PARTNERSHIP
FOR A
DRUG-FREE NEW JERSEY:
SENIOR CITIZEN STUDY

Conducted by:

THE STATE UNIVERSITY OF NEW JERSEY
RUTGERS

Eagleton Institute of Politics
Eagleton Center for Public Interest Polling

Data Collection:
Oct. 12-Nov. 11, 2005

Executive Summary

In 2005, the Eagleton Center for Public Interest Polling (ECPIP) at Rutgers, The State University of New Jersey, conducted a major study for the Partnership for a Drug-Free New Jersey's (PDFNJ) New Jersey Center for Prevention Research (NJCPR) entitled Partnership for a Drug-Free New Jersey: Senior Citizen Study. The purpose of the study was to investigate substance use and abuse among the geriatric population in the state of New Jersey. Telephone interviews were conducted between October 12 and November 11, 2005 with a listed[1] sample of eligible households.[2] The sample of 500 individuals age 65 or older, were selected to reflect the senior population in New Jersey stratified by gender and county in accordance with the U.S. Census Bureau's county population estimates.

The survey addressed the following topics: alcohol, illegal drug, and prescription drug use and abuse, and participation in leisure activities (categorized in this study as "social connectedness"). This Executive Summary provides an overview of key findings from the study. Readers are encouraged to read the full report for additional details.

Survey findings showed that 70% of the respondents reported having consumed alcohol at least once in their lifetime. Half (50%) reported that they first consumed alcohol after the age of 18, the legal age at the time. Fourteen percent said they consume two or more drinks on a typical day. Approximately one in three senior citizens (27%) consumed alcohol in the 30 days prior to the survey interview.

Survey results also showed that very few reported having ever used an illegal drug of any type. Just 6% reported having ever used an illegal drug in their lifetime.

The survey also revealed that 85% of the respondents indicated that they are currently taking a prescribed medication. Most take one to two prescriptions currently.

The findings for the social connectedness indicators show that participation in hobbies and leisure activities varies substantially. Individuals often attend religious services, eat meals with their families, shop, or watch television. The findings also reveal that substance use is associated with participation in social activities or hobbies. The average

[1] Originally the study was designed to sample study participants utilizing a random-digit dialing (RDD) method where telephone numbers obtained for the survey are chosen at random from the entire possible pool of working telephone numbers throughout New Jersey (including unlisted numbers). However, locating eligible individuals age 65 or older proved difficult and the decision was made to use a listed sample of households

[2] The database from which the "Targeted Age Sample" was drawn consists of data collected from all white-page telephone directories across the state. Each record on this database carries an *Age Predictor* on up to five individuals per household. The *Age Predictor* is a value based on either known age-related data or a statistical estimate of age, predicted on individual household characteristics and U.S. Census demographic information. Secondary data sources, such as Social Security and birth records, voter registration, and driver's license information, are also used to code the age.

score on the social connectedness scale was higher among individuals who consumed alcohol recently than those who did not drink in the past 30 days or said they never drank.

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Acknowledgements

April K. Rapp, research project coordinator at ECPIP, and Tim Vercellotti, assistant research professor and assistant director of ECPIP, analyzed the data and compiled the findings for this report. The authors would also like to thank Ryan Androsiglio, Angelo Valente, and Chris Hudak for their assistance with the project.

1. Introduction

The Partnership for a Drug-Free New Jersey (PDFNJ) was created in 1992 with a mission to reduce the incidence of substance abuse throughout New Jersey. In accordance with this mission PDFNJ has embarked on a research initiative under the auspices of the New Jersey Center for Prevent Research (NJCPR) designed to investigate substance abuse among the geriatric population in the state of New Jersey. As a part of that research initiative, in 2005, the PDFNJ's NJCPR contracted the Eagleton Center for Public Interest Polling (ECPIP) at Rutgers University's Eagleton Institute of Politics to conduct a survey of the state's adult population age 65 or older.

1.1 Background and Purpose of the Study

The purpose of the Partnership for a Drug-Free New Jersey's NJCPR: Senior Citizen Study was twofold. First, substance abuse in the elderly is often "underrecognized, underreported, and undertreated" (Doweiko, 1996). A plethora of studies have estimated the incidence and prevalence of substance abuse in younger populations but far fewer empirical studies have focused on the elderly. The PDFNJ project was designed to serve as a benchmark study to assess substance abuse among those ages 65 and older. In particular, three classes of substances were of interest here – alcohol, illegal drugs, and prescription medications. Traditionally, substance abusers over the age of 65 have been identified as either early onset or late onset abusers (Benshoff & Roberto, 1987). Individuals who become substance abusers in their later years, late-onset drinkers or "reactors", have a much higher chance of managing their problem than ones with a life-long drinking pattern (early-onset drinkers or "survivors"). Thus, a real interest in this study lies in examining whether differences in the age of first consumption demonstrates a dependence on substance use.

