

State of Maine Substance Abuse Treatment Needs Assessment



Study 1: Alcohol and Other Drug Household Estimates

Maine Office of Substance Abuse
Department of Mental Health, Mental
Retardation, and Substance Abuse Services
May 1998

CSAT
Center for Substance
Abuse Treatment
SAMHSA

State of Maine

Substance Abuse Treatment Needs Assessment

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FINAL REPORT

Prepared in Collaboration with
the
Maine Office of Substance Abuse

by

Research Triangle Institute

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Executive Summary

This report presents findings from a study designed to examine the demand and need for alcohol and other drug treatment among Maine's adult household population aged 18 or older. It provides estimates for (a) the prevalence and correlates of alcohol and illicit drug use, (b) the need and demand for intervention or treatment for alcohol or illicit drug abuse, (c) the co-occurrence of substance abuse and other problems, and (d) special topics, including cigarette use among Maine adults, substance use among women of childbearing age, and gambling-related problems among Maine adults. The study provides the first comprehensive data on the prevalence of substance use and need for treatment among Maine adults. Funding was provided by the Center for Substance Abuse Treatment (CSAT). The Research Triangle Institute (RTI) of North Carolina collaborated with the state of Maine in conducting the study. This investigation is part of Maine's family of demand and needs assessment studies for alcohol and other drugs.

From February to June of 1997, a random sample of 4,042 adults in Maine completed a telephone survey that used a computer-assisted telephone interviewing (CATI) system. Households were selected by random digit dialing. Adults aged 18 to 44 were oversampled because Maine Addiction Treatment System data indicated that adults under the age of 45 account for the vast majority of the state's treatment admissions. About 65% of the respondents were aged 18 to 44. Data were weighted to reflect current population counts in the state; weighting ensured that groups who were overrepresented in the sample relative to their representation in the population (e.g., adults aged 18 to 44) did not have a disproportionate effect upon prevalence estimates. Estimates reported here are believed to be reliable, although some may be conservative. Key findings from the Maine telephone survey analyses are noted below.

Prevalence and Correlates of Alcohol and Illicit Drug Use

- Overall, a significant proportion of adults in Maine households used alcohol or illicit drugs. The majority (69%) used at least some alcohol in the 12 months before the survey, and slightly more than half (52%) used alcohol in the month preceding the survey. In addition, about 88,000 adult residents of Maine households (about 10%) used alcohol heavily in the previous 12 months. About 7% (64,000 adults) drank heavily in the month prior to the survey. Approximately 10% of adults, or about 96,000 persons, used one or more illicit drugs in the 12 months before the survey, with another 5.7% (53,000 adults) reporting past month illicit drug use.
- Some of the highest rates of heavy alcohol use and illicit drug use in the past 12 months were observed for men (15% and 13%, respectively), adults between the ages of 18 and 24 (20% heavy alcohol, 33% illicit

drugs), and single (i.e., never married) adults (20% heavy alcohol, 27% illicit drugs). Marijuana accounted for most illicit drug use.

- Compared with regional and national data from the 1996 National Household Survey on Drug Abuse (NHSDA), Maine adults in 1997 had similar rates of any alcohol use, hallucinogen use, and cocaine use in the past year. However, rates of marijuana use and nonmedical use of stimulants among young Maine adults aged 18 to 25 were notably higher than the corresponding national rates in 1996.

Need for Treatment or Intervention for Alcohol or Illicit Drug Use

- Rates of specific problems associated with alcohol use in the past 12 months were greater than the rates of problems associated with use of other drugs. However, this finding is not surprising, given the much higher prevalence of alcohol use among this population.
- The most commonly occurring alcohol-related problems in the 12 months prior to the telephone survey were use of alcohol in larger amounts or for longer periods than intended; exhibition of symptoms suggesting a development of tolerance to the effects of alcohol; unsuccessful attempts to quit, cut down on, or control drinking; and frequent intoxication in potentially hazardous situations. Young adults aged 18 to 24 (both males and females) had particularly high rates of alcohol-related problems in the past 12 months.
- About 8% of adults in the Maine household population in 1997, or an estimated 75,600 adults, were in need of substance abuse treatment, based on (a) receipt of treatment services in the past 12 months; (b) a lifetime history of dependence or abuse, substance use in the past 12 months, symptoms in the past 12 months; or (c) a lifetime history of dependence or abuse and a "problem" pattern of use in the absence of reports of current symptoms.
- Alcohol accounted for much of the need for treatment. Of the estimated 75,600 adults in need of treatment, 65,900 specifically needed alcohol treatment.
- Men were more likely than women to need treatment, and young adults aged 18 to 24 were more likely than adults in other age groups to need treatment. In particular, more than one-fourth of young men aged 18 to 24 and nearly 14% of young women in this age group needed some kind of treatment services for their substance use.
- Compared with the estimated 8% of adults in the Maine household population who were in need of treatment, more than one in five adults in

this population were in need of some form of intervention for their use of alcohol or other drugs, which could include treatment. This estimate translated to nearly 195,000 adults.

- As was the case with need for treatment, men and young adults had the highest prevalences of need for some form of intervention for their substance use. In particular, more than half of young males aged 18 to 24 could be considered in need of some form of intervention because they experienced problems related to their substance use, or they exhibited a pattern of use that would place them at high risk for problems. Similarly, more than 40% of females aged 18 to 24 could be considered in need of intervention.
- Nearly 35% of males aged 25 to 44 and 16% of females in this age group could be considered in need of intervention for their substance use. Although rates of need for intervention generally declined for adults aged 45 or older, about 17% of males aged 45 to 64 and about 8% of males aged 65 or older were in need of intervention.
- About one-fourth of the Maine adults who needed treatment did not report health insurance coverage. Although more than 60% of adults in need of treatment reported having private health insurance, some of these adults may not have been able to use their insurance to pay for treatment they may have wanted.
- About 19% of the adults in need of treatment had received detoxification or treatment services in a residential program, halfway house, or outpatient program in their lifetimes. Although this percentage was greater than that for the entire Maine adult household population, this finding suggests little lifetime experience with treatment services among those adults who were currently in need of treatment.
- The number of adults in need of treatment in the year prior to the 1997 survey was estimated to be nearly 14 times larger than the number of adults who received formal treatment services during that same period. This finding underscores the limitation of using treatment admission data to estimate the size of the overall population in need of services.
- Compared with data on the number of adults in the Maine household population who received detoxification or formal substance abuse treatment in the year prior to the survey, about 1.8 times as many adults wanted more help than they received, or felt the need for treatment but did not seek any assistance. Although most Maine adults who were identified as needing treatment did not appear to see the need for assistance, the data on demand for services suggest a considerable unmet demand for treatment services in this population.

Co-Occurrence of Substance Use and Other Problems

- Maine adults in households with annual incomes under \$20,000 were about three times more likely than those with incomes of \$40,000 or more to perceive their physical health as fair or poor. Adults who had used illicit drugs in the past year were more than twice as likely than those who had never used drugs to report being in fair or poor health.
- The relationships between income and illicit drug use for perceived mental health status were fairly consistent with those for perceived physical health status. Past year and lifetime illicit drug users and adults from households with annual incomes under \$20,000 were more likely than were lifetime nonusers of illicit drugs or persons in households with annual incomes of \$40,000 or more to perceive their mental health as being fair or poor.
- Adults who needed substance abuse treatment did not differ on their perceptions of physical health compared with the Maine adult household population as a whole. However, adults needing substance abuse treatment did have higher rates of respiratory problems and digestive disorders.
- More than 40% of Maine adults in the household population who needed substance abuse treatment perceived their mental health as being fair or poor. Nearly one in five adults who needed substance abuse treatment had been given a prescription for a psychotherapeutic medication in the past year.
- There was a clear relationship between substance use among adults and arrests in the past year. About 6% of adults in the household population who drank heavily or used illicit drugs in the past year had been arrested for offenses other than minor traffic violations, compared with less than 1% of adults who had not used alcohol or illicit drugs during that period.

Special Topics

- Nearly one-third of Maine adults, or nearly 300,000 adults, smoked cigarettes in the year prior to the 1997 survey. Rates of cigarette use were particularly high among young adults aged 18 to 24 and adults who were single (i.e., never married) or were living in a marriage-like relationship. Past year cigarette use was less prevalent among adults with a college education, compared with adults with less education.
- Among women who were pregnant in the past year, about 15% used illicit drugs during the past year, and about 6% had four or more drinks on a weekly basis in the past year. In addition, 30% smoked cigarettes in the past year, including 9% who smoked a pack or more of cigarettes a day.

Although these women may not necessarily have used alcohol, illicit drugs, or cigarettes while they were pregnant, these findings nevertheless indicate considerable risk for drug use among Maine women of childbearing age to occur during pregnancy, and particularly before women become aware that they are pregnant.

- About 8% of adult women who were pregnant in the year prior to the survey were identified as needing substance abuse treatment, and nearly one in four were identified as needing some form of treatment or intervention for their substance use. These estimates translated to about 2,000 pregnant women needing substance abuse treatment and about 6,000 pregnant women needing some form of intervention. Alcohol abuse accounted for much of this need, including about one in five pregnant adult women in the Maine household population who were identified as needing intervention because of their use of alcohol.

- Rates of probable pathological gambling among Maine adults were relatively low. Fewer than 1% of adults in the overall household population and about 2% of adults who gambled on more than 5 days in the year prior to the survey were considered probable pathological gamblers, based on the lifetime occurrence of at least three out of eight possible gambling-related problems. About 3% of adults who were in need of substance abuse treatment also were identified as being probable pathological gamblers.

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1. Introduction and Background

The problems of substance abuse are well known and have been the topic of numerous investigations, including national, state, and local studies (see Rouse, 1995, for a selected summary). Indeed, substance abuse has been called the Nation's number one health problem and has a wide-ranging impact on individuals' health, social, family, and work relationships (Horgan, Marsden, & Larson, 1993). Attempts to address substance use problems using treatment services require information about the nature, severity, and range of problems in need of treatment and or intervention among various population subgroups.

This study was designed to examine the demand and need for alcohol and other drug treatment among adults aged 18 or older in Maine.

This study was designed to examine the demand and need for alcohol and other drug treatment among adults aged 18 or older in Maine. No recent comprehensive data from epidemiological surveys on alcohol and other drug use exist for the state of Maine. Although the National Household Survey on Drug Abuse (NHSDA) provides estimates on the prevalence of drug use in the Northeast region of the United States (including Maine, along with the other New England states of Connecticut, Massachusetts, New Hampshire, Rhode Island, and Vermont, and the Middle Atlantic states of New Jersey, New York, and Pennsylvania), these data cannot be used to make estimates specifically for Maine of the prevalence of alcohol and other drug use, or of alcohol- and other drug-related problems. In addition, state-level data on such behaviors as alcohol consumption and drinking and driving are collected for Maine as part of the Centers for Disease Control and Prevention's (CDC's) Behavioral Risk Factor Surveillance System (BRFSS), but these data do not allow a detailed assessment to be made of treatment needs among Maine residents.

More detailed data on substance use dependence and drug treatment histories are needed to indicate what percentage of the Maine household population and how many people might meet diagnostic criteria for dependence or abuse for alcohol or other drugs. For reasons of cost and efficiency, a telephone survey was selected as the method to obtain data for the household population. Funding was provided by the Center for Substance Abuse Treatment (CSAT), and the Research Triangle Institute (RTI) of North Carolina collaborated with the state in conducting the study.

This report provides estimates among Maine's household population aged 18 or older about (a) the prevalence and correlates of alcohol and illicit drug use, (b) the need and demand for intervention or treatment for alcohol or illicit drug use, and (c) the co-occurrence of substance use and other problems. This investigation is one of a family of six demand and needs assessment studies for alcohol and other drugs in Maine.

The remainder of this chapter provides an overview of all the Maine demand and needs assessment studies, background about the geography and people of Maine, the current study of alcohol and other drug estimates in the household population, the methods used to obtain the data described in this report (including a discussion of the sample, the data collection methods and response rates, and the key definitions and measures), the procedures for analysis, and the strengths and limitations of the data.

1.1 Overview of Maine Demand and Needs Assessment Studies

The Maine demand and needs assessment project is a family of studies designed to provide a valid and reliable database of information to facilitate short- and long-term planning and to aid in implementing services to meet population needs effectively and cost-efficiently. The specific objectives of the project are to:

- develop statewide and regional (substate) estimates of alcohol and other treatment needs for the total population and key subgroups;
- determine the extent to which these needs are being met by the current treatment system;
- develop low-cost, valid methodologies that can be used by the state in subsequent years to estimate treatment needs; and
- identify key gaps in the state's current data collection efforts relating to needs assessment.

To achieve these goals, the demand and needs assessment project consists of a family of six studies. These studies were selected to achieve broad coverage of the state's population, to have good information on met need, and to develop tools that can be used by the state in future years. The specific studies include a range of methodologies, including telephone interviewing, computer-assisted personal interviewing (CAPI), record abstraction, analytic modeling, and integrative analyses:

- Study 1: Alcohol and Other Drug Household Estimates;
- Study 2: Use of Alcohol and Illicit Drugs and Need for Treatment Among Maine Adult Arrestees;
- Study 3: Estimating Need for Treatment or Intervention Among Youth in Maine Counties: A Synthetic Estimation Approach;

- Study 4: Using Social Indicators to Estimate Substance Use and Treatment Needs in Maine;
- Study 5: Assessment of Maine's Substance Abuse Treatment System: Structure, Capacity and Utilization, 1997; and
- Study 6: Integrated Population Estimates of Substance Abuse Treatment and Intervention Needs in the state of Maine.

Together, these studies provide an important knowledge base for Maine to improve its efforts to meet treatment needs and to allocate its resources.

1.2 Maine's Population and Geography

Maine is a state with a small population, totaling approximately 1,241,000 residents in 1995 (U.S. Bureau of the Census, 1996). About two-thirds of the population live in rural areas. Although the large majority of the state's population resides in rural areas, more than 96% of the occupied housing units in 1990 had telephones (U.S. Bureau of the Census, 1994).

The state has 16 counties and had an average population density of 40 residents per square mile in 1995. Cumberland County, where the City of Portland is located, had the largest population among the 16 counties in 1995 (248,526) and the highest population density (297 residents per square mile). York County, the southernmost county in Maine, had the second largest population among the counties, with 170,984 people in 1995. Thus, approximately one in five Maine residents lived in Cumberland County in 1995, and more than one-third lived in the two southernmost counties of Cumberland and York. Despite the largely rural nature of the state, Maine's population increased by more than 10% from 1980 to 1995.

Racially and ethnically, Maine's population is homogeneous. In 1990, whites comprised nearly 98% of the state's population (U.S. Bureau of the Census, 1994). Approximately 0.5% of the population in 1990 were Native American, 0.5% were Asian or Pacific Islander, and 0.4% were African American. The majority of the nonwhite population in 1990 resided in Cumberland, Penobscot, Washington, and York Counties.

Franco-Americans make up about 40% of the white population. In addition, 9.2% of Maine's population in 1990 spoke a language other than English at home (U.S. Bureau of the Census, 1994). Based on information from the Maine Department of Labor and 1990 Census data, French is by far the most widely spoken non-English language in Maine.

Racially and ethnically, Maine's population is homogeneous

About 9% of Maine's population in 1990 spoke a language other than English at home. However, most of these people are bilingual and would be capable of completing a telephone interview in English.

Approximately 7% of the Maine population speak French at home, 0.5% speak Spanish, and 0.5% speak German. The remaining 1.2% of the population who speak a language other than English at home speak some other language (e.g., Polish, Yiddish, Asian languages).

However, most of the people who speak a language at home other than English are bilingual and would be capable of completing a telephone interview in English. In fact, only about 3% of the 1990 Maine population were foreign-born (U.S. Bureau of the Census, 1994). Because Maine borders Quebec, many people who speak French at home do so out of a desire to maintain their cultural identity, but they would be capable of completing an interview in English.

More than 1 in 10 Maine residents in 1989 lived below the poverty level (U.S. Bureau of the Census, 1994). Elderly people, women, and children appear to be disproportionately affected. In 1989, 14% of Maine residents aged 65 or older were below the poverty level, as were 13% of children under 18 years of age. Among female-headed households with children in 1989, 30% had incomes below the poverty level.

With an area of 30,865 square miles, Maine has terrains that consist of mountainous areas, rolling hills, and rugged coast. Maine is bordered by Quebec to the north, by New Hampshire to the west, and by the Atlantic Ocean to the east. Traffic flows mainly north-to-south along Interstate 95. Portland and Augusta, the state capital, are located along this route. East-west travel is accomplished via secondary roads. Although substance abuse treatment services are available in most Maine counties, availability of transportation can sometimes be a barrier to receipt of treatment. This is particularly the case in the rural counties, where public transportation is not readily available. Access to treatment services is usually easier via the major north-south route compared with east-west routes, even though the actual mileage along the north-south route may be considerable.

Maine's location near Montreal to the north and Boston and New York City to the south, as well as its location along the Atlantic Ocean, make Maine a convenient route for drug trafficking between Canada and the United States. As noted above, Interstate 95—which connects Miami, Washington, DC, New York City, and other major metropolitan areas on the East Coast—also runs through Maine.

The economy has changed considerably in the past 20 years. Tourism has become a growth industry, and farming has decreased as a source of income and employment. The ease of access to Maine via the Interstate highway system also has resulted in an influx of new residents. The access to Maine through the Interstate highway system and international ports of entry are factors in illicit drug and alcohol problems in the state.

1.3 Overview of Study 1: Alcohol and Other Drug Household Estimates

This study examined the demand and need for alcohol and other drug treatment among Maine's adult household population using a telephone survey. A computer-assisted telephone interviewing (CATI) system was used to conduct the interviews. The major aims of the telephone survey were to:

- measure the prevalence of use of alcohol and other drugs (i.e., marijuana, hallucinogens, cocaine, opiates, and nonmedical use of stimulants);
- measure the prevalence of dependence on different substances;
- measure the need for substance abuse treatment services; and
- measure the use of and demand for substance abuse treatment services.

An additional objective was to assess special issues of relevance to the Maine Office of Substance Abuse, including the prevalence of cigarette smoking, the prevalence of gambling-related problems, and the co-occurrence of substance use and problem or pathological gambling.

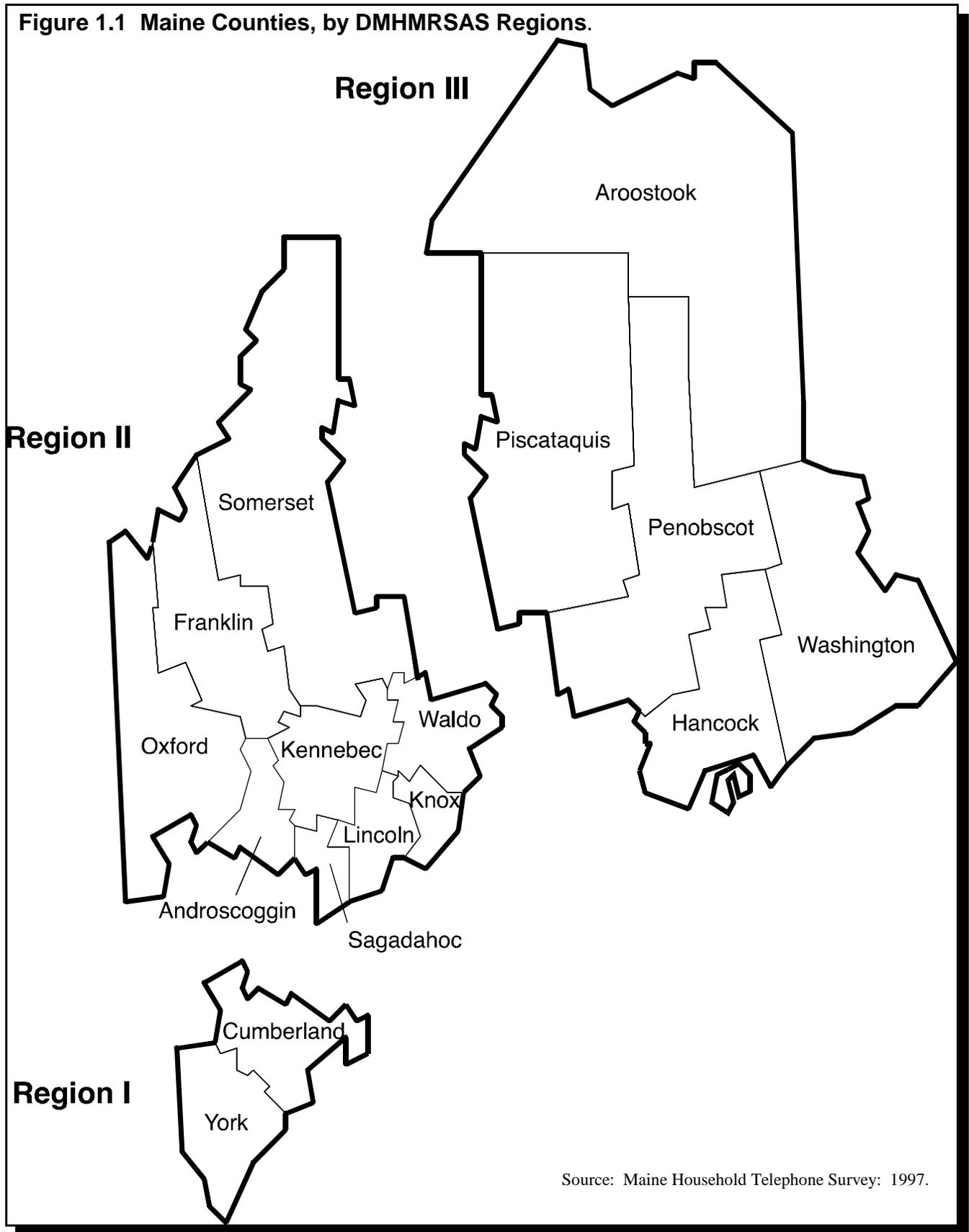
To meet these objectives, the survey included questions about selected demographic characteristics (e.g., gender, education, race/ethnicity, employment status); the prevalence of alcohol, marijuana, hallucinogens, cocaine (including crack), heroin (or other opiates), and nonmedical stimulant use; the prevalence of dependence on each of these substances, using the Diagnostic Interview Schedule (DIS) questions (Robins, Helzer, Croughan, Williams, & Spritzer, 1981); the prevalence of injection drug use; drug treatment history; and unmet drug treatment need and barriers to treatment. In addition, the questionnaire contained selected items about (a) physical and mental health perceptions, (b) medical problems that can be caused or aggravated by alcohol or other drug use, and (c) problems related to gambling (see Appendix F for selected items from the questionnaire).

Estimates from these data were developed for the state as a whole and for each of three DMHMRSAS regions shown in Figure 1.1.

1.4 Study Sample

The 1997 Maine Household Telephone Survey used a stratified random sample of adults aged 18 or older in Maine who were living in households with telephones. Respondents were chosen by random digit dialing, which meant that both listed and unlisted numbers were

Figure 1.1 Maine Counties, by DMHMRSAS Regions.



Source: Maine Household Telephone Survey: 1997.

included in the study. Within each eligible household, one adult was randomly selected for interviewing.

A minimum sample size of 4,000 completed interviews was targeted.

A minimum sample size of 4,000 completed interviews was targeted. The sample was allocated to obtain 1,355 interviews from Region I, 1,574 interviews from Region II, and 1,071 interviews from Region III.

Adults aged 18 to 44 were oversampled because they account for the vast majority of treatment admissions in Maine.

In addition, adults aged 18 to 44 were oversampled because Maine Addiction Treatment System data for Fiscal Year (FY) 1996 indicated that 86% of the adult treatment admissions were for this age group. About 69% of the final completed interviews were targeted to come from adults aged 18 to 44, and the remaining 31% were targeted to come from adults aged 45 and older. Although only 14% of the adult treatment admissions in FY 1996 came from adults aged 45 or older, targeting about 31% of the completed interviews from this age group would allow adequate precision for making estimates among adults aged 45 to 64 and among adults aged 65 or older.

Sampling weights were computed to reflect population counts in the state so that population subgroups would be represented proportional to their size in the population. Weighting ensures that groups who may have been overrepresented in the sample do not have a disproportionate effect on the final estimates. As noted above, adults aged 18 to 44 were oversampled, and adults in this age group account for the large majority of treatment admissions involving adults in Maine. In addition, data from the NHSDA indicate that the prevalence of illicit drug use is highest among adults aged 18 to 25 and is lowest among adults aged 35 or older (Substance Abuse and Mental Health Services Administration [SAMHSA], 1997a). Thus, weighting of the Maine Household Telephone Survey data was designed to ensure that reports of substance use and related problems among adults who were aged 18 to 44 did not have a disproportionate effect upon estimates of the prevalence of drug use or of estimates of treatment need.

A total of 4,042 usable interviews was obtained from adults in Maine households.

For all responding persons, the sampling weights were first calculated as the inverse of the respondents' probability of inclusion in the survey. The weights then were adjusted to compensate for differences between people living in households with telephones and the Maine household population as a whole. The weights also were adjusted to compensate for differences in cooperation rates by demographic groups. Finally, the sampling weights were adjusted so that they summed to the official state estimates for specific age and gender categories within the three DMHMRSAS regions for 1997, based on data provided to RTI by the Maine Office of Data Research and Vital Statistics. The age categories were 18 to 24, 25 to 44, 45 to 64, and 65 or older. Details on the sample design and weighting procedures are provided in Appendix C.

Table 1.1 presents the number of respondents within demographic subgroups, as well as the demographic characteristics of the survey respondents both before and after weighting. The weighted data reflect the demographic characteristics of the Maine adult household population in terms of gender, age, race/ethnicity, marital status, education, and current employment status. Table 1.1 includes usable interviews from 97 pilot test respondents (see Section 1.5) and usable interviews from 3,945 respondents in the full study, for a total of 4,042 interviews. An interview was considered usable if the respondent had answered all relevant questions about use of illicit drugs and symptoms of dependence, if appropriate (see Appendix F).

About 65% of the 1997 Maine Household Telephone Survey respondents were aged 18 to 44.

Comparison of the unweighted and weighted percentages by age group reflects the oversampling of adults aged 18 to 44. Specifically, about 65% of the 1997 Maine Household Telephone Survey respondents were aged 18 to 44, which was slightly below the target of 69% for this age group. Despite the age oversampling, young adults aged 18 to 24 were slightly underrepresented in the sample (i.e., unweighted percentage of 11.6%) relative to their representation in the adult household population as a whole (i.e., weighted percentage of 12.1%).

Males were fairly well represented in the sample. The racial/ethnic composition of the survey sample closely reflected the racial/ethnic makeup of the adult household population as a whole.

Comparison of other unweighted and weighted percentages for the demographic subgroups in Table 1.1 indicates that males were fairly well represented in the sample. The racial/ethnic composition of the survey sample closely reflected the racial/ethnic makeup of the adult household population as a whole. Most nonwhite respondents were classified in the "other" racial/ethnic group. Only 15 respondents were African American, and 45 respondents were of Hispanic origin. Adults who were single (i.e., never married) or who were widowed, divorced, or separated were somewhat overrepresented in the sample. Adults who had completed some education beyond high school also were overrepresented slightly.

1.5 Data Collection and Response Rates

Before data collection for the full study began, a pilot test took place from February 24 to March 2, 1997. Major aims of the pilot test were to (a) test the procedures for oversampling adults aged 18 to 44 and (b) identify situations where the questionnaire might have needed modification prior to fielding of the full study. As noted above, a total of 97 completed interviews were obtained in the pilot test.

Because RTI had fielded similar questionnaires in other state needs assessment projects, however, little or no changes to the "core" substance use and treatment need questions (see Appendix F) were anticipated. The pilot test experience confirmed that the "core" substance use and treatment need questions did not need any modification prior to fielding of the full study. Consequently, completed

Table 1.1 Number of Respondents and Demographic Characteristics of the Maine Adult Household Population: 1997

Demographic Characteristic	Number of Respondents	Unweighted Percentage	Weighted Percentage¹
Total Maine	4,042	100.0	100.0
DMHMRSAS Region²			
Region I	1,331	32.9	33.9
Region II	1,621	40.1	39.5
Region III	1,090	27.0	26.6
Gender			
Male	1,904	47.1	47.9
Female	2,138	52.9	52.1
Age			
18-24	468	11.6	12.1
25-44	2,146	53.1	41.9
45-64	907	22.4	27.7
65 or older	521	12.9	18.4
Race/Ethnicity			
White	3,842	95.1	95.2
Black	15	0.4	0.4
Hispanic	45	1.1	0.9
Other	140	3.5	3.5
Marital Status³			
Single	702	17.4	15.3
Married	2,242	55.5	59.9
Living as married	351	8.7	8.5
Widowed/divorced/separated	720	17.8	15.7
Education³			
Less than high school	387	9.6	11.2
High school	1,507	37.3	38.2
Some college	1,076	26.6	25.2
College graduate or higher	1,069	26.4	25.2
Current Employment³			
Full-time	2,233	55.2	51.5
Part-time	601	14.9	14.6
Unemployed ⁴	100	2.5	2.2
Other ⁵	1,081	26.7	31.1

¹Percentages have been adjusted to reflect respondents' probability of being included in the sample and to compensate for different response rates and coverage rates for selected demographic subgroups.

²Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

³Totals for marital status, education, and current employment do not sum 4,042 due to missing data and respondent break-offs.

⁴Includes persons looking for work or not looking for work.

⁵Retired, disabled, homemaker, student, or "other."

Source: Maine Household Telephone Survey: 1997.

interviews in the pilot test were combined with completed interviews from the full study to increase the total sample size.

Interviews for the full study were conducted from March 20 to June 24, 1997.

Interviews for the full study were conducted from March 20 to June 24, 1997, using a CATI procedure. Interviewers were trained in the use of CATI and in procedures for administering the Maine Household Telephone Survey Questionnaire. An automated scheduler was used to assign telephone numbers to interviewers and to manage the flow of calls. The scheduler also managed the timing and order of callbacks. Most of the selected telephone numbers were prescreened with an autodialer to exclude those known to be unassigned.

Because of the random-digit-dialing design, the sample also included telephone numbers for businesses and other ineligible numbers (e.g., beepers, fax machines). Computer modems or fax machines were called at least twice to check that the telephone number was not otherwise used as a residential number; not counting ring-no-answer or busy signal results, telephone numbers that had two consecutive fax/modem results at different times of the day and week (without an answering machine or an actual person being reached) were treated as ineligible. Telephone numbers that corresponded to other types of ineligible situations (e.g., beepers/pagers, pay telephones) were immediately screened out as ineligible.

When someone answered the telephone, interviewers screened out numbers that served businesses (including business lines out of a person's residence). When interviewers reached an eligible household, they obtained a roster of adults 18 or older, including the age groups of the adult household members (i.e., 18 to 24, 25 to 44, 45 or older). If all adults in the household were aged 18 to 44, then every adult in that household had an equal chance of being selected. In households that contained adults aged 18 to 44 and adults aged 45 or older, the CATI program favored selection of adults in the younger age group, but adults in the older age group still had some chance of being selected. To facilitate oversampling of adults aged 18 to 44, the CATI program also was designed to select an adult for an interview in slightly less than half of the households in which all adults were aged 45 or older. If all adults were aged 45 or older and no adult in that household was selected for an interview, the interviewer explained that a larger number of interviews was sought from adults under the age of 45 and politely concluded the interview. Consequently, these procedures favored selection of adults aged 18 to 44 by (a) favoring selection of adults aged 18 to 44 within households, and (b) attempting an interview in fewer households where all adults were aged 45 and older. (See Appendix C for a more detailed discussion of how the sampling procedures operated.)

In households where an adult was randomly selected to take the interview, the interviewers attempted to conduct the interview if the

selected person was at home. If the selected person was unavailable, they set an appointment to call when the person would be home. When they made contact with the selected household member, they explained the purpose of the study, requested permission to conduct the interview, and proceeded with the interview for those who consented.

Table 1.2 presents response data, performance rates, and response rates overall for the state and for the three DMHMRSAS regions. The data in Table 1.2 include the combined sample of telephone numbers for the pilot test and full study. Although many of the pilot test telephone numbers were not worked as extensively as the numbers in the full study with regard to callback attempts (see below) and attempts to convert initial refusals to completed interviews, pilot test telephone numbers where someone had not been reached by the conclusion of the pilot test were worked further in the full study; these numbers were worked as extensively as the telephone numbers that were initially released for the full study. Consequently, separate response rate calculations for the full study indicated that inclusion of the pilot test sample had a negligible effect on response rates (see below).

As shown in Table 1.2, a total of 25,957 randomly selected telephone numbers were included in the combined sample for the pilot test and the full study. (Additional details about sample selection procedures are discussed in Appendix C.) Screening of the numbers identified 8,346 telephone numbers that were assigned to households in Maine and that contained one or more adults (regardless of age). Of these numbers that were identified as serving households, a total of 6,928 (Item 2a) were successfully rostered to determine which adult household member should be selected for an interview, or in the case of households in which all adults were aged 45 or older, to determine whether any adult should be selected. In the 6,928 rostered households statewide, the CATI program selected an adult for the interview in 5,529 households (Item 2a1), or in approximately 80% of the rostered households (Item 2a2). As was discussed previously, interviews were obtained from 4,042 individuals from both the pilot test and the full study (Item 6).

In the full study, a minimum of 10 calls were made on different days and times of the day to determine whether a telephone number served a household and to select an adult for the interview (or determine whether any adult should be selected for the interview). Despite these efforts, interviewers were unable to determine the eligibility status for 4,407 sample telephone numbers (Item 4 + Item 5 in Table 1.2).¹ However, it is likely that some of these telephone numbers with unknown eligibility belonged to households in Maine. Estimates were made of the likely

¹"Eligibility status" refers to whether a telephone number served a household in Maine, regardless of whether the subsequent selection procedures determined that no adult should be selected from that household.

Table 1.2 Response Data, Performance Rates, and Response Rates for the Maine Adult Household Telephone Survey: 1997

Item	Total Maine	DMHMRSAS Region ¹		
		Region I	Region II	Region III
Response Data				
1. Total telephone numbers	25,957	8,763	10,193	7,001
2. Known eligible numbers	8,346	2,925	3,266	2,155
2a. Completed household rostering	6,928	2,376	2,706	1,846
2a1. Household member selected for interview ²	5,529	1,899	2,192	1,438
2a2. Selection rate (Item 2a1/ Item 2a) * 100	79.8%	79.9%	81.0%	77.9%
2b. Incomplete roster information	1,418	549	560	309
3. Known ineligible numbers	13,204	3,997	5,317	3,890
4. Unknown, estimated eligible numbers ³	1,917	849	684	384
5. Unknown, estimated ineligible numbers ³	2,490	992	926	572
6. Completed interviews	4,042	1,331	1,621	1,090
Performance Rates				
7. Resolution rate (%) = [(Item 2 + Item 3)/ Item 1] * 100	83.0%	79.0%	84.2%	86.3%
8. Eligibility rate (%) = [Item 2/(Item 2 + Item 3)] * 100	38.7%	42.3%	38.1%	35.6%
9. Rostering rate (%) = (Item 2a/Item 2) * 100	83.0%	81.2%	82.9%	85.7%
Response Rates⁴				
10. Response rate among rostered households where a selection was made (%) = (Item 6/ Item 2a1) * 100	73.1%	70.1%	74.0%	75.8%
11. Lower-bound response rate (%) = {Item 6/[Item 2a2 * (Item 2 + Item 4 + Item 5)]} * 100	39.7%	34.9%	41.0%	45.0%
12. CASRO ⁵ response rate (%) = {Item 6/ [Item 2a2 * (Item 2 + Item 4)]} * 100	49.3%	44.1%	50.7%	55.1%
13. Upper-bound response rate (%) = [(Item 6/ (Item 2a2 * Item 2))] * 100	60.7%	56.9%	61.3%	64.9%

Note: Response data (except Item 2a2) are frequencies; performance rates and response rates are percentages.

¹Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

²Household member was selected for the interview (regardless of whether an interview was completed).

³The call record was used to estimate the household eligibility status of telephone numbers that had unknown eligibility at the end of data collection in proportion to the outcomes for cases with known eligibility.

⁴The denominators for some response rates were multiplied by the selection rate (Item 2a2) because adults were not selected for an interview in some households.

⁵Council of American Survey Research Organizations.

Source: Maine Household Telephone Survey: 1997.

eligibility status of these undetermined numbers by using partial screening information in the call record and by applying the rates to these numbers from various categories of telephone numbers whose eligibility status was known. This analysis resulted in an estimate of 1,917 of the 4,407 unknown numbers being eligible (Item 4) and 2,490 numbers being ineligible (Item 5).

Once contact had progressed far enough to determine that an eligible household had been reached, interviewers were able to complete a roster of the adult household members about 80% of the time.

The middle and lower portions of Table 1.2 show field performance rates and response rates for the study. The resolution rate (83.0%) indicates the percentage of numbers that were successfully resolved as being eligible or ineligible for interviews.² The eligibility rate (38.7%) represents the percentage of telephone numbers (households) in the sample that were identified as being eligible for interviews. It was based just on numbers where the eligibility status was known at the conclusion of data collection (i.e., numbers included in Items 2 and 3). The rostering rate (83.0%) represents the percentage of known households (from Item 2) where screening progressed to the point of selecting a household member for the interview (or determining that no selection should be made). Thus, interviewers were able to complete the roster of the adult household members more than 80% of the time, once contact had progressed far enough to determine that an eligible household had been reached.

If interviewers were able to progress far enough to select a sample member, then more than 70% of the sample members statewide—and about three-fourths of the sample members in Regions II and III—cooperated and provided an interview.

Items 10 through 13 represent four different response rates that were calculated. Item 10 (73.1%) represents the response rate if contact had progressed to the point where the CATI program had selected a household member for the interview. This rate does not include the 1,418 known eligible households (Item 2b) where contact had not progressed to this point. This rate indicates that if interviewers were able to progress far enough to select a sample member, then more than 70% of the sample members statewide—and about three-fourths of the sample members in Regions II and III—cooperated and provided an interview.

Items 11 through 13 present three different response rates among all known or *assumed* eligible households. For these items, the number of eligible households in the denominator was multiplied by the selection rate (Item 2a2) for the state as a whole or for the individual DMHMRSAS regions because interviews were not attempted in about 20% of the households. These selection rates also were applied to situations where contact had not progressed to the point of selecting a household member, as well as to situations where eligibility was *assumed* but not determined at the conclusion of data collection; that is, it was assumed that if these other telephone numbers were determined to

²Although the CATI program determined that an interview would not be attempted in some households where all adults were aged 45 or older, these households were classified here as eligible because adults in these households still had a chance of being selected for an interview.

serve households and if rosters of the adult household members had been completed, then the CATI program would have selected someone for an interview about 80% of the time. Consequently, the response rates in Items 11 through 13 were based only on those households where someone was selected, or where it was *assumed* that someone would have been selected, had contact with the household progressed to that point.

The CASRO (Council of American Survey Research Organizations) response rate was 49.3%, which assumed that a proportion of the telephone numbers with unknown eligibility were in fact eligible.

In Item 12, the CASRO (Council of American Survey Research Organizations) response rate (49.3%) assumed that a proportion of the telephone numbers with unknown eligibility were eligible (i.e., Item 4). Restricting the response rate calculations to the numbers that were fielded for the full study raised the CASRO response rate only slightly, to 49.6% (data not shown in Table 1.2). The lower-bound rate in Item 11 in Table 1.2 (39.7%) assumed that all telephone numbers with unknown eligibility status (i.e., Item 4 + Item 5) were eligible for the study. The upper-bound response rate in Item 13 (60.7%) assumed that all telephone numbers with unknown eligibility (Item 4 + Item 5) were ineligible. As shown, these response rates vary by more than 20 percentage points (39.7% to 60.7%) depending on the assumptions used about how to include the telephone numbers whose eligibility status was unknown at the conclusion of data collection.

However, these response rates in Items 11 through 13 were lower than targeted. Survey production data indicated that the number of refusals exceeded the number of completed interviews at the conclusion of data collection (data not shown in Table 1.2).³ Most of these refusals were hangups that occurred within the first few questions after someone answered the telephone. Again, however, data from Table 1.2 indicate that if contact with the household progressed to the point of selecting someone for the interview, more than 70% of these sample members completed the interview.

Response rates were highest in Region III and lowest in Region I.

In addition to the overall rates for the state, Table 1.2 shows response data, performance rates, and response rates for the three DMHMRSAS regions. Response rates were highest in Region III and lowest in Region I.

Regardless of the response rates that are considered, all raise questions, to some degree, about the potential for nonresponse bias in the survey

³At least some of these refusals could be assumed to be from household members where the CATI program would not have selected anyone from the household for an interview (because all adults in the household were aged 45 or older). In addition, some of the cases that were counted as refusals at the conclusion of data collection could have progressed far enough into the interview before a breakoff occurred, such that these cases were counted as usable interviews. Consequently, the final calculated response rate could be close to or exceed 50%, even though the number of refusals exceeded the number of completed interviews at the conclusion of data collection.

estimates. In particular, the CASRO response rates for the state as a whole and for Region I were below 50%, meaning that the number of nonrespondents among eligible households was greater than the number of respondents who completed a usable interview. Because persons who did not respond to the survey may differ from those who did respond, estimates based on respondents alone have the potential to misrepresent the population of interest. As noted above, to help compensate for this problem, a nonresponse adjustment was made to the data. More specifically, the weights were adjusted by poststratifying them to the official 1997 Maine estimates for age and gender within the three DMHMRSAS regions.

These adjustments compensate for the fact that the demographic distribution of adults in households with telephones is different from that of the entire Maine household population. The adjustments also compensate for the fact that some groups appeared to have cooperated with the survey at lower rates than did others. Because prior studies (Bray et al., 1995; SAMHSA, 1997a) indicate that rates of substance use vary by some of these characteristics (e.g., age), these adjustments tend to diminish differences attributable to varying cooperation rates among respondents by age or by other demographic characteristics. Nonetheless, they do not entirely rule out the potential for bias.

1.6 Key Definitions and Measures

Definitions and measures of illicit drug use, alcohol use, need for treatment and/or intervention, and probable pathological gambling are given below. Other measures (e.g., demographic characteristics, DMHMRSAS regions) are self-evident or explained in the text where they are encountered.

1.6.1 Illicit Drug Use

Any illicit drug use was defined as any use of marijuana or hashish, hallucinogens, cocaine in any form (including crack), heroin or other opiates, or nonmedical use of stimulants at least once in the time period of interest. Any illicit drug use excluding marijuana was defined as any use of hallucinogens, cocaine in any form (including crack), heroin or other opiates, or nonmedical use of stimulants at least once in the time period of interest. Nonmedical use of stimulants was defined as use of stimulants without a doctor's prescription (for prescription-type medications), in greater amounts than what a doctor prescribed, or for some other nonmedical reason, such as to get high.

In addition, CSAT specified the following types or categories of illicit drugs as being "core" illicit drugs: marijuana or hashish, hallucinogens, cocaine in any form (including crack), and heroin or other opiates. States conducting needs assessments were required at a minimum to collect information pertaining to alcohol and each of these "core" illicit

drugs. To facilitate comparison of Maine's telephone survey results with data from other states' telephone surveys, measures of "any 'core' illicit drug use" and "any 'core' illicit drug use, excluding marijuana" also are presented. Any "core" illicit drug use is defined as any use of the "core" illicit drugs noted above at least once in the time period of interest. Similarly, any "core" illicit drug use, excluding marijuana, is defined as any use of hallucinogens, cocaine in any form (including crack), or heroin or other opiates at least once in the period of interest.

Because these measures of illicit drug use referred to *any* use within the time period of interest (i.e., lifetime, past year, or past month), a person who used illicit drugs in the past year or past month also was considered to be a lifetime user. If a respondent reported use of marijuana, hallucinogens, cocaine, or heroin in the past year, he or she also could have been asked about use in the past month, depending on when he or she reported last using the drug. However, respondents who reported use of these drugs in the lifetime but not the past year were skipped out of the questions about past month use (see Appendix F).

1.6.2 Alcohol Use

Alcohol use was defined as any use of alcohol in the time period of interest. Heavy alcohol use in the *past year* (i.e., the 12-month period prior to the 1997 survey) was defined as consumption of five or more drinks (four or more drinks for women) in a 24-hour period at least once a week in past year, or on 4 or more days in the past month. Heavy alcohol use in the *past month* was defined as consumption of five or more drinks (four or more drinks for women) in a 24-hour period on 4 or more days in the past month. As noted above, past month heavy alcohol users were considered to be heavy alcohol users in the past year because the past month falls within the past year.

1.6.3 Need for Treatment or Intervention

“Need for treatment” was primarily defined according to established criteria for psychoactive substance dependence or abuse.

"Need for treatment" was primarily defined according to the definitions of psychoactive substance dependence or abuse given in the third, revised edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R) (American Psychiatric Association [APA], 1987). To be considered *dependent* on a given substance, persons needed to have had a minimum of three out of nine symptoms of dependence at any point in their lifetime. Some of these symptoms need to have persisted for at least 1 month or to have occurred over a longer period of time. The DSM-III-R (1987) category of psychoactive substance *abuse* is a residual category for people who have never met the criteria for a diagnosis of dependence. More detailed discussion of symptoms of dependence or abuse and the criteria for meeting DSM-III-R (1987) diagnoses of dependence or abuse are given in Appendix E.

People were classified as being in need of treatment in the past 12 months if they had received treatment for their use of alcohol or other drugs in the past 12 months, or if :

1. they met lifetime DSM-III-R (1987) diagnostic criteria for dependence or abuse for a given drug; and
2. they used that drug in the past 12 months and at least one of the following was true:
 - one or more symptoms of dependence or abuse occurred in that same time period, or
 - they exhibited a "problem" pattern of substance use, as defined in Appendix E.

Thus, some substance users who met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug were considered in need of treatment if they exhibited a pattern of use that suggested relapse. Definitions of "problem" patterns of use for the different substances covered in the survey also are given in Appendix E. In addition, people who received treatment services in the past 12 months in the form of detoxification, residential treatment, services in a halfway house, or outpatient treatment were considered to be in need of treatment, regardless of whether they met diagnostic criteria for dependence or abuse.

However, some substance users who have never met the criteria for substance abuse or dependence may still be in need of treatment or some form of less intensive intervention for their substance use (e.g., education about the risks associated with continued substance use). Therefore, people also were identified who were in need of "treatment or intervention" in the past year and who never had a lifetime diagnosis of dependence or abuse but who nevertheless either:

1. had one or more symptoms of dependence or abuse in the past 12 months, or
2. exhibited a "problem" pattern of substance use, as defined in Appendix E.

1.6.4 Probable Pathological Gambling

Respondents who reported gambling more than 5 days in the past year were asked a series of eight questions on problems related to gambling in order to assess lifetime prevalence of gambling problems and lifetime prevalence of pathological gambling, based on DSM-IV criteria (APA, 1994). These questions asked about:

- increased preoccupation with gambling;
- need to gamble with increased amounts of money to achieve the desired level of excitement;
- feelings of restlessness or irritability when unable to gamble;
- gambling to escape from problems;
- attempts to go back to try to win back gambling losses;
- lying to others about the extent of one's gambling;
- jeopardizing relationships, a job, or career opportunities because of gambling; and
- borrowing money to relieve financial problems caused by gambling.

An affirmative answer to *at least one* of the eight items was considered to be indicative of *problem gambling* at some point in a person's life, but not necessarily pathological gambling. Answering affirmatively to *three or more* of the eight problem items was considered to indicate *probable pathological gambling* in the lifetime, based on guidance from Dr. H.R. Lesieur (H.R. Lesieur, personal communication, June 10, 1991), a noted expert on issues of pathological gambling (Lesieur, 1989; Lesieur & Blume, 1987).

1.7 Procedures for Analysis

The overriding goal of this survey of the Maine household population was to develop reliable and valid estimates of the need for treatment for alcohol and other drug use, based on measures of dependence on alcohol and other drugs (or other relevant drug-related measures) among the state's adult household population and related subpopulations. These estimates, along with data on such issues as the prevalence of *untreated* substance abuse or dependence, or barriers to entering drug treatment, will be useful to policymakers and planners at the state and federal levels in their decisionmaking about treatment needs, priorities, and resource allocation.

To accomplish these aims, two basic types of analyses were conducted within this study:

- descriptive univariate and bivariate analyses of the prevalence of substance use, need for treatment, and demand for treatment services; and

- multivariate logistic regression analyses of the co-occurrence of substance use and other problems.

Most analyses were descriptive cross-tabulations of the responses from two or more variables. Logistic regression analyses were used in Chapter 4 to model outcome measures of various health indicators as a function of substance use and demographic variables. In logistic regression, the natural log of the odds (i.e., $\ln p/1-p$) is modeled as a linear function of the independent variables. The parameters of a logistic regression model are transformed to reflect relative changes in the odds due to changes in the independent variables.

All statistical analyses were performed using RTI's proprietary software, called SURvey DATA ANALYSIS or SUDAAN. The SUDAAN software fully accounts for the complex features of the sample design, including stratification and unequal weights (Shah, Barnwell, Hunt, & LaVange, 1994).

In most tables, percentages are rounded to the nearest tenth of a percentage. However, in some situations where the measure of interest was likely to be low (e.g., dependence or abuse for drugs other than alcohol or marijuana), estimates are rounded to the nearest *hundredth* of a percentage. Likewise, in situations where the estimated number of people showing a characteristic of interest was likely to be small, estimates are rounded to the nearest hundred people instead of to the nearest thousand people.

Because the estimates presented in this report are from a sample of adults in Maine households with telephones, as opposed to being a census of every adult in the state, there is some natural uncertainty regarding these estimates. A second, independent sample might have produced lower or higher estimates than what are presented in this report, simply by virtue of who was in the sample. In addition, even though more than 4,000 interviews were obtained throughout the state, the precision of estimates decreases as data are subdivided by DMHMRSAS regions, or by demographic characteristics within a DMHMRSAS region, because the effective sample size decreases.

Two indicators of the precision of estimates are used in this report: standard errors and confidence intervals. Except where noted, associated standard errors (shown in Appendix B) are given for the estimated *percentages* shown in this report. Confidence intervals, or ranges that are very likely to include the true population value, are shown for estimated numbers of people having a characteristic of interest, such as the estimated number of people in the adult household population who were in need of treatment. These confidence intervals serve as reminders that estimates shown in this report for the number of people having a particular characteristic (e.g., needing substance abuse

treatment services) may be somewhat higher or lower than the actual number of people in the population meeting this characteristic. The confidence intervals also provide a more concrete indication of the degree of uncertainty associated with an estimated population count. The narrower the confidence interval, the more certainty there is regarding where the true population value is likely to be.

In this report, estimates that were considered to be unreliable are not presented. More specifically, estimates were suppressed that could not be reported with confidence because they either were based on very small sample sizes ($n < 30$) or had large sampling errors. The rules for classifying estimates as unreliable are explained in Appendix D. Unreliable estimates that were omitted are noted by a single asterisk (*) in the tables. Very small estimates (i.e., $<0.05\%$ for estimates rounded to the nearest tenth of a percentage; $<0.005\%$ for estimates rounded to the nearest hundredth of a percentage) that were not suppressed by the rules, but that rounded to zero, also were omitted from the tables and are shown as two asterisks (**).

1.8 Strengths and Limitations of the Data

The self-report of behaviors (and particularly sensitive behaviors that are not readily observable) relies on respondents' truthfulness to provide correct information about observations and events. Surveys have been and continue to be a well-respected method for obtaining self-report data about a wide variety of behaviors, including substance use. A major strength of the 1997 Maine Household Telephone Survey is that it permitted the collection of a rich array of information about the nature and extent of behaviors of interest along with information about their correlates. Other strengths of the survey include the use of sophisticated sampling techniques and widely used questionnaire items that allow for precise estimates of substance use and treatment need.

Despite these strengths, survey results also are subject to the potential bias of self-report and to the ambiguities caused by questions with varying interpretations. In addition, there can be other potential problems with the validity of survey data, including issues of population coverage and response rates. If the population is not properly represented in the survey, biases may be introduced that can weaken the validity of the survey results. Fortunately, the design and field procedures of the 1997 Maine Household Telephone Survey addressed most of these concerns. A pretest was used to identify and respond to any ambiguities that might have been present in the questionnaire, and the household population appears to have been adequately represented in the study. As noted above, however, the low response rates do provide some cause for concern. However, a nonresponse adjustment was made to help compensate for some of the potential bias of nonsurveyed persons.

Nevertheless, many individuals question the validity of self-reported data on sensitive topics, such as alcohol and drug use, claiming that survey respondents will give socially desirable, rather than truthful answers. A series of studies has demonstrated that although self-reports may sometimes underestimate the extent of substance use, the method generally provides useful and meaningful data (Harrison, 1995; Rouse, Kozel, & Richards, 1985). A general conclusion emerging from this work is that most people appear to be truthful (within the bounds of capability) under the proper conditions. Such conditions include believing that the research has a legitimate purpose, having suitable privacy for providing answers, having assurances that answers will be kept confidential, and believing that those collecting the data can be trusted (Harrison, 1995; Johnston & O'Malley, 1985).

Despite this prior research, doubts may still be raised about people's willingness to provide truthful answers to sensitive questions over the telephone. Indeed, Gfroerer and Hughes (1992) reported that a telephone survey on drug use yielded significantly lower estimates of some drug use, compared with data from a face-to-face interview. However, prevalence estimates from telephone surveys conducted by the New York State Division of Substance Abuse Services in the early 1980s actually yielded higher estimates for several drugs compared with a face-to-face survey (Frank, 1985). Aquilino and LoSciuto (1990) found that telephone interviews yielded lower estimates of drug use for blacks in New Jersey compared with face-to-face-interviews, but the mode of interviewing had little effect on drug use estimates for whites.

In addition, findings from a telephone survey assessment of treatment needs in Rhode Island in the late 1980s (McAuliffe, Breer, Ahmadifar, & Spino, 1991) suggested that potential threats to the validity of the survey estimates due to nonresponse or underreporting did not present a problem. The researchers found that respondents who initially refused to be interviewed but later agreed to participate were actually *less* likely to report use of different illicit drugs compared with respondents who had never refused. The researchers in the Rhode Island needs assessment also found no significant differences in estimates of drug use between "hard-to-reach" respondents and those who required less intensive follow-up efforts. As a check for possible underreporting of drug use, 167 respondents (total $N=5,176$) were given the opportunity to disguise their answers based on the results of a toss of three coins, without the interviewer knowing the results of the coin toss (i.e., a randomized response). Respondents in this randomized response group were no more likely to report drug use than were those respondents who were asked about their drug use without giving a randomized response.

Although the research findings are mixed with regard to reporting of sensitive behaviors through a telephone survey, some of these studies provide evidence to suggest that telephone surveys can yield reasonable

estimates of drug use. Furthermore, procedures were followed rigorously in the Maine Household Telephone Survey to encourage honest reporting. These procedures included (a) telephone numbers being chosen at random; (b) availability of contact persons at RTI (including a toll-free number at RTI) and in Maine whom people could call if they had questions about the legitimacy of the study; (c) assurances of confidentiality and measures to protect the confidentiality of respondents' answers; (d) conducting the interviews privately (i.e., with the respondent being the only person in the household hearing the questions); and (e) structuring of the questionnaire to build rapport prior to when the more sensitive questions were asked.

This report's estimates are generally consistent with other survey data on substance use, as well as with the state's treatment admission data.

Consequently, the estimates reported here are believed to be reliable, although they are likely to be conservative due to some underreporting and nonresponse. Thus, these estimates are likely to represent the lower bound of substance use rates and projections of the need for treatment. Nevertheless, the estimates presented in this report are believed to be reliable because they are consistent with findings from other surveys of substance use, as well as being generally consistent with information from the Maine Addiction Treatment System (see Chapters 2 and 3). Taken together, these data provide a baseline for planning and addressing the needs for treatment for the Maine adult household population.

2. Prevalence and Correlates of Alcohol and Illicit Drug Use

This chapter presents information regarding the prevalence and correlates of alcohol and illicit drug use among the household population of Maine residents. Specifically, the population for this survey consisted of those persons who were age 18 or older and residing in households that had a telephone and were located in Maine. First, estimates of residents who had ever used alcohol in their lifetimes and in the 12 months and 1 month prior to the 1997 survey are presented for the household population of Maine, as well as for the state's three DMHMRSAS regions. This is followed by a more detailed analysis of heavy alcohol use by demographic characteristics. For the past 12 months, heavy alcohol use was defined as drinking five or more drinks for men or four or more drinks for women in a 24-hour period at least once a week. For the past month, heavy alcohol use was defined as drinking at this rate on 4 or more days.

The data regarding illicit drug use, presented in a similar manner as for alcohol use, include estimated numbers and percentages of adult Maine household residents who used illicit drugs, such as marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or stimulants for nonmedical reasons at least once in the lifetime, past year, and past month. These data are followed by a detailed analysis of illicit drug use in the past year by demographic characteristics. Comparisons between males and females by age group, race/ethnicity, marital status, and employment status also are presented for past year heavy alcohol and illicit drug use.

