

# The Dimensions of Alcohol and Drug Abuse in the State of Delaware

## An Analysis of the Need for Treatment within the Household Population Aged 18 Years and Over

For  
State of Delaware  
Health and Social Services  
Division of Alcoholism, Drug Abuse, and Mental Health

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## Preface

This is the first of a series of reports analyzing the need for alcohol and drug and alcohol treatment services in the State of Delaware. The studies are funded by the federal government by the Substance Abuse and Mental Health and Mental Health Administration (SAMHSA) through the Center for Substance Abuse Treatment (CSAT). This research is conducted by the University of Delaware under a contract with the State of Delaware, Health and Social Services, Division of Alcoholism, Drug Abuse, and Mental Health.

This study represents a substantial effort by a number of people from the University of Delaware and from the Delaware Division of Alcoholism, Drug Abuse and Mental Health.

Special acknowledgement is due to the following people:

...Elizabeth Ableman was responsible for the prevalence estimations and needs assessment calculations.

...Na Yang and Guneet Knaur were responsible for much of the computer work.

...Patricia Powell prepared the tables and graphs.

...The Advisory Committee of the Division of Alcoholism, Drug Abuse, and Mental Health reviewed the findings and provided valuable help.

...The Staff of the State of Delaware Division of Alcoholism, Drug Abuse, and Mental Health provided technical assistance and encouragement throughout the research. Elizabeth Dubravcic and Walter Mateja were particularly helpful with technical support throughout the entire research process. Susan Pfeifer and Renata Henry offered considerable help in making the study more useful to the alcohol and drug treatment community.

## INTRODUCTION

Background. Needs assessments for alcohol and drug treatment typically follow a standard sequence. First, a measurement of the problems that are to be resolved by treatment is made. Next, an estimation of the resources required to alleviate the problem is made. Finally, a comparison of the differences between the program resources required to resolve the problems and the program resources that are currently in place is made. If the resources required to resolve the problem are greater than those resources that are in place, the geographic service area for which the needs are being assessed is assumed to have a *service gap*. Conversely, if the treatment resources in the geographic service area are greater than those required to alleviate the problem, then the geographic area is said to have a *service surplus*.

Studies of the need for substance abuse treatment usually measure treatment needs in terms of the *prevalence* of alcohol and drug abuse in a population within a specific geographic service area. *Prevalence* refers to the number of persons manifesting a problem within a specific time interval. In this study a one-year prevalence for the State of Delaware is used to gauge the extent of alcohol and drug abuse. Based on an interview survey, the number of persons who have clinically defined alcohol and drug problems is estimated. The interview also includes a number of questions about whether the respondent has been treated for alcohol and drug abuse. By estimating the number of persons with alcohol and drug problems and comparing the size of this population with the number of people that have been treated an estimate of treatment need is made.

In 1997 and 1998 the Delaware Division of Alcoholism, Drug Abuse, and Mental Health conducted a statewide survey of alcohol and drug abuse among Delaware adults. The University of Delaware Health Services Policy Research Group administered the survey and analyzed the results. A similar survey was conducted in 1993-94. The present study was conducted to update prevalence and treatment needs estimations.

Study Base. The present study is based on a random sample of 2,079 adult residents of Delaware who were interviewed by telephone. The sample was weighted to reflect the age and gender distribution of the household population of the State's three counties and the City of Wilmington. The prevalence of substance abuse is estimated using the WESTVAR statistical program. This procedure provides for a confidence band around the estimates of alcohol and drug abuse that takes into account the multistage sampling frame. The sampling frame includes county, telephone exchange, and household. The demographic composition of the sample is shown in Figure 1.

Figure 1  
**Demographic Composition of 1997-98  
 Delaware Alcohol and Drug Survey**

Age	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
18-19	23	1.90	29	3.37	52	2.51
20-24	105	8.68	65	7.56	170	8.21
25-29	111	9.17	91	10.58	202	9.76
30-34	110	9.09	84	9.77	194	9.37
35-39	140	11.57	106	12.33	246	11.88
40-44	125	10.33	83	9.65	208	10.05
45-49	94	7.77	92	10.70	186	8.99
50-54	106	8.76	73	8.49	179	8.65
55-59	85	7.02	68	7.91	153	7.39
60-64	99	8.18	43	5.00	142	6.86
65 and above	212	17.52	126	14.65	338	16.33
Total	1210	100.00	860	100.00	2070*	100.00

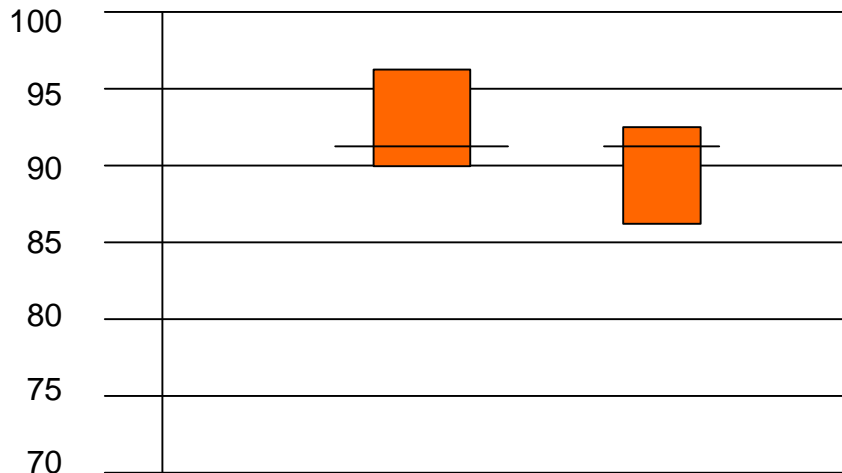
\*The age of the respondent was not provided in nine interviews.

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## ALCOHOL AND DRUG USE

Lifetime Alcohol Use. Approximately nine out of ten Delawareans have consumed an alcoholic beverage (beer, wine or spirits) one or more times during their lives (Figure 2). Ninety-three percent of males have had at least one drink on one or more occasions and 90 percent of females have had a drink over their lifetimes.

Figure 2  
**Lifetime Alcohol Use by Gender**  
**Percentage of Delaware Population**  
**Aged 18 Years and Above\***

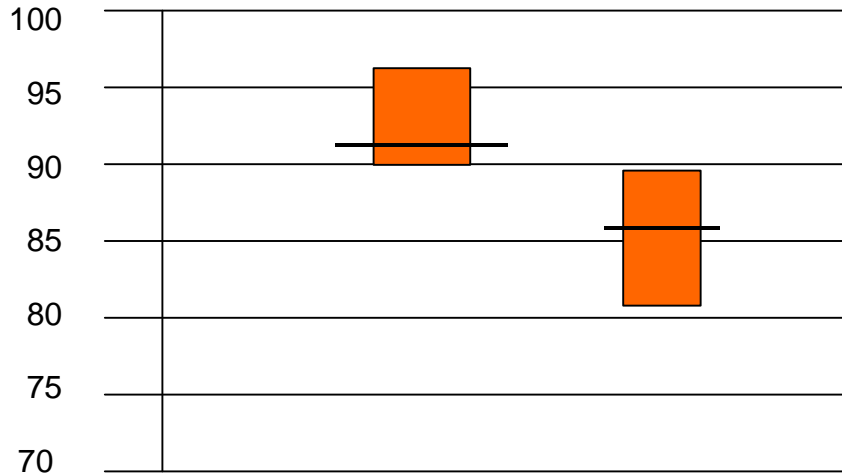


	<b>Male</b>	<b>Female</b>
Estimate	93.4	90.3
Upper 95% CI	95.9	92.6
Lower 95% CI	91.0	88.1

\*Shaded areas represent the 95 percent confidence interval  
 Source: 1997-1998 Statewide Alcohol and Drug Survey

Ninety-three percent of the whites have had a drink at least once during their lives. A lower percentage of non-whites (85 percent) report having at least one drink during their lives (Figure 3).

Figure 3  
**Lifetime Alcohol Use by Race**  
**Percentage of Delaware Population**  
**Aged 18 Years and Over**

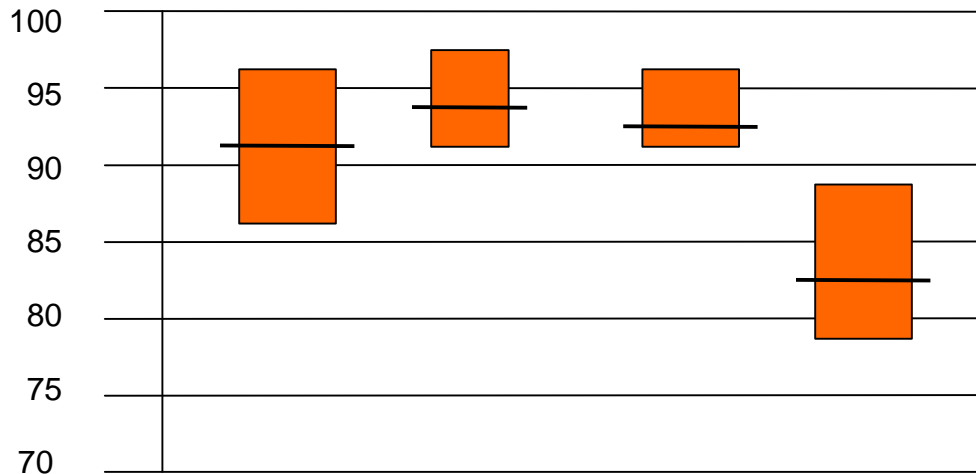


	<b>White</b>	<b>Non-White</b>
Estimate	93.3	85.4
Upper 95% CI	95.1	89.4
Lower 95% CI	91.5	81.4

Source: 1997-1998 Statewide Alcohol and Drug Survey

Lifetime alcohol consumption varies substantially according to the age of the respondent. Lifetime alcohol use is highest among young adults (aged 25-44 years) and lowest among those who are 65 years of age and over (Figure 4). The youngest and oldest age groups, however, show a wider range of lifetime drinking patterns than the two middle age groups.