On the other hand, it is often presumed that consumption declines with age. The reasons for the decline are usually connected to changes in life circumstances, attitudes, and poor health that is often associated with the aging process (Institute of Alcohol Studies, 1999). However, there are also reasons to believe that substance use among today's elderly generation is relatively higher than among previous cohorts. Most members of this cohort missed the prohibition years in America and the era when temperance was popular (Benshoff et al., 2003). The availability of alcohol was less tightly controlled for this population and less social stigma was associated with alcohol consumption. Consumption may be greater among today's elderly population as a consequence of their life experiences and societal events. A secondary focus then is to determine the extent to which substance abuse patterns can be attributed to compositional differences (demographic changes taking place in the population), differential experiences (differing levels of substance availability and social acceptance), or both. So, for example, there is evidence that higher levels of disposable income in retirement and social availability are accompanied by a higher acceptability of alcohol use (Institute of Alcohol Studies, 1999).

Moreover, increased isolation and loneliness which might accompany old age can lead individuals to use or start to use alcohol (Menninger, 2002).

The study was designed to address the following questions:

- Alcohol, Illegal, and/or Prescription Drug Use – What are the respondent's alcohol and drug habits? The survey included questions on the age of first use, frequency and patterns of use, and consequences associated with alcohol and/or drug usage.

- Leisure Activities - What hobbies or leisure activities does the respondent participate in currently? How often is the respondent participating in these hobbies or leisure activities? Other signs of alcoholism and alcohol abuse include a lack of social connectedness. One can use isolation, loneliness, or losing interest in hobbies or activities as an identifier of a drinking problem (AADAC - Alcohol and Seniors: The ABCs, 2003).

The results of this research program will provide the Partnership for a Drug Free New Jersey (PDFNJ) with the information needed to determine the extent of substance (alcohol, illegal drugs, and/or prescription medications) use and abuse among the geriatric population in the state of New Jersey.

2. Introduction

The survey was designed to investigate substance use and abuse among the geriatric population in the state of New Jersey. The survey phase of this study was designed to (1) establish benchmark measures of substance use and abuse among the state's elderly; (2) identify factors associated with substance abuse; and, (3) investigate the connection between substance use and abuse and social connectedness. The dataset also provides a context for these results. This report includes a comparative analysis with existing national data.

2.1 Methodology

The survey was conducted Oct. 12 through Nov. 11, 2005. Eligible participants included any New Jersey adult age 65 years or older. The survey instrument contained questions about use of alcohol and illegal and prescription drugs. The survey also measured participation in hobbies and leisure activities and demographic characteristics.

The survey was conducted via telephone interviews with a random sample of 500 New Jersey residents age 65 or older. Respondents were selected utilizing a listed[3] sample of households targeted to contain at least one household member meeting the age requirement for the study. Telephone households were screened to determine eligibility for an interview. All households screened as having a resident age 65 or older were sampled. Households without any residents age 65 or older were excluded from the survey. The database from which the "Targeted Age Sample" was drawn consists of data collected from all white-page telephone directories across the state (http://www.accudata.com/, October 11, 2005). Each record on this database carries an "age predictor" for up to five individuals per household. The "age predictor" is a value based on either known age-related data or a statistical estimate of age, predicted from individual household characteristics and U.S. Census demographic information. Secondary data sources, such as Social Security and birth records, voter registration, and driver's license information, are used to predict the age.

Substance use, abuse, and dependence are elusive constructs when it comes to assessing problem behavior among individuals. Important differences can occur as a result of a study's administration, the degree of anonymity, and sample design. Many studies

[3] At the study's onset, the study was designed to sample study participants utilizing a random-digit dialing (RDD) method where telephone numbers obtained for the survey are chosen at random from the entire possible pool of working telephone numbers throughout New Jersey (including unlisted numbers). However, the RDD method yielded a much smaller incidence rate than was originally assumed. Thus, a sample list was purchased to increase the incidence of qualified (eligible) individuals to take the survey. Of the 500 completes, 21 were achieved via RDD and the remainder were drawn from the listed sample.

highlight the effect the interview mode has on self-reported substance use. Telephone interviewing has increased in popularity relative to personal interviewing due to cost savings, efficiency, and the availability of computer-assisted methods to hasten data collection and processing. But telephone interviewing, like all interview modes, has its limitations. Telephone surveys may decrease the respondent's perceived anonymity and bias the responses given to highly sensitive questions. One might also expect that questions about use in the past 30 days are more threatening than questions about lifetime use, since the lifetime use might have occurred in the distant past. In addition, one might speculate that questions about illegal drug use are more threatening than questions concerning alcohol or prescription drug use. The expected bias is the underreporting of illegal or socially undesirable behavior. There is no way of knowing what level of underreporting exists in the present study, but some underreporting, especially on the use of illegal drugs, would not be surprising.

