Review of Drug and Alcohol Use Over Time

Federated States of Micronesia 1997-2012

Francis X. Hezel, SJ

9/19/2016

With the assistance of Mary Briggs, project manager

Funding for this project was received from the FSM Department of Health & Social Affairs through a grant from the US Substance Abuse and Mental Health Services Administration (SAMHSA), Center of Substance Abuse Prevention(CSAP)

This report makes use of the various surveys conducted in FSM to provide a look at how drug use has changed over the years. The drugs include alcohol, marijuana, inhalants and tobacco. The survey material found in FSM files permitted a panorama of the years 1997-2012. The conclusions show variation over time by gender and age as well as by state.

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Aims

We had hoped to piece together a mural of drug and alcohol use over time in FSM from the dozens of drug and substance surveys that have been written up over the years which we expected to find in FSM Health Department's files. We had projected that, in spite of methodological differences, all the survey data would provide "a more detailed picture of drug use in each of the states and even in the various communities of the state."

Our hope was to provide several snapshots of drug use (ie, alcohol, marijuana, inhalants, and tobacco) at various points of time in different states, and possibly even in different communities within these states to produce a panorama of drug use. Behavioral health staff could then use this panoramic view to see how rates of drug use had changed over time. The hope was that this in itself might stimulate reflection on what was responsible for the increase or decline in drug use. Accordingly, staff might be better equipped to see the effects that different prevention programs might have had on these rates. The study could possibly offer guidance in determining what programs have been most effective and why.

Our initial expectations had to be modified, however, in the light of the data available. The difference in methodologies between the MicSem survey (1997), the STEPS surveys (2002 and 2006), and the NOMS survey (2012) – not to mention the differences in the age cohorts used in reporting – makes it difficult to rely too heavily on the accuracy of the changes over time that are implied. While acknowledging the limitations of this data on tracking drug use over the past 15 years, we will make recommendations on the types of data that might be collected in the future if we are to try to track the increase or decline in drug use over time.

Methods

The project manager visited the FSM National Behavioral Health Office and each of the state offices to gather materials on all surveys of alcohol and drug use conducted since 1980. In addition, any pertinent materials were copied from the MicSem library.

The copies of surveys and studies on parts of the FSM, whether initiated by Health Services or other offices and agencies, that could be pieced together to plot the increase or decline in alcohol and drugs were far fewer than anticipated. The few materials found included:

- 2012 National Outcome Measures Survey (NOMS), conducted by the FSM Office of Behavioral Health;
- 1997 survey conducted by Micronesian Seminar, *Alcohol and Drug Use in the FSM*;
- 2002 survey of Pohnpei, *FSM (Pohnpei): NCD Risk Factors STEPS Report,* published in 2008;
- 2006 survey of Chuuk, *FSM (Chuuk): NCD Risk Factors STEPS Report*, published in 2012.

A few other surveys are cited in the NOMS report, but they are limited to high school students or were conducted in only one or other of the states. They include the Health Behavior and Lifestyle of Pacific Youth (HBLPY) survey done on Pohnpei in 2001 and the Youth Risk Behavioral Survey(YRBS) in 2003. Both of these surveys are limited to high school students and do not sample older segments of the population.

In this report we rely mostly on the MicSem survey done in 1997 and the NOMS survey completed in 2012. The period between the surveys is 15 years, a span considerably shorter than we had hoped for when we undertook this project. There are also the two STEPS surveys for individual states (Pohnpei in 2002 and Chuuk in 2006) that we could draw on at times.

Methodological differences among the surveys limited the usefulness of the data.