Figure 4  
**Lifetime Alcohol Use by Age Group**  
**Percentage of Delaware Population**  
**Aged 18 Years and Over**

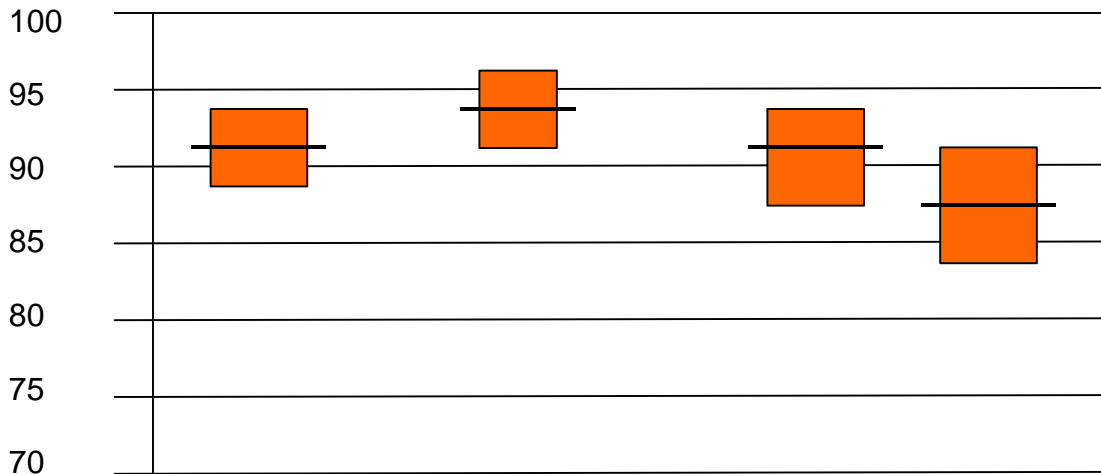


	<b>18-24</b>	<b>25-44</b>	<b>45-64</b>	<b>65+</b>
Estimate	90.0	94.8	93.2	83.9
Upper 95% CI	95.9	96.5	95.6	89.1
Lower 95% CI	84.0	93.0	90.9	78.8

Source: 1997-1998 Statewide Alcohol and Drug Survey

Lifetime alcohol use is highest in New Castle County. Ninety-three percent of the adult population of the county report having had at least one drink during their lifetime. Alcohol consumption is lowest in Sussex County. Eighty-eight percent of the county population report that they have had at least one drink on one or more occasions (Figure 5).

Figure 5  
**Lifetime Alcohol Use by Planning Area**  
**Percentage of Delaware Population**  
**Aged 18 Years and Over**

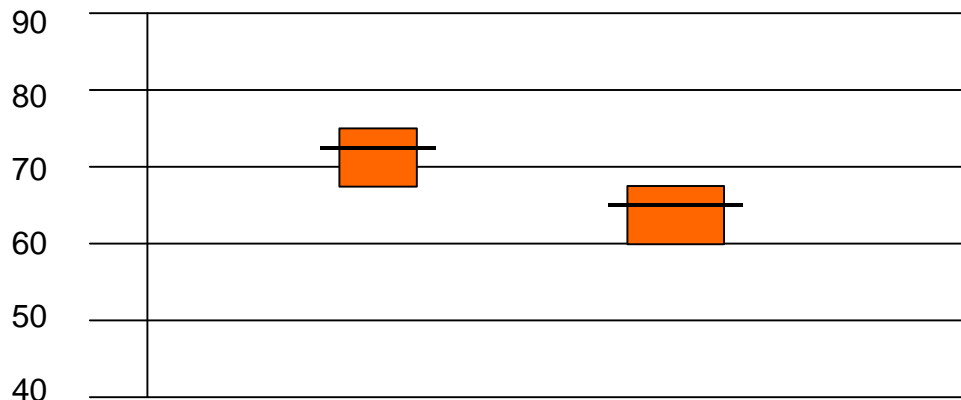


	<b>Wilmington City</b>	<b>New Castle County</b>	<b>Kent County</b>	<b>Sussex County</b>
Estimate	91.8	93.2	91.0	88.3
Upper 95% CI	94.4	95.7	94.4	91.9
Lower 95% CI	89.2	90.7	87.7	84.7

Source: 1997-1998 Statewide Alcohol and Drug Survey

The prevalence of recent alcohol use in Delaware is gauged by whether a respondent had one or more drinks during the last 18 months (Figure 6). Seventy-one percent of men report that they had done so within this period. Sixty-four percent of women acknowledge having had one or more drinks within the same time span.

Figure 6  
**18-Month Alcohol Use by Gender**  
**Percentage of Delaware Population**  
**Aged 18 Years and Over**

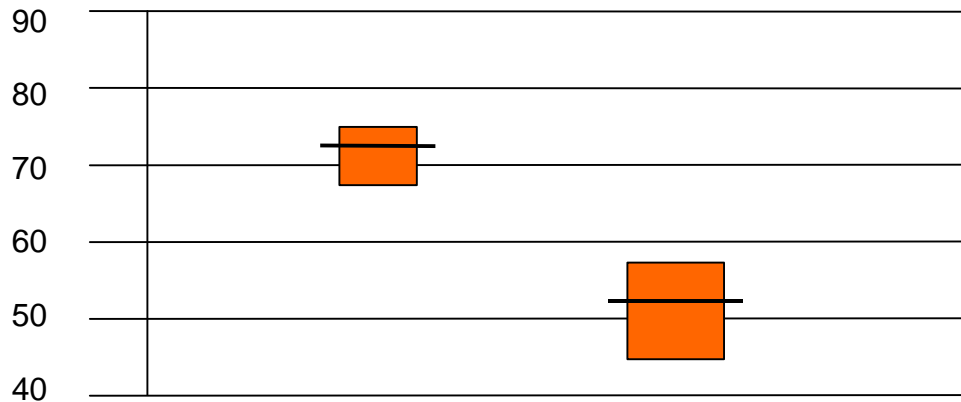


	Male	Female
Estimate	71.2	64.4
Upper 95% CI	75.2	68.5
Lower 95% CI	67.3	60.4

Source: 1997-1998 Statewide Alcohol and Drug Survey

Recent alcohol use (during the eighteen months prior to the interview) is substantially lower within Delaware’s non-white population than within its white population. Fifty percent of non-whites have used alcohol within the last 18 months. In contrast seventy-one percent of whites have had at least one drink within an 18-month period (Figure 7).

Figure 7  
**18-Month Alcohol Use by Race**  
**Percentage of Delaware Population**  
**Aged 18 Years and Over**

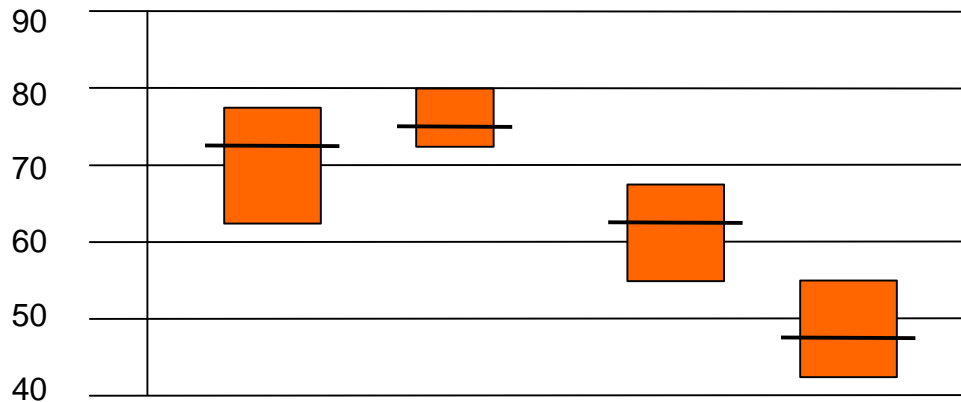


	<b>White</b>	<b>Non-White</b>
Estimate	71.5	50.4
Upper 95% CI	74.7	55.9
Lower 95% CI	68.4	44.9

Source: 1997-1998 Statewide Alcohol and Drug Survey

Alcohol use within the 18-months prior to the interview varies substantially depending on the respondent's age. The highest prevalence is reported by those aged 25 through 44. Seventy-six percent of this age group are recent drinkers. The lowest prevalence is found among those who are 65 years of age and older. Forty-nine percent of this group are recent drinkers (Figure 8).

Figure 8  
**18-Month Alcohol Use by Age Group**  
**Percentage of Delaware Population**  
**Aged 18 Years and Over**

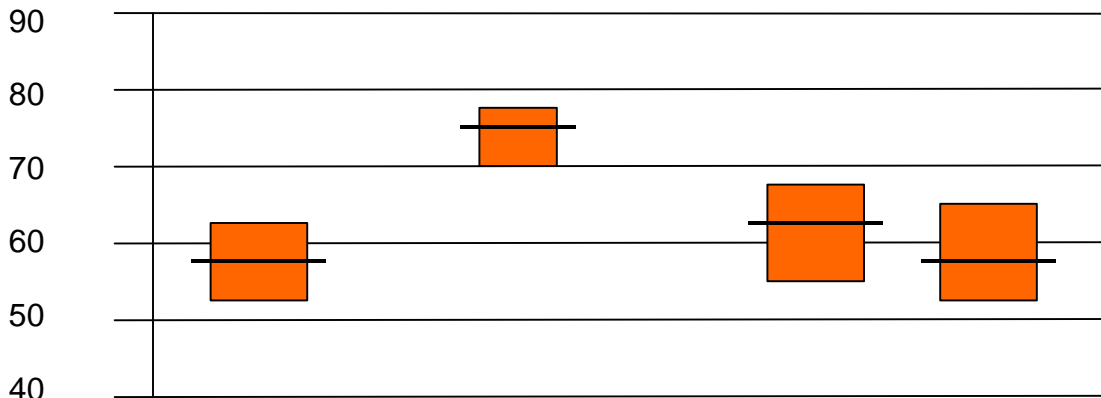


	<b>18-24</b>	<b>25-44</b>	<b>45-64</b>	<b>65+</b>
Estimate	70.8	75.8	62.8	48.9
Upper 95% CI	79.8	79.3	67.8	55.8
Lower 95% CI	61.9	72.4	57.8	42.1

Source: 1997-1998 Statewide Alcohol and Drug Survey

New Castle County residents who reside outside of the City of Wilmington are more likely to be recent alcohol users than residents of the City. Seventy-four percent of residents from New Castle County are current alcohol users. The corresponding figure for Wilmington residents is 58 percent. The proportion of current alcohol users in Kent and Sussex Counties is substantially lower than that of New Castle County. In Kent County, 61 percent of the adult population reports current alcohol use. Sussex County is lowest in alcohol use of the state's three counties, 58 percent reporting current alcohol use (Figure 9).