The margin of error for the sample of 500 New Jersey senior citizen residents is ± 4.4 percentage points. To reflect the appropriate demographic characteristics of the New Jersey elderly population, respondent selection was stratified by gender proportionate to the senior (65+) population by county as released in the 2004 U.S. Census Bureau estimates (http://www.census.gov/popest/counties/asrh/files/cc_est2004_alldata_34.csv). The response rate was 5.28%, which was calculated using the response rate formula #2 from the American Association for Public Opinion Research (AAPOR). In order to simplify the presentation of data, some of the response categories were collapsed from four or five categories into two or three categories. In order for relationships between variables to be considered statistically significant, the probability that the relationship was due to chance had to be less than 5%. All of the findings discussed in this report are statistically significant. However, in some cases the measures of association are not very strong given the small percentage of respondents who admitted engaging in the behavior queried. All numbers presented are percentages and, due to rounding, may not sum to 100%.

3. Alcohol Consumption

All respondents provided information about the age at which they began drinking alcoholic beverages, and the recency and frequency of consumption of alcoholic beverages. Prior to the administration of the substance use questions, respondents were reminded of the confidentiality of their answers and encouraged to share as much information as possible. In addition, a detailed definition of alcoholic beverages preceded the alcohol questions. A "drink" was defined as a can or bottle of beer, a glass of wine or a wine cooler, a shot of liquor, or a mixed drink with liquor in it. Instances when the respondent only had a sip or two from a drink were not considered as consumption. For this report, estimates for the prevalence of alcohol use are reported primarily in the following manner:

Patterns of Consumption:

- Recent consumption: Consuming alcohol at least once in the past 30 days.
- Past consumption: The age when the respondent first started drinking, not counting small tastes or sips of alcohol.
- Rate of use: Five or more drinks on the same occasion constitutes binge use; three or more drinks on one occasion constitutes heavy use; one to two drinks reflects experimental or moderate use, and "*nothing, I never drink"* reflects abstention.

3.1. Consumption

Seventy percent of the respondents reported having consumed alcohol at least once in their lifetime. Twenty-two percent of the seniors reported they "never had an alcoholic beverage", and 8% said they didn't know or refused to answer the question.

Life-long abstention from alcohol differs across subgroups. Abstention is higher among:

- women than men (73% of women said they abstained, versus 27% of men);
- those who have not gone beyond a high school education (64%) than among college graduates (18%) and others with at least some college (18%);
- seniors with a household income of less than $20,000 (57%) than among those with a household income of $20,000-$40,000 (29%), and those with a household income of more than $40,000 (13%).

Recent consumption:

Respondents who had consumed alcohol at least once in their lifetime were asked to provide their "best estimate of the number of days (they) drank during the past 30 days." The results show that 27% of the seniors consumed an alcoholic beverage in the past month. Eight percent reported drinking one or two days of the previous month, and another 8% drank three to nine days, 11% indicated drinking 10 to 30 days, 38% no longer drink or hadn't drank in the past 30 days, 22% never drank, and 13% either didn't know or refused to answer the question. Demographic differences in alcohol consumption over the past 30 days were present. Alcohol consumption in the past month was more common among:

- men (39%) than women (25%)[4];
- those who had at least some college (37%) and college graduates (47%) than among those who had not gone beyond high school (22%);[5]
- whites (35%) than non-whites (12%);
- single people (including individuals who were divorced, separated, or had never been married, 36%) or married (37%) than those who were widowed (23%);
- those who lived alone (33%) or with one other person (36%) than among those with two (24%) or three or more (14%) individuals living in the household;
- seniors with a household income over $40,000 (53%) than among those whose household income was $40,000 or less (29%)[6]

3.2. Underage Drinking

Underage drinking is associated with a number of health consequences. Chief among these consequences is alcohol dependence. Adolescents who begin drinking at an early age are much more likely to develop alcohol dependence than those who begin later in life (Norton, 1998). All respondents were asked to provide the age when they first started drinking, not including the times when they only had a sip or two from a drink. The range of responses given was 2 to 70 years of age. The survey results show that one in

[4] Males were also 10 percentage points more likely than females (9%) to report drinking alcohol 10 to 30 days during the past month.
[5] College grads (26%) were three times as likely to report drinking alcohol 10-30 days in the past month compared to those with a high school education or less (9%) or those with some college (9%)
[6] Seniors with a household income of over $40,000 were more than twice (25%) as likely to report consuming alcohol 10-30 days in the past month than those with a household income of $40,000 or less (11%).

five report consuming alcohol prior to the age of 18, the legal age at the time. Twenty percent provided responses below the age of 18, 50% reported 18 or older, 22% said they never drank, and 8% didn't know or refused to answer the question. Those same data revealed that underage drinkers were more likely:

- to be men than women (64% vs. 36%);
- to have not gone beyond a high school education (48%) than to be college graduates (33%) or those with some college (19%);
- to have lower incomes (e.g., 68% of those with a household income of $40,000 or below vs. 32% with a household income of more than $40,000);

To provide a context for these results, the findings for questions concerning underage drinking in the PDFNJ study are shown with findings from the Monitoring the Future, National Institute on Drug Abuse (NIDA) study (2004). Monitoring the Future is an ongoing study of the behaviors, attitudes, and values of American secondary school students, college students, and young adults. The Monitoring the Future (MTF) project, also widely known for some years as the National High School Senior Survey, is a repeated cross-sectional series of surveys in which the same segments of the population (8th, 10th, and 12th graders; college students; and young adults) are presented with the same set of questions over a period of years to see how answers change over time. For more information on the Monitoring the Future studies, one should consult the following website: http://monitoringthefuture.org/.