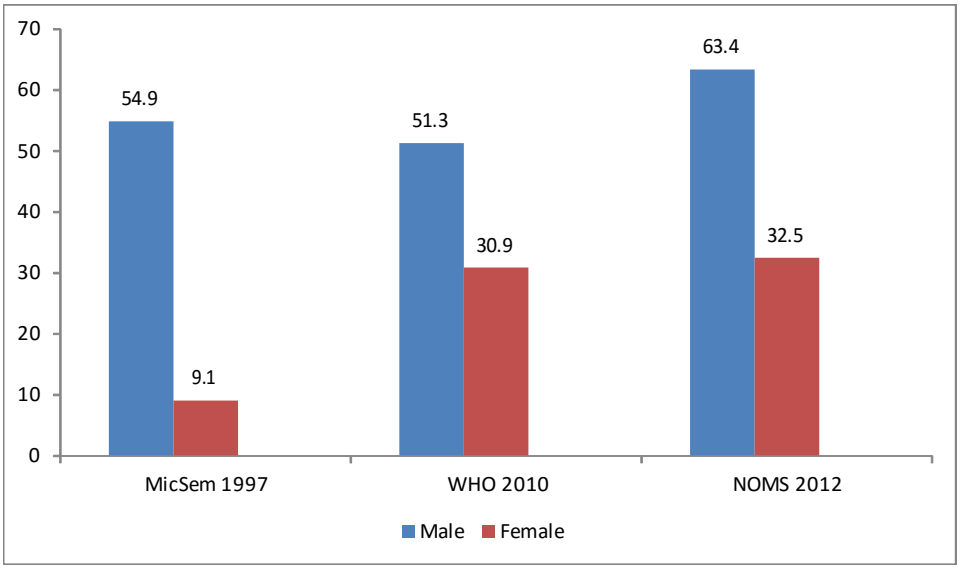
The NOMS work gathered data on a wide variety of drugs including alcohol, smoked and chewed tobacco, betel nut, marijuana, inhalants and prescription drugs. The survey was administered in each of the four states, but only on the main islands. Hence, atoll populations were not sampled. Moreover, throughout the survey lifetime prevalence use is emphasized far more than current use of the drugs. Hence, it is difficult to use this survey to get a snapshot of actual drug use at any particular time.

The MicSem study surveyed everyone–men, women and children–in several preselected communities from each state. The communities included remote atoll populations as well as villages on main islands. In this survey, however, the direct interviews were not conducted with individuals. Instead, this study employed an indirect approach that used key informants to obtain information on an entire community. In contrast with the NOMS study, the MicSem Survey emphasized current use of drugs (defined as within the last 12 months) rather than lifetime prevalence.

The STEP surveys for Pohnpei and Chuuk were even more limited. Drug use was surveyed only for alcohol, tobacco and betel nut. The survey was to be administered state by state in FSM, but survey results have so far been reported for only two states, Pohnpei and Chuuk.

Alcohol

Figure 1: Current Alcohol Use Rate (%) by Gender for FSM, 1997-2012



Findings

Slightly more than half (53%) of the FSM population had consumed alcohol in the past month, according to the 2012 survey. That is considerably higher than the figure of 32% recorded in the survey done 15 years earlier. The increase might be partially explained by the difference in sampling techniques, however.

Male drinking in the FSM population has increased from 54% to 63% over the past fifteen years.

Female drinking in FSM has increased by much more considerably over the same period of time. according to the survey data. The current use rate for females was 9.1% in 1997, but the rate jumped to 32.5% in 2012. Hence, three times as many women drank alcohol in 2012 than did so 15 years earlier.

Between 1997 and 2012, the percentage of teenage girls who drink appears to have doubled in Chuuk and Yap, while the rate has jumped even higher in Kosrae and Pohnpei.

The data indicate that not only are more women drinking, but they are starting earlier than they once did. The mean onset age for drinking among females seems to have dropped from 22 among middle-aged woman to 17 in the younger age cohorts.

According to the most recent data, the drinking rate for young men (ages 21-24) is much higher in Pohnpei (91.7%), Chuuk (79.6%) and Kosrae (94%) than it is for Yap (68.3%). Drinking is principally done by young or middle-age males in Chuuk, Pohnpei and Kosrae, and tapers off with age.

Yap drinking represents a very different pattern. Although Yapese drink more than others, they start a little later in life due to social conventions, as the 1997 data shows. At the same time, Yap

drinking extends much later in life than drinking in the other states.

Kosrae represents an outlier among the states. Drinking rates appear to have jumped considerably between 1997 and 2012, if the data are reliable. In the recent survey, male drinkers in Kosrae are reported as 80-95% in every age category after the age of 20.