In addition to studying alcohol use and the use of any illicit drugs among Maine household residents, this chapter examines the use of multiple substances in the year prior to the 1997 survey. Multiple substance use in the past year was defined in three ways: *heavy alcohol use and use of at least one illicit drug*, *use of two or more illicit drugs*, and *heavy alcohol use and use of more than one illicit drug*.

- *Heavy alcohol use and use of at least one illicit drug* was defined as (a) weekly consumption of five or more drinks in a 24-hour period (four or more drinks for women) over the past 12 months, and (b) any use of marijuana, hallucinogens, cocaine, opiates, or nonmedical use of stimulants in the past 12 months (but not necessarily at the same time with alcohol).
- Use of *two or more illicit drugs* was defined as use of two or more of the following drugs at any time in the past 12 months (although not necessarily on the same occasion):

marijuana, hallucinogens, cocaine, opiates, or nonmedical use of stimulants.

- Finally, *heavy alcohol use and use of more than one illicit drug* was defined as past year heavy alcohol use (as defined above) and use of two or more illicit drugs, although not necessarily on the same occasion or in combination.

Data on past year alcohol and illicit drug use for Maine residents in three age groups also are compared to data from the 1996 National Household Survey on Drug Abuse (NHSDA), both for the Nation as a whole and for the Northeastern region of the United States (i.e., Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont).

2.1 Estimates of Alcohol Use

About 69% of adult household residents in Maine used alcohol in the 12 months prior to the survey, and about half (52%) did so in the month preceding the survey.

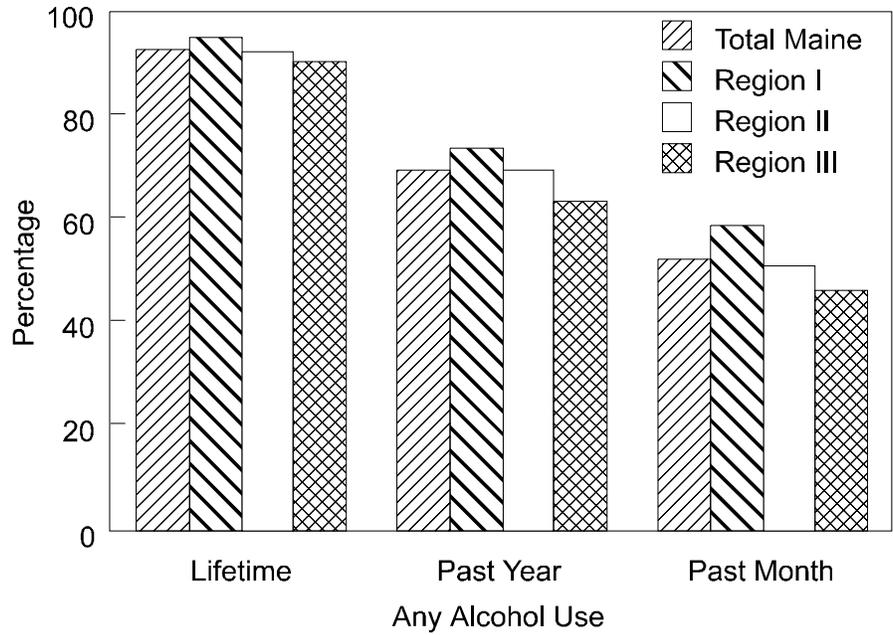
Figure 2.1 and Table 2.1 present the lifetime, past year, and past month prevalence of alcohol use among Maine adults and within the household populations in the state's three DMHMRSAS regions. (Supporting data for Figure 2.1 are shown in Table A.1 in Appendix A.) Statewide, more than 90% of adults in the household population had ever consumed alcohol, approximately 69% drank in the year before the 1997 survey, and more than half of the adults drank in the month prior to the survey.

Alcohol use varied somewhat across the three regions, with Region I showing the highest rates of use in all time periods. The lowest rates of use in all time periods were reported in Region III, although its percentages were close to those in Region II, particularly for lifetime alcohol use. For the past year, rates of alcohol use ranged from a low of approximately 63% in Region III to a high of 74% in Region I. Similarly, for the past month, rates of any alcohol use were slightly higher in Region I compared with Regions II and III (59%, 51%, and 46%, respectively).

About 88,000 Maine adults (or 10%) were heavy alcohol users in the past 12 months, and 64,000 adults (or 7%) drank heavily in the past month.

Because alcohol use is legal for most adults, a general measure of alcohol use among Maine residents would not be sufficient in trying to detect alcohol problems in the population. Most adults drink some alcohol if only occasionally or socially. However, heavy alcohol use (as defined in this study) is much less common and may be considered a measure of problematic alcohol use. As shown in Figure 2.2 and Table 2.1, an estimated 9.5% of adults in the Maine household population drank heavily in the year before the 1997 survey, while 6.8% did so in the month before the survey. These estimates are equivalent to about 88,000 heavy alcohol users in the past year and about 64,000 in the past month. Heavy drinking rates were similar across the three regions, although the rate of past month heavy drinking was slightly lower in

Figure 2.1 Percentages of Any Alcohol Use in the Lifetime, Past Year, and Past Month in the Maine Adult Household Population, by DMHMRSAS Region: 1997



Note: Supporting data for Figure 2.1 are shown in Table A.1 in Appendix A. Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

Source: Maine Household Telephone Survey: 1997.

Table 2.1 Estimated Numbers (in Thousands) of Adult Alcohol Users in the Lifetime, Past Year, and Past Month in the Maine Adult Household Population, by DMHMRSAS Region: 1997

Alcohol Use/ DMHMRSAS Region ¹	Period of Use					
	Lifetime		Past Year		Past Month	
	Number (Thousands)	95% CI ²	Number (Thousands)	95% CI	Number (Thousands)	95% CI
Any Alcohol Use						
Total Maine	865	855 – 874	647	632 – 662	488	471 – 504
Region I	300	294 – 304	233	224 – 242	185	176 – 195
Region II	340	333 – 346	256	246 – 265	188	178 – 198
Region III	225	219 – 230	158	150 – 166	115	107 – 123
Heavy Alcohol Use³						
Total Maine	--	--	88	79 – 98	64	56 – 72
Region I	--	--	31	26 – 37	24	19 – 30
Region II	--	--	34	29 – 40	22	18 – 27
Region III	--	--	23	18 – 28	18	14 – 23

Note: Unweighted numbers of respondents are shown in Table 1.1. A standard error table for Table 2.1 is not shown in Appendix B because the 95% confidence intervals indicate the precision of these estimates.

--Not applicable.

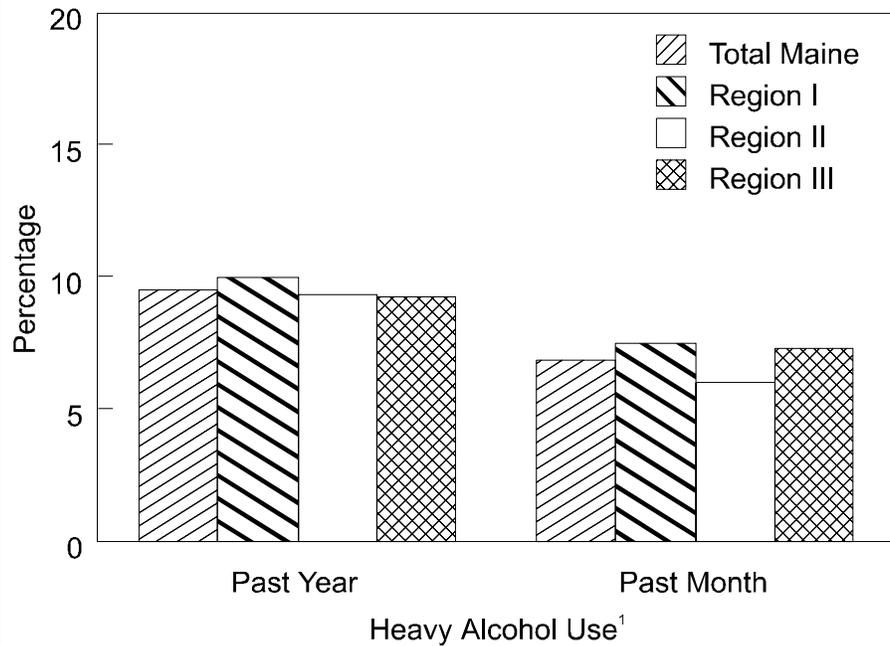
¹Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

²The 95% CI = 95% confidence interval for the estimated number of people.

³For the past year, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period at least once a week or on 4 or more days in the past month. For the past month, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period on 4 or more days.

Source: Maine Household Telephone Survey: 1997.

Figure 2.2 Percentages of Heavy Alcohol Use in the Past Year and Past Month in the Maine Adult Household Population, by DMHMRSAS Region: 1997



Note: Supporting data for Figure 2.2 are shown in Table A.1 in Appendix A. Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

¹For the past year, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period at least once a week or on 4 or more days in the past month. For the past month, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period on 4 or more days.

Source: Maine Household Telephone Survey: 1997.

Region II. (Supporting data for Figure 2.2 are shown in Table A.1 in Appendix A.)

Some of the highest rates of heavy alcohol use in the past year were observed for men, adults between the ages of 18 and 24, and adults who had never been married.

Table 2.2 presents data regarding past year and past month heavy alcohol use among various demographic groups. Those most likely to engage in heavy alcohol use in the past year or past month were men, younger adults, unmarried adults, or unemployed adults. The relationships between heavy alcohol use, gender, and age group in Maine are consistent with national-level data (SAMHSA, 1997a).

As shown in Table 2.2, men in Maine engaged in heavy alcohol use at about three times the rate for women (e.g., 14.6% vs. 4.8%, respectively, in the past year and 10.8% vs. 3.2%, respectively, in the past month). Thus, despite the "threshold" number of drinks being slightly higher for men than for women in terms of defining someone as a heavy alcohol user (i.e., five or more drinks per occasion for men vs. four or more drinks per occasion for women), men still had appreciably higher rates of heavy alcohol use.

Rates of heavy alcohol use in Maine declined with age. About one in five adults aged 18 to 24 drank heavily in the past year (19.8%). The rate for 18 to 24 year olds was about 1.8 times the rate for 25 to 44 year olds, approximately three times the rate for 45 to 64 year olds, and about five times the rate for adults aged 65 years or older. Similarly, those aged 18 to 24 were the most likely of all age groups to have used alcohol heavily in the past month (16.9%). This youngest group was about twice as likely as those aged 25 to 44, almost four times more likely than those aged 45 to 64, and six times more likely than those 65 years or older to have engaged in heavy alcohol use in the past month. Table 2.2 also shows rates of heavy alcohol use among adults aged 18 to 20. Despite alcohol use being an illegal behavior for Maine residents under 21, more than 1 in 7 young adults aged 18 to 20 not only consumed alcohol but engaged in a pattern of heavy alcohol use.

Marital status was associated with heavy alcohol use in both time periods. Among the different marital status groups, residents who were single (i.e., never married) had the highest rate of heavy alcohol use for both the past year and past month, and individuals living as married had the second highest rates. However, the effects of marital status are highly correlated with age, and the independent effects of age and marital status are difficult to disentangle. Nevertheless, these data suggest that the status and role stability associated with marriage may exert a "protective effect" with regard to certain risk behaviors, such as heavy drinking.

Table 2.2 Prevalence of Heavy Alcohol Use in the Past Year and Past Month in the Maine Adult Household Population, by Selected Demographic Characteristics: 1997

Demographic Characteristic	Period of Use ¹	
	Past Year	Past Month
Total Maine	9.5	6.8
Gender		
Male	14.6	10.8
Female	4.8	3.2
Age (years)		
18-24	19.8	16.9
18-20	16.3	14.0
21-24	23.5	20.1
25-44	11.1	7.5
45-64	6.4	4.3
65 or older	3.8	2.5
Race/Ethnicity		
White	9.5	6.8
Native American	8.2	6.4
Other nonwhite ²	10.3	6.8
Marital Status		
Single	20.4	15.9
Married	6.8	4.6
Living as married	15.1	10.4
Widowed/divorced/separated	6.4	4.7
Education		
Less than high school	10.2	6.5
High school	9.4	6.8
Some college	11.7	8.8
College graduate or higher	7.2	5.2
Current Employment		
Full-time	10.9	8.0
Part-time	9.6	7.3
Unemployed ³	20.0	10.6
Other ⁴	6.5	4.6

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table 2.2SE in Appendix B.

¹For the past year, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period at least once a week or on 4 or more days in the past month. For the past month, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period on 4 or more days.

²"Other nonwhite" represents black, Hispanic, or "other" origin (not including Native Americans).

³Includes persons looking for work or not looking for work.

⁴Retired, disabled, homemaker, student, or "other."

Source: Maine Household Telephone Survey: 1997.

Among different educational groups, heavy drinking was most commonly reported by individuals with some college education but no degree (11.7%). Individuals with no high school degree reported the second highest rate of past year heavy drinking (10.2%), although adults without a high school degree reported past month heavy drinking rates similar to those with a high school degree. College graduates were less likely than all of the other educational groups to report heavy drinking in the past month (5.2%) or past year (7.2%). The lower rates of heavy drinking for adults with college degrees may be a function of family and economic responsibilities that increase with age and are associated with full-time work. What is not clear from these analyses, however, is the extent to which education is intercorrelated with both age and employment status, and the effects that these statuses have on one's opportunities to engage in patterns of heavy drinking.

Among the different employment status groups in the household population, rates of heavy alcohol use were highest among unemployed adults (20.0% for the past year). However, the estimates for unemployed adults were based on a sample size of only 100 unemployed respondents (see Table 1.1). Consequently, these rates for unemployed adults in Table 2.2 were less precise than the corresponding estimates for the other employment status groups (see Table 2.2SE in Appendix B).

2.2 Estimates of Illicit Drug Use

Figure 2.3 and Table 2.3 show the percentages and estimated numbers of Maine adults who used different illicit drugs in the lifetime and in the year or month prior to the 1997 survey. (Supporting data for Figure 2.3 are shown in Table A.2 in Appendix A.) Estimates of illicit drug use were determined separately from estimates of alcohol use for a variety of reasons. One important reason is the legal status of each substance. The purchase and consumption of alcohol are legal activities for most adults, and alcohol use is likely to be more socially acceptable than illicit drug use among many segments of the population.

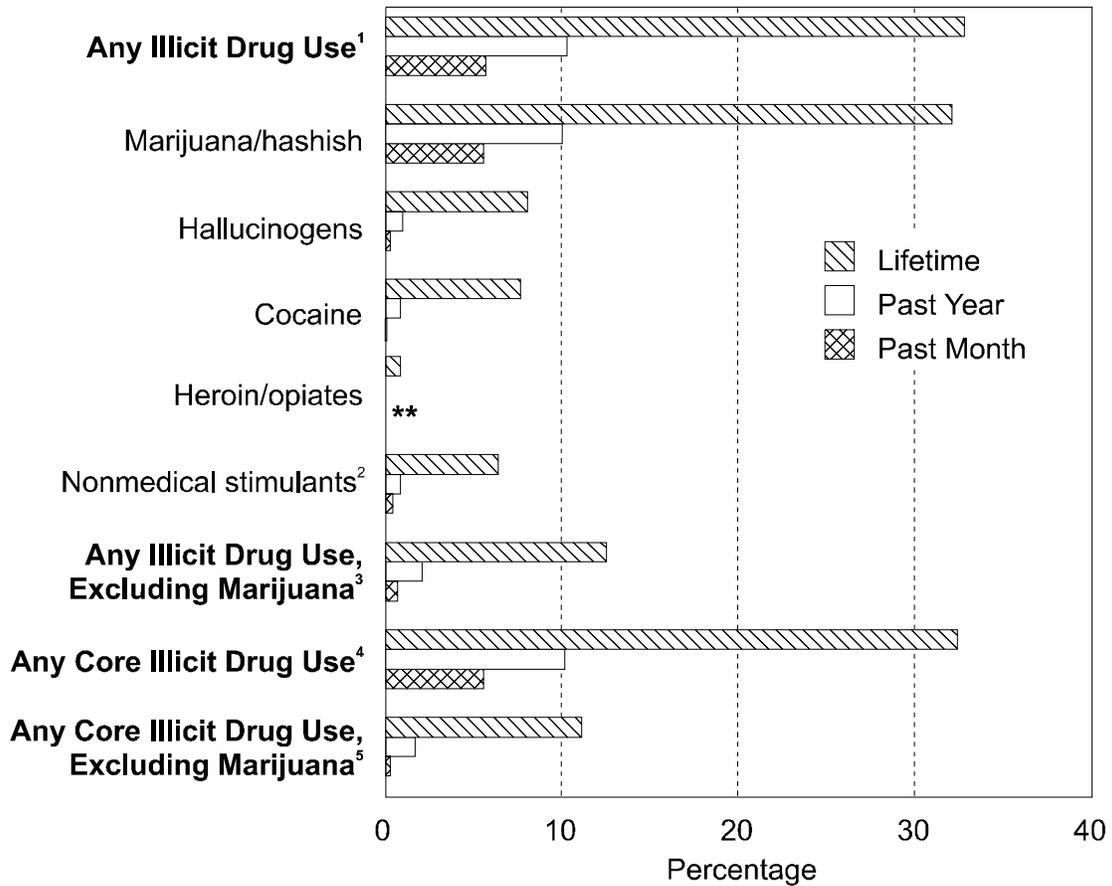
As shown in Figure 2.3 and Table 2.3, an estimated 96,000 Maine adult household residents (10.32%) used illicit drugs in the 12 months before the 1997 survey, and most of these (10.04%) were users of marijuana or hashish. This finding is consistent with 1995 national-level data, which showed that marijuana was the most commonly used illicit drug (SAMHSA, 1997a).¹ Rates for use of hallucinogens and cocaine and nonmedical use of stimulants in the past year were slightly less than 1%, while the prevalence rate for past year use of heroin and other opiates was less than 0.1%.

*About 96,000
Maine adults (or
10%) used illicit
drugs in the past
12 months.*

*About 53,000
adults (or 5.7%)
used illicit drugs
in the past
month.*

¹Percentages in Table A.2 in Appendix A are shown to the nearest hundredth of a percentage because some estimates for specific drugs were likely to be small.

Figure 2.3 Prevalence of Use of Illicit Drugs in the Lifetime, Past Year, and Past Month in the Maine Adult Household Population: 1997



Note: Supporting data for Figure 2.3 are shown in Table A.2 in Appendix A.

**Estimated percentage rounds to zero.

¹Use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

²Use of stimulants to get high, for curiosity, to go along with friends, or use of prescription-type stimulants without a doctor's prescription.

³Use of hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

⁴Use of marijuana or hashish, hallucinogens, cocaine (including crack), or heroin/opiates at least once.

⁵Use of hallucinogens, cocaine (including crack), or heroin/opiates at least once.

Source: Maine Household Telephone Survey: 1997.

Table 2.3 Estimated Numbers of Users of Illicit Drugs in the Lifetime, Past Year, and Past Month in the Maine Adult Household Population: 1997

Substance Used	Period of Use					
	Lifetime		Past Year		Past Month	
	Number (Thousands)	95% CI ¹	Number (Thousands)	95% CI	Number (Thousands)	95% CI
Any Illicit Drug Use²	307	292 – 321	96	87 – 106	53	47 – 61
Marijuana/hashish	300	286 – 314	94	85 – 103	52	45 – 59
Hallucinogens	75	68 – 84	9	7 – 13	3	1 – 5
Cocaine	72	65 – 81	8	6 – 12	1	** – 3
Heroin/opiates	9	6 – 12	1	** – 2	**	** – **
Nonmedical stimulants ³	61	54 – 68	9	6 – 12	4	2 – 7
Any Illicit Drug Use, Excluding Marijuana⁴	117	107 – 127	21	16 – 26	7	4 – 10
Any Core Illicit Drug Use⁵	303	288 – 317	95	86 – 104	52	46 – 60
Any Core Illicit Drug Use, Excluding Marijuana⁶	104	95 – 113	16	12 – 21	3	2 – 6

Note: Unweighted numbers of respondents are shown in Table 1.1. A standard error table for Table 2.3 is not shown in Appendix B because the 95% confidence intervals indicate the precision of these estimates.

**Corresponding estimated percentage rounds to zero, or estimated number of people rounds to fewer than 1,000 people.

¹The 95% CI = 95% confidence interval for the estimated number of people.

²Use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

³Use of stimulants to get high, for curiosity, to go along with friends, or use of prescription-type stimulants without a doctor's prescription.

⁴Use of hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

⁵Use of marijuana or hashish, hallucinogens, cocaine (including crack), or heroin/opiates at least once.

⁶Use of hallucinogens, cocaine (including crack), or heroin/opiates at least once.

Source: Maine Household Telephone Survey: 1997.

Many of the Maine adults who used illicit drugs in the past year were most likely not regular or frequent drug users, in that only 53,000 residents (5.73%) used illicit drugs in the past month out of the estimated 96,000 residents who used illicit drugs in the past year. Like those who used illicit drugs in the past year, virtually all residents who used any illicit drugs in the past month were users of marijuana or hashish (5.57%). Very few adults used stimulants for nonmedical purposes (0.42%), hallucinogens (0.28%), or cocaine (0.11%) in the past month. The rate of past month heroin/opiate use was less than 0.005%.

Rates of illicit drug use were higher among men, adults aged 18 to 20, and adults who were single or living as married.

Table 2.4 presents estimates of illicit drug use in the past year among various demographic groups. Users of illicit drugs in the past year were more likely to be male, aged 18 to 24, single or living as married, have no college degree, and unemployed. Although rates of illicit drug use appeared to vary by DMHMRSAS region, race/ethnicity, education, or employment status, these differences could be attributed to sampling variability (see Table 2.4SE in Appendix B). Approximately 13% of men and 8% of women used illicit drugs in the 12 months prior to the 1997 survey. About one in three adults between the ages of 18 and 24 used illicit drugs in the past year, more than twice the rate of 25 to 44 year olds and almost 10 times the rate for 45 to 64 year olds. In contrast to heavy alcohol use, findings for illicit use show the highest rate among those aged 18 to 20. Native Americans were more likely than those in other racial/ethnic groups to use illicit drugs although this finding may be due to sampling variability. Among Maine's household population, approximately 27% of single persons and 24% of those living as married used illicit drugs in the past year. These rates were four to five times higher than the corresponding rates for persons in the other marital status categories.

On balance, the prevalence of illicit drug use other than marijuana in the Maine household population was very low. However, the low estimates must be interpreted with caution because they likely underrepresent the number of actual users in Maine. Individuals who participated in the survey were, by definition, members of established households with telephone service. Many individuals who have problems with drugs, especially cocaine or heroin, may spend a considerable amount of money on drugs. Therefore, they are often among the "invisible" in our society, without a stable residence or address because they do not have the money for it or because no one will trust them enough to take them into their households. Indeed, one study of drug use among household and nonhousehold populations in a single metropolitan area of the United States found that considerable numbers of crack cocaine users, heroin users, and injection drug users were in nonhousehold populations, such as homeless people and people who were incarcerated (National Institute on Drug Abuse [NIDA], 1994). In comparison, the same NIDA (1994) study found that adding data from nonhousehold populations did not noticeably increase the prevalence of heavy alcohol use relative to the

Table 2.4 Prevalence of Illicit Drug Use in the Past Year in the Maine Adult Household Population, by Selected Demographic Characteristics: 1997

Demographic Characteristic	Prevalence ¹
Total Maine	10.3
DMHMRSAS Region²	
Region I	11.8
Region II	10.2
Region III	8.5
Gender	
Male	13.2
Female	7.7
Age (years)	
18-24	32.7
18-20	36.8
21-24	28.3
25-44	12.8
45-64	3.5
65 or older	0.4
Race/Ethnicity	
White	10.1
Native American	19.5
Other nonwhite ³	11.2
Marital Status	
Single	27.4
Married	5.5
Living as married	23.7
Widowed/divorced/separated	4.9
Education	
Less than high school	11.7
High school	10.3
Some college	11.3
College graduate or higher	8.7
Current Employment	
Full-time	11.2
Part-time	16.0
Unemployed ⁴	21.8
Other ⁵	5.6

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table 2.4SE in Appendix B.

¹Use of marijuana or hashish, hallucinogens, cocaine (including crack), or heroin/opiates, or nonmedical use of stimulants at least once.

²Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

³“Other nonwhite” represents black, Hispanic, and “other” origin (not including Native Americans).

⁴Includes persons looking for work or not looking for work.

⁵Retired, disabled, homemaker, student, or “other.”

Source: Maine Household Telephone Survey: 1997.

estimate based on household data alone. Consequently, the household telephone survey estimates of illicit drug use among adults in Maine may be conservative, particularly for less commonly used drugs, such as heroin.

The remaining sections of this chapter provide further details on the characteristics of Maine's heavy alcohol and illicit drug users. Because the past month prevalence rates for both heavy alcohol consumption and illicit drug use are too low to permit subgrouping of males and females separately by other demographic characteristics, the remaining tables focus only on past year substance use.

2.3 Comparisons of Alcohol and Illicit Drug Use, by Gender and Other Characteristics

As noted earlier, men were more likely than women to use alcohol heavily and to use illicit drugs. However, these overall estimates for men and women might obscure important differences in rates of use among subgroups of men and women. Likewise, overall estimates might show large differences in rates of use, but differences among some subgroups of men and women might be less pronounced. Thus, to address this point, this section examines substance use among demographic subgroups of men and women.

More than one in four men aged 18 to 24 and 13% of women in this age group were heavy alcohol users in the past year.

Table 2.5 and Figures 2.4 and 2.5 present past year heavy alcohol use and illicit drug use for men and women by various demographic characteristics. (Although heavy alcohol use and illicit drug use are presented together, we do not mean to imply any equivalency in these behaviors.) Young men and women aged 18 to 24 were by far the most likely to have engaged in heavy alcohol use (26% for men, 13% for women) or illicit drug use (36% for men, 30% for women) compared with those in other age groups.

More than one-third of young men (36%) and 30% of young women aged 18 to 24 used illicit drugs in the past year.

Rates among 18 to 24 year olds were broken down even further and gender differences were examined. For heavy alcohol use, rates were highest for both males and females aged 21 to 24. However, for illicit drug use, a gender difference emerged such that males aged 18 to 20 and 21 to 24 had equal rates, but females aged 18 to 20 were more likely to use illicit drugs than females aged 21 to 24. Further, these rates were substantially higher than the overall rates shown previously for men and women for heavy alcohol use (15% for men, 5% for women; see Table 2.2) or illicit drug use (13% for men, 8% for women; see Table 2.4).

Although men were consistently more likely than women to drink heavily and use illicit drugs, men and women were more alike in their illicit drug use patterns than in their patterns of heavy alcohol use. For example, the rate of heavy alcohol use among men aged 18 to 20 and 21 to 24 was nearly twice the rate for women in these age groups. In

Table 2.5 Past Year Substance Use in the Maine Adult Household Population, by Gender and Selected Demographic Groups: 1997

Demographic Group	Heavy Alcohol Use, Past Year ¹		Any Illicit Drugs, Past Year ²	
	Male	Female	Male	Female
Age (years)				
18-24	26.1	13.4	35.7	29.7
18-20	20.8	11.6	35.3	38.4
21-24	32.0	15.3	36.3	20.8
25-44	16.9	5.3	16.7	8.9
45-64	10.5	2.4	4.7	2.3
65 or older	6.2	2.2	1.0	**
Race/Ethnicity				
White	14.6	4.9	12.8	7.7
Native American	13.2	*	26.6	*
Other nonwhite ³	14.7	5.3	17.2	4.4
Marital Status				
Single	27.3	12.1	31.4	22.7
Married	10.2	2.8	6.7	4.2
Living as married	23.3	8.3	29.0	19.2
Widowed/divorced/separated	15.8	4.0	12.6	2.9
Current Employment				
Full-time	14.6	5.4	12.9	8.8
Part-time	17.9	5.8	22.0	13.2
Unemployed ⁴	32.2	8.5	29.1	15.1
Other ⁵	11.7	3.4	9.6	3.2

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table 2.5SE in Appendix B.

*Low precision; no estimate reported.

**Estimated percentage rounds to zero.

¹For the past year, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period at least once a week or on 4 or more days in the past month.