Figure 9  
**18-Month Alcohol Use by Planning Area**  
**Percentage of Delaware Population**  
**Aged 18 Years and Over**



	<b>Wilmington City</b>	<b>New Castle County</b>	<b>Kent County</b>	<b>Sussex County</b>
Estimate	58.4	74.2	61.1	58.4
Upper 95% CI	63.5	78.5	66.2	63.5
Lower 95% CI	53.3	69.9	55.9	53.3

Source: 1997-1998 Statewide Alcohol and Drug Survey

Summing up the survey findings of alcohol use, the majority of the adult residents of Delaware are recent users of alcohol. The prevalence of alcohol use also varies substantially across the counties of Delaware and the City of Wilmington. Differences in the prevalence of drinking are also evident across the primary demographic strata: age, gender, and race. The proportion of people at risk of developing alcohol problems, therefore, varies across demographic groups and across the geographic areas of the State. Subsequent sections of this report explore the prevalence of problem drinking and the need for treatment of alcohol problems.

The Survey also explores the use and abuse of illegal drugs. The drugs included in the survey are described in Figure 10. These drugs, with the exception of inhalants, are usually obtained through transactions "on the street," through the illegal drug market. Drug use is analyzed by lifetime use and 18-month use (as alcohol use was analyzed in the previous section). Subsequent sections of this report consider the prevalence of clinically defined drug abuse and the need for treatment of drug abuse.

Figure 10  
**1997-1998 Statewide Drug and Alcohol Survey**  
**Drug Categories**

MARIJUANA: pot, hashish, reefer

HALLUCINOGENS: LSD, PCP, "ecstasy", DMT, MDA, MDMA, mescaline, peyote, psilocybin, mushrooms

COCAINE: coke, crack

HEROIN, OTHER OPIATES, OPIOIDS: Codeine, morphine, Percocet, Percodan, Demerol, Methadone, Dilaudid, Fentanyl

SEDATIVES: tranquilizers or sleeping pills, including barbiturates, Valium, Librium, Xanax, Quaalude, methaqualone, Seconal, Halcion, phenobarbital, "downers", "barbs", "ludes", rohypnol

STIMULANTS: Amphetamines, "speed" or "ice", including methamphetamine, Preludin, Ritalin, Dexedrine, Benzedrine, "uppers"

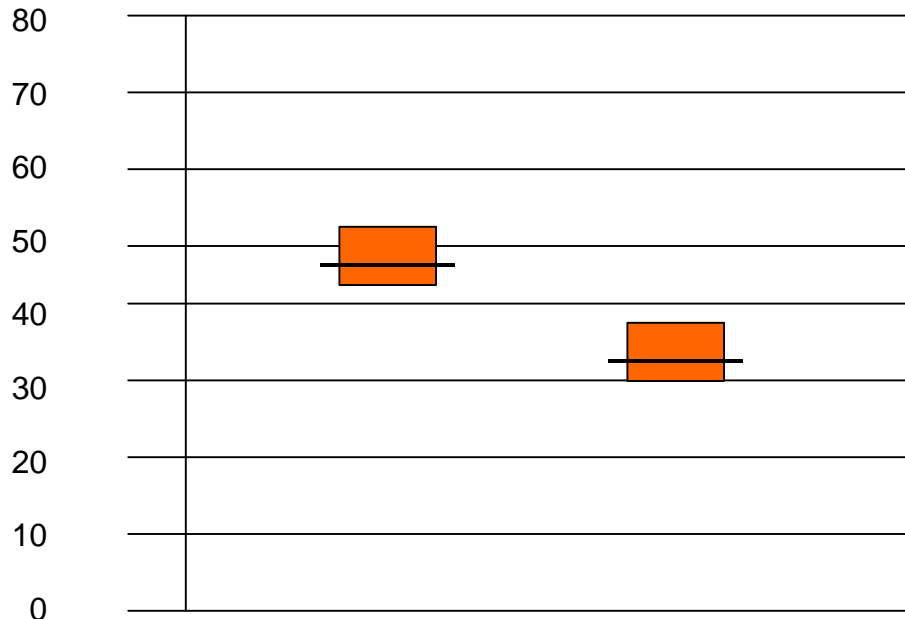
ANALGESICS: Darvon, Talwin

INHALANTS: gasoline or lighter fluid, spray paints, shoeshine liquid or glue, paint solvents, amyl nitrate, nitrous oxide, "Poppers", cleaning fluids, locker room odorizers, "whippets"

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Forty-seven percent of the men in Delaware and 35 percent of women report using one or more illegal drugs during their lifetimes (Figure 11).

Figure 11  
**Lifetime Drug Use by Gender**  
**Percentage of Delaware Population**  
**Aged 18 Years and Above**

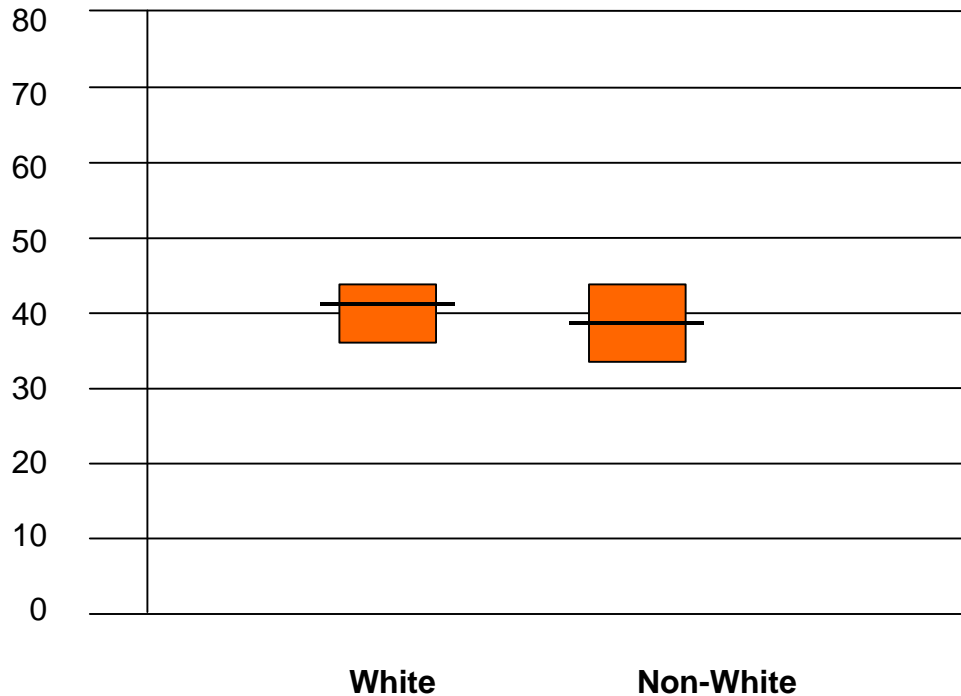


	<b>Male</b>	<b>Female</b>
Estimate	46.7	34.6
Upper 95% CI	51.3	39.1
Lower 95% CI	42.1	30.2

Source: 1997-1998 Statewide Alcohol and Drug Survey

The proportion of whites and non-whites whom have used illegal drugs during their lifetimes is almost identical. Approximately four out of ten adults, irrespective of their race, have used drugs at least once during their lifetimes (Figure 12).

Figure 12  
**Lifetime Drug Use by Race**  
**Percentage of Delaware Population**  
**Aged 18 Years and Above**

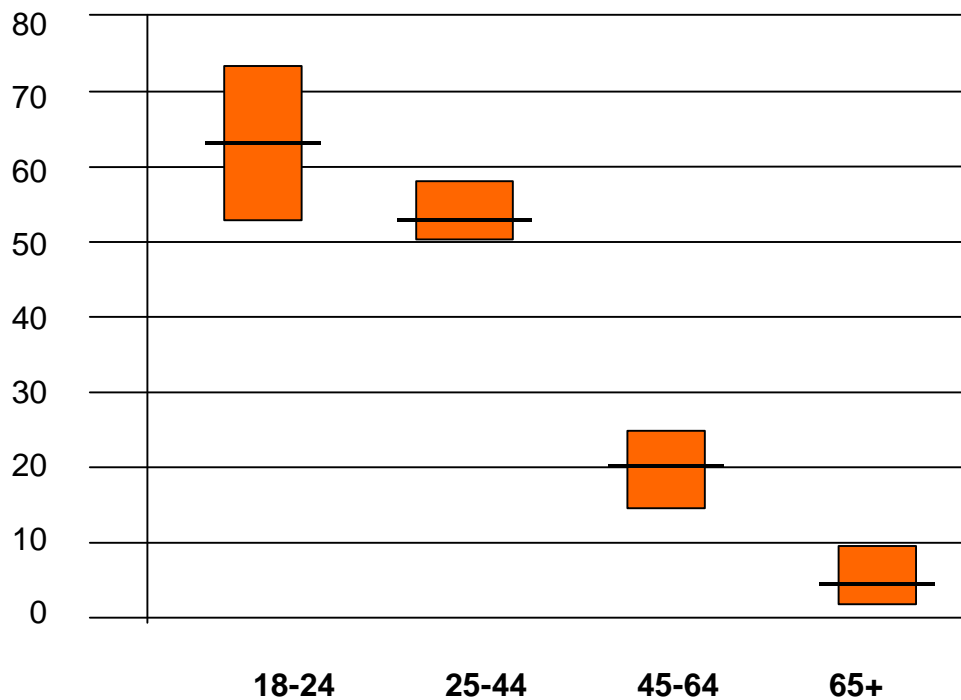


	White	Non-White
Estimate	40.9	39.5
Upper 95% CI	44.7	44.9
Lower 95% CI	37.2	34.1

Source: 1997-1998 Statewide Alcohol and Drug Survey

Lifetime drug use declines more than 15-fold between the age of 18 and the time that a person reaches 65 years of age. Sixty-three percent of the youngest age-group (18-24 years) have used drugs at some time within their lives, in contrast to less than five percent of those 65 years of age and older (Figure 13). It should be recognized, however, that the substances explored in this survey do not include drugs obtained by prescription from a physician or over-the-counter drugs that are more commonly used by older persons.