Note that no statistical tests have been conducted comparing data from the PDFNJ survey and the middle and high school surveys; the findings are shown only to provide perspective for the PDFNJ senior citizen data. Data tables containing the percentage of responses to all senior citizen survey questions may be found in Appendix A: Individual Data Tables.

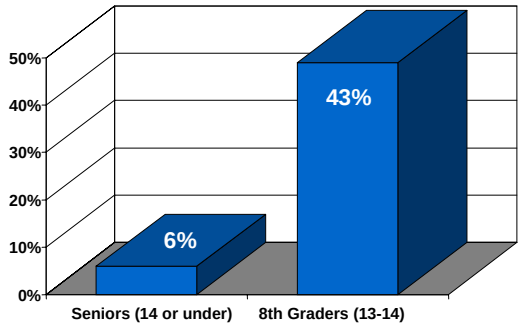
3.3. Comparison in the Age when Respondent First Consumed Alcohol

In general, a small percentage of senior citizens report under-age drinking compared with today's youth (See Figure 3.1-3.3).[7] Six percent of the senior citizens recalled having

[7] A note of caution - a possible source of bias in the comparisons provided is that the data measuring senior citizen substance use is at the state level whereas the comparison groups of 8th, 10th, and 12th grade students are measured at the national level. The cohort comparisons are also made difficult because differences in survey administration, question wording, recall bias, and attrition of the elderly population can all have profound effects on the comparability of the results. One concern is about respondents' ability to remember, and remember accurately. There is no way to conclusively evaluate how well our survey population recalled lifetime substance use. Another important consideration is attrition associated with the aging process and the possibility that substance abusers may die at a younger age than non-abusers. These results are not intended to suggest that at a particular point in time fourteen percent of the elderly population consumed alcohol prior to the age of 17. Rather, the results reflect that 14% of the senior citizens surveyed reported having had their first drink under the age of 17 (Figure 3.2). One should consider these differences in interpreting the comparative trends reported below. Further, the seniors

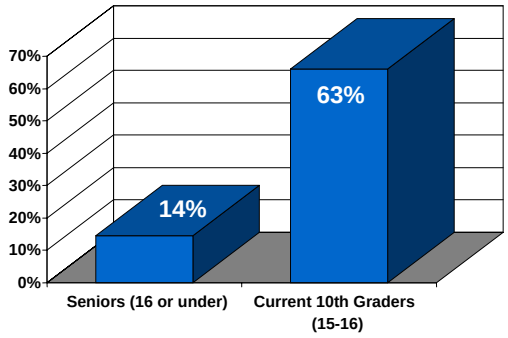
consumed alcohol by the age of 14 compared with the 2004 national sample of 8th graders, ages 13-14 year olds. Forty-three percent of the 8th graders indicated they have consumed alcohol (see below for actual question wording)[8].

Figure 3.1. Under-Age Drinking: Today's Senior Citizens and 8th Grade Students



A comparison of the senior citizen findings with today's youth, ages 15-16, reveals that very few senior citizens reported drinking before the age of 17. The national study of 10th graders surveyed in 2004 reveals that 63% of the 10th graders said they consumed a drink compared with 14% of the senior citizens who reported consuming alcohol by the age of 16 or under.

Figure 3.2. Under-Age Drinking: Today's Senior Citizens and 10th Grade Students

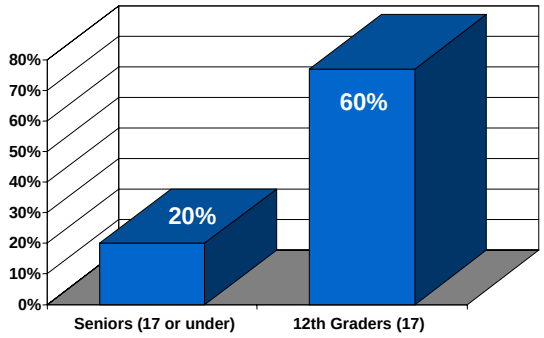


represent a cumulative percentage of individuals who reported drinking at the age of 14 or under and some bias may exist because of attrition associated with the aging process.

[8] The Monitoring the Future lifetime consumption measure for the 8th, 10th, and 12th grade samples was phrased as follows: "Next we want to ask you about drinking alcoholic beverages, including beer, wine, liquor, and any other beverage that contains alcohol. Have you ever had any alcoholic beverage to drink--more than just a few sips?" Whereas, the PDFNJ question asked respondents to provide the age when they first started drinking, not counting small tastes or sips of alcohol. The variation in question wording may produce different effects in responses.