²Use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

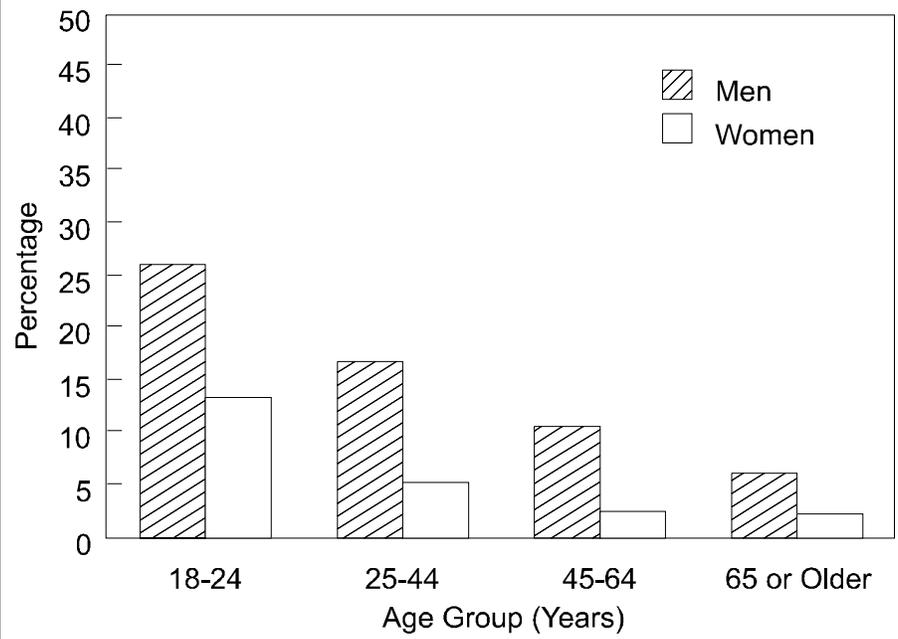
³“Other nonwhite” represents black, Hispanic, and “other” origin (not including Native Americans).

⁴Includes persons looking for work or not looking for work.

⁵Retired, disabled, homemaker, student, or “other.”

Source: Maine Household Telephone Survey: 1997.

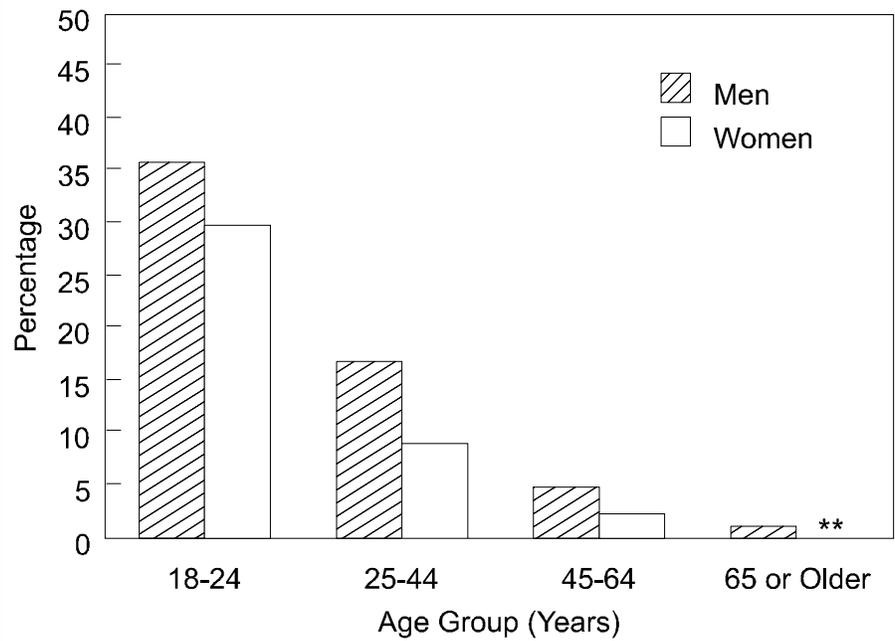
Figure 2.4 Past Year Heavy Alcohol Use in the Maine Adult Household Population, by Gender and Age: 1997



Note: For the past year, heavy alcohol use is defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period at least once a week or on 4 or more days in the past month.

Source: Maine Household Telephone Survey: 1997.

Figure 2.5 Past Year Illicit Drug Use in the Maine Adult Household Population, by Gender and Age: 1997



Note: Illicit drug use is defined as use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

**Estimated percentage rounds to zero.

Source: Maine Household Telephone Survey: 1997.

contrast, the rate of past year illicit drug use among 18- to 24-year old men was only 1.2 times the corresponding rate for women in this age group.

Gender differences in substance use patterns were most pronounced among 45 to 64 year olds, where men were about four times as likely as women to be heavy drinkers and twice as likely to use illicit drugs. However, the past year rates of heavy drinking and illicit drug use were lower among adults aged 45 or older than among those aged 18 to 44.

Among males, whites and nonwhites in the household population had similar rates of heavy drinking. (Rates were not determined for Native American females because of low precision.) Among females, whites appeared to be slightly more likely than nonwhites other than Native Americans to be heavy alcohol users. However, these differences were within the range of sampling error (see Table 2.5SE in Appendix B). A higher percentage of Native American males reported illicit drug use (27%) than did white males (13%). Again, however, the higher rate among Native American males could be attributed to sampling variability (see Table 2.5SE). Similarly, the higher rate of illicit drug use among white females (8%) appeared to be due to sampling variability.

Single men (27%) and single women (12%) were the marital status groups most likely to be heavy alcohol users, followed by men and women living as married (23% for men and 8% for women). These rates of heavy alcohol use were about two times higher for unmarried men than those for married men. Unmarried women were three to four times more likely than married women to drink heavily. Men also were about two to three times as likely as women to be heavy alcohol users across all marital status categories. Among the different marital status groups, illicit drug use was most prevalent among those who were single or living as married. About four times as many men and four to five times as many women who were either single or living as married reported illicit drug use as did either married men or married women. Furthermore, men and women who were widowed, divorced, or separated reported higher drinking rates, while men who were widowed, divorced, or separated, reported higher rates of illicit drug use than married men in the year prior to the survey.

Among the different employment status groups, unemployed men and women had the highest levels of heavy alcohol and illicit drug use. About 32% of unemployed men and 9% of unemployed women reported they were heavy drinkers, and 29% of unemployed men and 15% of unemployed women reported they were illicit drug users in the past year. However, the estimates for unemployed men and women were considerably less precise than the estimates for the other employment groups (see Table 2.5SE in Appendix B).

2.4 Multiple Substance Use

Thus far, estimates of illicit drug use and heavy alcohol use have been presented and discussed separately. However, evaluating the prevalence of alcohol and illicit drug use separately can sometimes be misleading because individuals may use both alcohol and other drugs, sometimes in combination. The empirical literature on substance use indicates that those who use one illicit drug regularly are very likely also to use another drug or alcohol (e.g., Craddock, Rounds-Bryant, Flynn, & Hubbard, 1997).

Therefore, Table 2.6 focuses on three categories of multiple substance use in the past year. As discussed previously, multiple substance use was categorized according to (a) heavy alcohol use in the past 12 months and use of at least one illicit drug in the same time period; (b) use of more than one illicit drug in the past 12 months; or (c) heavy alcohol use and use of more than one illicit drug in the past 12 months. Heavy alcohol use was chosen in the measures of multiple substance use (instead of any alcohol use) because national data indicate that rates of alcohol-related problems are considerably higher among people who drink heavily compared with people who use any amount of alcohol (SAMHSA, 1997a). Furthermore, heavy alcohol use is likely to be less socially acceptable than any use of alcohol.

About 3% of Maine adults used alcohol heavily and used at least one illicit drug in the past year.

As shown in Table 2.6, an estimated 3% of adults in the Maine household population used alcohol heavily and used at least one illicit drug in the past year, making this the most common multiple substance use category in this population. Because most adults who used illicit drugs used marijuana, the most prevalent combination of multiple substance use was likely to be marijuana and heavy alcohol use. However, these users of multiple substances may not necessarily have used these substances in combination with one another (i.e., within a few hours of each other). Polydrug use was less common, with only 2% of Maine adults reporting use of two or more illicit drugs in the past year.

Men engaged in multiple substance use at about three times the rate of women.

Men engaged in multiple substance use at about three times the rate of women. For example, 5.2% of men and 1.6% of women drank heavily and used at least one illicit drug in the year before the 1997 survey. Again, the multiple substance use category of heavy alcohol use and at least one illicit drug was most common among both men and women. Regional differences in rates of multiple substance use were minimal.

Table 2.6 Prevalence of Multiple Substance Use in the Past Year in the Maine Adult Household Population, by DMHMRSAS Region and Gender: 1997

	Multiple Substance Use		
	Heavy Alcohol and at Least One Drug ¹	More Than One Drug ²	Heavy Alcohol and More Than One Drug ³
Total Maine	3.3	2.0	1.0
DMHMRSAS Region⁴			
Region I	3.6	1.9	0.9
Region II	2.8	1.9	1.0
Region III	3.6	2.1	1.1
Gender			
Male	5.2	2.9	1.6
Female	1.6	1.1	0.4

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table 2.6SE in Appendix B.

¹Weekly consumption of five or more drinks in a 24-hour period for men or four or more drinks in a 24-hour period for women, *and* any use of marijuana, hallucinogens, cocaine, opiates, or nonmedical use of stimulants in the past 12 months (but not necessarily in combination with alcohol).

²Use of *two or more* of the following drugs at any time in the past 12 months: marijuana, hallucinogens, cocaine, opiates, or nonmedical use of stimulants.

³Heavy alcohol use in the past 12 months, as defined above in footnote 1, and use of two or more illicit drugs in the past 12 months, as defined above in footnote 2.

⁴Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

Source: Maine Household Telephone Survey: 1997.

2.5 State, Regional, and National Comparisons of Substance Use

To provide a broader perspective about the rates of substance use among Maine residents, a comparison was made of Maine residents' substance use with data collected nationally and in the Northeastern region of the United States through the 1996 National Household Survey on Drug Abuse (NHSDA), the most current published NHSDA data (SAMHSA, 1997b). In comparing these data, it should be noted that the studies differed in sample size and utilized different data collection methodologies; the NHSDA used face-to-face interviewing and self-administered answer sheets for the substance use questions, whereas the Maine data were obtained from a telephone interview. The NHSDA collected data nationally from more than 18,000 respondents aged 12 or older in 1996, including more than 13,700 respondents aged 18 or older, compared with approximately 4,000 adults in the 1997 Maine Household Telephone Survey (see Table 1.1). The NHSDA is generally considered the best available source of information on substance use prevalence and trends. Thus, comparison of findings to the NHSDA provides a reasonable benchmark for assessing how reliable the telephone survey data are. Although there is the potential for interview mode to influence self-report data (discussed later), comparable findings across multiple sources help to validate the overall integrity of these data.

Rates of substance use among Maine adults in 1997 were comparable to, or sometimes higher than, corresponding national and regional rates in 1996.

Table 2.7 presents estimates of substance use in the past year for the 1997 Maine adult household population, and for the national and Northeastern U.S. populations in 1996. As shown, alcohol was by far the most commonly used substance in the past year among all three populations. Rates of past year alcohol use by age group in the Maine adult household population in 1997 were comparable to those for the Nation and for the Northeastern region in 1996.

Rates of past year marijuana use and nonmedical stimulant use among Maine adults aged 18 to 25 in 1997 were notably higher than the corresponding national and regional rates for this age group in 1996.

For substances other than alcohol, some rates of past year use tended to be higher among the Maine adult household population in 1997 compared with national and regional estimates from 1996, while other rates tended to be lower for Maine. For example, rates of marijuana use in the past year tended to be higher in Maine compared with the 1996 estimates for the Nation as a whole and the Northeast. That was particularly the case for adults aged 18 to 25. An estimated 30.6% of Maine adults aged 18 to 25 used marijuana in the year prior to the 1997 survey, compared with 23.8% of adults in this age group nationally and 25.1% of adults in this age group in the Northeast in 1996. Similarly, 4.5% of adults in Maine who were aged 18 to 25 used stimulants nonmedically in the 12 months prior to the 1997 survey, compared with 2.0% of adults in this age group nationally and 1.0% in the Northeast in 1996. Although most of these higher estimates for Maine could be attributed to sampling variability (see the associated confidence intervals

Table 2.7 State, Regional, and National Comparisons of Substance Use in the Past Year, by Age Group: 1996 and 1997

Substance Used	1997 Maine		1996 NHSDA, National ¹		1996 NHSDA, Northeast ²	
	Percentage	95% CI ³	Percentage	95% CI	Percentage	95% CI
Alcohol						
18-25	77.3	(73.2 – 80.9)	75.3	(71.9 – 78.4)	78.8	(72.4 – 84.0)
26-34	79.6	(76.6 – 82.3)	77.2	(75.0 – 79.3)	78.4	(74.7 – 81.6)
≥35	64.9	(62.8 – 67.0)	64.9	(62.5 – 67.2)	70.9	(64.7 – 76.3)
Marijuana						
18-25	30.6	(26.3 – 35.1)	23.8	(21.8 – 26.0)	25.1	(20.7 – 30.1)
26-34	13.8	(11.6 – 16.4)	11.3	(10.3 – 12.4)	10.6	(8.3 – 13.4)
≥35	5.0	(4.2 – 5.9)	3.8	(3.2 – 4.5)	3.0	(2.0 – 4.5)
Hallucinogens						
18-25	5.7	(4.0 – 8.3)	6.9	(5.9 – 8.2)	5.3	(3.4 – 8.1)
26-34	0.8	(0.4 – 1.7)	1.1	(0.8 – 1.5)	0.5	(0.2 – 1.3)
≥35	0.1	(** – 0.4)	0.2	(0.1 – 0.5)	0.3	(0.1 – 1.1)
Cocaine						
18-25	2.9	(1.7 – 5.0)	4.7	(3.9 – 5.6)	3.2	(2.0 – 5.2)
26-34	1.6	(0.9 – 3.0)	3.5	(2.9 – 4.2)	3.9	(2.6 – 5.9)
≥35	0.3	(0.1 – 0.6)	0.9	(0.7 – 1.2)	0.6	(0.2 – 1.5)
Stimulants						
18-25	4.5	(3.0 – 6.7)	2.0	(1.5 – 2.6)	1.0	(0.3 – 3.2)
26-34	0.8	(0.4 – 1.8)	1.3	(1.0 – 1.9)	*	*
≥35	0.3	(0.1 – 0.6)	0.4	(0.2 – 0.7)	0.3	(0.1 – 1.1)

Note: Data entries are percentages. Unweighted numbers of 1997 Maine Household Telephone Survey respondents are shown in Table 1.1. No standard error table for Table 2.7 appears in Appendix B because the confidence intervals define the variation in estimates.

*Low precision; no estimate reported.

**Estimated percentage rounds to zero.

¹NHSDA = National Household Survey on Drug Abuse.

²Includes Maine, as well as Connecticut, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

³The 95% CI = 95% confidence interval for the percentage.

Maine Data Source: Maine Household Telephone Survey: 1997.

National Data Source: National Household Survey on Drug Abuse: 1996.

for marijuana use and nonmedical stimulant use in Table 2.7), the estimates of marijuana use and nonmedical stimulant use among 18-to-25-year-old adults in Maine were notably higher than the corresponding 1996 national estimates.

In contrast, rates of hallucinogen use in the past year for Maine in 1997 were generally comparable to national and regional estimates for 1996. Rates of past year cocaine use tended to be somewhat lower among Maine adults. In particular, 2.9% of Maine adults aged 18 to 25 used cocaine in 12 months prior to the 1997 survey, compared with 4.7% of adults in this age group nationally and 3.2% of adults in this age group in the Northeast who used cocaine in 1996. Similarly, 1.6% of Maine adults aged 26 to 34 were past year cocaine users in 1997, compared with 1996 national and regional estimates of 3.5% and 3.9%, respectively. Again, however, the rates of hallucinogen use and cocaine use for Maine did not differ appreciably from the national and regional rates, as indicated by the confidence intervals associated with these estimates.

In contrast to these findings, Gfroerer and Hughes (1992) reported that a telephone survey on drug use conducted in 1988 produced significantly lower estimates of marijuana and cocaine use for both lifetime and past year periods than did the 1988 NHSDA, even after estimates for the latter were adjusted to take into account differences in editing and weighting between the two surveys. Further, these estimates were significantly lower for the telephone survey across most demographic groups, suggesting that the lower estimates in the telephone survey were due in part to underreporting of drug use. Gfroerer and Hughes also found that prevalence estimates of marijuana and cocaine use for lifetime and past year periods were significantly higher for households in the 1988 NHSDA that did not have telephones. Given that telephone surveys (including the 1997 Maine Household Telephone Survey) do not cover households without telephones, this latter finding suggests that a telephone survey methodology might be expected to produce lower drug use prevalence estimates compared with face-to-face interviews.

However, there is also some evidence to suggest that reporting of substance use among different population subgroups may vary by mode of interview. As noted in Section 1.8, Aquilino and LoSciuto (1990) found that the mode of interviewing (i.e., telephone or face-to-face) affected drug prevalence rates differently for whites and blacks. For whites, the mode had little effect on drug use prevalence estimates in New Jersey. For blacks, however, estimates of marijuana and alcohol use were significantly lower for telephone interviews than for face-to-face interviews. These differences remained even after adjustments were made for demographic differences between the telephone and after face-to-face interview samples, and after households without telephones were excluded from the face-to-face sample. To the

extent that Aquilino and LoScuito's findings may be generalized to Maine, they would suggest that the mode of interview may not significantly affect drug use prevalence estimates in the Maine adult household population, which is more than 95% white (see Table 1.1).

Indeed, findings from Table 2.7 appear to confirm that a telephone survey methodology in Maine yielded estimates of substance use—and particularly estimates of use of drugs other than alcohol—that were comparable to regional and national estimates based on a face-to-face interview methodology. Furthermore, the Maine Household Telephone Survey yielded some estimates of substance use (e.g., marijuana use among 18 to 25 year olds) that were *higher* than the estimates in Table 2.7 that were based on a face-to-face interview. What is not known, however, is whether a face-to-face household survey limited to Maine would have yielded higher estimates of substance use than were obtained through the telephone survey. In addition, the findings from Table 2.7 do not completely rule out the possibility of underreporting of drug use in the Maine Household Telephone Survey because some underreporting of drug use also may have taken place in the NHSDA. Nevertheless, even if some telephone survey respondents who used particular illicit drugs in the year prior to the 1997 survey reported lifetime (but not past year) use or denied lifetime use altogether, the estimates in this chapter as a whole—and particularly in Table 2.7—indicate that sizable numbers of Maine Household Telephone Survey respondents *were* willing to report illicit drug use in the past year.

2.6 Summary

Overall, a significant proportion of household residents in Maine used alcohol or illicit drugs in the past year or past month. A majority of adult household residents in Maine (69%) used alcohol at least once in the 12 months before the survey, and about half (52%) used alcohol in the month preceding the survey. In addition, about 88,000 adult residents of Maine households (about 10%) used alcohol heavily in the previous 12 months, and 64,000 adults (about 7%) drank heavily in the month prior to the 1997 survey. Some of the highest rates of heavy alcohol use in the past year were observed for men (15%), adults between the ages of 18 and 24 (20%), and single (i.e., never married) adults (20%).

Approximately 10% of adults, or about 96,000 persons, used one or more illicit drugs in the 12 months before the survey, with another 5.7% (53,000 adults) reporting past month illicit drug use. Almost all illicit drug use involved at least use of marijuana. As was the case with heavy alcohol use, rates of illicit drug use in the past year were higher among men (13%) compared with women, adults between the ages of 18 and 24 (33%) compared with adults in older age groups, and adults who were

single (27%) compared with adults who were married or were widowed, divorced, or separated. In addition, nearly one in four adults who were living in a marriage-like relationship were illicit drug users in the past year.

More than one in four men aged 18 to 24 and 13% of women in this age group were heavy alcohol users in the past year, compared with 15% of all adult men and 5% of all adult women in Maine. Although the prevalence of past year heavy alcohol use among young women aged 18 to 24 was higher than the rates for women in the other age groups, this rate for young women was about half the rate for young men aged 18 to 24. Gender differences in rates of heavy alcohol use were most pronounced among 45 to 64 year olds, where men were about four times more likely than women in this age group to be heavy drinkers.

Young men and young women aged 18 to 24 also had high rates of illicit drug use in the past year (36% of men and 30% of women in this age group). Although men aged 18 to 24 had a somewhat higher rate of illicit drug use in the past year compared with the rate for women in this age group, this gender difference was not as pronounced as the difference in rates of heavy alcohol use among young adult men and women.

Maine adults in 1997 had rates of substance use that were generally comparable to, or were sometimes higher than, corresponding national and regional rates from the 1996 National Household Survey on Drug Abuse (NHSDA), the most current published NHSDA data available. Rates of any alcohol use, hallucinogen use, and cocaine use in the past year were comparable between Maine adults in 1997 and adults nationally and in the Northeast in 1996. However, rates of marijuana use and nonmedical stimulant use in the past year were notably higher among Maine adults aged 18 to 25 in 1997 compared with national rates for this age group in 1996.

Overall, the data presented in this chapter provide basic prevalence information about alcohol and illicit drug use for the Maine household population and offer insights into the groups most likely to experience substance use problems. These data also provide the foundation for examining the need for treatment for alcohol and other drug use problems, described in Chapter 3 of this report.

3. Need for Treatment or Intervention for Alcohol and Illicit Drug Use

This chapter builds on the substance use information presented in Chapter 2 and addresses four key questions related to the need for substance abuse treatment services:

- What problems have Maine adults experienced due to their use of alcohol or other drugs?
- What are the percentages and numbers of the Maine adult household population considered in need of treatment for their abuse of alcohol or other drugs?
- What are the percentages and numbers of the Maine adult household population in need of treatment specifically for their abuse of alcohol?
- What are the percentages and numbers of the population in need of treatment specifically for their abuse of drugs other than alcohol?

As defined by the Center for Substance Abuse Treatment (CSAT) and the National Technical Center for Substance Abuse Needs Assessment (NTC), "need for treatment" means the need to obtain outside help to stop or cut down on substance use or to recover from its consequences (McAuliffe et al., 1995). Thus, for this study, the concept of treatment includes a range of therapeutic modalities—encompassing not only intensive residential services or outpatient services in a formal substance abuse treatment program, but also services provided by nonspecialists, such as physicians, clergy, or mutual support groups of recovering people (e.g., Alcoholics Anonymous) (McAuliffe et al., 1995).

In addition, this chapter examines the overall need for some form of intervention related to the abuse of alcohol or other drugs. That could include formal treatment services or some other form of intervention. For example, "intervention" could include "brief interventions" delivered in the context of a medical visit (Institute of Medicine, 1990) or education about the risks associated with continued substance abuse. Individuals needing intervention may not demonstrate the "out-of-control" pattern of compulsive use that marks clinical diagnosis and the need for formal treatment. However, they do report heavy use or early symptoms of substance abuse problems that indicate high risk for harm to themselves or others (e.g., health problems, drinking and driving). Thus, these individuals could benefit from short-term, less-intensive programs to educate them regarding the potential adverse consequences of their pattern of substance use.

In the first section of this chapter, "need for treatment" and "need for treatment or intervention" are defined according to whether a person has:

- experienced serious adverse effects of alcohol or other drug use, or
- reported a pattern of substance use that strongly suggests appreciably impaired functioning.

Based on these definitions, the next sections present findings on the problems associated with alcohol or illicit drug use, as well as the overall prevalence of need in the Maine adult household population. Then findings are presented on the need for treatment and need for treatment or intervention among different demographic subgroups in the adult household population. Additional findings are presented on insurance coverage and benefits for those in need of treatment or intervention, prior treatment that Maine adults have received, the demand for treatment services among the adult Maine household population, and the substance abuse problems among family members and acquaintances in the household population.

3.1 Defining the Need for Treatment or Other Services

By definition, anyone who received treatment in the past 12 months for abuse of alcohol or illicit drugs should probably be considered in need of treatment. However, people who did not receive treatment could exhibit patterns of substance use or related problems that would strongly suggest that they needed treatment. Therefore, estimating the need for treatment services solely from data on actual receipt of services would underestimate the size of the population in need.

An additional group of people who would be in need of treatment services are those who continue to use alcohol or illicit drugs even when such use is causing them serious problems in their health or social functioning (e.g., relationship problems, problems at work or school). The American Psychiatric Association (APA) has established criteria for substance dependence or abuse that have been widely used as a standard for identifying people with serious problems. These criteria have been updated periodically and published in diagnostic manuals, such as the third revised edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R) (APA, 1987) and the more recent fourth edition of this manual (DSM-IV) (APA, 1994). The Maine Household Telephone Survey questionnaire measured symptoms of dependence or abuse based on the DSM-III-R (1987) criteria.

As noted in Section 1.6.3, Maine adults were defined as being in need of treatment if:

1. they received treatment in the past 12 months for their use of alcohol or other drugs;¹ or
2. they met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug, used that drug in the past 12 months, and at least one of the following was true:
 - one or more symptoms of dependence or abuse occurred in the past 12 months, or
 - they exhibited a "problem" pattern of use in the absence of any reported symptoms.

Definitions for "problem" patterns of use are given in Appendix E according to the specific drugs covered in the telephone survey.

In addition, some substance users who never met the criteria for a lifetime diagnosis of dependence or abuse may be in need of some form of intervention for their substance use. That could include formal treatment services, or that could include some type of less intensive intervention, short of treatment in a formal program.

As noted in Section 1.6.3, people were defined as being in need of "treatment or intervention" if they:

- never had a lifetime diagnosis of dependence or abuse,

but they nevertheless

- had one or more symptoms of dependence or abuse in the 12 months prior to the survey, or
- exhibited a "problem" pattern of use, as defined in Appendix E.

In particular, estimates of the size of the Maine adult household population in need of treatment or intervention provide a broader picture of the population at risk for substance-related problems. Even if some of these adults are not in immediate need of formal treatment services, they may be at high risk for serious problems in the future.

¹If persons report receiving treatment at any time during the 12-month historical period relative to the survey, we count them as in need of service, regardless of whether they met other diagnostic criteria. However, we make no assumptions about the effectiveness of that treatment, nor their future or continued need of services.

3.2 Problems Associated with Alcohol or Illicit Drug Use

As noted in Section 3.1, the Maine Household Telephone Survey questionnaire (see Appendix F) included questions to identify symptoms of dependence and abuse for alcohol and other drugs, based on the DSM-III-R (1987) criteria. This section presents findings on the prevalence of problems related to substance dependence or abuse among adults in the Maine household population in 1997.

3.2.1 Specific Problems Associated with Alcohol or Illicit Drug Use

Table 3.1 shows the percentages of adults in the Maine household population who had specific problems associated with their use of alcohol or illicit drugs. These problems correspond to the symptoms of dependence or abuse that were described above. Findings are presented for the occurrence of these problems in a person's lifetime and in the 12 months prior to the 1997 survey. If a person had a given problem, however, that does not necessarily mean that this person would meet diagnostic criteria for dependence or abuse. Nevertheless, information on the prevalence of these problems provides some indication of the extent of risk for problems that would require substance abuse treatment. Information about specific problems also indicates which problems may be contributing most to the occurrence of dependence or abuse.

Problems associated with alcohol use were more prevalent among Maine adults than were problems associated with illicit drug use. However, Maine adults were more likely to have used alcohol than illicit drugs.

As shown in Table 3.1, rates of problems associated with alcohol use were greater than the corresponding rates for problems associated with the use of illicit drugs. In addition, alcohol accounted for much of the rates of problems due to either alcohol or illicit drugs. In particular, more than 90% of adults in the Maine household population had used alcohol at least once in their lifetimes, compared with about 33% who had ever used illicit drugs (see Figures 2.1 and 2.3).

Highlights from Table 3.1 include the following:

- About 16% of the Maine adult household population had ever used alcohol or illicit drugs in larger amounts or for longer periods than intended. More than 10% of the household population had the following other lifetime problems related to their use of either alcohol or illicit drugs: frequent use while intoxicated or "high" in hazardous situations (e.g., when driving, operating machinery) (10.9%), and tolerance to the effects of alcohol or illicit drugs (12.3%).²

² Respondents were asked whether they needed larger amounts of a drug (e.g., alcohol) to achieve the desired effect, or noticed that the same amount of the drug had less effect than before (see Appendix F).