Figure 13  
**Lifetime Drug Use by Age Group**  
**Percentage of Delaware Population**  
**Aged 18 Years and Above**

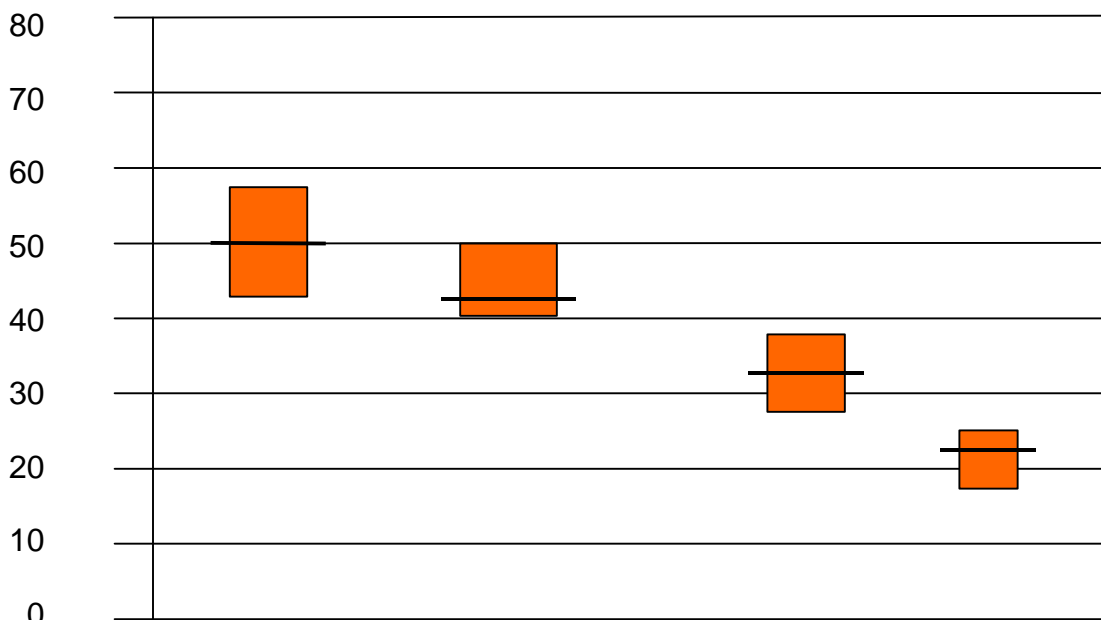


	<b>18-24</b>	<b>25-44</b>	<b>45-64</b>	<b>65+</b>
Estimate	62.9	53.5	20.8	4.7
Upper 95% CI	72.2	57.7	25.1	7.6
Lower 95% CI	53.6	49.3	16.5	1.7

Source: 1997-1998 Statewide Alcohol and Drug Survey

The prevalence of lifetime drug use is higher in the City of Wilmington than in the balance of New Castle County and higher in New Castle County than in Kent and Sussex Counties (Figure 14). Over 50 percent of Wilmington residents have used drugs one or more times within their lives. A slightly lower percentage (46 percent) of the residents of the balance of New Castle County are lifetime users. Lifetime use declines to 34 percent in Kent County and to 22 percent in Sussex County.

Figure 14  
**Lifetime Drug Use by Planning Area**  
**Percentage of Delaware Population**  
**Aged 18 Years and Above**

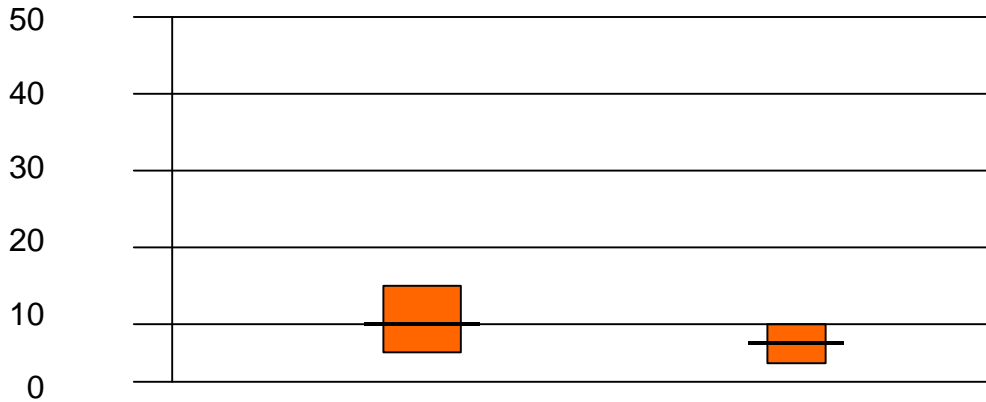


	<b>Wilmington City</b>	<b>New Castle County</b>	<b>Kent County</b>	<b>Sussex County</b>
Estimate	50.7	46.3	33.9	22.3
Upper 95% CI	55.8	51.3	39.1	26.6
Lower 95% CI	45.5	41.2	28.8	18.0

Source: 1997-1998 Statewide Alcohol and Drug Survey

Recent drug use is estimated by reports of use within the 18 months prior to the interview. Approximately eleven percent of men and seven percent of women acknowledge using drugs one or more times during the previous 18 months (Figure 15).

Figure 15  
**18-Month Drug Use by Gender**  
**Percentage of Delaware Population**  
**Aged 18 Years and Above**

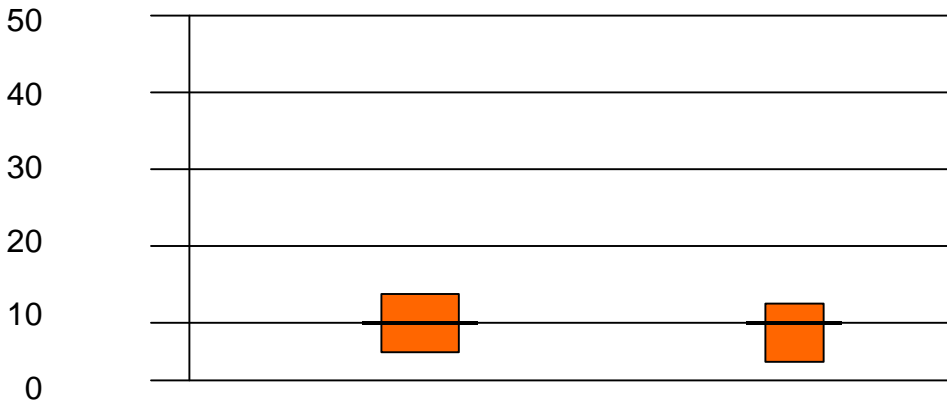


	Male	Female
Estimate	10.7	7.2
Upper 95%	15.0	10.6
Lower 95%	6.3	3.8

Source: 1997-1998 Statewide Alcohol and Drug Survey

Approximately nine percent of State's white population and eight percent of the State's non-whites have used drugs within the 18 months prior to the survey (Figure 16).

Figure 16  
**18-Month Drug Use by Race**  
**Percentage of Delaware Population**  
**Aged 18 Years and Above**

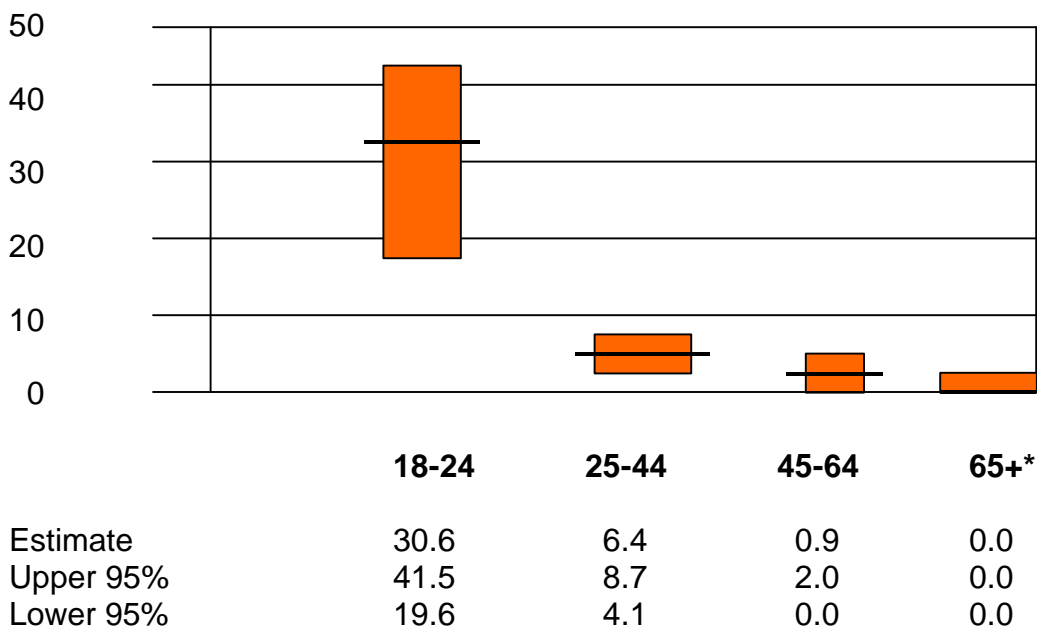


	<b>White</b>	<b>Non-White</b>
Estimate	9.2	8.0
Upper 95%	12.5	11.7
Lower 95%	6.0	4.3

Source: 1997-1998 Statewide Alcohol and Drug Survey

The prevalence of drug use falls abruptly after the age of twenty-five. Over thirty percent of those between 18 and 24 years of age used drugs within the 18 months prior to the survey. In comparison, less than seven percent of those aged 25-44 report using drugs within the same period. By age 45 the proportion of users shrinks to slightly over six percent. By age 65 the proportion of those who have used illegal drugs within the last 18 months falls to less than one percent (Figure 17).