Alcohol consumption on Pohnpei drops as men mature. According to the STEPS survey there, only 46.4% of all males, regardless of age, had 6 or more drinks in a sitting, while nearly 20% had only a single drink in a sitting. The survey data suggests two different patterns of drinking in Pohnpei: men who, like their cousins in Chuuk, engaged in drinking bouts with some regularity, and others who probably used a bottle of beer or a single shot of whiskey as a chaser after finishing an evening of sakau drinking. It is important to remember that cultural patterns of alcohol use are markedly different in places such as Pohnpei and Chuuk.

In general, frequency of drinking in FSM declines with age but the amount consumed in one sitting does not. FSM men aged 25-34 who used alcohol drank an average of 6 days a week, the 45-54 age group drank 4.5 days on the average, while the 55-64 age group dropped to an average of 3.9 days a week. Thus, the survey found that most of the males who drank alcohol were doing so several times a week.

Older men may not drink quite as frequently as younger men (4 days a week compared to 6 days), but they drink more than the younger at a sitting. The heaviest drinkers of all the age cohorts was the 55-64 group, with 100% of the men having six or more drinks each time they imbibed. The mean number of drinks consumed at a session was higher among this age group than any other: 13 drinks for the oldest age group, compared with 9 in the 25-34 group, 10 in the 35-44 group, and 11 in the 45-54 group. We may assume that these older men are chronic users of alcohol, perhaps even alcoholics.

More people may be drinking in FSM today, but they are drinking less than they were 15 years ago. The average consumption of pure alcohol for the entire population over the age of 15, drinkers and non-drinkers alike, reportedly decreased from 4.2 liters in 2003-05 to 3.3 liters in 2008-10 (WHO 2014).

Recommendations

- To get a clearer picture of the status of alcohol use today, future surveys should put more emphasis on current use rates rather than lifetime prevalence.

- Surveys should always provide a breakdown by state and gender to capture the aspects of alcohol use that are culturally defined and socially distinctive.

- Survey data should always include some measure of the amount of alcohol consumed. The use of alcohol as a chaser after sakau, as is frequent on Pohnpei, is much different

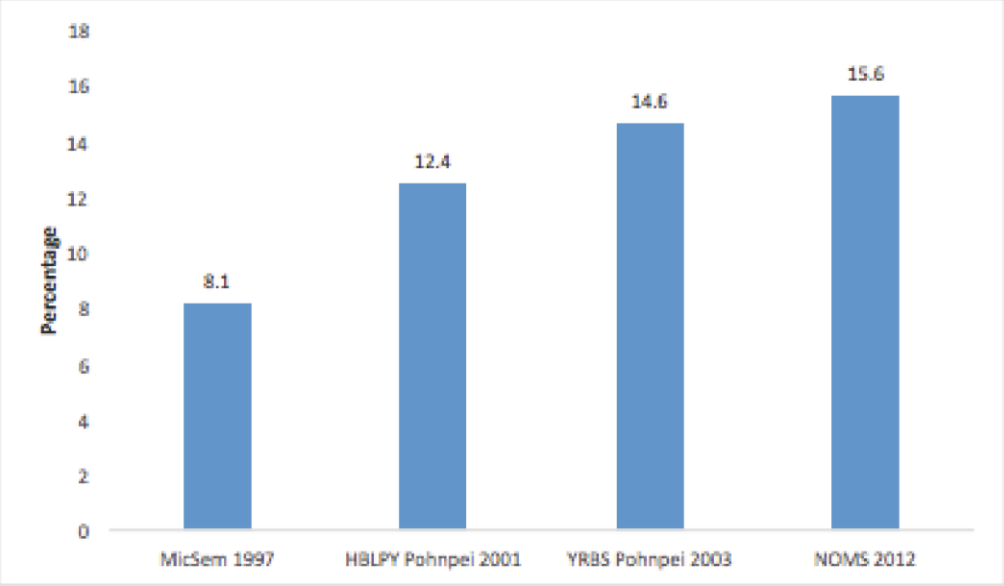
from a standard male drinking session, during which as many as 10 or 12 drinks might be taken. In future surveys perhaps a question can be added on how many drinks one consumes in a typical drinking session.

- It might be helpful to provide correlation between educational status and drinking for the early age group (12-20) to see whether those using alcohol in their teens are mainly school dropouts. If such is the case, school based prevention programs simply will not reach the population that needs them most.

- The growing rates of alcohol use among teenagers should be flagged for further research in future alcohol surveys conducted in the islands.

