during the key informant interviews.
6. **Likelihood of Change:** Likelihood of change is scored based on how likely it is that a nationwide focus on the issue could have a positive effect.

At its June 30, 2010 meeting, the RMI SPF SIG Advisory Council approved that *BINGE DRINKING (ages 15-34years)* will be the priority problem area to be addressed by RMI for the SPF SIG Bobrae Project.

Identified Issues	Available Strategic Planning Prioritization Data				
	Data Reliability/ Availability	Prevalence	Seriousness	Severity of Consequences	Community Concern
<p>Youth/ Young Adult Alcohol Use: <i>Binge Drinking</i></p> <p>Ages 15-34</p>	<p><u>Data Sources:</u> WHO STEPS/ YRBS/ Police Data / Hospital Data / Government Data</p> <p><u>Consumption Data:</u> Many Indicators</p> <p><u>Consequence Data:</u> Some Indicators</p>	<p><u>Current Use:</u> <i>STEPS (2002)</i> Ages 15-24: 21.9% Ages 25-34: 23.7% <i>YRBS (2007)</i> Youth: 41.7%</p> <p><u>Lifetime Use:</u> <i>STEPS (2002)</i> Ages 15-24: 31.8% Ages 25-34: 33.2% <i>YRBS (2007)</i> Youth: 55.5%</p>	<p><u>Binge Drinking</u> <i>STEPS (2002)</i> - % of current drinkers who binge drink: Ages 15-24: 59.4% Ages 25-34: 67.3% <i>YRBS (2007)</i>% of youth who binge drink Youth: 26.6%</p> <p><u>Avg Drinks in One Drinking Day</u> <i>STEPS (2002)</i> Ages 15-24: 13.5 drinks Ages 25-34: 12.6 drinks</p>	<p><u>Attempted Suicide</u> <i>YRBS (2007)</i> Youth: 25.0%</p> <p><u>Attributable Death</u> <i>EP</i> 7.2% of deaths (2007)</p> <p><u>Drunk Driving</u> <i>EP</i> 4.9% of driving violations (2004)</p> <p><u>Other</u> <i>KII (2010)</i> Family & Economic Problems</p>	<p><u>Problem score on scale of 1-10</u> <i>CRA 2010</i> Highest Score: 8.8</p> <p><u>Qualitative Findings</u> <i>KII (2010)</i> Most frequently reported as the most commonly used substance. Also cited in relation to problems caused by substance abuse.</p>
<p>Youth Tobacco Use: <i>Smoking</i></p> <p>Ages 15-24</p>	<p><u>Data Sources:</u> WHO STEPS/ YRBS/ SYNAR/Hospital Data / Government Data</p> <p><u>Consumption Data:</u> Some Indicators</p> <p><u>Consequence Data:</u> Few Indicators</p>	<p><u>Current Use:</u> <i>STEPS (2002)</i> Ages 15-24: 22.7% <i>YRBS (2007)</i> Youth: 32.4%</p> <p><u>Lifetime Use:</u> <i>STEPS (2002)</i> Ages 15-24: Unavailable <i>YRBS (2007)</i> Youth: 62.2%</p>	<p><u>Smoking on 20+ of the previous 30 days:</u> <i>YRBS (2007)</i> Youth: 13.1%</p> <p><u>Daily Users</u> <i>STEPS (2002)</i> Ages 15-24: 18.2%</p> <p><u>Avg Cigarettes in One Day</u> <i>STEPS (2002)</i> Ages 15-24: 8.9 cigarettes</p>	<p><u>Attributable Death</u> <i>EP</i> 2.0% of deaths (2007, Tobacco)</p> <p><u>Lung Cancer</u> <i>NCCCP</i> 5 cases (2008)</p> <p><u>Other</u> <i>KII (2010)</i> Family & Economic Problems</p>	<p><u>Problem score on scale of 1-10</u> <i>CRA 2010 (smoking/ smokeless combined)</i> 2nd highest score: 7.0</p> <p><u>Qualitative Findings</u> <i>KII (2010)</i> Second most reported substance. Also cited in relation to problems caused by substance abuse.</p>
<p>Male Youth Tobacco Use: <i>Smokeless</i></p> <p>Ages 15-24</p>	<p><u>Data Sources:</u> WHO STEPS/ YRBS/ Hospital Data / Government Data</p> <p><u>Consumption Data:</u> Few Indicators</p> <p><u>Consequence Data:</u> Few Indicators</p>	<p><u>Current Use:</u> <i>STEPS (2002)</i> Ages 15-24: 20.0% <i>YRBS (2007)</i> Youth: 42.3%</p> <p><u>Lifetime Use:</u> <i>Unavailable</i></p>	<p><i>Unavailable</i></p>	<p><u>Attributable Death</u> <i>EP</i> 2.0% of deaths (2007, Tobacco)</p> <p><u>Mouth/Throat Cancer</u> <i>NCCCP</i> 2 cases (2008)</p> <p><u>Other</u> <i>KII (2010)</i> Family & Economic Problems</p>	<p><u>Problem score on scale of 1-10</u> <i>CRA 2010 (smoking/ smokeless combined)</i> 2nd highest score: 7.0</p> <p><u>Qualitative Findings</u> <i>KII (2010)</i> Rarely mentioned in qualitative data collection separate from smoking</p>