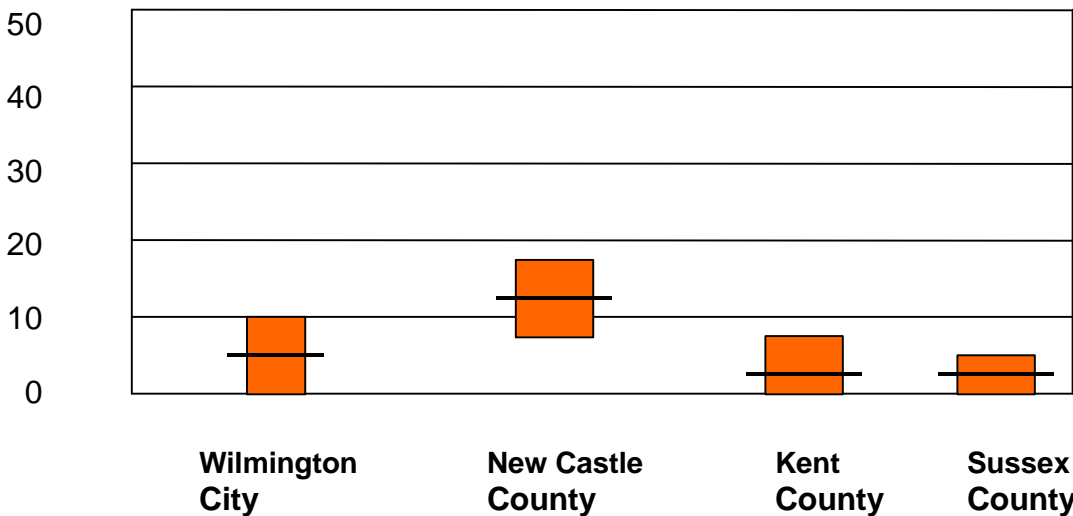
Figure 17  
**18-Month Drug Use by Age Group**  
**Percentage of Delaware Population**  
**Aged 18 Years and Above**



\*Insufficient number of drug users for estimate  
 Source: 1997-1998 Statewide Alcohol and Drug Survey

Drug use within the 18 months prior to the interview varies across the geographic areas of the State. The highest prevalence is in New Castle County outside of Wilmington. Slightly over 13 percent of this population reports having used one or more drugs (Figure 18). Prevalence of drug use within the City of Wilmington is less than half that of the balance of New Castle County (6.4 percent). Prevalence of drug use within the 18-month period is reported at 3.6 percent in Kent County and at less than one percent in Sussex County. It should be emphasized that the survey included only residents of Delaware. Temporary and seasonal residents were not interviewed. Nor were those who are employed in Delaware but who live in other states.

Figure 18  
**18-Month Drug use by Planning Area**



	Wilmington City	New Castle County	Kent County	Sussex County
Estimate	6.4	13.4	3.6	0.8
Upper 95% CI	9.0	18.0	6.0	1.9
Lower 95% CI	3.9	8.8	1.1	0.1

Source: 1997-1998 Statewide Alcohol and Drug Survey

## Alcohol and Drug Abuse and Dependence

Alcohol and drug involvement includes the usage of a substance at least once during the respondent's lifetime or within the most recent 18-month period. These measurements of drug **use** provide a numerical estimate of the population that is at risk of developing a substance abuse problem. Usage measurements, however, do not provide a gauge of the population having clinically defined alcohol or drug problems. Estimates of the population using alcohol and drugs are useful for planning prevention programs designed to forestall more serious substance use problems. The analysis of treatment need, however, entails the estimation of the Delaware population that exhibits a pattern of **abuse** on alcohol or drugs and/or **dependence** of alcohol or drugs. Abuse and dependence items are included in the interviews with the sample of 2,070 respondents throughout the State. This diagnosis of abuse and dependence is operationalized the DSM-IV Criteria for Substance Abuse (Figure 19) and the DSM-IV Criteria for Substance Dependence (Figure 20).

Figure 19  
**DSM-IV Criteria for Substance Abuse**

**A. A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following:**

- 1) Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household)
- 2) Recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by substance use)
- 3) Recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct)
- 4) Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with spouse about consequences of intoxication, physical fights)

**B. The symptoms have never met the criteria for Substance Dependence for this class of substance.**

Source: Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, American Psychiatric Associations, 1994.

Figure 20  
**DSM-IV Criteria for Substance Dependence**

**A maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following:**

- (1) tolerance, as defined by either of the following:**
  - (a) a need for markedly increased amounts of the substance to achieve intoxication or desired effect
  - (b) markedly diminished effect with continued use of the same amount of the substance
  
- (2) withdrawal, as manifested by either of the following:**
  - (a) the characteristic withdrawal syndrome for the substance (refer to Criteria A and B of the criteria sets for Withdrawal from the specific substances)
  - (b) the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms
  
- (3) the substance is often taken in larger amounts or over a longer period than was intended**
  
- (4) there is a persistent desire or unsuccessful efforts to cut down or control substance use**
  
- (5) a great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances), use the substance (e.g., chain smoking), or recover from its effects**
  
- (6) important social, occupational, or recreational activities are given up or reduced because of substance use**
  
- (7) the substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption)**

*Specify if:*

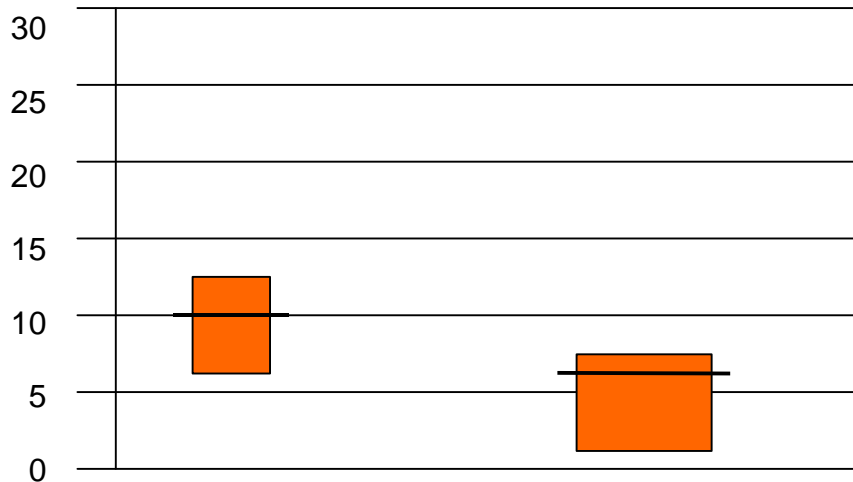
**With Physiological Dependence:** evidence of tolerance or withdrawal (i.e., either Item 1 or 2 is present)

**Without Physiological Dependence:** no evidence of tolerance or withdrawal (i.e., neither Item 1 or 2 is present)

Source: Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, American Psychiatric Association, 1994.

Ten percent of the males in Delaware (aged 18 years and above) reveal pathologies meeting the clinical criteria for alcohol abuse or dependence, (based on their self-reported behavior over the 18 months prior to the interview). Slightly over four percent of the women in Delaware abuses alcohol or is dependent on alcohol (Figure 21). Those who are alcohol abusers are more likely to engage in destructive behavior that poses a clear hazard to health and safety. Substance abuse and dependence also diminishes capacity to function at home and at work. Alcohol abuse and dependence poses a significant accident hazard in the work environment and in operating motor vehicles, marine craft, and airplanes. Alcohol abuse and dependence impacts not only the alcohol abuser and his immediate household, but also affects from the health and safety of the larger community.

Figure 21  
**18-Month Alcohol Abuse and Dependence  
 (DSM-IV) by Gender**  
**Percentage of Delaware Population,  
 Aged 18 Years and Over**

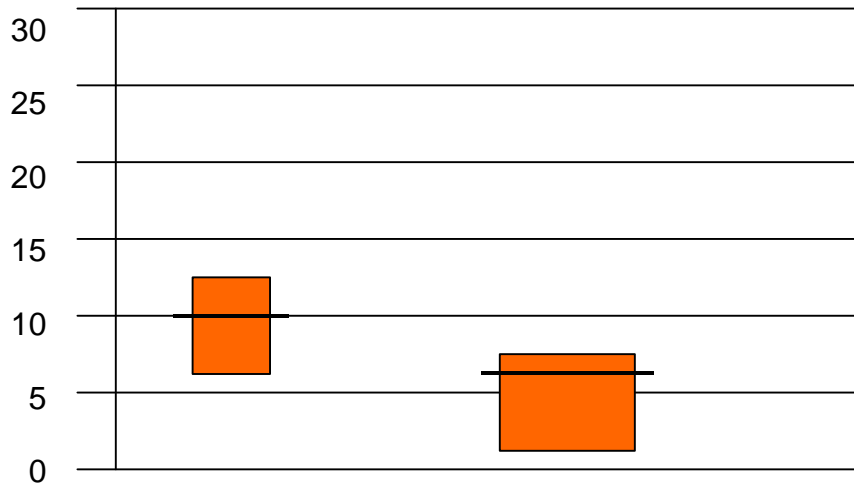


	<b>Male</b>	<b>Female</b>
Estimate	10.0	4.3
Upper 95%	13.2	6.7
Lower 95%	6.7	1.9

Source: 1997-1998 Statewide Alcohol and Drug Survey

Seven percent of the State's white population and six percent of the non-white population are estimated to be either dependent on alcohol or to be abusers of alcohol (Figure 22).