Marijuana

Figure 2: Current Marijuana Use (% of Population) by Surveys Completed, 1997-2012



Source: NOMS 2012, Figure 7

Findings

The use of marijuana, as recorded in recent surveys, has risen between 1997 and 2012. In 1997, the rate of current marijuana use in the entire population (15+ years) was reported as 8.1%, while in 2012 the NOMS survey reported 15.6% use rate. Hence, the current use rate may have nearly doubled in the 15 years between the two surveys.

The male users in 2012, as reported in these tables, outnumber the female by a ratio of 4:1. Even so, this points to an increase in female use of marijuana since the 1997 survey when female users represented less than 1 percent of the population.

Table 1: Marijuana Use Rate among Teenagers, 1997 and 2012

	MicSem 1997 (age15-19)	**NOMS 2012** (age 12-20)
Chuuk		
Male	19.8	19.4
Female	1.1	2.1
Pohnpei		
Male	11.6	12.2
Female	1.2	3.5
Kosrae		
Male	0	24.6
Female	0	1.7
Yap		
Male	9.3	12.5
Female	0	10.

Source: NOMS 2012, Tables 94-97; MicSem 1997, Table 3

Use of marijuana among teenage boys is much higher in Chuuk (19%) and Kosrae (25%) than in the other states (12%). [see table above]

The mean age for beginning marijuana use, according to NOMS, is 16 years old for those in the youngest age bracket (12-20 years old).

Among the 21-24 age group, which is the cohort with the highest use rate, males used the drug an average of 7 days a month, while females used it 4 days a month

Marijuana use is greatest during the teens and twenties, but many young people give up the habit after then. The NOMS survey also found that 63% of those who previously had been using marijuana had not done so during the past 30 days. This supports a finding from the MicSem survey in 1997 that “Dropping the drug does not simply occur as a function of age, with young people outgrowing the use of marijuana, for a significant number of males drop marijuana at an age when they still might be expected to smoke the drug.... Reasons for this are not clear from the survey, but other informal interviews and reports suggest that some of the young smokers do not like the effects that the drug has on them, especially the paranoia and social withdrawal that many young people speak of.”

Recommendation

- Because informal interviews and reports suggest that some of the young smokers do not like the effects that the drug has on them, especially the paranoia and social withdrawal that many young people speak of, those who have voluntarily given up marijuana might be prompted to share their experiences with at-risk youth or actual users in an educational campaign to decrease the use of the drug.

Inhalants

Findings

In 1997 Pohnpei showed a lifetime use rate of only 0.5%, while Chuuk's rate was 3.1% The 2012 NOMS study found much higher rates than the 1997 survey. Male rates for all ages ranged from 4.2% in Yap to 6.5% in Pohnpei, 9.7% in Chuuk, and 14.5% in Kosrae (NOMS, Tables 101-104). If these figures are reliable, inhalant use has expanded enormously in the 15 years between the two surveys.

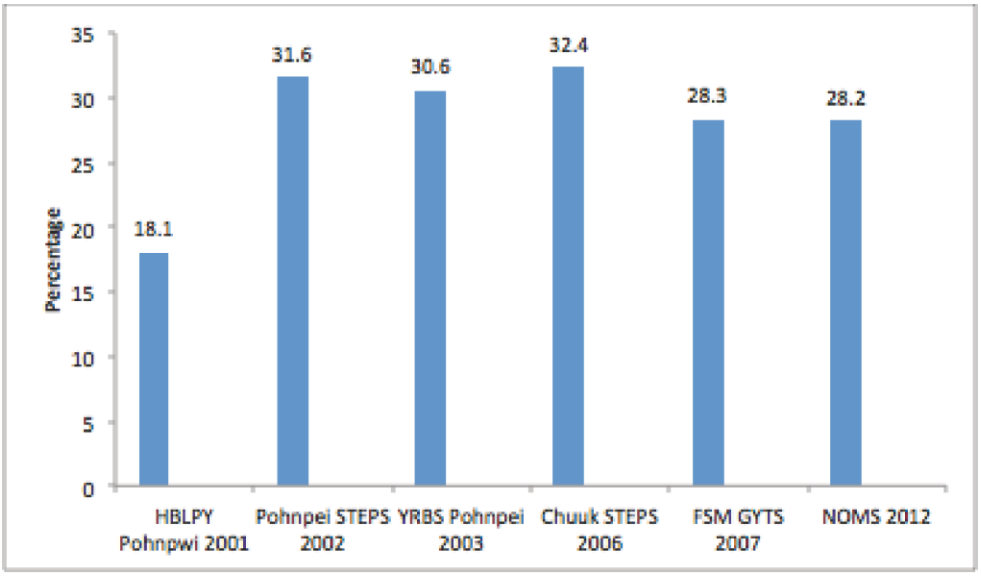
The 1997 survey reported that nearly all users of inhalants were in the younger age groups, with most giving up the practice as they grew older. Chuuk, where the highest use was recorded, had a current male use rate of 3% in the 10-14 age group and 1.5% in the 15-19 group, with virtually no use in the other older age groups. As the 1997 survey report pointed out, "Use of inhalants is tightly circumscribed with respect to age, with the great majority of the users (83%) falling in the 10-19 age cohort" (MicSem, p 55). Although the number of young users has increased, it still seems true that few continue the practice as they age.