An additional comparison of the senior citizen findings with high school seniors, ages 17 and under, reveals that few senior citizens reported drinking prior to the age of 18, the legal age until 1984 when the Uniform Drinking Age Act mandated a reduction in federal transportation funds to those states that did not raise the minimum legal drinking age to 21 (Wagenaar, 1993). The national study of 12th graders surveyed in 2004 reveals that 60% of the 17 year-olds said they consumed a drink compared with 20% of the senior citizens who reported consuming alcohol before the age of 17.

Figure 3.3. Under-Age Drinking: Today's Senior Citizens and 12th Grade Students



These results are not intended to suggest that at a particular point in time 6% of the elderly population consumed alcohol prior to the age of 15, or 14% prior to the age of 17, or 20% prior to the age of 18. Rather, the results reflect that 6%, 14%, and 20% of the senior citizens surveyed reported having had their first drink by the age of 14, 16, and 17 respectively (Figure 3.1-3.3). One should consider these differences in interpreting the comparative trends.

3.4. Heavy and Binge Drinking[9]

When asked to provide the greatest number of drinks consumed on any one occasion in the past year, the study showed that 17% of the respondents reported "heavy use" of alcohol - consuming three or more drinks, 14% reported consuming one or two drinks, 34% didn't drink in the past year, 22% said they never drank, and 13% said they didn't know or refused to answer the question.

Of those who consumed three or more drinks on any one occasion during the past year:

- 60% were male, 40% were female;

[9] Heavy drinking is defined as having three drinks or more on one occasion; whereas binge drinking consists of having five drinks or more on the same occasion (Menninger, 2002; Hinkin et al., 2000)

- 39% had not gone beyond high school, 37% were college graduates, 25% had some college;

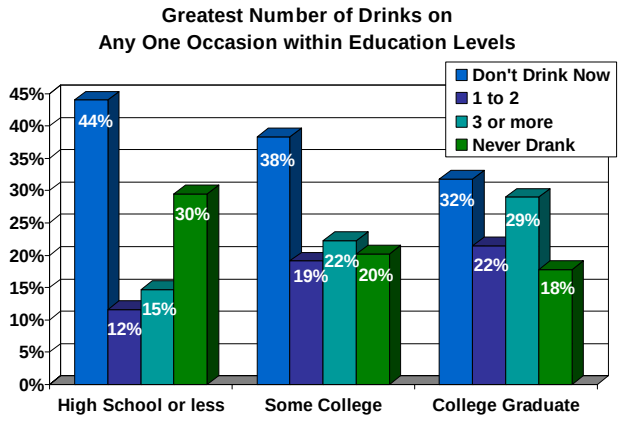
- 57% were married, 28% were widowed, 15% were single[10];

- 39% live alone, 45% with one other person, 13% live with two other people, 4% live with three or more individuals.

Those same data revealed important subgroup differences. The greatest number of drinks consumed on any one occasion in the past year differs across educational levels, race, income, marital status, and gender.

The chart demonstrates that educational attainment is positively associated with alcohol consumption. Figure 3.4 demonstrates that respondents who have not gone beyond high school are more likely to report they don't drink now (44%) or never drank (30%). Among those with some college, 38% said they don't drink now and 20% said they never drank. Among college graduates 32% said they don't drink now and 18% said they never drank. Twelve percent of those with a high school education or less consumed one to two drinks compared to the 19% with some college and 22% of college graduates.

Figure 3.4.

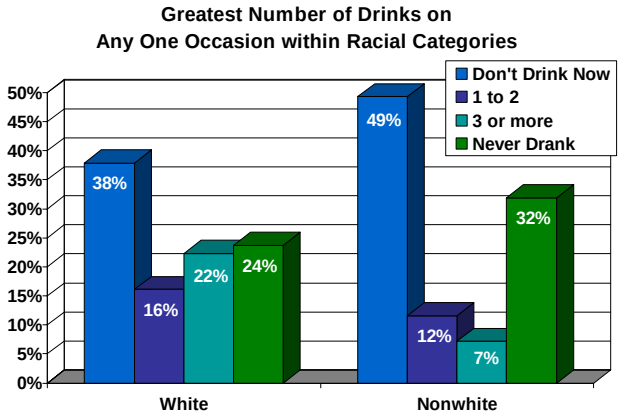


A second difference is found within the racial categories. The rate of consumption is higher among white respondents than nonwhite respondents.[11] Thirty-eight percent of whites compared with 49% of nonwhites reported they no longer drink. Sixteen percent of whites report that the greatest number of drinks consumed on any one occasion in the past year is one to two drinks compared with 12% of the nonwhites. Twenty-two percent

[10] Includes individuals who have been divorced, separated, or have never been married.
[11] The nonwhite category consists of respondents who classified themselves as Latino or Hispanic, African-American, or Asian-American. The ethnic and racial categories were collapsed due to the small cell numbers.