Figure 22  
**18-Month Alcohol Abuse and Dependence  
 (DSM-IV) by Race**  
**Percentage of Delaware Population  
 Aged 18 Years and Above**

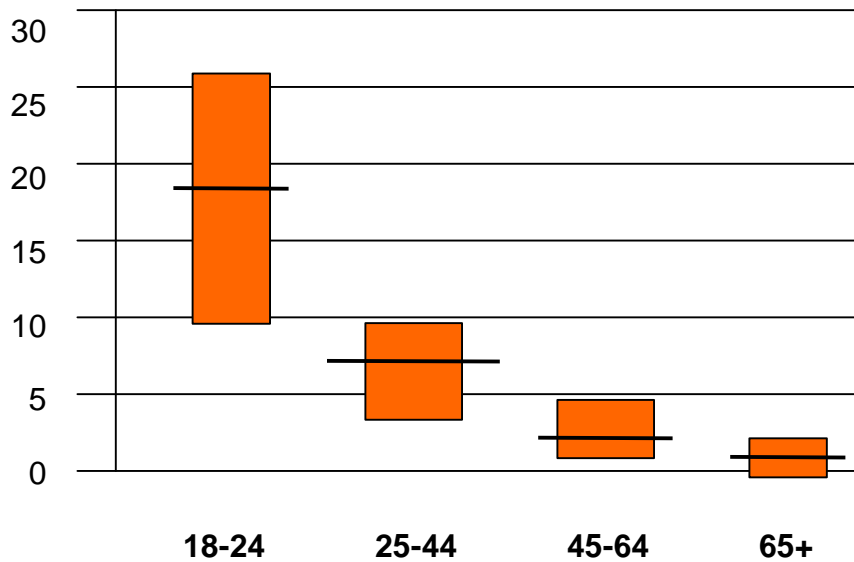


	<b>White</b>	<b>Non-White</b>
Estimate	7.4	5.8
Upper 95%	9.8	9.3
Lower 95%	5.1	2.2

Source: 1997-1998 Statewide Alcohol and Drug Survey

The prevalence of alcohol abuse and dependence is highest among young adults and diminishes with age. Eighteen percent of those between 18 and 24 years of age either abuse or are dependent on alcohol. Prevalence diminishes to seven percent among the next oldest group (age 25-44 years), two percent among 45-64 year-olds, and less than one percent among those aged 65 years and older (Figure 23).

Figure 23  
**18-Month Alcohol Abuse and Dependence  
 (DSM-IV) by Age Group  
 Percentage of Delaware Population  
 Aged 18 Years and Above**

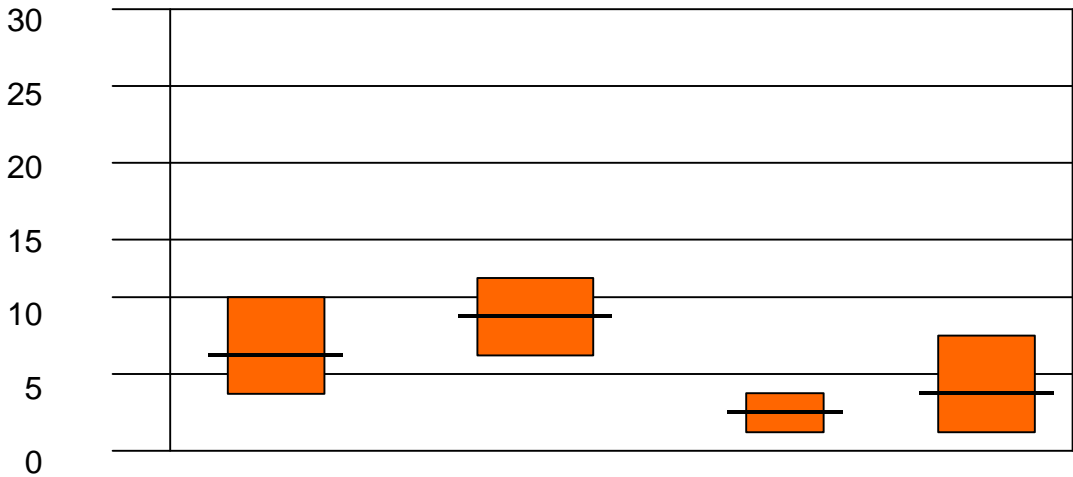


	<b>18-24</b>	<b>25-44</b>	<b>45-64</b>	<b>65+</b>
Estimate	17.6	7.2	2.1	0.7
Upper 95%	26.0	9.6	3.5	1.7
Lower 95%	9.1	4.9	0.8	0.0

Source: 1997-1998 Statewide Alcohol and Drug Survey

New Castle County (outside of Wilmington) has the highest current prevalence (18-month prevalence) of alcohol abuse and alcoholism (nine percent) in the State of Delaware. Wilmington registers a 7 percent prevalence, while Kent County is at 2 percent and Sussex County registers 4 percent (Figure 24).

Figure 24  
**18-Month Alcohol Abuse and Dependence  
(DSM-IV) by Planning Area**

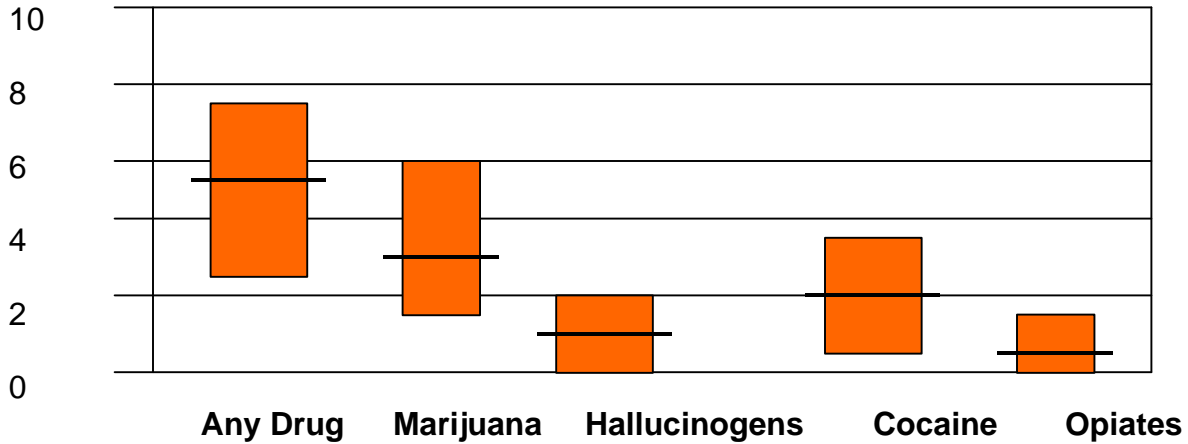


	<b>Wilmington City</b>	<b>New Castle County</b>	<b>Kent County</b>	<b>Sussex County</b>
Estimate	6.8	9.3	2.4	4.6
Upper 95% CI	9.5	12.6	4.5	7.7
Lower 95% CI	4.1	5.9	0.3	1.5

Source: 1997-1998 Statewide Alcohol and Drug Survey

Lifetime drug abuse and dependence is shown in Figure 25. Approximately six percent of the Delaware population, aged 18 years and above, has experienced a drug problem with a clinical diagnosis meeting the DSM-IV criteria for drug abuse or dependence (Figure 25, Figure 26). The specific substance involved with abuse or dependence is also indicated.

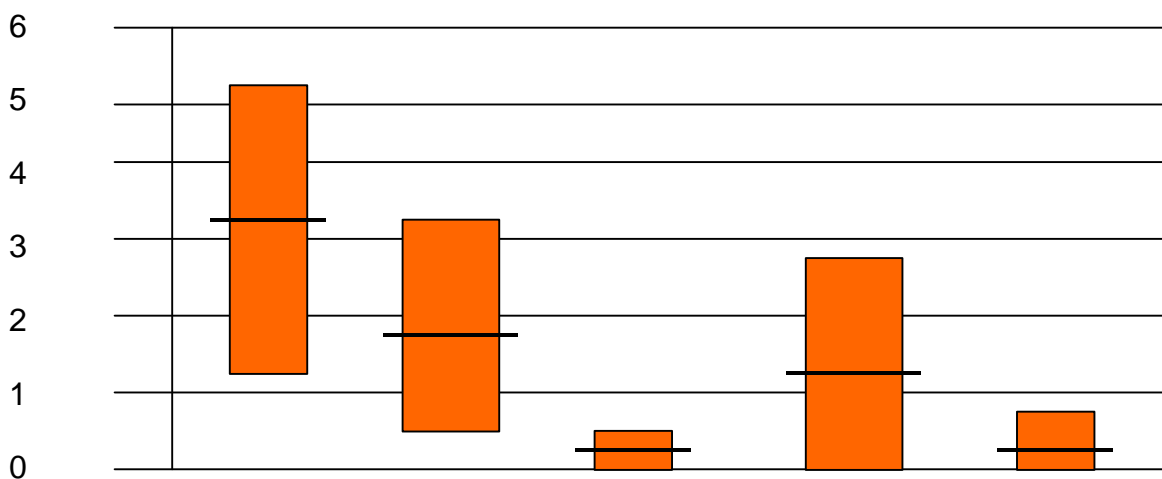
Figure 25  
**Lifetime Drug Abuse and Dependence (DSM-IV)**