Table 3.1 Percentages Reporting Substance Use Problems in the Lifetime and Past Year in the Maine Adult Household Population: 1997

Substance Use Problem ¹	Alcohol		Any Illicit Drug ²		Alcohol or Any Illicit Drug	
	Lifetime	Past Year	Lifetime	Past Year	Lifetime	Past Year
Used larger amounts or for longer periods than intended	14.7	6.1	3.9	1.2	16.0	6.5
Unsuccessful attempts to quit, cut down, or control	6.9	2.2	2.6	0.7	8.3	2.6
Great deal of time using/getting over effects	6.8	1.3	3.6	0.8	8.7	1.9
Interference with work, school, or household responsibilities	6.4	1.4	4.1	1.4	8.5	2.5
Use in hazardous situations	9.6	2.2	3.1	0.9	10.9	2.8
Given up/reduced important activities	4.0	0.9	2.4	0.6	5.1	1.2
Continued use despite health problems	4.6	1.5	0.8	0.2	4.9	1.6
Continued use despite emotional problems	4.4	1.3	2.8	0.9	6.0	1.8
Developed tolerance	10.7	3.4	3.7	1.1	12.3	4.2
Had withdrawal symptoms	6.9	1.5	3.4	1.0	8.7	2.3
Used to prevent or relieve withdrawal symptoms	6.9	1.6	1.6	0.3	7.5	1.8

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table 3.1SE in Appendix B.

¹Individuals may report more than one type of substance use problem.

²Use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

Source: Maine Household Telephone Survey: 1997.

- Use in larger amounts or for longer periods of time than intended was the most commonly occurring problem in people's lifetimes for alcohol. Nearly 15% of adults in the Maine household population had this problem because of their use of alcohol.
- For alcohol, other commonly occurring problems in the lifetime included tolerance to the effects of alcohol (10.7%) and frequent intoxication in hazardous situations (9.6%). About 6% to 7% of the adult household population (a) had one or more unsuccessful attempts to quit or cut down on alcohol use; (b) spent a great deal of time using or getting over the effects of alcohol; (c) had alcohol-related interference with their work, school, or household responsibilities; (d) had withdrawal symptoms when they cut down on or stopped using alcohol; or (e) used alcohol to prevent the occurrence of withdrawal symptoms or make them go away.
- Use of alcohol in larger amounts or for longer periods than expected was also the most commonly occurring alcohol-related problem in the 12 months prior to the survey (6.1%). More than 3% of Maine adults in the household population had experienced tolerance to alcohol in the past 12 months. About 2% of adults were unsuccessful in efforts to quit, cut down on, or control alcohol use in the past 12 months or were frequently intoxicated in potentially hazardous situations.
- About 4% of the adult household population had the following lifetime problems related to illicit drug use: interference with work, school, or household responsibilities (4.1%); use in larger amounts or for longer periods than expected (3.9%); tolerance to the effects of illicit drugs (3.7%); and spending a great deal of time using or getting over the effect of one or more illicit drugs (3.6%). About 1% or less of Maine adults experienced specific illicit drug-related problems in the past 12 months.

Tables A.3 through A.6 in Appendix A show specific symptoms of dependence and abuse in the past 12 months according to gender and age group, and according to whether the problems were due to alcohol or illicit drug use. Consistent with the findings from Chapter 2 showing higher rates of heavy alcohol use and illicit drug use among males compared with females, these problems were more prevalent among males. Similarly, these problems were more likely to occur among younger adults.

In particular, findings from Table A.3 indicate that sizable percentages of males aged 18 to 24 in the Maine household population had problems related to their use of alcohol in the 12 months prior to the survey. Specifically, 23% of males aged 18 to 24 used alcohol in larger amounts or for longer periods than they intended in the 12 months prior to the

Compared with other age groups, young adults aged 18 to 24 in Maine had high rates of alcohol-related problems in the past year.

survey, nearly 16% had symptoms in the past 12 months suggesting the development of tolerance to the effects of alcohol, and 10% were frequently intoxicated in potentially hazardous situations (e.g., when driving a car, operating machinery, crossing against traffic). Except for the percentage of males aged 25 to 44 who used alcohol in larger amounts or for longer periods than intended in the past 12 months (10.5%), fewer than 10% of males aged 25 to 44 experienced these alcohol-related problems, and fewer than 4% of men in other age groups experienced these problems. In addition, as shown in Table A.5, about 8% of males aged 18 to 24 had symptoms suggesting the development of tolerance to the effects of one or more illicit drugs; 7% indicated that illicit drug use had interfered with their work, school, or household responsibilities; 7% were frequently impaired by illicit drugs or were feeling the aftereffects of illicit drug use when they were in potentially hazardous situations in the past 12 months; 6% were unsuccessful in efforts to cut down or control illicit drug use; and 6% had withdrawal symptoms in the past 12 months when they stopped or cut down on use of one or more illicit drugs.

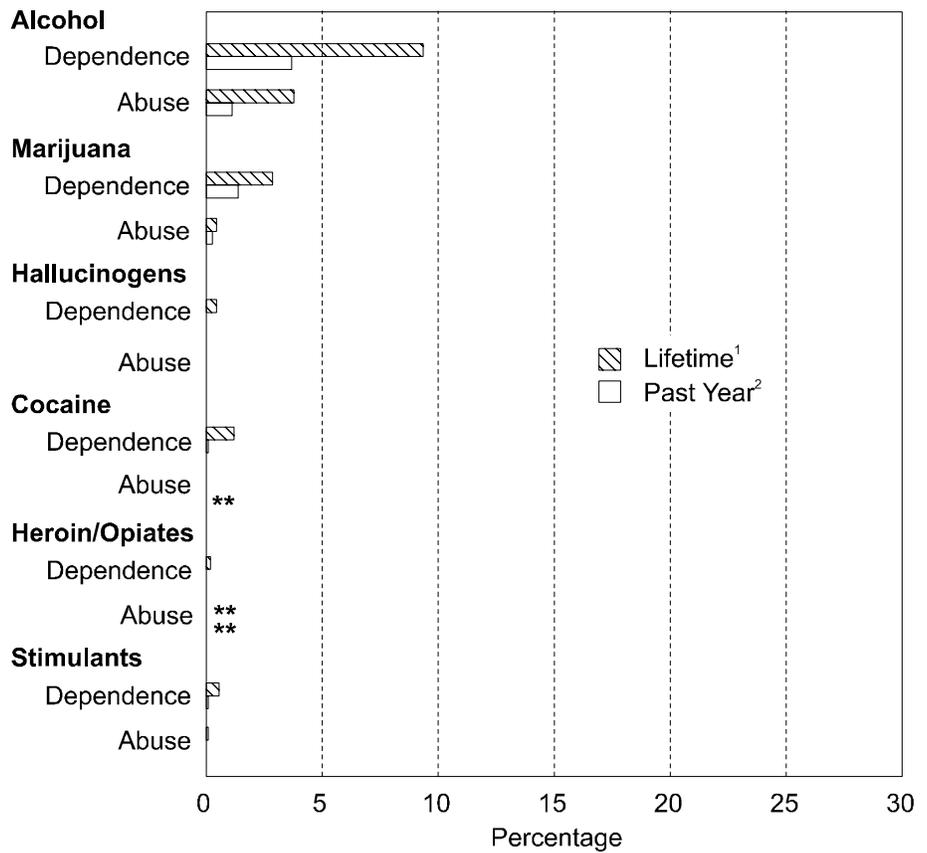
Compared with women in other age groups, women aged 18 to 24 also had notably higher rates of problems in the past 12 months related to alcohol or illicit drug use. As shown in Table A.4, about 14% of women aged 18 to 24 used alcohol in larger amounts or for longer periods than they intended in the 12 months prior to the survey, and 11% had symptoms in the past 12 months suggestive of a development of tolerance to the effects of alcohol.

3.2.2 Dependence or Abuse

Figure 3.1 shows the percentages of adults in the Maine adult household population whose problems related to substance use were serious to the point of them meeting lifetime DSM-III-R (1987) criteria for dependence or abuse for the specific drugs covered in the 1997 telephone survey. (Supporting data for Figure 3.1 are shown in Table A.7 in Appendix A.) Figure 3.1 also shows the percentages of adults who met lifetime DSM-III-R (1987) criteria for dependence or abuse, used these drugs in the 12 months prior to the survey, and had one or more symptoms of dependence or abuse in the past 12 months.³ Percentages in Table A.7 are rounded to the nearest hundredth of a percentage (instead of the nearest tenth) to allow reporting of smaller estimates. Specifically, small percentages (i.e., less than 0.05%) of respondents meeting criteria for dependence on or abuse of less commonly used drugs would be reported as rounding to zero if shown to the nearest tenth of a percentage.

³Most people who had symptoms of abuse also met criteria for dependence and were classified as substance dependent. Abuse is a “residual category” for individuals not meeting diagnostic criteria for dependence.

Figure 3.1 Prevalence of Dependence or Abuse in the Lifetime and Past Year in the Maine Adult Household Population, by Drug: 1997



Note: Supporting data for Figure 3.1 are shown in Table A.7 in Appendix A.

**Estimated percentage rounds to zero.

¹For *lifetime dependence*, as diagnosed by the DSM-III-R (1987), experienced three or more symptoms of dependence on a given drug in the lifetime. Some of these symptoms persisted for a month or more, or occurred repeatedly over a longer period of time. For *lifetime abuse*, as diagnosed by the DSM-III-R (1987), never had a lifetime diagnosis of dependence on a given drug but continued to use that drug despite adverse consequences, or continued to use that drug in hazardous situations. Some of these symptoms persisted for a month or more, or occurred repeatedly over a longer period of time.

²For *past year dependence*, met lifetime DSM-III-R (1987) criteria for dependence on a given drug, used the drug in the past 12 months, and had one or more symptoms of dependence on that drug in the past 12 months. For *past year abuse*, met lifetime DSM-III-R (1987) criteria for abuse of a given drug, used the drug in the past 12 months, and had one or more symptoms of abuse for that drug in the past 12 months.

Source: Maine Household Telephone Survey: 1997.

In comparison, small estimates of dependence or abuse that were greater than 0.005% would be reported if shown to the nearest hundredth of a percentage.

In addition, Table 3.2 shows the estimated numbers of adults who met lifetime criteria for dependence or abuse, used these drugs at least once in the past 12 months, and had one or more symptoms in the past 12 months. These estimates in Table 3.2 are rounded to the nearest hundred people.

Highlights from Figure 3.1 and Table 3.2 include the following:

- An estimated 9.40% of adults in the Maine household population met lifetime DSM-III-R (1987) criteria for alcohol dependence. An estimated 3.83% of the household population met lifetime criteria for alcohol abuse. Altogether, then, an estimated 13.23% of household population adults met lifetime criteria for either alcohol dependence or abuse.⁴
- An estimated 2.88% of the Maine adult household population met lifetime criteria for dependence on marijuana, and 0.52% met lifetime criteria for marijuana abuse. An estimated 1.21% met lifetime criteria for cocaine dependence. About 0.5% to 0.6% of adults met lifetime criteria for dependence on stimulants or hallucinogens, and 0.2% met lifetime criteria for dependence on opiates. About 0.1% or fewer of adults in the household population met lifetime criteria for abuse of hallucinogens, cocaine, opiates, or stimulants, including fewer than 0.005% who met lifetime criteria for opiate abuse.
- An estimated 3.78% of adults in the household population had recent problems with alcohol dependence (i.e., past 12 months), and 1.14% of adults in the household population had recent problems with alcohol abuse. That is, these adults met lifetime criteria for alcohol dependence or abuse, used alcohol at least once in the 12 months prior to the survey, and had one or more symptoms of dependence or abuse in the past 12 months.
- Altogether, more than 46,000 adults in the Maine household population had recent problems with alcohol dependence (35,400 adults) or abuse (10,700), as defined above.

About 13% of adults in the household population met lifetime criteria for alcohol dependence or abuse.

⁴The estimated percentages of people meeting lifetime DSM-III-R (1987) criteria for alcohol dependence or abuse can be added together because these categories are mutually exclusive. That is, people who met lifetime criteria for alcohol abuse by definition did not meet lifetime criteria for dependence.

Table 3.2 Estimated Numbers of People Meeting Criteria for Dependence or Abuse in the Past Year in the Maine Adult Household Population, by Drug: 1997

Drug	Problem			
	Dependence ¹		Abuse ²	
	Number ³	95% CI ⁴	Number ³	95% CI ⁴
Alcohol	35,400	30,200 – 41,500	10,700	8,000 – 14,400
Marijuana	13,000	9,700 – 17,200	3,200	1,800 – 5,900
Hallucinogens	800	300 – 2,200	500	100 – 1,900
Cocaine	1,200	500 – 2,900	**	** – **
Heroin/Opiates	200	** – 1,700	**	** – **
Stimulants	1,000	400 – 2,600	200	** – 1,700

Note: Appendix B does not include a corresponding standard error table for Table 3.2. The 95% confidence intervals shown in Table 3.2 indicate the precision of these estimates.

**Estimate rounds to fewer than 100 people.

¹Met lifetime DSM-III-R (1987) criteria for dependence on a given drug, used the drug in the past 12 months, and had one or more symptoms of dependence on that drug in the past 12 months.

²Met lifetime DSM-III-R (1987) criteria for abuse of a given drug, used the drug in the past 12 months, and had one or more symptoms of abuse for that drug in the past 12 months.

³Estimated number of people rounded to the nearest hundred.

⁴The 95% CI = 95% confidence interval of the estimated number of people.

Source: Maine Household Telephone Survey: 1997.

More than 46,000 Maine adults (4.9%) had recent problems with alcohol dependence or abuse. About 16,000 adults (1.7%) had recent problems with marijuana dependence or abuse.

- An estimated 1.38% of the adult household population, or about 13,000 adults, had recent problems with marijuana dependence, and 0.34% of adults in this population, or about 3,200 adults, had recent problems with marijuana abuse. Taken together, then, slightly more than 16,000 adults had recent problems with either marijuana dependence or abuse.
- An estimated 1,200 adults who met lifetime criteria for cocaine dependence and an estimated 1,000 adults who met lifetime criteria for dependence on stimulants (e.g., methamphetamine, other amphetamines) had symptoms of dependence in the past 12 months related to their use of these substances.

However, these estimates were based on a sample of people in households, as opposed to a census of every adult in households in Maine. For this reason, there is some variability in these estimates. If a different sample were drawn and a new set of interviews had been conducted, lower or higher estimates of dependence or abuse might be observed.

The 95% confidence intervals for the estimated numbers of people in Table 3.2 indicate the range of possible values in which the true population values are likely to be found. For example, in the household population 35,400 adults were estimated to have met lifetime criteria for alcohol dependence, used alcohol in the 12 months prior to the survey, and had one or more symptoms of alcohol dependence in the past 12 months. The lower and upper bounds of the 95% confidence interval for this estimate were 30,200 and 41,500. Stated another way, one can be 95% confident that the actual number of adults in the household population with recent problems with alcohol dependence in 1997 was somewhere between 30,200 and 41,500 adults, with 35,400 being the best estimate from these survey data.⁵ Similarly, the number of adults estimated to have recent problems with alcohol abuse totaled 10,700, with lower and upper bounds of 8,000 and 14,400, respectively.

⁵If the survey were repeated several times with different, independent samples, the 95% confidence interval for a given estimate would include the true population value 95% of the time.

3.3 Overall Prevalence of Need

3.3.1 Need for Treatment

Figure 3.2 and Table 3.3, respectively, show the percentages and estimated numbers of people of the Maine adult household population who were considered to be in need of substance abuse treatment in the past 12 months, according to the definitions of treatment need described in Appendix E. (Supporting data for Figure 3.2 are shown in Table A.8 in Appendix A.) Also shown in Figure 3.2 and Table 3.3 are percentages and estimated numbers of people who could be considered in need of treatment or intervention for their substance use. People who were in need of actual treatment (i.e., the top rows in Tables 3.3 and A.8) also were included in the estimates of "need for treatment or intervention" (i.e., the bottom rows in Tables 3.3 and A.8). As was the case with Table A.7, percentages in Table A.8 are shown to the nearest hundredth of a percentage, and estimated numbers of people in Table 3.3 are shown to the nearest hundred people.

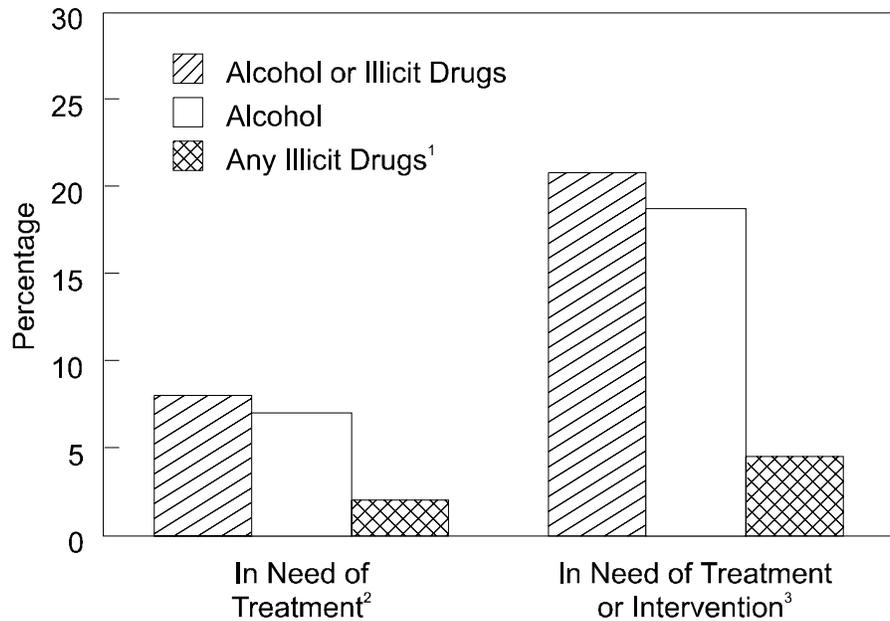
Nearly 76,000 adults in the Maine household population in 1997 (8%) were in need of substance abuse treatment. Of the nearly 76,000 Maine adults who needed treatment in 1997, almost 66,000 needed alcohol treatment.

An estimated 8.07% of the adult household population in Maine in 1997 were in need of treatment due to problems with alcohol, marijuana, hallucinogens, cocaine, opiates, or stimulants. This percentage translated to an estimated 75,600 adults in need of treatment,⁶ with lower and upper bounds of the 95% confidence interval of 67,700 and 84,300, respectively. Stated another way, the actual number of Maine adults in the household population who were in need of treatment may be somewhere between 67,700 and 84,300 adults, with 75,600 being the best available estimate. However, if one assumes that these telephone survey estimates are conservative, then the "upper-bound" estimate of about 84,300 people might be useful for planning purposes.

Alcohol accounted for much of the need for treatment among Maine adults in the household population. An estimated 7.03% of adults in the household population were in need of treatment specifically for alcohol (with or without the need for treatment for problems related to use of other drugs). This percentage translated to about 65,900 adults in need of treatment for alcohol-related problems, or about 87% of the 75,600 adults estimated to need treatment for alcohol or illicit drugs. (The estimate of 65,900 adults in Table 3.3 who needed alcohol treatment is

⁶The estimates of treatment need in Figure 3.2 and Table A.8 are greater than the estimates of dependence or abuse in the past 12 months in Figure 3.1 and Table A.7 because some people who met the lifetime diagnostic criteria may have denied the existence of current symptoms. However, some of these people may have had a "problem" pattern of use that would suggest the existence of problems (or high risk for problems). As described in Appendix E, these people also were considered in need of treatment. In addition, people who received formal treatment services (e.g., detoxification, residential treatment, outpatient treatment in a formal treatment program) in the past 12 months but denied the existence of symptoms in the past 12 months were still considered in need of treatment.

Figure 3.2 Percentages of the Maine Adult Household Population in Need of Alcohol or Illicit Drug Use Treatment or Intervention in the Past Year: 1997



Note: Supporting data for Figure 3.2 are shown in Table A.8 in Appendix A.

¹Marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or stimulants.

²Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

³Includes people in need of treatment, as defined above. Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment or intervention” was defined.

Source: Maine Household Telephone Survey: 1997.

Table 3.3 Estimated Numbers of the Maine Adult Household Population and Adults Under Age 21 in Need of Alcohol or Illicit Drug Use Treatment or Intervention in the Past Year: 1997

Treatment or Intervention Need/Group	Number ¹	95% CI ²
Any Need for Treatment^{3,4}		
All Adults		
Alcohol or illicit drugs	75,600	67,700 – 84,300
Alcohol	65,900	58,700 – 73,900
Any illicit drugs ⁵	18,400	14,500 – 23,400
Adults Under 21		
Alcohol or illicit drugs	11,600	8,600 – 15,300
Alcohol	8,800	6,200 – 12,100
Any illicit drugs	5,800	3,700 – 8,900
Any Need for Treatment or Intervention⁶		
All Adults		
Alcohol or illicit drugs	194,700	182,300 – 207,600
Alcohol	175,600	163,800 – 188,100
Any illicit drugs ⁵	43,000	37,100 – 49,800
Adults Under 21		
Alcohol or illicit drugs	27,300	23,200 – 31,500
Alcohol	23,900	19,900 – 28,200
Any illicit drugs	11,300	8,400 – 15,000

Note: Unweighted numbers of respondents are shown in Table 1.1.

¹Estimated number of people rounded to the nearest hundred.

²The 95% CI = 95% confidence interval for the estimated number of people.

³Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

⁴The numbers of people needing treatment are greater than the number meeting 12-month criteria for dependence or abuse because people who met lifetime dependence or abuse criteria and reported a “problem” pattern of use in the past 12 months were considered in need of treatment, even if they did not report symptoms in that same period. In addition, people who received treatment in the past 12 months were considered to be in need of treatment, regardless of whether they had symptoms of dependence or abuse in the past 12 months.

⁵Marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or stimulants.

⁶Includes people in need of treatment, as defined above. Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment or intervention” was defined.

Source: Maine Household Telephone Survey: 1997.

greater than the total of 46,100 adults from Table 3.2 who had current symptoms of alcohol dependence or abuse, because the estimate in Table 3.3 includes adults who met lifetime criteria for alcohol dependence or abuse, denied the existence of symptoms in the past 12 months, but who nevertheless had a "problem" pattern of alcohol use in the past 12 months, as defined in Appendix E.)

In comparison, slightly fewer than 2% of the household population was in need of treatment for the other drugs covered in the telephone survey. Nevertheless, this percentage translated to 18,400 adults in need of treatment for drugs other than alcohol.

These estimated numbers of people in need of treatment specifically for alcohol or for other drugs add up to more than 75,600 because some people might be in need of treatment for both. Again, however, the 95% confidence intervals for these estimates suggest that nearly 74,000 adults might be in need of alcohol treatment, and more than 23,000 adults might be in need of treatment for their use of drugs other than alcohol.

These findings are consistent with data from the Maine Addiction Treatment System for Fiscal Year (FY) 1996.⁷ Of a total of 7,535 people who were admitted to treatment programs in FY 1996, alcohol was the primary drug of abuse for 6,046 people (80%). Tables 3.3 and A.8 also show percentages and estimated numbers of adults aged 18 to 20 who needed treatment. Nearly one in five adults under 21 needed treatment for alcohol or illicit drugs, about 15% needed alcohol treatment, and about 10% needed other drug treatment (Table A.8). These estimates translated to nearly 12,000 adults under 21 in any need of treatment, nearly 9,000 in need of alcohol treatment, and nearly 6,000 in need of other drug treatment.

Nearly 9,000 adults under 21 needed alcohol treatment, and nearly 6,000 needed treatment for other drugs.

More than one in five adults in the Maine household population in 1997, or nearly 195,000 adults, were in need of some form of intervention for their substance use.

3.3.2 Need for Treatment or Intervention

Figure 3.2 and Table 3.3 also show the percentages and estimated numbers of the Maine adult household population who were considered to be in need of some form of treatment or intervention for their substance use. Estimates of the need for treatment or intervention provide a potential "upper-bound" indication of the size of the population at risk for problems related to their substance use.

More than one in five adults (20.78%) in the Maine household population in 1997, or nearly 195,000 adults, were in need of treatment or intervention related to their substance use, compared with the 8.07% of the population who were estimated to be in need of treatment. Again, alcohol accounted for much of the need for treatment or intervention

⁷Maine's fiscal years run from July of the preceding calendar year through the following June. Thus, FY 1996 ran from July 1, 1995, through June 30, 1996.

Nearly half of adults under 21, or about 27,000 adults under 21, needed some intervention for their use of alcohol or illicit drugs.

services. An estimated 18.74% of the household population, or 175,600 Maine adults, were in need of treatment or intervention for their use of alcohol. This estimate translated to more than 90% of the 194,700 adults needing treatment or intervention for alcohol or illicit drugs. In comparison, 4.59% of the household population, or about 43,000 adults, were in need of some form of intervention for their use of other drugs.

Nearly half of adults aged 18 to 20 needed some form of intervention for their use of alcohol or other drugs, and more than 40% needed intervention for their alcohol use (Table A.8). These estimates translated to more than 27,000 adults under 21 needing intervention for alcohol or illicit drug use, and nearly 24,000 needing intervention specifically for alcohol use.

3.4 Correlates of Need for Treatment

3.4.1 Age Group and Gender

Figure 3.3 and Table 3.4 provide information on the need for alcohol and other drug treatment services among Maine adults in the household population according to gender and age group. (Supporting data for Figure 3.3 are shown in Table A.9 in Appendix A.) As was discussed above, readers should interpret these estimates in the context of the 95% confidence intervals, particularly for estimates of the number of people in need of treatment. In addition, some of the estimates for numbers of men and women in need of treatment add up to slightly more than the totals in the right-hand column because of rounding.

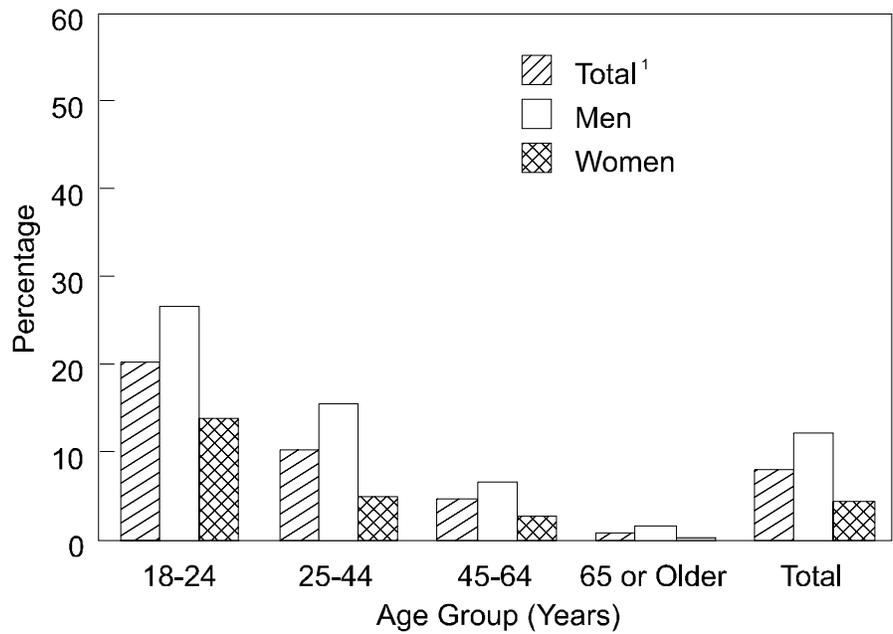
About 55,000 men and 21,000 women in the Maine adult household population needed substance abuse treatment.

Highlights from Figure 3.3 and Table 3.4 include the following:

- An estimated 54,500 adult men and 21,100 adult women in the Maine household population were identified as being in need of treatment for problems related to their use of alcohol or other drugs in 1997. As shown by the confidence intervals for these estimates, however, there may have been as few as 47,900 or as many as 61,800 men in need of treatment. Similarly, there may have been as few as 17,300 or as many as 25,800 women in need of treatment.⁸
- Need for alcohol or other drug treatment was more common among men than women. An estimated 12.14% of men in the household population in 1997 were classified as being in need of treatment, compared with 4.33% of women. The higher

⁸The upper limit of the 95% confidence interval for the population as a whole was 59,000. The upper limits of the 95% confidence intervals for men and women add up to more than 59,000 because the individual estimates for men and women are less precise than the estimate based on the entire sample.

Figure 3.3 Past Year Prevalence of Maine Adults in Need of Treatment, by Gender and Age Group: 1997



Note: Supporting data for Figure 3.3 are shown in Table A.9 in Appendix A.

¹Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

Source: Maine Household Telephone Survey: 1997.

Table 3.4 Past Year Estimated Numbers of Maine Adults in Need of Treatment, by Gender and Age Group: 1997

Age Group (Years)	Gender				Total	
	Male		Female		Number ^{1,2}	95% CI
	Number ¹	95% CI	Number ¹	95% CI		
18-24	15,100	11,700 – 19,000	7,800	5,600 – 10,700	22,900	18,700 – 27,700
25-44	29,800	25,300 – 34,900	9,600	7,400 – 12,300	39,400	34,300 – 45,200
45-64	8,500	6,000 – 11,900	3,500	1,900 – 6,400	11,900	8,800 – 16,100
65 or Older	1,100	400 – 2,800	300	** – 3,000	1,400	500 – 3,600
Total	54,500	47,900 – 61,800	21,100	17,300 – 25,800	75,600	67,700 – 84,300

Note: Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined. Appendix B does not include a corresponding standard error table for this table because the 95% confidence intervals shown here indicate the precision of these numbers. The 95% CI = 95% confidence interval for the number.