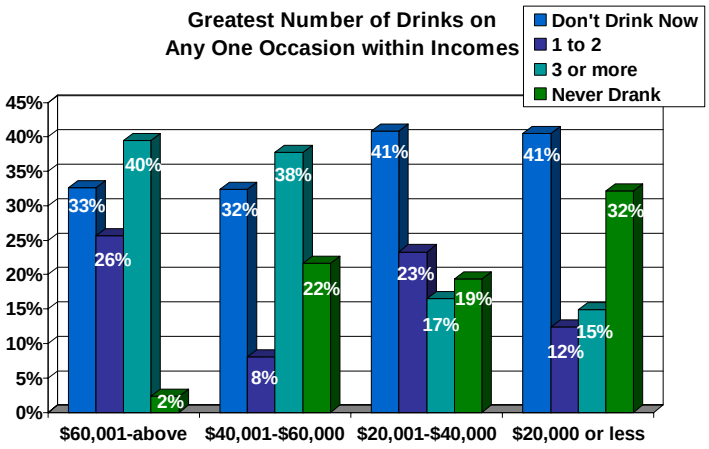
of whites consumed three or more drinks on any one occasion in the past year compared to 7% of nonwhites.

Figure 3.5.



Another important difference in the greatest number of drinks consumed on any one occasion in the past year occurs within income levels. Individuals with household incomes over $40,000 report consuming more alcohol than those with household incomes of $40,000 or less. Forty percent of those with a household income above $60,000 report consuming three or more drinks compared with 38% of those with a household income of $40,001-$60,000, 17% with a household income of $20,001-$40,000, and 15% with a household income of $20,000 or less.

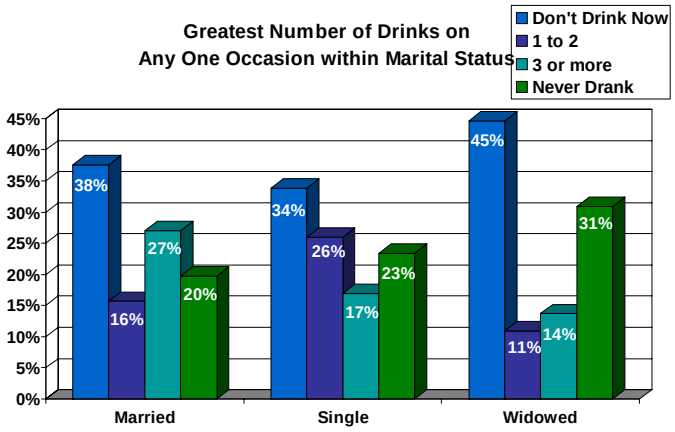
Figure 3.6.



Married individuals are more likely to report “heavy use” of alcohol - consuming three or more drinks on any one occasion, than non-married individuals. Twenty-seven percent of

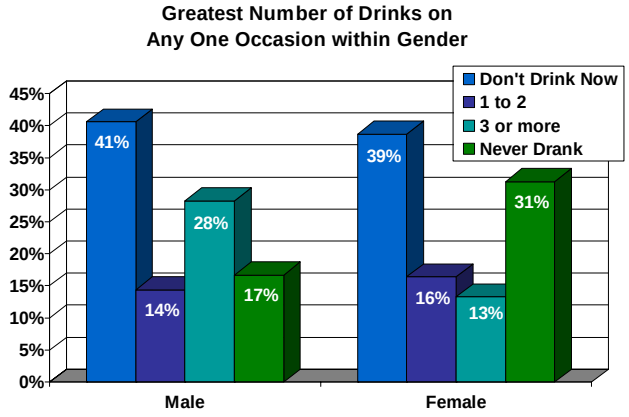
married respondents said they consumed three or more drinks compared with 17% of single[12] respondents and 14% of widowed respondents. Moderate consumption – consuming one to two drinks on any one occasion - is more prevalent among single respondents. Twenty-six percent of the seniors who are single reported drinking one to two drinks compared with 16% who are married and 11% who are widowed.

Figure 3.7



Twice as many men report "heavy use" of alcohol compared to women. Twenty-eight percent of men compared with 13% of women reported consuming three or more drinks on any one occasion within the past year. Women are almost two times more likely to say they have "never drank" alcohol. Thirty-one percent of women compared with 17% of men report lifetime abstention.

Figure 3.8



To assess the incidence of binge drinking, respondents were asked to provide the number of days in the past month they consumed five or more drinks on the same occasion.

[12] Single includes individuals who are divorced, separated, or have never been married.

Approximately three percent of the sample (17 individuals) reported having five or more drinks on one occasion in the past 30 days, 23% said they didn't drink five or more drinks on one occasion in the past 30 days, 38% didn't drink in the past 30 days, 22% said they never drank, and 14% didn't know or refused to answer the question.