NATIONAL OUTCOME MEASURES CHECKLIST

The RMI has already identified which prevention NOMs are already available and which needs to be collected. The following **yellow** highlighted NOMs indicators are not currently available for the RMI. The following items highlighted in **orange** are NOMs for which new tools were developed to capture information.

Desired Outcome/ Domain	Performance Measure	
Abstinence from Drug Alcohol Use/ Alcohol Abuse	Any 30-day use cigarettes-youth	
	Any 30-day use cigarettes-adult	
	Any 30-day use other tobacco products-youth	
	Any 30-day use other tobacco products-adult	
	Any 30-day use alcohol products-youth	
	Any 30-day use alcohol products-adult	
	Any 30-day use marijuana/hashihash-youth	
	Any 30-day use marijuana/hashihash-adult	
	Any 30-day use other illicit drugs-youth	
	Any 30-day use other illicit drugs- adult	
	Age at first use, cigarettes-youth	
	Age at first use, cigarettes-adult	
	Age at first use, other tobacco products-youth	
	Age at first use, other tobacco products-adult	
	Age at first use, alcohol use-youth	
	Age at first use, alcohol use-adult	
	Age at first use, marijuana/hashihash-youth	
	Age at first use, marijuana/hashihash-adult	
	Age at first use, other illicit drugs-youth	
	Age at first use, other illicit drugs-adult	
	Perceive Moderate/great harm from 1+pack cigarette daily-youth	
	Perceive Moderate/great harm from 1+pack cigarette daily-adult	
	Perceive Moderate/great harm from marijuana once or twice a week-youth	
	Perceive Moderate/great harm from marijuana once or twice a week-adult	
	Perceive Moderate/great harm from five or more drinks once or twice	
	Somewhat/strongly disapprove of peers smoking 1+ packs cigarettes a day-youth	
	Believe that peers would somewhat/strongly disapprove of own smoking 1+packs of cigarettes a day youth	
	Somewhat/strongly disapprove of peers trying marijuana once or twice-youth	
	Somewhat/strongly disapprove of peers smoking marijuana once a month or more-youth	
	Somewhat/strongly disapprove of peers having one or two drinks nearly every day-youth	
	Increased/Retained Employment or Return to/ Stay in School	More likely to work for employer who conducts random drug/alcohol tests-Employed youth (15-17), Employed adults
		ATOD-Related School Suspensions and Expulsions
School attendance and Enrollment		
Decreased Criminal Justice Involvement	Percent reporting driving under the influence during the past year	
	Number of alcohol-related traffic fatalities divided by the total number	

	traffic fatalities and multiplied by 100
	Change in total number of arrests due to drug/alcohol related offences since 2000.
Increased Access to Services (Service Capacity)	Number of persons served by age, gender, race, ethnicity
Increased Social Support/Social Connectedness	Percent of youth who talked with parents about dangers of ATODs during past year
	Percent of parents of teens who talked with their children about dangers of ATODs during past year
Cost Effectiveness/Cost effectiveness (average cost)	Dollars spent on evidence based programs divided by BG proportions
Use of Evidence Based Practices/Increased use of Evidence Based Programs and Strategies	Total Number of Evidence Based Programs and Strategies