**Estimate rounds to fewer than 100 people.

¹Estimated number of people rounded to the nearest hundred.

²Totals may differ slightly from the sum of the estimated numbers of males and females because of rounding.

Source: Maine Household Telephone Survey: 1997.

Men were more likely than women to need treatment, and young adults aged 18 to 24 were more likely than adults in other age groups to need treatment.

percentages of men in need of treatment held across all age groups.

- Higher percentages of younger adults aged 18 to 24 were in need of treatment compared with percentages of adults in other age groups. More than one-fourth of young males (26.61%) and 13.88% of young females aged 18 to 24 in the household population were in need of treatment. This was consistent with the relatively high rates of alcohol and illicit drug use among younger adults shown in Chapter 2 and the higher rates of alcohol and other drug-related problems shown in Tables A.3 through A.6 in Appendix A for this age group.

Because alcohol accounted for much of the need for treatment among this population, Tables A.10 and A.11 in Appendix A also show rates of treatment need due to alcohol dependence and abuse (as defined previously) by gender and age group. These data in Tables A.10 and A.11 may be more useful for estimating the need for formal alcohol treatment services in the state, such as detoxification, residential treatment, or outpatient treatment services delivered by treatment specialists. These data also provide further background for understanding the rates of treatment need presented in Figure 3.3, and particularly the high estimates of treatment need among younger adults.

Of the 54,500 adult males in Table 3.4 who were estimated to need treatment, 30,300 needed treatment due to recent problems with alcohol dependence (Table A.10), and 9,200 needed treatment due to recent problems with alcohol abuse (Table A.11). Altogether, an estimated 39,500 adult males needed treatment in 1997 due to recent alcohol dependence or abuse, or about 72% of the adult males who needed treatment (i.e., $[39,500 \div 54,500] \times 100 = 72\%$). Similarly, an estimated 11,900 adult women needed treatment due to recent alcohol dependence, and 3,000 women needed treatment due to recent alcohol abuse. Thus, an estimated 14,900 women needed treatment due to recent alcohol dependence or abuse, or about 71% of the 21,100 women in Table 3.4 who were in need of treatment.

In addition, the findings that more than one-fourth of young adult males aged 18 to 24 in the Maine household population and nearly 14% of young adult females in this age group were estimated to be in need of treatment are of particular concern. As was discussed previously, however, findings from Tables A.3 through A.6 in Appendix A indicate that sizable percentages of males and females aged 18 to 24 had symptoms of alcohol- or other drug-related dependence or abuse in the past 12 months. In addition, as shown in Table A.10, an estimated 15.30% of males aged 18 to 24 and 6.69% of females in this age group had both a lifetime history of alcohol dependence and recent (i.e., past 12 month) symptoms of alcohol dependence. These estimates translated

to 8,700 males aged 18 to 24 and 3,800 females aged 18 to 24 who needed treatment because of recent symptoms of alcohol dependence. Thus, nearly three-fifths of the 15,100 males aged 18 to 24 and nearly half of the 7,800 females aged 18 to 24 shown in Table 3.4 as needing treatment had a considerable history of alcohol problems, as evidenced by their meeting lifetime criteria for alcohol dependence.

An additional 6.42% of males aged 18 to 24 and 4.16% of females aged 18 to 24 needed treatment due to alcohol abuse but not alcohol dependence (Table A.11). These estimates translated to 3,600 males and 2,300 females in this age group who needed treatment due to alcohol abuse. Thus, of the 15,100 males aged 18 to 24 who were in need of treatment in 1997, 24% were classified as needing treatment services because they met lifetime DSM-III-R (1987) criteria for alcohol abuse (but not dependence), they used alcohol at least once in the 12 months prior to the survey, and they had one or more symptoms of alcohol abuse in the past 12 months due to alcohol dependence or abuse (i.e., $[3,600 \div 15,100] \times 100 = 24\%$). Similarly, of the 7,800 women aged 18 to 24 who needed treatment, 29% needed treatment due to alcohol abuse.

In addition, Tables A.12 through A.14 in Appendix A provide estimates of treatment need for Maine's three DMHMRSAS regions. Because of the smaller sample sizes for these DMHMRSAS regions relative to the total sample size (see Table 1.1), the estimates at the DMHMRSAS region level are less precise than the corresponding state-level estimates, and particularly for estimates subdivided further by gender, age group, or both. Therefore, readers should use caution in making comparisons across DMHMRSAS regions or across groups within a region. For example, the estimate of treatment need in Table A.14 for 18- to 24-year-old males in Region III (31.58%) was nearly 10 percentage points higher than the corresponding treatment need estimate in Table A.13 for males in this age group in Region II (22.03%). However, these two estimates are not significantly different, as indicated by the overlapping confidence intervals for these estimates (see Tables A.13 and A.14).

Nearly 29,000 adults in Region I, about 28,000 adults in Region II, and about 18,000 adults in Region III needed substance abuse treatment.

In terms of estimated numbers of people in need of treatment, comparable numbers of adults in Regions I and II needed treatment (28,800 adults in Region I and 28,300 adults in Region II). An estimated 18,400 adults in Region III were in need of treatment. However, the *percentages* of the population in each region who were in need of treatment, which are based on the number of people needing treatment in a given region relative to that region's population size, did not differ significantly between the three regions.

3.4.2 Race/Ethnicity and Gender

Table 3.5 shows estimates of treatment need according to race/ethnicity and gender for the Maine adult household population as a whole. The

Table 3.5 Past Year Prevalence and Estimated Numbers of Maine Adults in Need of Treatment, by Gender and Race/Ethnicity: 1997

Racial/Ethnic Group/CI	Gender					
	Male		Female		Total	
	Percentage	Number ¹	Percentage	Number ¹	Percentage	Number ^{1,2}
White	11.68	49,500	4.31	20,200	7.81	69,700
95% CI, lower limit	10.22	43,300	3.50	16,400	6.97	62,200
95% CI, lower limit	13.33	56,500	5.29	24,800	8.74	78,000
Nonwhite³	20.07	5,000	4.83	1,000	13.23	5,900
95% CI, lower limit	12.70	3,100	1.86	400	8.67	3,900
95% CI, lower limit	30.23	7,500	11.98	2,400	19.66	8,800

Note: Definitions of need for treatment are given in Appendix E. Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined. Appendix B does not include a corresponding standard error table for this table because the 95% confidence intervals shown here indicate the precision of these estimates. The 95% CI = 95% confidence interval for the estimate.

¹Estimated number of people rounded to the nearest hundred.

²Totals may differ slightly from the sum of the estimated numbers of males and females because of rounding.

³“Nonwhite” represents black, Hispanic, or “other” origin.

Source: Maine Household Telephone Survey: 1997.

relatively small number of nonwhite respondents (see Table 1.1) did not allow adequate precision to subdivide most estimates of treatment need for nonwhites by both gender and age group.

Given that 95% of adults in the Maine household population are white (see Table 1.1), the estimates of treatment need among whites in Table 3.5 closely parallel the overall household population estimates shown in Figure 3.3. As shown in Table 3.5, an estimated 5,000 nonwhite adult males and 1,000 nonwhite adult females in the Maine household population were in need of treatment. The corresponding percentages of adult nonwhite males and females who needed treatment were 20.07% and 4.83%, respectively. Although the percentage of adult nonwhite males in need of treatment was greater than the corresponding estimate for adult white males (11.68%), these estimates did not differ significantly, as indicated by the overlapping confidence intervals for the two estimates.

3.5 Correlates of Need for Treatment or Intervention

3.5.1 Age Group and Gender

Figure 3.4 and Table 3.6 provide information on the need for some form of substance abuse treatment or intervention among different age and gender subgroups in the state. (Supporting data for Figure 3.4 are shown in Table A.15 in Appendix A.)

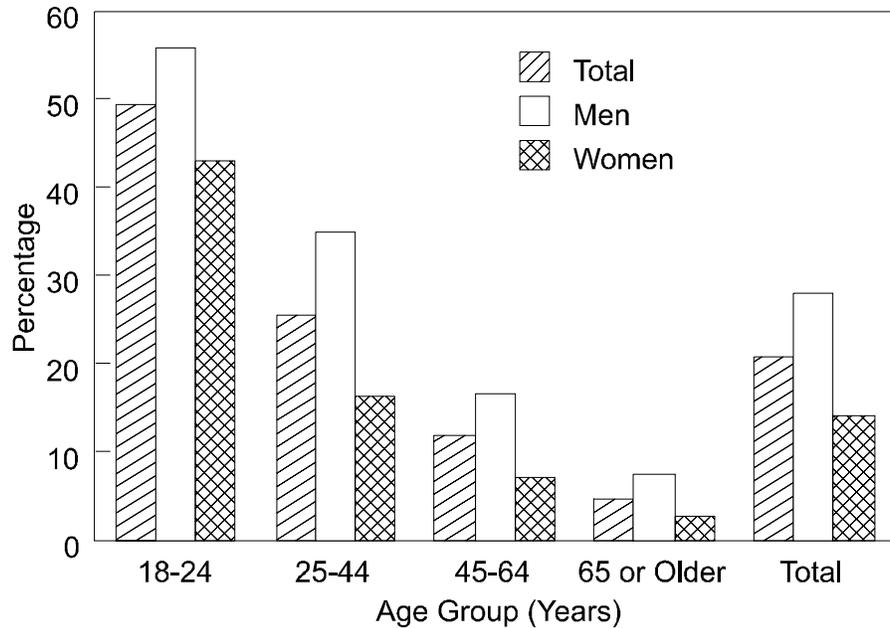
Highlights from Figure 3.4 and Table 3.6 include the following:

- An estimated 126,000 men and 68,700 women in the adult household population could be considered in need of some form of intervention in 1997 for their use of alcohol or other drugs, although not necessarily formal treatment services.
- When compared with the need for treatment services reported earlier (i.e., 54,500 adult men and 21,100 adult women; Table 3.4), these estimates account for an additional 71,500 men and 47,600 additional women in need of some form of intervention. Moreover, for some of these adults, their pattern of substance use may be sufficiently severe to warrant formal treatment, even if they did not report sufficient symptoms to meet a diagnosis of dependence or abuse.
- Nearly half of young adults aged 18 to 24 in the Maine household population could be considered in need of some form of intervention for their substance use, including 55.75% of young males aged 18 to 24 and 42.88% of young females aged 18 to 24. These estimates translate to 31,500 young adult males and 24,200 young adult females in need of some form of intervention. As

About 126,000 men and nearly 69,000 women in the Maine adult household population in 1997 were in need of some form of intervention for their substance use.

Nearly half of the young adults aged 18 to 24 in the Maine household population were in need of some form of intervention for their substance use.

Figure 3.4 Past Year Prevalence of Maine Adults in Need of Treatment or Intervention, by Gender and Age Group: 1997



Note: Supporting data for Figure 3.4 are shown in Table A.15 in Appendix A. Definitions of need for treatment or intervention are given in Appendix E. Total includes people in need of treatment (see Appendix E). Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months, as defined in Appendix E.

Source Maine Household Telephone Survey: 1997.

Table 3.6 Past Year Estimated Numbers of Maine Adults in Need of Treatment or Intervention, by Gender and Age Group: 1997

Age Group Years	Gender				Total	
	Male		Female		Number ^{1,2}	95% CI
	Number ¹	95% CI	Number ¹	95% CI		
18–24	31,600	27,300 – 35,700	24,200	20,500 – 27,900	55,700	50,100 – 61,400
25–44	67,900	61,800 – 74,400	32,200	28,200 – 36,600	101,100	96,600 – 108,100
45–64	21,200	17,100 – 26,000	9,500	6,500 – 13,800	30,800	25,400 – 37,100
65 or Older	5,300	3,400 – 8,000	2,800	1,200 – 6,500	8,100	5,300 – 12,100
Total	126,000	116,500 – 135,900	68,700	61,400 – 76,800	194,700	182,300 – 207,600

Note: Definitions of need for treatment or intervention are given in Appendix E. Includes people in need of treatment (see Appendix E). Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months, as defined in Appendix E. Appendix B does not include a corresponding standard error table for this table because the 95% confidence intervals shown here indicate the precision of these estimates. The 95% CI = 95% confidence interval for the estimate.

¹Estimated number of people rounded to the nearest hundred.

²Percentages and estimated numbers were calculated separately for the total population and for males and females. Therefore, estimated numbers of people based on the total population may not agree exactly with the sum of the estimated numbers of males and females.

Source: Maine Household Telephone Survey: 1997.

discussed above, however, sizable percentages of young adults had problems with alcohol or illicit drugs in the 12 months prior to the survey (see Tables A.3 through A.6 in Appendix A).

- Nearly 35% of males aged 25 to 44 and about 16% of women in this age group were in need of some form of intervention for their substance use. These estimates translate to 67,900 males and 32,200 females in this age group who needed some form of intervention.
- As might be expected, the need for intervention declined beyond the age of 44. However, about 17% of men between the ages of 45 and 64 (21,200 men) were in need of intervention. About 7% of women in this age group, or 9,500 women, also were in need of intervention. In addition, about 8% of men aged 65 or older were in need of intervention for their substance use, or 5,300 men in this age group.

As was noted above, not all of these 126,000 men and 68,700 women were dependent on alcohol or other drugs and, consequently, would not necessarily be in need of formal treatment services. In addition, some of the young adults aged 18 to 24 might be expected to “age out” of a pattern of heavy alcohol consumption or use of other drugs, as they assume greater responsibilities associated with employment, marriage, or child rearing. A longitudinal study following alcohol abusers for many years found that approximately one third became abstinent, one third remained active substance abusers, and one third died by their 60th birthday (Vaillant & Hiller-Sturmhöfel, 1996). However, reliance upon young adults’ “aging out” of problem patterns of substance use is not a desirable policy option because the consequences of such use could be serious and irreversible. Furthermore, the high percentages of young adults in need of some form of intervention (but not necessarily formal treatment) indicate that a substantial proportion of young adults in Maine may be at risk for problems related to their substance use.

Moreover, these findings suggest that nearly 195,000 Maine adults have experienced current adverse consequences associated with their substance use, or exhibit patterns of use that suggest the potential for significant impairment. Even though not all of these adults were in need of treatment in 1997, many of them might need treatment in the future if nothing is done about their substance use.

3.5.2 Race/Ethnicity and Gender

Table 3.7 shows estimates of the need for treatment or intervention in the Maine adult household population according to race/ethnicity and gender. An estimated 32.34% of nonwhite adult males and 14.03% of nonwhite adult females in Maine were in need of treatment or

Table 3.7 Past Year Prevalence and Estimated Numbers of Maine Adults in Need of Treatment or Intervention, by Gender and Race/Ethnicity: 1997

Racial/Ethnic Group/CI	Gender				Total	
	Male		Female		Percentage	Number ^{1,2}
	Percentage	Number ¹	Percentage	Number ¹		
White	27.85	118,000	14.07	65,900	20.61	183,900
95% CI, lower limit	25.69	108,900	12.54	58,700	19.27	171,900
95% CI, lower limit	30.11	127,600	15.76	73,800	22.03	196,500
Nonwhite³	32.34	8,000	14.03	2,800	24.12	10,800
95% CI, lower limit	23.49	5,800	8.20	1,600	18.24	8,200
95% CI, lower limit	42.66	10,500	22.98	4,600	31.17	14,000

Note: Definitions of need for treatment or intervention are given in Appendix E. Includes people in need of treatment (see Appendix E). Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a "problem" pattern of use in the past 12 months, as defined in Appendix E. Appendix B does not include a corresponding standard error table for this table because the 95% confidence intervals shown here indicate the precision of these estimates. The 95% CI = 95% confidence interval for the estimate.

¹Estimated number of people rounded to the nearest hundred.

²Totals may differ slightly from the sum of the estimated numbers of males and females because of rounding.

³"Nonwhite" represents black, Hispanic, and "other" origin.

Source: Maine Household Telephone Survey: 1997.

intervention in 1997. These estimates translate to 8,000 nonwhite adult males and 2,800 nonwhite adult females who needed treatment or intervention. Compared with the estimates of treatment need by race/ethnicity and gender in Table 3.5 (5,000 nonwhite males and 1,000 nonwhite females who were specifically in need of treatment), these estimates in Table 3.7 account for an additional 3,000 adult nonwhite males and 1,800 adult nonwhite females who needed some form of intervention for their substance use.

3.6 Insurance Coverage and Benefits for Those in Need of Treatment or Intervention

The ability (or inability) of adults in Maine to pay for substance abuse treatment if they need it can have a broad impact on people in the state as a whole. On the one hand, people who need treatment may continue to go untreated if they do not have health insurance, or if their insurance provides limited or no coverage for substance abuse treatment. In addition, costs associated with paying for treatment services among uninsured or underinsured people in Maine might be passed on to others in the form of taxes and government spending, higher costs for treatment services for those whose insurance does cover treatment, or higher insurance premiums for individuals or employers.

Table 3.8 shows estimates of health insurance coverage among the Maine household population in need of treatment or intervention in the year before the 1997 survey. Telephone survey respondents were asked whether they were covered by private insurance or government-funded insurance (e.g., Medicare, Medicaid) in the calendar month prior to the interview.⁹ These categories are not mutually exclusive in that a person could have been covered by more than one type of health insurance. For example, people covered by Medicare could also supplement their Medicare coverage with private insurance to pay for services not covered by Medicare. In particular, Medicare does not pay for substance abuse treatment that is not hospital based. The "no insurance coverage" line refers to people who reported neither private insurance nor government-funded insurance in the previous calendar month.

About one-fourth of adults in the Maine household population who were in need of treatment did not report health insurance coverage. Moreover, of the adults in need of treatment who had private health insurance (60.6%), an unknown percentage may not have been able to use their health insurance benefits to pay for treatment, or their coverage may not have been adequate. The interview generally did not examine whether

About one-fourth of the adults in the Maine household population who needed substance abuse treatment did not have health insurance coverage.

⁹As an example of "calendar month," if a respondent was interviewed in the month of May, then the previous calendar month would be April.

Table 3.8 Health Insurance Coverage and Receipt of Social Services Among Adult Maine Household Residents in Need of Treatment or Intervention: 1997

Measure	In Need of Treatment, Past 12 Months ¹	In Need of Treatment or Intervention, Past 12 Months ²
Insurance Coverage, Past Month		
Any insurance coverage ³	74.7	79.6
Private insurance	60.6	65.7
Government-funded insurance ⁴	12.3	12.7
No insurance coverage reported	25.3	20.4
Services		
Any receipt of AFDC, SSI, or food stamps ⁵	9.5	8.6

Note: Estimates are percentages of (a) people in need of treatment or (b) people in need of intervention or treatment who were covered by different insurance plans or had some other indicator of potential Medicaid eligibility. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table 3.8SE in Appendix B.

¹Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a "problem" pattern of use in the past 12 months. See Appendix E for a detailed discussion of how "need for treatment" was defined.

²Includes people in need of treatment, as defined above. Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a "problem" pattern of use in the past 12 months. See Appendix E for a detailed discussion of how "need for treatment or intervention" was defined.

³Includes individuals who initially did not report private- or government-funded report insurance coverage but answered affirmatively to a follow-up question about "any" coverage.

⁴Includes such coverage as Medicare, Medicaid, or Veterans Administration (VA) coverage.

⁵AFDC = Aid to Families with Dependent Children. SSI = Supplemental Security Income.

Source: Maine Household Telephone Survey: 1997.

people's medical insurance covered substance abuse treatment services.¹⁰ Thus, the estimated one in four Maine adults in need of treatment who lacked insurance to pay for treatment is certainly a conservative estimate of this potential access barrier. Similarly, for adults in need of treatment or intervention, about one in five did not indicate health insurance coverage. Again, this is probably a conservative estimate of uninsured or underinsured adults who were in need of services.

Table 3.8 also shows information on receipt of benefits, such as Aid to Families with Dependent Children (AFDC), Supplemental Security Income (SSI), or food stamps. Altogether, about 9% to 10% of adults in the Maine household population who were in need of treatment or who were in need of some type of intervention received these benefits in the previous calendar month. On the one hand, these findings do not suggest that large percentages of adults in need of treatment in the household population are taking advantage of services and benefits while abusing alcohol or other drugs. However, people in need of substance abuse treatment services may have multiple social service needs in addition to substance abuse treatment that might need to be addressed as part of a comprehensive treatment plan.

3.7 Treatment History

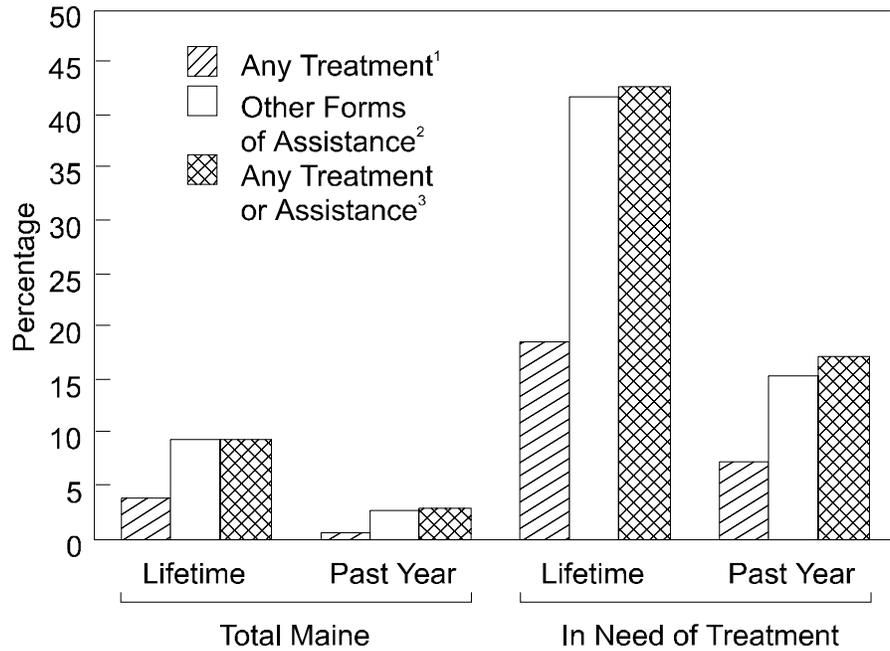
Figure 3.5 and Table 3.9 show the percentages of the Maine adult household population (rounded to the nearest hundredth of a percentage) who had received various forms of assistance for their substance use in their lifetimes or in the year before the 1997 survey, as well as the percentages of adults in need of treatment who received treatment during these time periods. In particular, estimates of the percentages of adults in need of treatment in the past year who actually received such treatment indicate the "met need" for treatment. Conversely, then, low percentages of adults in need of treatment who actually received treatment could suggest a high "unmet need" for treatment services.

Among all adults in the Maine household population, an estimated 9.49% had ever received any form of outside assistance in their lifetimes for their use of alcohol or other drugs; such assistance could include use of self-help groups (such as Alcoholics Anonymous [AA] or Narcotics Anonymous [NA]), counseling from a psychologist or psychiatrist, or pastoral counseling. Fewer than 4% of the Maine adult household population had ever received detoxification, residential treatment, treatment in a halfway house, or outpatient treatment.

About 9.5% of Maine adults had received outside assistance for their substance use at some point in their lives. However, fewer than 4% of Maine adults had ever received formal substance abuse treatment.

¹⁰If respondents indicated that they felt the need for treatment services (or they wanted additional treatment services than what they got), they were asked whether they were not able to obtain help because they lacked insurance to pay for treatment, or their insurance did not cover treatment. However, very few respondents (47 out of 4,042) reported that they felt the need for treatment.

Figure 3.5 History of Alcohol or Other Drug Treatment in the Lifetime and Past Year in the Maine Adult Household Population: 1997



Note: Supporting data for Figure 3.5 are shown in Table 3.9. Questions about treatment history were not asked of respondents who were lifetime abstainers of alcohol or other drugs. This figure includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

¹Includes detoxification, residential treatment, halfway house services, or outpatient treatment.

²Includes substance abuse counseling through a mental health provider, attendance at self-help groups, receipt of pastoral counseling for substance abuse, or participation in programs for people arrested or convicted of operating a motor vehicle under the influence of alcohol (OUI).

³Any treatment, as defined in footnote 1, or any other form of assistance, as defined in footnote 2.

Source: Maine Household Telephone Survey: 1997.

Table 3.9 History of Alcohol or Other Drug Treatment in the Lifetime and Past Year in the Maine Adult Household Population: 1997

Measure	Total Maine ¹		In Need of Treatment ²	
	Lifetime	Past Year	Lifetime	Past Year
Any Treatment³	3.76	0.58	18.74	7.22
Detoxification	2.33	0.19	9.98	2.39
Residential treatment	2.18	0.18	11.02	2.22
Halfway house	0.57	0.03	3.05	0.42
Outpatient treatment	2.63	0.55	13.73	6.79
Other Forms of Assistance⁴	9.31	2.67	41.82	15.47
Mental health counseling	2.73	0.58	16.06	6.02
Self-help groups	6.12	1.99	27.81	9.90
Pastoral counseling	2.87	1.01	12.38	6.68
OUI programs ⁵	3.11	0.23	16.24	1.58
Any Treatment or Assistance⁶	9.49	2.81	42.79	17.22

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table 3.9SE in Appendix B.

¹Questions about treatment history were not asked of respondents who were lifetime abstainers of alcohol or other drugs.

²Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

³Includes detoxification, residential treatment, halfway house services, or outpatient treatment.

⁴Includes substance abuse counseling through a mental health provider, attendance at self-help groups, receipt of pastoral counseling for substance abuse, or participation in programs for people arrested or convicted of operating a motor vehicle under the influence of alcohol (OUI).

⁵OUI= Operating a motor vehicle under the influence of alcohol. Because the survey inquired about driving while under the influence (DWI), the study definition of OUI differs from the official state definition. The official state definition of OUI includes operating a vehicle while under the influence of alcohol or drugs. DWI refers to driving while under the influence of alcohol only.

⁶Any treatment, as defined in footnote 3, or any other form of assistance, as defined in footnote 4. Individuals may report more than one type of treatment or assistance.

Source: Maine Household Telephone Survey: 1997.

Among Maine adults who needed substance abuse treatment in 1997, about 43% had received assistance for their substance use at some point in their lives. However, fewer than 20% had ever received formal treatment.

"Self-help" groups were the most common form of help for substance abuse that people had ever used in dealing with a substance abuse problem. About 6% of Maine adults in the household population had ever attended a self-help group for help with their own use of alcohol or other drugs, and about 2% had done so in the past year. Slightly more than 3% of adults had ever attended programs for people arrested for operating a motor vehicle under the influence of alcohol (OUI), and slightly fewer than 3% had ever received counseling about alcohol or other drug use from a mental health professional or from a member of the clergy. However, the lifetime estimate of people attending OUI programs is probably conservative, because the only respondents who were asked whether they had attended an OUI program were those who had screened into the alcohol dependence questions and had reported problems with the police because of their drinking (see the instructions prior to Question C12 in Appendix F). If all lifetime alcohol users had been asked whether they had ever been in an OUI program, the corresponding estimate in Table 3.9 would probably be higher.

Among adults in need of treatment in the year before the survey, 42.79% had ever received some form of assistance, and 18.74% had received detoxification, residential treatment, treatment in a halfway house, or outpatient treatment in their lifetimes. Nearly 10% had been detoxified, nearly 14% had gone through outpatient treatment, approximately 11% had been in a residential treatment program, and 3% had been in a halfway house or "recovery" house as part of treatment for a substance abuse problem. Although these rates are higher than those for the adult household population as a whole, the large majority of adults who would currently be considered in need of treatment had never received formal treatment services (i.e., detoxification, treatment in a residential facility, or treatment as an outpatient in a formal treatment program) for their substance abuse.

As was the case with the overall Maine adult household population, adults in need of treatment in the past year were more likely to have ever attended self-help groups (approximately 28%), compared with use of other forms of outside assistance. More than 16% of adults currently in need of treatment had ever attended an OUI program. This finding is consistent with the data from Figure 3.2 and Table 3.3 showing that alcohol was the substance most responsible for treatment need among Maine adults. In addition, about 16% of adults who were currently in need of treatment had ever received substance abuse counseling from a mental health professional.