Many alcohol studies rely on the CAGE series of questions used to screen individuals for alcoholism (Menninger, 2002)**.** The CAGE series is an acronym formed by taking the first letter of key words from the following four questions:

1. Have you ever felt you should cut down on your drinking?
2. Have people ever annoyed you by criticizing your drinking?
3. Have you ever felt bad or guilty about your drinking?
4. Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (eye-opener)?

A total of two or more positive answers indicates the potential for alcohol abuse. Only 2% (10 respondents out of 500) scored two or higher on the CAGE index. For frequency distributions on the CAGE series, consult the data tables in Appendix A, pages A3-A4.

4. Illegal Drug Use

All respondents were asked about the use of illegal drugs. Prior to the administration of the illegal drug use questions, respondents were reminded of the confidentiality of their answers and encouraged to share as much information as possible. Preceding the illegal drug questions, an "illegal drug" was defined as the use of drugs for recreational rather than medical purposes such as marijuana, cocaine, or heroin.

Ninety-four percent reported they have never used an illegal drug of any type. Of the 6% (30 individuals) who have once used an illegal drug in their lifetime, only three individuals reported using an illegal drug in the past 30 days. The lack of variation in the responses given for the drug use questions limits the types of analyses to be performed and ultimately, the conclusions to be drawn. In particular, the small cell frequencies prevent any tests of statistical significance or measures of association between incidence of drug use and other variables.

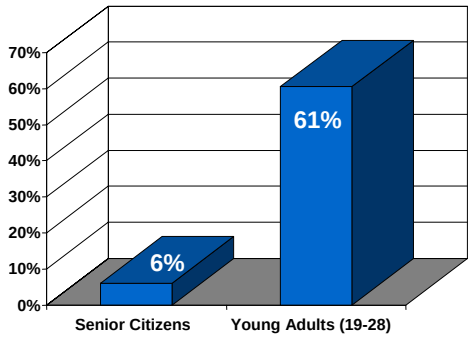
However, in order to provide a context for these results, the findings for the drug use questions in the PDFNJ study are shown with findings from the Monitoring for the Future: Young Adult Data (2004) survey.[13] Note that no statistical tests have been conducted comparing data between the PDFNJ survey and the Monitoring for the Future survey; the findings are shown only to provide perspective for the PDFNJ data. Data

[13] An important consideration is attrition patterns associated with the aging process and the possibility that substance abusers may die at a younger age than non-abusers. These results are not intended to suggest that at a particular point in time only 6% of the senior citizen cohort used drugs. Rather, the results reflect that 6% of the seniors surveyed reported having used an illegal drug once in their lifetime. One should consider these differences in interpreting the comparative trends presented.

tables containing the percentage of responses to the senior citizen survey questions on illegal drugs may be found in Appendix A, page A-5.

A comparison of the senior citizen findings with today's adult population, ages 19-28, reveals that an overwhelming majority (94%) of the senior citizens report they have never once used an illegal drug in their lifetime. The national study of young adults surveyed in 2004 reveals that 61% of the 19-28 year olds reported having used an illegal drug.[14]

Figure 4.1. Illegal Drug Use: Today's Senior Citizens and Young Adults



5. Prescription Drug Use

When asked to report their use of prescription medications, an overwhelming majority (85%) of senior citizens reported they are currently taking a prescription medication, 14% are not, and 1% didn't know or refused to answer the question. As with alcohol and illegal drugs, the amount of use was of interest and respondents were asked to provide the number of prescriptions they are currently taking. Approximately 31% reported taking one or two prescriptions, 26% three or four, 15% five or six, and 13% reported taking seven or more prescriptions.[15] Since the information about subgroup differences is too small to be displayed here, one should consult the tabulations included in Appendix A, pages A6-A8.

[14] The exact question wording for the illegal drug use measure from the Monitoring for the Future: Young Adult Data (2004) survey was not available to report here.
[15] The remainder are not currently taking any prescribed medications (14%) or didn't know or refused to provide the number of prescribed medications (1%).

To assess prescription drug abuse problems among the senior sample, a modified series of the CAGE questions was constructed. Respondents were asked if during the last 12 months they had:

1. Used a medication without a doctor's prescription, not including over the counter medicines
2. Used a larger amount of the medication than prescribed by a doctor
3. Used the medication for a longer period than prescribed by a doctor

Any respondent who indicated having used a medication without a doctor's prescription, or having used an amount larger than prescribed by a doctor, or for a longer period than prescribed by a doctor, was then asked the modified CAGE questions:

1. Have you ever felt you should cut down on prescription drug use that does not follow your doctor's orders?

2. Have people ever annoyed you by criticizing your taking prescription drugs that did not follow your doctor's orders?

3. Have you ever felt bad or guilty about taking prescription drugs that did not follow your doctor's orders?

4. Has anyone ever showed concern with your taking prescription drugs that did not follow your doctor's orders?

Very few reported taking medications without a doctor's prescription (2%), using amounts larger than prescribed by a doctor (3%), or for a longer period than prescribed by a doctor (3%). Frequency distributions for the modified CAGE questions can be found in the data tables included in Appendix A, pages A7-A8.