	Any Drug	Marijuana	Hallucinogens	Cocaine	Opiates
Estimate	5.7	3.5	1.0	2.0	0.8
Upper 95%	7.9	5.1	2.0	3.6	1.9
Lower 95%	3.4	1.9	0.0	0.3	0.0

Source: 1997-1998 Statewide Alcohol and Drug Survey

Figure 26  
**18-Month Drug Abuse and Dependence (DSM-IV)**



**Any Drug      Marijuana      Hallucinogens      Cocaine      Opiates**

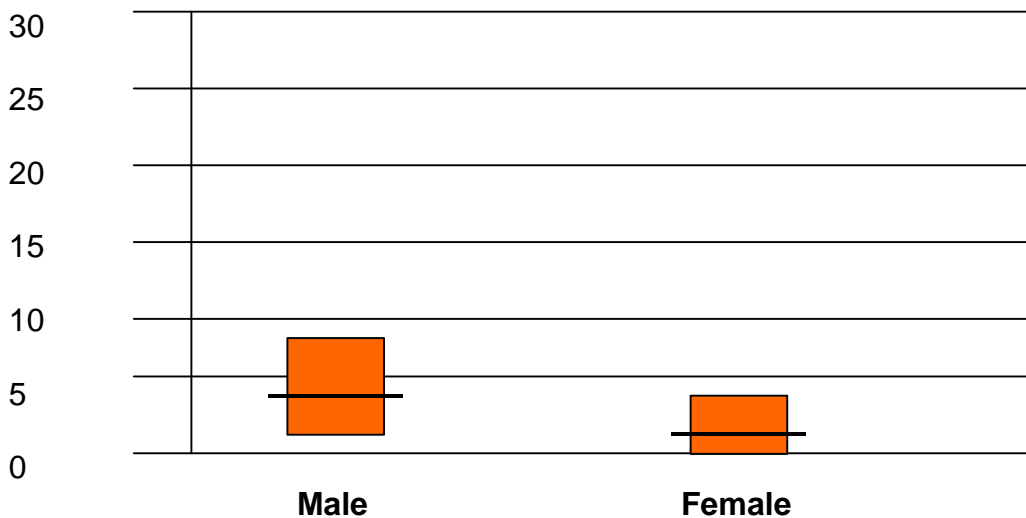
Estimate	3.2	1.8	0.1	1.3	0.3
Upper 95%	5.3	3.2	0.3	2.9	0.8
Lower 95%	1.2	0.5	0.0	0.0	0.0

Source: 1997-1998 Statewide Alcohol and Drug Survey

Four percent of the male population and two percent of the female population of the State have abused drugs or been dependent on drugs during the 18 months prior to the interview (Figure 27).

Approximately three percent of the white population and two percent of the non-white population was dependent upon drugs or abused drugs during the 18 months prior to the interview (Figure 28).

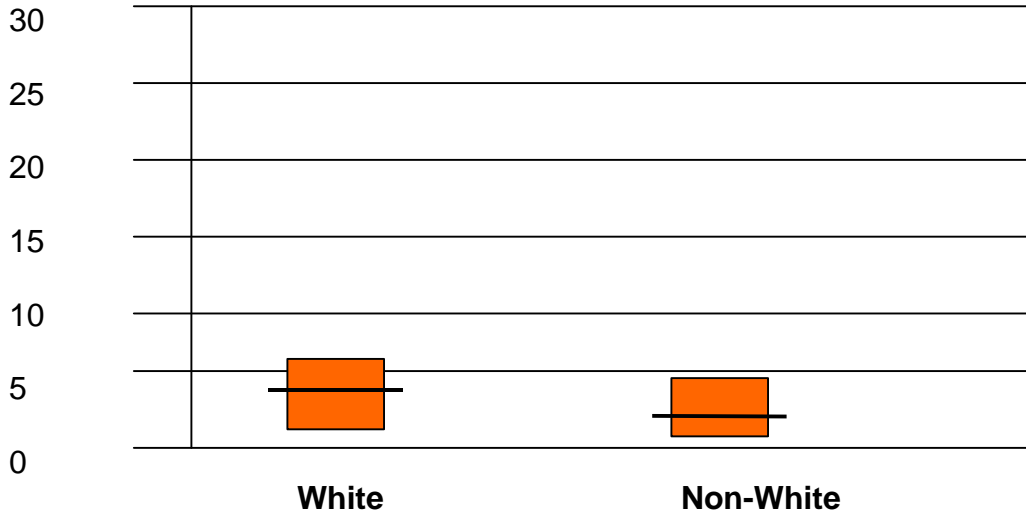
Figure 27  
**18-Month Drug Abuse and Dependence (DSM-IV) by Gender**  
**Percentage of Delaware Population, Aged 18 Years and Over**



	Male	Female
Estimate	4.4	2.1
Upper 95%	7.8	4.4
Lower 95%	1.0	0.0

Source: 1997-1998 Statewide Alcohol and Drug Survey

Figure 28  
**18-Month Drug Abuse and Dependence (DSM-IV) by Race**  
**Percentage of Delaware Population Aged 18 Years and Above**

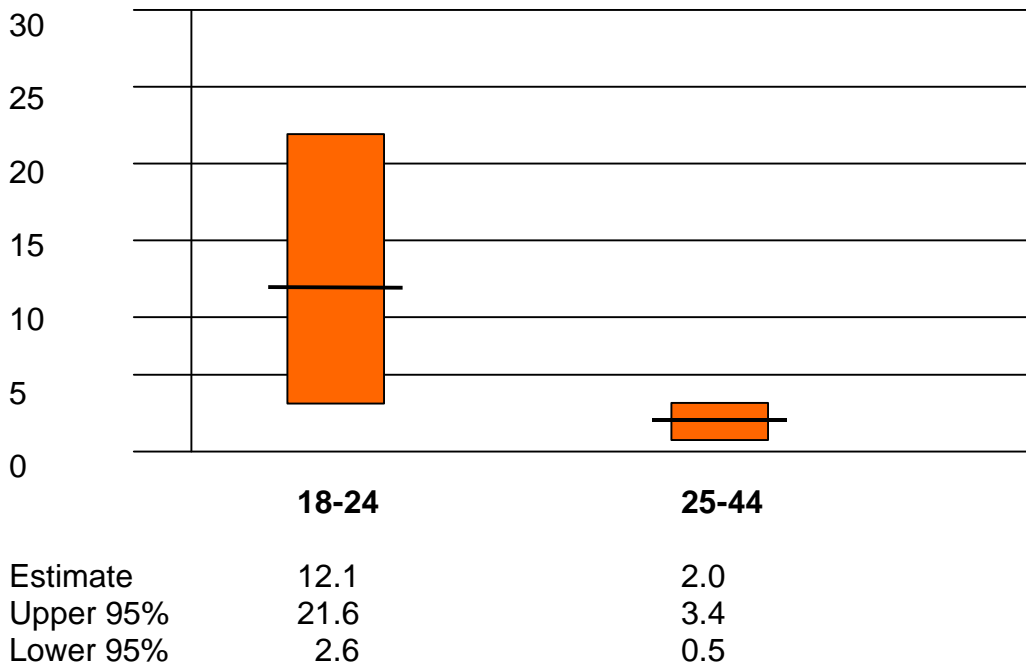


	White	Non-White
Estimate	3.5	2.2
Upper 95%	5.9	4.6
Lower 95%	1.0	0.1

Source: 1997-1998 Statewide Alcohol and Drug Survey

Twelve percent of the population aged 18-24 years abused drugs or was dependent upon drugs during the 18 months prior to the interview (Figure 29). Drug abuse and dependence drops off to two percent for those aged-25-44 and is negligible for the population 45 years of age and above.

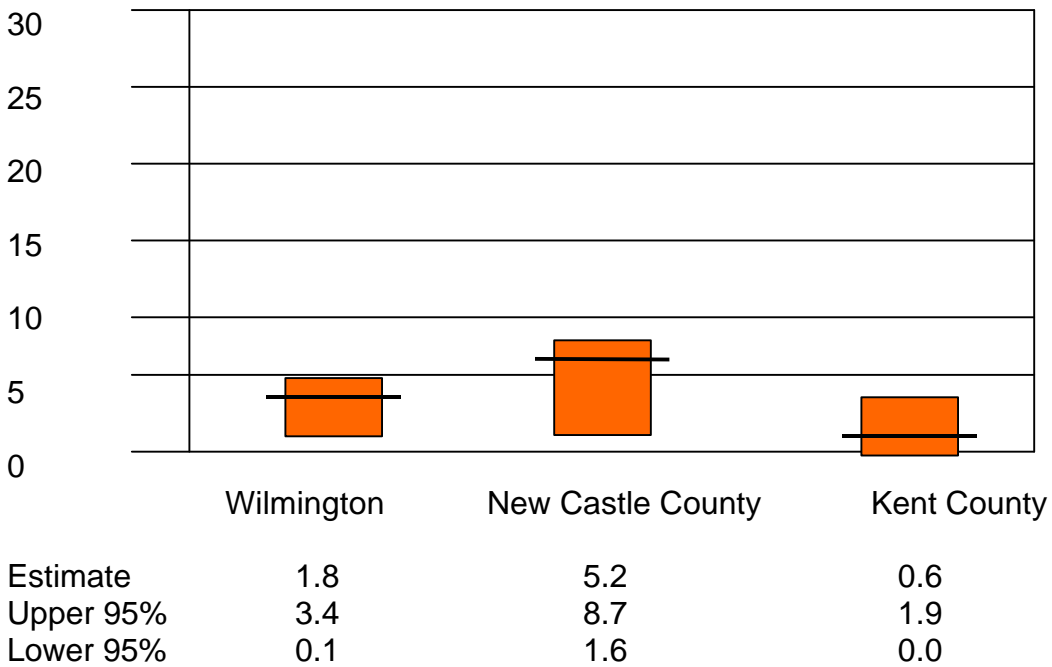
Figure 29  
**18-Month Drug Abuse and Dependence (DSM-IV) by Age Group**  
**Percentage of Delaware Population Aged 18 Years and Above\***



\*Number of drug abusers is insufficient for estimation in 45-64 and 65+ age groups  
 Source: 1997-1998 Statewide Alcohol and Drug Survey

Drug abuse and dependence in Delaware is highest in New Castle County outside of Wilmington (Figure 30). Five percent of this area's population have abused drugs or been dependent upon drugs in the 18 months prior to the interview. Approximately two percent of the Wilmington population abuses drugs or is dependent on drugs. Drug abuse and dependence for Kent and Sussex Counties is less than one percent of the adult population of these areas.