Table 3.10 shows the estimated numbers of adults in the Maine household population who were currently in need of treatment and who had received various forms of treatment or other assistance in their

Table 3.10 Estimated Numbers of Maine Adults in Need of Alcohol or Other Drug Treatment Who Received Treatment in the Lifetime and Past Year: 1997

Measure ¹	Lifetime		Past Year	
	Number (Thousands)	95% CI ²	Number (Thousands)	95% CI
Any Treatment³	14,200	11,100 – 17,800	5,500	3,600 – 8,300
Detoxification	7,500	5,400 – 10,400	1,800	900 – 3,500
Residential treatment	8,300	6,000 – 11,400	1,700	800 – 3,600
Halfway house	2,300	1,300 – 4,200	300	100 – 1,500
Outpatient treatment	10,400	7,800 – 13,700	5,100	3,300 – 7,900
Other Forms of Assistance⁴	31,600	27,500 – 35,900	11,700	8,900 – 15,200
Mental health counseling	12,100	9,200 – 15,700	4,600	2,900 – 7,100
Self-help groups	21,000	17,400 – 25,100	7,500	5,300 – 10,500
Pastoral counseling	9,400	6,900 – 12,600	5,100	3,300 – 7,700
OUI programs ⁵	12,300	9,500 – 15,700	1,200	500 – 2,700
Any Assistance⁶	32,400	28,200 – 36,600	13,000	10,000 – 16,700

Note: Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

¹Unweighted numbers of respondents are shown in Table 1.1. The 95% confidence intervals shown in Table 3.10 indicate the precision of these estimates, so there is no corresponding standard error table in Appendix B for Table 3.10.

²The 95% CI = 95% confidence interval, in thousands, for the estimated number of people.

³Includes detoxification, residential treatment, halfway house services, or outpatient treatment.

⁴Includes substance abuse counseling through a mental health provider, attendance at self-help groups, receipt of pastoral counseling for substance abuse, or participation in programs for people arrested or convicted of OUI (see below).

⁵OUI= Operating a motor vehicle under the influence of alcohol. Because the survey inquired about driving while under the influence (DWI), the study definition of OUI differs from the official state definition. The official state definition of OUI includes operating a vehicle while under the influence of alcohol or drugs. DWI refers to driving while under the influence of alcohol only.

⁶Any treatment, as defined in footnote 3, or any other form of assistance, as defined in footnote 4. Individuals may report more than one type of treatment or assistance.

Source: Maine Household Telephone Survey: 1997

lifetimes or in the year before the 1997 survey.¹¹ Although 75,600 adults in the household population were estimated to be currently in need of treatment (see Table 3.3), these survey data indicate that only 14,200 of these adults had ever received formal treatment in the form of residential treatment, detoxification services in a halfway house, or outpatient treatment.

The number of Maine adults who were in need of substance abuse treatment in the past year was nearly 14 times larger than the number of adults who actually received formal services in the past year.

An estimated 5,500 adults needing treatment in the household population had received formal treatment services in the year before the survey. In comparison, the number of adults in need of treatment in the past year was nearly 14 times larger than the number of adults who actually received services.

Compared with data from the Maine Addiction Treatment System for FYs 1996 and 1997, the household telephone survey yielded higher estimates of the number of adults in the household population who received residential treatment in the past year.¹² Specifically, 622 people of all ages in Maine received short-term residential treatment or extended rehabilitation in FY 1996, as did 530 people in FY 1997. In comparison, the household telephone survey data in Table 3.10 indicated that 1,700 adults received residential treatment services in the past 12 months, with lower and upper confidence interval bounds of 800 and 3,600 adults.

Maine Addiction Treatment System data on the number of people who received outpatient treatment in FYs 1996 or 1997 was within the range of sampling error for the household telephone survey estimates. In particular, 6,642 people of all ages received non-intensive outpatient treatment services, and 293 people received intensive outpatient treatment in FY 1996. Similarly, 6,163 people received non-intensive outpatient treatment, and 371 received intensive outpatient treatment in FY 1997. Even if there was no overlap between people who received intensive and non-intensive outpatient treatment, the numbers of people who received outpatient treatment according to the Maine Addiction Treatment System data were within the range of sampling error for the estimate of 5,100 Maine adults who received outpatient treatment services in the year prior to the 1997 survey (see the associated 95% confidence interval in Table 3.10). The Maine Addiction Treatment

¹¹Adults who received detoxification, residential treatment, services in a halfway house, or outpatient treatment in a formal substance abuse treatment facility were considered to be in need of treatment, regardless of whether they met diagnostic criteria for dependence or abuse.

¹²As noted in Chapter 1, the data collection period for the pilot test ran from February 24 through March 2, 1997. Data collection for the full study ran from March 20 through June 24, 1997. Depending on when a respondent was interviewed, the "past 12 months" could therefore run from February 1996 through June 1997. This period overlaps with FYs 1996 and 1997 (i.e., July 1, 1995, through June 30, 1996, for FY 1996, and July 1, 1996, through June 30, 1997, for FY 1997).

System data were also within the range of sampling error for individuals receiving services at halfway houses.

For both FYs, the number of people of all ages who received detoxification was somewhat lower than the household survey estimate in Table 3.10, which was limited to adults (i.e., 1,800 adults who received detoxification in the 12 months prior to the survey). The count of the number of people who received detoxification in FY 1996 (i.e., 1,028 people) was within the range of sampling error for the past year estimate in Table 3.10. However, the corresponding count for FY 1997 (i.e., 828 people who received detoxification) was outside the range of the 95% confidence interval for the household telephone survey estimate.

However, Maine Addiction Treatment System data on services delivered by nonprofit treatment providers probably give a conservative estimate of the number of people in the state who received treatment. Specifically, these treatment system data do not cover people who received services exclusively in private, for-profit treatment programs, nor do they cover people who received services exclusively in programs located outside Maine. Presumably, the treatment data in Table 3.10 represent *any* treatment received in the past year, regardless of whether it was in publicly funded or in private programs, and regardless of whether treatment was received in-state or out-of-state. Therefore, the estimated numbers in Table 3.10 for people who received different types of treatment services in the past 12 months are probably conservative. The upper limits of the 95% confidence intervals in Table 3.10 may better represent the number of Maine adults who received different types of substance abuse treatment services in the past year.

The telephone survey estimates of treatment utilization are probably conservative for a number of reasons. In particular, the treatment utilization data in Table 3.10 do not reflect people in "nonhousehold" populations who may have received treatment services in the past 12 months, such as people who were incarcerated or people who were homeless, because these populations were not covered in the telephone survey. Similarly, the telephone survey did not cover people in households without telephones. In addition, the telephone survey respondents were drawn from adults who were designated as "usually" living at the sampled residence. Adults who were staying in the household as guests (including college students who usually lived somewhere else) were not eligible to be interviewed. For this reason, the telephone survey sample did not cover people who do not have stable housing of their own, but instead may move between several different households and stay in each for only short periods at a time. Although adults in this type of living situation may not officially be considered homeless, they may be at high risk of homelessness. If adults in these nonhousehold populations, adults in households without telephones, or

adults without stable residences were more likely than adults in households with telephones to have received treatment, then data from these additional populations would be expected to raise the estimated numbers of people who received treatment in the past year, relative to the estimates shown in Table 3.10.

Nonresponse to the telephone survey also could have affected the estimates of the number of people who received treatment (see Table 1.2). If nonrespondents to the telephone survey were more likely than respondents to have received treatment, then estimates of the number of people who received treatment might have been greater if more of these nonrespondents had agreed to participate.

Most Maine adults in the household population who were in need of treatment in the past year had never received treatment in their entire lives, much less in the past year.

Despite these potential limitations of the treatment data from the telephone survey, they still make an important point: Most Maine adults in the household population who were in need of treatment in the past year had *never* received treatment in their entire lives, much less in the past year. Moreover, these findings underscore the limitation of using treatment admission data to estimate the size of the overall population in need of services. As noted above, the total number of adults in need of treatment in the year prior to the 1997 survey was estimated to be nearly 14 times larger than the number of adults who received formal treatment services during that same period.

In addition, depending on the reasons for the gap between the need for treatment and actual receipt of treatment, these results could have important implications for program planning in Maine. The next section addresses some of these issues further, particularly the issue of unmet demand for treatment services.

3.8 Demand for Treatment Services

As noted above, findings from Tables 3.9 and 3.10 indicated that only a relatively small number of Maine adults in the household population who were in need of treatment in the past 12 months actually received treatment services. On the one hand, people who would objectively be classified as being in need of treatment based on their history of substance dependence or abuse may not consider themselves to need treatment. Stated another way, they may not have a "felt need" for treatment services despite the considerable problems that their substance use was causing them. However, the treatment system in Maine might need to be prepared to accommodate some of these people if they want treatment services at a later date.

Another group of people who are of interest to treatment planners in the state are people in need of treatment who felt the need for treatment but did not receive it or who wanted more services than what they received. These people represent a group who encountered one or more barriers to

their receipt of treatment. If a limited "window of opportunity" exists where many substance abusers may be ready or willing to receive treatment, then barriers to treatment may make it difficult to take advantage of this readiness.

Compared with the number of Maine adults who received treatment in the past year, about 1.8 times as many adults wanted more help than they received, or felt the need for treatment but did not receive assistance.

Table 3.11 shows estimates of the percentages and estimated numbers of Maine adults who wanted treatment but did not receive it, or who felt the need for more assistance than what they received.¹³ Although 5,500 adults received formal treatment services in the 12 months before the 1997 survey, about 1.8 times as many adults wanted treatment (or additional treatment) but did not receive it. Specifically, an estimated 9,700 Maine adults wanted treatment but did not receive it. An estimated 6,700 adults received some form of assistance but wanted more assistance than what they got. An additional 3,100 adults wanted treatment but had not received any assistance, either formally or through self-help groups such as AA or NA.¹⁴ The size of this latter group of people who wanted treatment but did not receive assistance is more than half the size of the estimated number of adults who received treatment.

As noted previously, however, an estimated 75,600 adults in the Maine household population were in need of treatment in the past 12 months (Table 3.3). This was much greater than the 5,500 adults who received formal treatment. This estimate of 75,600 adults in need of treatment was also considerably greater than the estimated 9,700 adults who wanted treatment services or additional services. These findings suggest that the large majority of Maine adults who could be classified as needing treatment do not see the need for assistance, despite reports of problems or patterns of heavy use that would indicate need. Nevertheless, a considerable number of Maine adults appear to want treatment services, beyond those adults who received services in the past year.

3.9 Substance Abuse Problems Among Family Members and Acquaintances

The Maine Household Telephone Survey also included questions about problems that family members, friends, and co-workers might have had with alcohol or other drugs. Respondents were asked if they knew of a

¹³Altogether, 47 respondents felt the need for treatment or for additional services, including 32 respondents who received some form of assistance for their substance use in the past 12 months but felt the need for additional services, and 15 respondents who had not received assistance but felt the need for treatment. These numbers provided acceptable precision for estimates of treatment demand for the Maine adult household population.

¹⁴The estimated numbers of people who wanted additional services or who felt the need for treatment but did not receive assistance sum to 9,800 instead of to 9,700 because of rounding.

Table 3.11 Demand for Treatment Services in the Past Year in the Maine Adult Household Population: 1997

Measure	Percentage	Number (Thousands)	95% CI ¹
Received Assistance			
Any assistance ²	2.81	26,400	21,800 – 31,800
Treatment ³	0.58	5,500	3,500 – 8,500
Other assistance ⁴	2.67	25,000	20,700 – 30,300
Unmet Demand			
Any unmet demand ⁵	1.04	9,700	7,100 – 13,400
Wanted additional services ⁶	0.71	6,700	4,600 – 9,800
Felt the need for treatment, but did not receive assistance	0.33	3,100	1,700 – 5,500

Note: Unweighted numbers of respondents are shown in Table 1.1, and standard errors for the percentages are shown in Table 3.11SE in Appendix B.

¹The 95% CI = 95% confidence interval for the estimated number of people.

²Any receipt of treatment or other forms of assistance in the past 12 months for alcohol or other drug abuse, as described in footnotes 3 and 4.

³Received detoxification, residential treatment, halfway house services, or outpatient treatment in the past 12 months.

⁴Received mental health counseling for substance abuse, attended self-help groups, received pastoral counseling, or attended an operating-under-the-influence (OUI) program in the past 12 months.

⁵Wanted additional treatment or other services in the past 12 months, or felt the need for treatment in the past 12 months, but did not receive assistance.

⁶Received at least some assistance for alcohol or drug abuse, but wanted additional services.

Source: Maine Household Telephone Survey: 1997

friend, relative, or co-worker who had a serious problem with alcohol or other drugs. Respondents answered these questions according to their own perceptions of what constituted a "serious" problem. These questions were based on public opinion questions that had been developed by Drug Strategies, Inc. (1994).

About 38% of adults in the Maine household population had a family member who had a serious problem with alcohol or other drugs. Substance abuse problems among family members, friends, or co-workers were even more prevalent among Maine adults who themselves had serious substance abuse problems.

Table 3.12 shows percentages of the Maine adult household population who had a friend, relative, or co-worker with a serious alcohol- or other drug-related problem. Also shown are estimates according to whether adults needed treatment or needed treatment or intervention. About 38% of Maine adults in the household population had a family member who had a serious problem with alcohol or other drugs. A similar percentage had a close friend or co-worker who had a serious problem with these substances.

Higher percentages of adults needing treatment or needing treatment or intervention indicated problems with alcohol or other drugs among family members, friends, or co-workers. Some of these estimates were considerably higher than the estimates for the household population as a whole. In particular, about 58% of adults who needed treatment for alcohol or illicit drugs had one or more family members with a substance abuse problem, and about 63% had one or more friends or co-workers who had a serious problem with alcohol or other drugs. About 68% of adults who needed treatment specifically for their abuse of drugs other than alcohol reported that another family member also had a history of problems with alcohol or other drugs, and about 71% had friends or co-workers who had serious problems. Although the estimates in Table 3.12 for people needing treatment for illicit drugs appear to be larger than the estimates for people needing alcohol treatment, readers should not interpret these differences to be significant. In particular, the number of respondents in the sample who were identified as needing treatment for illicit drugs ($n=82$) was considerably smaller than the number of respondents who were identified as needing alcohol treatment ($n=323$).¹⁵ Consequently, the estimates in Table 3.12 for people needing illicit drug treatment are less precise than the estimates for people needing alcohol treatment due to the smaller sample size for people needing illicit drug treatment (see Table 3.12SE in Appendix B).

Among adults needing treatment or intervention for alcohol or illicit drugs, about 44% had a history of problems in their families, and slightly more than half reported problems among friends or co-workers. Some 59% of adults needing treatment or intervention specifically for their use of illicit drugs had problems with alcohol or other drugs among their

¹⁵As noted previously, the categories of need for treatment for alcohol and need for treatment for illicit drugs are not mutually exclusive because people could need treatment for both.

Table 3.12 Perceptions of Serious Problems with Alcohol or Drugs Among Family Members and Friends in the Maine Adult Household Population, by Need for Treatment or Intervention: 1997

Measure	Family Member Had Serious Problem with Alcohol or Drugs	Close Friend or Co-Worker Had Serious Problem with Alcohol or Drugs
Total Maine	38.3	38.6
In Need of Treatment¹		
Alcohol or illicit drugs	58.3	62.8
Alcohol	57.6	62.1
Any illicit drugs	68.4	70.7
In Need of Treatment or Intervention²		
Alcohol or illicit drugs	44.4	51.0
Alcohol	42.7	49.5
Any illicit drugs	58.9	63.9

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table 3.12SE in Appendix B.

¹Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

²Includes people in need of treatment, as defined above. Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment or intervention” was defined.

Source: Maine Household Telephone Survey: 1997.

families, and 64% had a friend or co-worker with a serious substance-related problem. Again, however, the estimates for people needing treatment or intervention for illicit drug use were based on a smaller sample size ($n=202$) compared with the estimates for people needing treatment or intervention for alcohol use ($n=833$).

These findings from Table 3.12 are not meant to suggest that substance abuse among family members, friends, or co-workers was a direct cause of substance abuse among people needing treatment services. Nevertheless, these findings offer three important implications for delivery of substance abuse treatment services in Maine:

- The substance abuse problems of friends, family members, and co-workers can be a barrier to people entering treatment or seeking services for a variety of reasons. For example, a person may not seek treatment if the person thinks that he or she is "not as bad" as someone else, or if the person has not seen the example of others seeking help.
- Among people who receive treatment services, the substance abuse problems of family members, friends, and others can be a barrier to successful completion of treatment (e.g., if there is little support among family members and friends for seeking help). Among people who complete treatment, continued problematic substance use among members of a client's social networks can place the client at high risk for relapse.
- Engaging family members and other members of a client's social networks can not only aid a client's treatment outcome, but it can also provide the opportunity to reach others in need of services.

In addition, these findings are consistent with prevention literature indicating that a family history of substance abuse is a risk factor for development of a substance abuse problem (e.g., Goodwin, 1985; Goodwin, Schulsinger, Moller, Hermanslein, Winokur, & Guze, 1974; Hawkins, Arthur, & Catalano, 1995; Johnson, Schoutz, & Locke, 1984; Kandel, Kessler, & Margulies, 1978; Merikangas, Rounsaville, & Prusoff, 1992; Pickens, Svikis, McGue, Lykken, Heston, & Clayton, 1991). These findings underscore the importance of early intervention among children, youth, and young adults who have a family history of substance abuse, so that they themselves do not develop the kinds of problems that would warrant a need for substance abuse services.

3.10 Summary

Highlights regarding problems with substance use and the need for treatment or intervention among adults in the Maine household population in 1997 include the following:

- The prevalence of specific problems associated with alcohol use in the past 12 months were greater than the prevalence of problems associated with use of other drugs. However, this finding is not surprising, given the much higher prevalence of alcohol use among this population.
- The most commonly occurring alcohol-related problems in the 12 months prior to the 1997 telephone survey were use of alcohol in larger amounts or for longer periods than intended; exhibition of symptoms suggesting a development of tolerance to the effects of alcohol; unsuccessful attempts to quit, cut down on, or control drinking; and frequent intoxication in potentially hazardous situations.
- Young adults aged 18 to 24 had very high rates of alcohol-related problems in the past 12 months compared with rates among other age groups. In particular, more than one-fourth of males aged 18 to 24 and about 14% of females in this age group used alcohol in larger amounts or for longer periods than intended in the past 12 months, and nearly 16% of males and 11% of females in this age group had symptoms suggestive of tolerance. In addition, 10% of males aged 18 to 24 were frequently intoxicated in potentially hazardous situations in the past 12 months.
- About 8% of adults in the Maine household population in 1997, or an estimated 75,600 adults, were in need of substance abuse treatment, based on (a) receipt of treatment services in the past 12 months; (b) a lifetime history of dependence or abuse, substance use in the past 12 months, and symptoms in the past 12 months; or (c) a lifetime history of dependence or abuse and a "problem" pattern of use in the absence of reports of current symptoms.
- Alcohol accounted for much of the need for treatment. Of the estimated 75,600 adults in need of treatment, 65,900 specifically needed alcohol treatment. More than 46,000 adults had recent problems with alcohol dependence (35,400 adults) or alcohol abuse (10,700 adults), based on a lifetime history of dependence or abuse, alcohol use in the past 12 months, and one or more symptoms of dependence or abuse in the past 12 months.
- Men were more likely than women to need treatment, and young adults aged 18 to 24 were more likely than adults in other age groups to need treatment. In particular, more than one-fourth of young men aged 18 to 24 and nearly 14% of young women in this age group needed some kind of treatment services for their substance use. Approximately 15% of men and 7% of women aged 18 to 24 had a lifetime history of alcohol dependence, used

alcohol in the past 12 months, and had one or more symptoms of dependence in the past 12 months.

- Compared with the estimated 8% of the adult Maine household population in need of treatment, more than one in five adults in this population (20.78%) were in need of some form of intervention for their use of alcohol or other drugs, which could include treatment. This estimate translated to nearly 195,000 adults.
- As was the case with need for treatment, men and young adults had the highest prevalences of need for some form of intervention for their substance use. In particular, more than half of young males aged 18 to 24 could be considered in need of some form of intervention because they experienced problems related to their substance use, or they exhibited a pattern of use that would place them at high risk for problems. Similarly, more than 40% of females aged 18 to 24 could be considered in need of intervention. As noted previously, however, not all of these young adults were necessarily dependent on alcohol or other drugs.
- Nearly 35% of males aged 25 to 44 and about 16% of females in this age group could be considered in need of intervention for their substance use. Although rates of need for intervention generally declined for adults aged 45 or older, about 17% of males aged 45 to 64 and about 8% of males aged 65 or older were in need of intervention.
- About one-fourth of the adults in Maine's household population who were in need of treatment did not indicate that they had health insurance coverage. Although about three-fifths of adults in need of treatment had private insurance, some of these adults may not have had insurance that covered substance abuse treatment, or their coverage may not have been adequate.
- About 19% of the adults in need of treatment had a lifetime history of treatment in the form of detoxification, residential treatment, services in a halfway house, or outpatient treatment, suggesting little lifetime experience with formal treatment among substance abusers in Maine.
- Of the estimated 75,600 adults in need of treatment in the past year, only about 5,500 actually received detoxification, residential treatment, services in a halfway house, or residential treatment in the past year. Although this estimate is probably a conservative estimate of the number of adults in Maine who received treatment services, this finding suggests a substantial

difference between need for treatment and actual receipt of treatment services.

- Compared with data on the number of adults in the Maine household population who received formal substance abuse treatment in the year prior to the survey, about 1.8 times as many adults wanted more help than they received, or felt the need for treatment but did not seek any assistance. Although most Maine adults who were identified as needing treatment did not appear to see the need for assistance, the data on demand for services suggest a considerable unmet demand for treatment services.

Some of these estimates may be conservative because the 1997 Maine Household Telephone Survey did not cover other populations, such as homeless people, people who were incarcerated, people in households without telephones, or people without stable residences of their own. In addition, some estimates may be conservative due to potential difficulties in finding substance users at home in order to conduct the telephone interview, people's willingness to participate in a telephone interview, or their willingness to report sensitive behaviors over the telephone, such as alcohol- or other drug-related problems.

However, even if these estimates paint a somewhat conservative picture of the need for substance abuse treatment and receipt of services in Maine, they nevertheless indicate that (a) a substantial number of adults are in need of some form of treatment or intervention for their substance use, (b) the large majority of adults in need of treatment have never received formal treatment, and (c) a substantial number of adults who wanted treatment in the past year failed to get the treatment they wanted. These findings will be useful for treatment planners and treatment providers in identifying and helping to fill "gaps" in the treatment system's ability to meet the needs for substance abuse treatment or other forms of assistance needed in Maine.

4. Co-Occurrence of Substance and Other Problems

The co-occurrence of physical and mental health problems with substance abuse can pose challenges both for substance abuse treatment providers and health care providers in Maine. Results of a national evaluation of 21 mental health programs throughout the United States indicated that substance abuse treatment clients often had multiple physical health problems, mental health problems, or social service needs in addition to their substance abuse problems (Schlenger, Kroutil, & Roland, 1992a; Schlenger, Kroutil, Roland, & Dennis, 1992b; Schlenger et al., 1992c). Relationships between substance abuse and other criminal behavior also have been well documented, particularly for such drugs as crack cocaine and heroin (Chaiken & Chaiken, 1990; Hunt, 1990; Johnson, Williams, Dei, & Sanabria, 1990).

Consequently, primary care and substance abuse treatment providers may need to be prepared to address multiple service needs of their patients or clients. Stated another way, patients or clients are "whole" people who often have multiple needs that cannot easily be isolated as separate problems. For example, if little or nothing is done to address the substance use problems of criminal offenders while they are detained or incarcerated, then these criminal offenders are likely to be at high risk for future drug use and future criminal involvement, caught in a downward cycle of drug use and criminal recidivism.

Data in this chapter begin to address some of these issues for Maine. The chapter first examines relationships between age and physical health perceptions, medical problems, and mental health perceptions. Then demographic and substance use characteristics as predictors of physical and mental health perceptions and physical health problems are presented. Data focused strictly on individuals who need substance abuse treatment or intervention also are provided. These data describe perceptions of physical and mental health, presence of medical conditions, and use of psychotherapeutics in the past 12 months. The chapter concludes with an examination of substance use and criminal justice involvement in the year prior to the survey.

4.1 Physical and Mental Health Perception and Medical Problems According to Age Group

Table 4.1 presents findings on perceived physical and mental health and the occurrence of specific medical problems in the 12 months before the 1997 survey for the adult Maine household population aged 18 to 44 and 45 or older. Telephone survey respondents were asked whether they perceived their physical health as being good, fair, or poor. A similar

Table 4.1 Perceptions of Physical Health, Medical Problems, and Mental Health Among the Maine Adult Household Population, by Age Group: 1997

Health Measure	Age Group		Total Maine
	18-44	45 or Older	
Physical Health Perception			
Good	86.9	70.3	79.2
Fair or poor	13.1	29.7	20.8
Specific Medical Problems, Past 12 Months			
Hypertension	6.7	27.7	16.3
Heart problem	1.5	9.0	5.0
Respiratory problem	19.0	19.3	19.1
Digestive system/stomach problem	5.8	7.7	6.7
Mental Health Perception			
Good	79.2	78.8	79.0
Fair or poor	20.8	21.2	21.0

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table 4.1SE in Appendix B.

Source: Maine Household Telephone Survey: 1997.

question regarding mental health also was asked. In addition, respondents were asked whether they had the following health problems in the past 12 months: (a) high blood pressure or hypertension, (b) heart problems, (c) respiratory or breathing problems (such as asthma or emphysema), or (d) digestive system or stomach problems, such as ulcers.

In reviewing the results in this chapter in general and in Table 4.1 in particular, readers should keep in mind that perceptions of poor health (physical or mental) do not necessarily mean that a person had an actual diagnosis of an illness. Rather, readers should interpret perceptions of poor health to mean that there is a greater possibility of health problems.

About one in five adults in the Maine household population described their physical health as being fair or poor. Older adults were more likely than younger adults to describe their health as being fair or poor.

The data in Table 4.1 show that about one in five adult residents of Maine (20.8%) perceived their physical health in the past year as being fair or poor. As might be expected, given that chronic conditions are often not manifest until later in life, adults in the Maine household population who were 45 or older were much more likely than adults under the age of 45 to perceive their health as fair or poor. Specifically, adults aged 45 or older were more than twice as likely as adults under the age of 45 to perceive their health as being fair or poor (29.7% vs. 13.1%, respectively).

Results from the telephone survey also underscored the clear relationships between age and the presence of hypertension, heart conditions, and digestive system problems. From these survey data, a little over one-fourth of adults aged 45 or older (27.7%) were estimated to have hypertension in the 12 months prior to the 1997 survey, compared with 6.7% of adults under the age of 45. Similarly, 9.0% of adults aged 45 or older had a heart problem, compared to only 1.5% of adults under the age of 45. Older adults also were slightly more likely to report digestive system problems (7.7% of those adults aged 45 or older reported them), compared with 5.8% of adults under the age of 45. There was no significant difference between the age groups with respect to having respiratory problems.

Regardless of age group, about one in five Maine adults perceived their mental health to be fair or poor.

The percentage of Maine adults reporting fair or poor mental health was similar to that reporting fair or poor physical health (21%). However, unlike physical health perception, mental health perception did not differ by age. In both age groups, approximately one in five reported fair or poor mental health.

4.2 Relationship Between Demographic Characteristics, Substance Use, and Perceived Physical and Mental Health

Examination of perceived physical and mental health status and health problems according to people's substance use patterns is important for identifying any adverse effects of substance use on the health of Maine adults. If heavy alcohol users and illicit drug users are more likely to experience certain health problems than are people who do not drink heavily or use illicit drugs, then primary care and substance abuse treatment services may need to be equipped to address both problems among substance abusers.

However, direct comparison of health perceptions and health problems according to people's substance use can be misleading. As was shown in Table 4.1, older adults were more likely than younger adults to perceive that their physical health was fair or poor. Older adults also were more likely to report health problems, such as hypertension, heart problems, or digestive system problems. As was shown in Chapter 2, however, older adults also were less likely than younger adults to be heavy alcohol users or illicit drug users. Consequently, any relationship between substance use and health problems could be obscured or "confounded" by demographic differences between users and nonusers, or between heavy users and more moderate users.

To address this problem, multivariate analyses were conducted to examine the *independent* effects of heavy alcohol use and illicit drug use on a variety of health problems when the effects of selected demographic variables were taken into account. Specifically, logistic regression analyses modeled various health outcomes, such as whether someone perceived his or her physical or mental health as being fair or poor, as a function of age group, gender, race/ethnicity, household income, cigarette use, alcohol use in the past 12 months, and illicit drug use.