6. Substance Use and Social Connectedness

Social connectedness refers to the relationships people have with others and the benefits these relationships bring to individuals and society. Social connectedness is integral to well-being. Relationships give people support, happiness, contentment and a sense they belong and have a role to play in society. Social relationships also mean people have support networks in place that they can call on for help during hard times (Pietromonaco and Barrett, 1997).

Social interaction is a part of social connectedness. Regular contact with family, friends, and members in the community is a measure of social interaction. Several studies have demonstrated links between social connectedness and the performance of the economy as well as positive outcomes for individual health and well-being (Institute of Alcohol Studies, 1999).

Ten indicators were used to measure each survey participant's levels of social connectedness relative to his/her substance use. These indicators do not directly measure the quality of connectedness but allow a discussion about the relationship between levels of social connectedness and substance use. The indicators are:

- attending religious services
- regular contact with family
- shopping
- exercising
- watching television
- taking day trips or traveling
- spending time gardening or on arts and crafts
- volunteering
- working full-time or part-time and
- use of the Internet

The indicators of greatest levels of activity include:

- *Attend religious services*: Forty-nine percent of senior citizens surveyed reported attending religious services often, 31% sometimes or rarely, and 21% said they never attend religious services.

- *Ate meals with family*: Fifty percent said they eat meals with their family often, 31% sometimes or rarely, 18% never eat meals with their family, and 1% didn't know or refused to provide an answer to the question.

- *Shopping*: Fifty-three percent shop often, 39% sometimes or rarely, and 8% never shop.

- *Watching television*: Seventy-one percent watch television often, 27% sometimes or rarely, and 2% never.

On the remaining items designed to measure the respondent's level of social connectedness we find smaller percentages of the elderly sample participating in these activities. Rather, the trend illustrates a substantial increase in the number reporting "never" having took a day trip or traveled, spent time gardening or on arts and crafts, volunteering, working (full- or part-time), or using the Internet (see Appendix A, pages A8-A11).

Additional comparisons of the relationship between social connectedness and substance use come from an additive index constructed from the individual's responses to nine of the 10 hobby and leisure activity questions.[16] Each respondent was awarded points based on the amount of time they reported spending on each hobby or activity. A three was

[16] The index consists of all the hobby and leisure activity questions except "watching television," Cronbach's Alpha for this index increased from .60 to .65 with the exclusion of this item.

awarded for “often”, two for “rarely/sometimes” and a one for “never” having spent time participating in a particular activity. The index ranged from nine to twenty-seven points, with large numbers representing a high level of social connectedness and small numbers representing a low level of social connectedness.

We examined whether social connectedness was related to alcohol consumption by conducting a series of paired comparisons of mean levels of social connectedness for three groups – individuals who said they had consumed alcohol in the past 30 days, individuals who drank in the past but had not consumed alcohol in the past 30 days, and individuals who said they never drank.

The mean level of social connectedness for individuals who drank in the past 30 days (group one) was 18.76. The mean level of social connectedness for individuals who drank in the past but had not had a drink in the past 30 days (group two) was 17.21. The mean level of social connectedness for individuals who said they never drank (group three) was 17.46.

The difference of means between groups one and two was statistically significant.[17] The difference of means between groups one and three was statistically significant.[18] The difference of means between groups two and three was not statistically significant.

Table 6.1 – Difference in mean levels of social connectedness

	Group 1 (Drank in the past 30 days)	Group 2 (Had drank in the past, but has not had a drink in the past 30 days)	Group 3 (Has never had a drink)
Mean level of social connectedness	18.76	17.21	17.46

The difference of means tests suggest that social connectedness has a positive relationship to alcohol consumption. As the level of social connectedness increases, so does alcohol consumption.

[17] Difference of Means *t* Test, $t = -4.10$, $df = 313$, $p = 0.000$
[18] Difference of Means *t* Test, $t = -3.02$, $df = 238$, $p = 0.003$

7. Conclusion

According to the results of the survey, many senior citizens in New Jersey have consumed alcohol at least once in their lifetime. The majority first consumed alcohol after the legal age of 18. For most, alcohol consumption on a typical day does not exceed one drink. Most did not consume alcohol in the past 30 days.

Survey results also showed that very few report having ever used an illegal drug of any type. Just 6 percent reported having ever used an illegal drug in their lifetime.

The survey also revealed that an overwhelming majority of respondents indicated that they are currently taking a prescribed medication. Most currently take one or two prescriptions. Very few reported taking medications without a doctor's prescription, using amounts larger than prescribed by a doctor, or for a longer period than prescribed by a doctor.

The findings for the social connectedness indicators show that participation in hobbies and leisure activities varies substantially. Individuals often attend religious services, eat meals with their families, shop, or watch television. The findings also reveal that substance use is associated with participation in social activities or hobbies. The average score on the social connectedness scale was higher among individuals who consumed alcohol recently than those who did not drink in the past 30 days or said they never drank.