Recommendations

- Obtain good data on the current use of inhalants by gender, age and state. Find the percentage of those teen users of inhalants who continue to become life-long users.

Tobacco

Figure 3: Percentage of Current Tobacco Smokers in Surveys, 2001-2012



Source: NOMS 2012, Figure 4

Findings

According to the NOMS survey, the lifetime prevalence of cigarette smoking was close to one-third (31.6%) of the population, with a male rate of 50% and a female rate of 17%. The figure above shows that all but one of the recent surveys on tobacco usage in the past 15 years seem to place the percentage of smokers at about 30% of the total population.

Moreover, there was no significant difference in the rate of smoking among the age cohorts. This suggests that the percentage of cigarette smokers in the population has been constant over the past several decades.

The differences in smoking rates by state are captured in the NOMS report data for lifetime prevalence. According to this data, roughly half of all males in Chuuk and Pohnpei have smoked at some point in life. Only about a third of the males in Yap have smoked -but this lower rate is understandable in view of the great number of Yapese who

use tobacco with their betel nut. The male rate in Kosrae, however, is surprisingly high in view of the strong church prohibition of smoking.

As always, female rates for smoking are far lower than male rates. In Chuuk and Kosrae, the male rates are about six times higher than the female rates, while in Pohnpei and Yap the gap is much narrower.

The surveys agree that the usual start up for males occurs at the age of 16 or 17, while females take up the habit a few years later. Thus, evidence remains strong that smoking begins early for most who take up the habit, and so prevention measures should target those in their teens.

The NOMS survey reports that the lifetime prevalence rate of the use of other tobacco products was 18.3% in the entire population, with a male rate of 28.3% and a female rate of 10.2%. (We can assume that the other products in Micronesia are chewing tobacco rather than snuff.) Hence, the ratio of smoking to chewing in FSM is roughly 5:3. In other words, nearly 40% of all those using tobacco chew it rather than smoke it.

Yet, FSM census data shows otherwise. According to this data, tobacco chewers outnumber smokers by a significant percentage in Kosrae, Pohnpei and especially Yap. Only in Chuuk do smokers outnumber chewers; in this state there are twice as many smokers as tobacco chewers.

The NOMS survey in 2012 reports that 60% of the population currently chewed betel nut daily, with the male and female rate virtually identical (NOMS Table 51). The NOMS survey does not offer a breakdown of current use by state. (Betel nut is normally used with a plug of tobacco.)

Recommendations

- Surveys on tobacco use, as on alcohol use, should place more emphasis on current use than on lifetime use. Recording current use would offer us a snapshot of percentage of men and women, broken down by age group, using the drug at a particular time. This would, in turn, allow us to track the growth or decline of the use of the drug and so to gauge the effectiveness of prevention programs.

- Evidence remains strong that smoking begins early for most people who take up the habit, and so prevention measures should target those in their teens.

- In view of the early start up age of smokers, it might be helpful to obtain additional data on how the young person began smoking: who introduced him to the habit and how he obtained his cigarettes. In the light of this information, it would be easier to work out more effective prevention programs. So, for example, legislating against the sale of loose individual cigarettes might discourage the use of tobacco, either smoked or chewed with betel nut, among the young without the money required to purchase a full pack.

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