Figure 30  
**18-Month Drug Abuse and Dependence (DSM-IV) by Planning Area**



Source: 1997-1998 Statewide Alcohol and Drug Survey

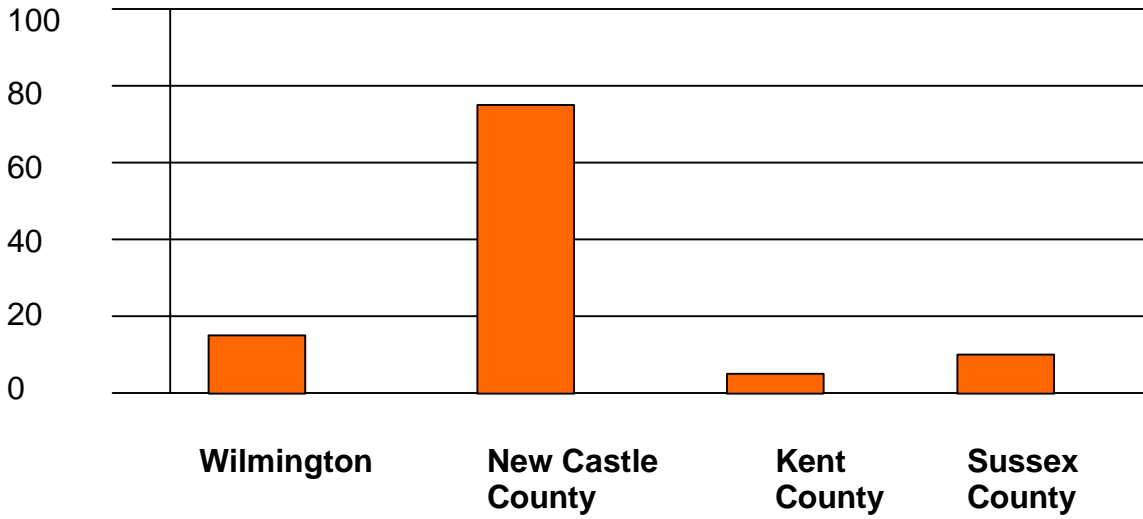
## The Need for Treatment of Alcohol and Drug Problems

The previous chapters estimated the prevalence of alcohol and drug use and abuse within the State of Delaware. This analysis compared the prevalence of alcohol and drug problems across the counties, within the City of Wilmington, and within the major demographic segments of the Delaware population.

The next step in the treatment planning process is to examine the need for treatment services. The survey produces a measure of the need for treatment service, defined in terms of 18-month DSM-IV alcohol and drug abuse and dependency. The population in need of treatment is compared with the sub-population that has been treated Figure 31. The City of Wilmington accounts for 8.9 percent of the statewide population in need of treatment. Although Wilmington accounts for 8.9 percent of the State population in need of treatment, only one half of one percent of those attending treatment received treatment during the last year. For every 17.8 residents of Wilmington in need of treatment, one person is treated, (a ratio of 17.8 to 1). The corresponding ratio for New Castle County is 4.1 to 1. Four persons from the county are in need of treatment for every person treated during a year. The ratio for Kent County is 8.8 to 1 (8.8 people who need treatment to every person treated during a year) and for Sussex County 8.9 to 1 (eight persons needing treatment to every one person treated). These ratios should be viewed with the understanding that treatment may only occur after some critical event, such as a marital problem or an arrest. These crises often force a person to enter a program. Treatment is most likely to occur within a relatively long period after a problem surfaces.

One approach to narrowing the gap between those needing treatment and those receiving it is to screen a higher percentage of people for alcohol or drug problems. By casting a wider net among those showing signs of substance abuse, a higher proportion of those who can benefit from treatment will be drawn into the treatment system.

Figure 31  
**Ratio of Population in Need of Treatment  
 To Population Treated by Planning Area**



	Wilmington	New Castle County	Kent County	Sussex County
In Need of Treatment	8.9	77.8	4.4	8.9
Treated	0.5	18.8	0.5	1.0
Need to Treatment Ratios	17.8	4.1	8.8	8.9

Source: 1997-1998 Statewide Alcohol and Drug Survey

Surveys produce percentages and ratios that are based on a sample of a population. In the present survey, the sample size is 2,070 respondents. In order to estimate the number of Delaware residents who have alcohol and drug problems, the prevalence proportions from the survey by the Delaware population estimates for 1998. This procedure yields an estimate of the actual number of Delawareans, aged 18 and above, who need treatment for alcohol and drug problems (Figure 32).

Figure 32  
**Estimated Population, Aged 18 Years and Above,  
 in Need of Alcoholism, or Drug Abuse Treatment in  
 the State of Delaware, 1998\***

	Wilmington City	New Castle County	Kent County	Sussex County	Statewide
Drug Abuse/Dependence (DSM-IV)					
Estimate	999	15795	549	409 <sup>a</sup>	17752
Lower 95% CI	56	4860	100	0	5116
Upper 95% CI	1887	26426	1740	2556 <sup>a</sup>	32609
Alcohol Abuse/Dependence(DSM-IV)					
Estimate	3775	28248	2198	4702	38923
Lower 95% CI	2276	17921	275	1533	22005
Upper 95% CI	5273	38272	4121	7871	55537
Alcohol and/or Drug Abuse/Dependence (DSM-IV)					
Estimate	4331	37361	2198	4702	49775
Lower 95% CI	2609	24300	275	1533	35396
Upper 95% CI	5995	50421	4121	7871	63602

\*18 Month Prevalence, Alcohol Abuse, Alcohol Dependency, Drug Abuse, and Drug dependency

<sup>a</sup> Population estimates derived from estimated prevalence rates

\*Individual maybe diagnosis with Drug and Alcohol Dependence

Approximately 50,000 (between 35,000 and 64,000) Delawareans abuse alcohol or drugs to the degree that they manifest the clinical criteria for abuse or dependence. However, less than 8,000 persons are treated for alcohol or drug abuse during the average year. About 4,000 people are treated through the State system and another 4,000 through the private treatment system and voluntary programs (such as Alcoholics Anonymous). Operating under the assumption that this population is in "need" of treatment and should be treated within some longer time frame, such as three years, about half of the 50,000 people in need of treatment would have received treatment within this 3-year interval. This still leaves at least 25,000 people of the original 50,000 who need treatment (providing that they do not experience a remission, expire, or migrate from Delaware).

In sum, a conservative estimate is that about 25,000 people comprise the Delaware version of the "treatment gap"---those who "need" treatment but who fail to receive it. The actual number of survey respondents who perceive themselves as being in need of treatment who do not receive treatment is very small. The most frequent explanation for not entering a program was that the program was offered during hours that the respondent had to work (Figure 33).

Those who acknowledge alcohol or drug problems reveal some of the barriers to treatment, real and perceived, for not entering treatment. But the vast majority of respondents who abuse alcohol and drugs fail to acknowledge that they need treatment. Some of this group have obtained treatment and relapsed. But most are unable to identify the problems in the system that produce such a low number of admissions to treatment. The major challenge in reducing the treatment gap is to reach those who have an alcohol or drug problem but do not acknowledge having one. This study identifies a treatment gap--that many more people could benefit from treatment.

Figure 33  
**Reasons Respondents Perceived That They Not  
 Obtain Treatment**

Reason you didn't get treatment	Would have sought treatment during last 12 months if available	
	Yes/DK/Ref. (N=25)	No (N=2)
Too much red tape or hassle	72.0%	100.0%
Facility had hours when you had to work	32.0%	0.0%
No access by public transportation and lack of personal transportation	8.0%	0.0%
The nearest facilities were too far away	8.0%	0.0%
You couldn't get the treatment you wanted	8.0%	0.0%
You didn't have insurance or any way to pay	8.0%	100.0%
The treatment programs or facilities were full	0.0%	100.0%
This facility or program did not have the special services you needed, such as housing, childcare, etc.	8.0%	0.0%

Source: 1998 Statewide Drug and Alcohol Telephone Survey, State of Delaware

# Appendix

Figure 34  
**Response Rate for  
 1997-1998 Statewide Alcohol and Drug Survey**

Line #	Status	Number/Rate (%)
1	Total in sample	8947
2	Disconnected	2059
3	Unanswered	1696
4	Known working (=Line 1 - Line 2- Line 3)	5192
5	Working business	1049
6	Working residential (= Line 4 - Line 5)	4143
7	Ineligible respondents	619
8	Known eligible respondents (= Line 6 - Line 7)	3524
9	Estimated eligible respondents for unanswered calls (= Line 8/Line 6 * Line 3)	1443
10	Total eligible (= Line 8 + Line 9)	4967
11	Refused to be interviewed	1445
12	Selected respondents not available	0
13	Incomplete interviews	0
14	Completed interviews	2079
15	Response rate (= Line 14/Line 10)	41.86%