Results of the logistic regressions were expressed as odds ratios, or a comparison of the odds that persons in one group have the outcome of interest relative to persons in a designated reference group (see Table 4.2). For example, the odds of men having various health outcomes were compared to the odds that women experienced those same health outcomes. Stated another way, women were the "reference group" for comparisons by gender. If men had an odds ratio significantly greater than 1.00 for a given health outcome, that result would mean that men had higher odds than women of having had that health outcome. Conversely, if men had an odds ratio significantly less than 1.00 for an outcome, that would mean that men had lower odds than women of having had that health outcome.

Table 4.2 Demographic and Substance Use Correlates of Health Perceptions Among the Maine Adult Household Population: 1997

Characteristic	Perception of Physical Health ¹	Perception of Mental Health ²
Age (years)		
18-44	0.30 ^a	0.73 ^a
45-64	0.86	1.02
65 or older	1.00	1.00
Gender		
Male	0.96	0.81 ^a
Female	1.00	1.00
Race/Ethnicity		
Nonwhite	1.24	1.91 ^a
White	1.00	1.00
Income		
No income information provided	2.12 ^a	1.98 ^a
Less than \$20,000	3.02 ^a	2.27 ^a
\$20,000-\$39,999	1.23	1.32 ^a
\$40,000 or more	1.00	1.00
Cigarette Use		
Current heavy use ³	1.73 ^a	1.87 ^a
Current nonheavy use ⁴	0.98	1.15
Use in past 12 months, but not currently	0.98	1.13
No use in past 12 months	1.00	1.00
Alcohol Use		
Any frequent heavy use, past 12 months ⁵	1.08	1.49
No frequent heavy use, past 12 months ⁶	0.93	1.19
Lifetime use ⁷	1.57 ^a	1.36
Lifetime nonuse	1.00	1.00
Illicit Drug Use		
Any use in past 12 months	1.20	2.43 ^a
Lifetime use ⁸	1.28 ^a	1.56 ^a
Lifetime nonuse	1.00	1.00

Note: Data entries are expressed as odds ratios relative to a given reference group. Reference groups have odds ratios of 1.00. Confidence intervals for these odds ratios are shown in Table A.16 in Appendix A.

-- Not applicable.

^aSignificantly different from the reference group at the 95% confidence level.

¹People who described their physical health as fair or poor.

²People who described their mental health as fair or poor.

³Current smoker, and smoke a pack or more of cigarettes a day.

⁴Current smoker, and smoke less than a pack of cigarettes a day.

⁵For the past year, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period at least once a week.

⁶Consumed alcohol in the past 12 months, but not at the level defined in footnote 5.

⁷Used alcohol at least once in the lifetime, but not in the past 12 months.

⁸Used illicit drugs at least once in the lifetime, but not in the past 12 months.

Source: Maine Household Telephone Survey: 1997.

The 95% confidence intervals are shown in Table A.16 in Appendix A for these odds ratios. If the odds of a person having a particular health outcome (e.g., perceived health as fair or poor) in a comparison group (e.g., adults aged 18 to 44 or adults aged 45 to 64) were significantly different from the odds of a person in the reference group (e.g., adults aged 65 or older) having this outcome, then the odds ratio would be significantly greater than 1.00 or significantly less than 1.00. This is indicated by a 95% confidence interval that does *not* include 1.00 in the interval. Conversely, if 1.00 falls within the 95% confidence interval for an odds ratio, then that odds ratio is *not* significantly different from 1.00. Those situations where the odds ratios are very highly significantly different from the reference group are indicated.

4.2.1 Substance Use and Perceived Physical and Mental Health Problems

The data in Table 4.2 show the results of analyses predicting whether people perceived their physical and mental health as being fair or poor according to selected demographic characteristics, patterns of alcohol use, and use of illicit drugs. As might be expected, age and income level were significant predictors of whether Maine adults in the household population perceived their health to be less than good.

Specifically, adults aged 18 to 44 were significantly less likely than adults aged 65 or older to perceive both their physical and mental health to be fair or poor, as indicated by odds ratios less than 1.00. In particular, adults 18 to 44 had about 30% of the odds of perceiving their physical health status to be fair or poor compared to adults aged 65 or older, and adults 18 to 44 had about 70% of the odds of perceiving their mental health to be fair or poor compared to adults older than age 65. Adults for whom income information was not available and those in households earning less than \$20,000 annually were significantly more likely to perceive their health as fair or poor compared with adults in households with annual incomes of \$40,000 or more. In particular, adults in households with annual incomes less than \$20,000 had three times the odds of perceiving their physical health as being fair or poor compared with adults in households with incomes of \$40,000 or more. Low income also was a predictor of poor mental health perceptions. Respondents who did not report their income or who reported incomes less than \$20,000 had two times the odds of reporting poor mental health, while individuals earning between \$20,000 and \$39,999 a year had odds 32% greater than those earning \$40,000 or more per year.

The analyses showed that neither gender nor race/ethnicity was a significant predictor of fair or poor perceived physical health status when such factors as age and income were taken into account. However, gender and race/ethnicity were significant predictors of mental health perceptions. Males were somewhat less likely than females to perceive

their mental health to be fair or poor. Nonwhites had about twice the odds of perceiving their mental health status as fair or poor compared to whites.

Consistent with medical research (Office on Smoking and Health, 1989) indicating the harmful effects of smoking, data show that current heavy smokers (i.e., those who smoke a pack or more of cigarettes daily) were more likely to perceive themselves as having poor or fair physical and mental health. Specifically, current heavy smokers were 73% more likely than past year nonsmokers to perceive less than excellent physical health and 87% more likely to perceive poor or fair mental health.

Maine adults who used illicit drugs in the past year were more than twice as likely as those who had never used illicit drugs to report that their mental health was fair or poor.

Maine adults in the household population who used illicit drugs were significantly more likely than lifetime nonusers to perceive their mental health as being fair or poor. In particular, persons who used illicit drugs in the 12 months before the survey were nearly two and a half times more likely to perceive fair or poor mental health compared to persons who had never used illicit drugs in their entire lives. Those who had some lifetime but no past year use of illicit drugs were about 50% more likely to perceive themselves as having fair or poor mental health compared with lifetime nonusers. Results differed in predictions of physical health problems such that only lifetime (but not past year) users of illicit drugs had greater odds (30%) of poor physical health perceptions than nonusers.

Interestingly, there was only one significant difference in perceived health status according to level of alcohol use. Persons who had used alcohol at some time in their lifetime, but not in the past 12 months, were about 60% more likely than persons who had never drunk alcohol in their life to perceive their physical health to be fair or poor. However, there was no significant difference between lifetime abstainers from alcohol and those who reported some use and heavy alcohol use in the past 12 months with respect to their perceived health status. Thus, after the model controlled for the other factors shown in Table 4.2, lifetime (but not past year) use of alcohol was associated with a higher likelihood of fair or poor physical health perceptions. Although this suggests that a lifestyle that includes moderate or heavy alcohol use may promote better health, it needs to be noted that a *perception* of better health among moderate or heavy alcohol users does not mean that they had fewer *actual* health problems. On the other hand, the lifetime (but not past year) alcohol users could have included a group whose abstinence from alcohol in the past year was the result of their having an illness whose treatment required abstinence from alcohol.

4.2.2 Substance Use and Specific Medical Problems

Results from logistic regression models predicting specific medical problems (Table 4.3) revealed that age and income were the strongest predictors of health problems. Adults younger than age 44 and those aged 45 to 64 were less likely than those 65 or older to report hypertension and heart problems; however, adults aged 45 to 64 were 70% more likely to report digestive problems than were adults 65 or older. Individuals earning less than \$20,000 annually were significantly more likely to report each of the four health problems as compared to adults with an annual household income of over \$40,000. Respondents from low income households were more than 50% more likely than those from higher income households to report hypertension, two and a half times more likely to report heart problems and digestive disorders, and about 75% more likely to report respiratory conditions.

Gender and racial/ethnic differences also were explored. Gender was a significant predictor of heart and respiratory problems, with men being more likely to report heart problems (70% greater odds) and less likely to report respiratory disorders (68% of the odds reported by females). There were no significant racial/ethnic differences in the occurrence of any of the four health problems.

The association between use of licit and illicit drugs showed a mixed pattern with self-reported medical conditions. Current heavy smokers had odds 50% greater than past year nonsmokers for respiratory problems and odds 70% greater for digestive disorders. However, smokers were no more likely than nonsmokers to report hypertension or heart problems. Alcohol use was not associated with increased odds of medical problems. In fact, analyses suggest that heavy alcohol use was linked with lower odds of heart problems. Although current research indicates that moderate levels of drinking may have health benefits, including decreasing the risk of heart disease (Friedman & Kimball, 1986), this association has not been found for heavy drinking. Thus, it is unclear why adults in Maine who reported heavy alcohol use were less likely to report heart problems. Finally, data on illicit drug use indicate that past year and lifetime users were more likely than lifetime nonusers to have had respiratory problems in the past 12 months, and lifetime users had greater odds of having a digestive disorder in the past 12 months compared with lifetime nonusers. Given that most illicit drug use among this population was marijuana use, the greater probability of respiratory problems among drug users is consistent with research showing the damaging effect of marijuana on the lungs (Tashkin et al., 1990).

Table 4.3 Demographic and Substance Use Correlates of Specific Medical Problems in the Past Year Among the Maine Adult Household Population: 1997

Characteristic	Hypertension	Heart Problems	Respiratory Problems	Digestive System Problems
Age (years)				
18-44	0.15 ^a	0.12 ^a	0.83	0.91
45-64	0.60 ^a	0.54 ^a	0.88	1.71 ^a
65 or older	1.00	1.00	1.00	1.00
Gender				
Male	1.00	1.71 ^a	0.68 ^a	0.89
Female	1.00	1.00	1.00	1.00
Race/Ethnicity				
Nonwhite	0.79	0.72	1.02	1.30
White	1.00	1.00	1.00	1.00
Income				
No income information provided	1.58 ^a	1.59	1.23	1.58
Less than \$20,000	1.54 ^a	2.59 ^a	1.73 ^a	2.64 ^a
\$20,000-\$39,999	1.10	1.30	1.00	1.29
\$40,000 or more	1.00	1.00	1.00	1.00
Cigarette Use				
Current heavy use ¹	0.96	1.05	1.51 ^a	1.70 ^a
Current nonheavy use ²	0.61 ^a	0.88	0.78	0.86
Use in past 12 months, but not currently	1.30	0.89	1.20	0.92
No use in past 12 months	1.00	1.00	1.00	1.00

See notes at end of table.

Table 4.3 (continued)

Characteristic	Hypertension	Heart Problems	Respiratory Problems	Digestive System Problems
Alcohol Use				
Any frequent heavy use, past 12 months ³	1.54	0.28 ^a	0.77	0.69
No frequent heavy use, past 12 months ⁴	0.89	0.43 ^a	0.90	0.80
Lifetime use ⁵	1.05	0.87	1.15	1.23
Lifetime nonuse	1.00	1.00	1.00	1.00
Illicit Drug Use				
Any use in past 12 months	0.72	1.44	1.76 ^a	1.36
Lifetime use ⁶	0.81	1.08	1.36 ^a	1.58 ^a
Lifetime nonuse	1.00	1.00	1.00	1.00

Note: Data entries are expressed as odds ratios relative to a given reference group. Reference groups have odds ratios of 1.00. Confidence intervals for these odds ratios are shown in Table A.17 in Appendix A.

-- Not applicable.

^aSignificantly different from the reference group at the 95% confidence level.

¹Current smoker, and smoke a pack or more of cigarettes a day.

²Current smoker, and smoke less than a pack of cigarettes a day.

³For the past year, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period at least once a week.

⁴Consumed alcohol in the past 12 months, but not at the level defined in footnote 3.

⁵Used alcohol at least once in the lifetime, but not in the past 12 months.

⁶Used illicit drugs at least once in the lifetime, but not in the past 12 months.

Source: Maine Household Telephone Survey: 1997.

4.3 Physical and Mental Health Among People in Need of Substance Abuse Treatment or Intervention

The occurrence of other medical problems among people in need of substance abuse treatment has important implications both for primary care and substance abuse treatment providers. On the primary care side, if a person presenting in a primary care setting with a medical complaint has an underlying substance abuse problem, then failure to identify and address that problem may limit the effectiveness of the medical treatment. Similarly, medical or psychological issues among substance abuse treatment clients, rather than "denial" or "not working the program," may sometimes explain noncompliance or failure to respond to treatment.

Table 4.4 provides information on the perceptions of physical health and of specific medical conditions among Maine adults in the household population who were in need of substance abuse treatment or some form of intervention in the 12 months before the 1997 survey. Although the large majority of adults with clearly identified substance abuse problems perceived their physical health to be good, almost one in four adults in need of treatment for substance use problems (23.9%) perceived their health to be fair or poor. A slightly smaller proportion of adults in need of some form of treatment or intervention for their substance use (18.9%) perceived their health to be fair or poor. These rates of fair or poor physical health perceptions in Table 4.4 were comparable to the estimated 20.8% for the Maine adult household population as a whole (Table 4.1).

In addition, approximately one in four Maine adults (27.2%) in the household population who needed treatment for substance abuse had respiratory problems in the past year, 11.9% had hypertension problems, and approximately the same proportion had digestive system problems (12.0%). Taken together, these data suggest that sizable percentages of people needing treatment for alcohol or other drug abuse also may have important medical problems requiring attention, regardless of whether these problems are directly or indirectly related to their substance abuse.

In contrast to the general lack of a relationship between the need for substance abuse services¹ and perceptions of fair or poor physical health, there was a clear relationship between need for services and perceptions of fair or poor mental health, as shown in Figure 4.1 and Table 4.5. Compared with 21% of the overall Maine adult household population who perceived their mental health as being fair or poor (Table 4.1), nearly 30% of adults needing some form of intervention perceived their

About one in four Maine adults who needed treatment perceived their physical health as being fair or poor. However, this rate was not appreciably different from that in the Maine adult household population as a whole.

Nearly 40% of Maine adults who needed substance abuse treatment perceived their mental health as being fair or poor, compared with slightly more than 20% of adults in the Maine household population as a whole.

¹Need for substance abuse treatment or need for some form of substance use intervention.

Table 4.4 Perceptions of Physical Health and Specific Medical Conditions According to Substance Abuse Treatment Need in the Past Year in Maine: 1997

Health Measure	Service Needs, Past Year	
	Need for Treatment ¹	Need for Treatment or Intervention ²
Perception of Physical Health		
Good	76.1	81.1
Fair or poor	23.9	18.9
Specific Medical Problems, Past 12 Months		
Hypertension	11.9	11.2
Heart problem	1.9	1.9
Respiratory problems	27.2	21.2
Digestive system/stomach problems	12.0	6.8

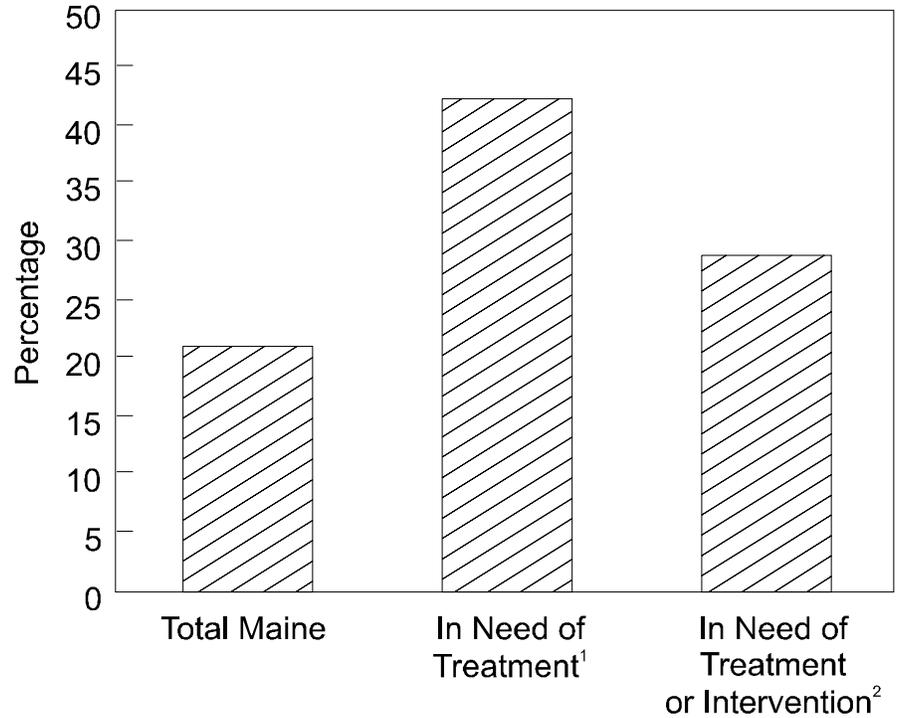
Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table 4.4SE in Appendix B.

¹Need for treatment related to use of alcohol or other drugs. Criteria for establishing need for treatment are discussed in Appendix E.

²Need for treatment or intervention related to use of alcohol or other drugs. Criteria for establishing need for treatment or intervention are discussed in Appendix E..

Source: Maine Household Telephone Survey: 1997.

Figure 4.1 Percentages of the Maine Adult Household Population Reporting Fair or Poor Mental Health for Those in Need of Treatment and Those in Need of Treatment or Intervention: 1997



Note: Supporting data for Figure 4.1 are shown in Table 4.5.

¹Need for treatment related to use of alcohol or other drugs. Criteria for establishing need for treatment are discussed in Appendix E.

²Need for treatment or intervention related to use of alcohol or other drugs. Criteria for establishing need for treatment or intervention are discussed in Appendix E.

Source: Maine Household Telephone Survey: 1997.

Table 4.5 Perceptions of Mental Health and Pharmacological Interventions for Mental Health Problems According to Substance Abuse Treatment Need in the Past Year in Maine: 1997

Health Measure	Service Needs, Past Year	
	Need for Treatment ¹	Need for Treatment or Intervention ²
Perceptions of Mental Health		
Good	57.8	71.2
Fair or poor	42.2	28.8
Receipt of Psychotherapeutic Medication, Past 12 Months		
Sedatives or tranquilizers	10.9	8.0
Antidepressants	13.6	8.6
Other medications	8.8	4.6
Any of the above	17.8	13.2

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table 4.5SE in Appendix B.

¹Need for treatment related to use of alcohol or other drugs. Criteria for establishing need for treatment are discussed in Appendix E.

²Need for treatment or intervention related to use of alcohol or other drugs. Criteria for establishing need for treatment or intervention are discussed in Appendix E.

Source: Maine Household Telephone Survey: 1997.

mental health as being fair or poor. Moreover, among those who met the stricter definition of needing substance abuse treatment (see Appendix E), more than 40% perceived their mental health to be fair or poor. These results from the Maine household population support other studies suggesting that substance abuse disorders often co-occur with other mental health problems (Regier et al., 1990). However, it should be noted that perception of poor mental health does not necessarily indicate the presence of a diagnosable mental disorder.

In addition to perceptions of mental health, the use of medication to control emotional problems also was explored. Overall, more than one in eight Maine adults who needed treatment or intervention received some form of psychotherapeutic medication for a mental health problem in the past 12 months (13.2%). Among Maine adults in need of treatment, nearly one in five (17.8%) received some type of psychotherapeutic medication in the past 12 months. Antidepressants were the most commonly prescribed psychotherapeutic drug among adults in need of treatment (13.6%), followed by sedatives or tranquilizers (10.9%) and other medications (8.8%). The use of psychotherapeutics was slightly higher among those needing treatment than among those in the “need for treatment or intervention” group. Depending on the drugs that a person was abusing, substance abuse could counteract the intended therapeutic effects of some of these medications, or it could greatly amplify the effect of these medications with potentially life-threatening consequences. Again, however, readers should not necessarily interpret these results to mean that substance use was causing or contributing to mental health problems among those adults in need of treatment.

4.4 Substance Use and Criminal Justice Involvement

Telephone survey respondents were asked whether they had been arrested and booked in the 12 months before the 1997 survey, not counting minor traffic violations. In addition, respondents could have been asked in one of two places in the interview about operating under the influence (OUI) arrests or other alcohol-related arrests: (a) if they were screened into the more detailed questions about symptoms of alcohol dependence and abuse, or (b) if they reported being arrested in the past 12 months but were not screened into these alcohol dependence and abuse questions. Similarly, respondents could have been asked about other drug-related arrests either as part of (a) the more detailed questions about other drug dependence and abuse, or (b) if they were arrested in the past 12 months but had not screened into the other drug dependence questions.

Table 4.6 shows arrest data among Maine adults in the household population according to their substance use in the 12 months before the 1997 survey. Rates of arrests among persons with frequent heavy

Table 4.6 Arrests in the Past Year Among Different Categories of Substance Users in Maine: 1997

Type of Arrest	Alcohol Use, Past Year			Other Drug Use, Past Year	
	None	No Frequent Heavy Use ¹	Any Frequent Heavy Use ²	None	Any ³
Any Arrest	0.3	1.0	6.0	0.7	6.2
OUI or Other Alcohol- Related Arrest ⁴	--	0.4	4.2	0.3	4.0
Illicit Drug-Related Arrest	**	**	0.4	--	0.6

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table 4.6SE in Appendix B.

--Not applicable.

**Estimated percentage rounds to zero.

¹No occurrence of frequent heavy alcohol use in the past 12 months (or past 30 days), as defined below.

²Any frequent heavy use in the past 12 months (or past 30 days) based on (a) weekly consumption in the past 12 months of five or more drinks in a 24-hour period or four or more drinks in a 24-hour period for women, or (b) consumption of five or more drinks in a 24-hour period on 4 or more days in the past 30 days, or typical consumption of four or more drinks on 4 or more days in the past 30 days for women.

³Any use of marijuana, hallucinogens, cocaine, opiates, or nonmedical use of stimulants in the past 12 months.

⁴OUI= Operating a motor vehicle under the influence of alcohol. Because the survey inquired about driving while under the influence (DWI), the study definition of OUI differs from the official state definition. The official state definition of OUI includes operating a vehicle while under the influence of alcohol or drugs. DWI refers to driving while under the influence of alcohol only.

Source: Maine Household Telephone Survey: 1997.

Heavy alcohol users and illicit drug users in the Maine adult household population were more likely than nonusers to have been arrested in the past year.

alcohol use and any illicit drug use were considerably higher than the rates for the adult household population who reported no alcohol or other drug use. In particular, approximately 6% of adults who drank heavily or who used illicit drugs in the past year were arrested for crimes other than minor traffic violations, compared with a rate of 0.3% for those reporting no alcohol use and 0.7% for adults who had not used illicit drugs in the past year. Moreover, 4.0% of adults who drank heavily or had used illicit drugs during the past 12 months had an OUI or other alcohol-related arrest compared to less than 1% who did not drink heavily or use illicit drugs. Heavy drinkers also were more likely to report an arrest than individuals who drank in the past 12 months but not heavily (6% vs. 1%, respectively). Other drug-related arrests were uncommon in this population, and particularly among adults who did not drink heavily or use illicit drugs in the past year.

However, these survey data probably represent conservative estimates of arrest rates among the Maine adult household population, even though the sample weighting procedures were designed to adjust for the noncoverage of groups other than people in households with telephones. In particular, important "nonhousehold" populations for estimating criminal involvement and relationships between drug use and criminal offending would include people who were incarcerated or detained and arrested. Although these telephone survey data provide some indication of arrests among the adult population in Maine, that was not a major aim of the survey. A related study of adult arrestees in Maine (Study 2) is designed to provide more detailed information on the arrest history, substance use, and substance abuse treatment needs of arrestees in Maine.

In addition, readers should not interpret these data to mean that these substance users were necessarily under the influence of alcohol or other drugs when they were arrested. For example, an illicit drug user might have been arrested for possession or sale of illegal drugs, even though that person was not under the influence of drugs at the time of arrest. Furthermore, readers should not conclude from these arrest data that everyone who was arrested actually committed the offenses for which he or she was booked.

Nevertheless, these survey data do show a clear and strong relationship between substance abuse and arrests among Maine adults in the household population. To the extent that some drug users commit crimes against persons or property to support their habits, or are more likely to commit such crimes when under the influence of drugs, then effective drug prevention and treatment efforts in the state could have a positive impact upon the crime rate.

4.5 Summary

Highlights of health and other problems among Maine adults in the household population in 1997, and particularly relationships between substance use and these health and other problems, include the following:

- Approximately one in five adults in the Maine household population described their physical health as fair or poor. Those 45 years of age or older were more than twice as likely as those aged 18 to 44 to describe their health as fair or poor.
- Regardless of age group, approximately one in five Maine adults perceived their mental health status to be fair or poor.
- Adults in households with annual incomes under \$20,000 were about three times more likely than those in households with incomes of \$40,000 or more to perceive their physical health as fair or poor. However, those who had used alcohol in their lifetime but not in the 12 months before the 1997 survey were only about 60% more likely than those who had never used alcohol to describe their physical health status as fair or poor.
- Heavy alcohol use was not associated with the occurrence of hypertension, respiratory problems, or digestive system problems in the past 12 months. However, past year alcohol users were *less* likely than lifetime abstainers to have had heart problems in the past year. Past 12-month use of illicit drugs was associated with respiratory problems, while use prior to the past year was correlated with both respiratory and digestive problems. Failure to find a link between heavy alcohol use and health problems may be due to the definition of heavy drinking. It is possible that this categorization did not capture a group of individuals with a pattern chronic and compulsive enough to result in serious health conditions. In addition, the group of former (but not past year) alcohol users could have included a group who had health problems that required abstinence from alcohol.
- The relationships between income and illicit drug use for perceived mental health status were fairly consistent with those for physical health status. Past year and lifetime illicit drug users and persons from households with annual incomes under \$20,000 were more likely than were nonusers of illicit drugs or persons in households with annual incomes of \$40,000 or more to perceive their mental health as being fair or poor. In particular, past year illicit drug users were more than twice as likely as lifetime nonusers to perceive their mental health as fair or poor. In addition, men were less likely than women to perceive their

- mental health as fair or poor, and adults 18 to 44 years of age were less likely than those 65 or older to perceive their mental health as fair or poor.
- The relationship between the need for substance abuse treatment and physical health status was inconsistent. Individuals who needed substance abuse treatment did not differ on perceptions of poor or fair physical health compared to the adult Maine household population as a whole. However, adults needing substance abuse treatment did have higher rates of respiratory problems and digestive disorders. In particular, more than 25% of adults in need of substance abuse treatment had respiratory problems in the past year.
- More than 40% of Maine adults in the household population who needed substance abuse treatment perceived their mental health as being fair or poor. Nearly one in five adults needing substance abuse treatment had been given a prescription for a psychotherapeutic medication in the past year.
- There was a clear relationship between substance use among adults and arrests in the past year. Approximately 6% of adults in the household population who drank heavily or used illicit drugs in the past year had been arrested for offenses other than minor traffic violations, compared with less than 1% of adults who had not used alcohol or illicit drugs during that period.

These survey data represent a "snapshot" of substance abuse, need for treatment, physical health, mental health, and criminal justice problems at a single point in time among Maine adults in the household population. The design of the survey did not allow inferences to be made about whether substance use was causing any of these problems or whether the problems were being aggravated by substance use. Nevertheless, these findings document relationships between substance use and a variety of other problems among adults in the Maine household population. These results also underscore the challenges posed to primary care, mental health, and substance abuse treatment providers in Maine responsible for identifying and responding to the multiple needs of their patients and clients.

5. Special Topics

In this chapter of special topics, findings are presented on the prevalence of cigarette use among adult Maine household residents, substance use among women of childbearing age (18 to 55 years old) in the Maine household population, and pregnant women who were in need of treatment or intervention for substance use. Also presented is information about the prevalence of gambling, gambling problems, probable pathological gambling, and co-occurring substance use problems and pathological gambling. The data on these various topics provide a means of identifying these behaviors among the adult Maine household population, as well as a baseline for observing any changes in these behaviors over time.

5.1 Cigarette Use by Maine Adults

Cigarettes pose significant problems and hazards not only for those who use them, but also for those indirectly exposed to cigarette smoke (e.g., second-hand smoke and prenatal exposure). Tobacco use is considered to be the most important preventable cause of death and disease in the United States (Office on Smoking and Health, 1989), and an estimated 434,000 deaths in 1988 were attributed to cigarette smoking (Centers for Disease Control, 1991). Further, analyses of 1988 and 1990 National Household Survey on Drug Abuse (NHSDA) data showed a strong relationship between cigarette use and use of other substances (Flewelling & Rachal, 1992). Consequently, use of cigarettes in the past year was measured in the Maine adult household population.

More than 30% of Maine adults, or nearly 300,000 adults, smoked cigarettes in the past year.

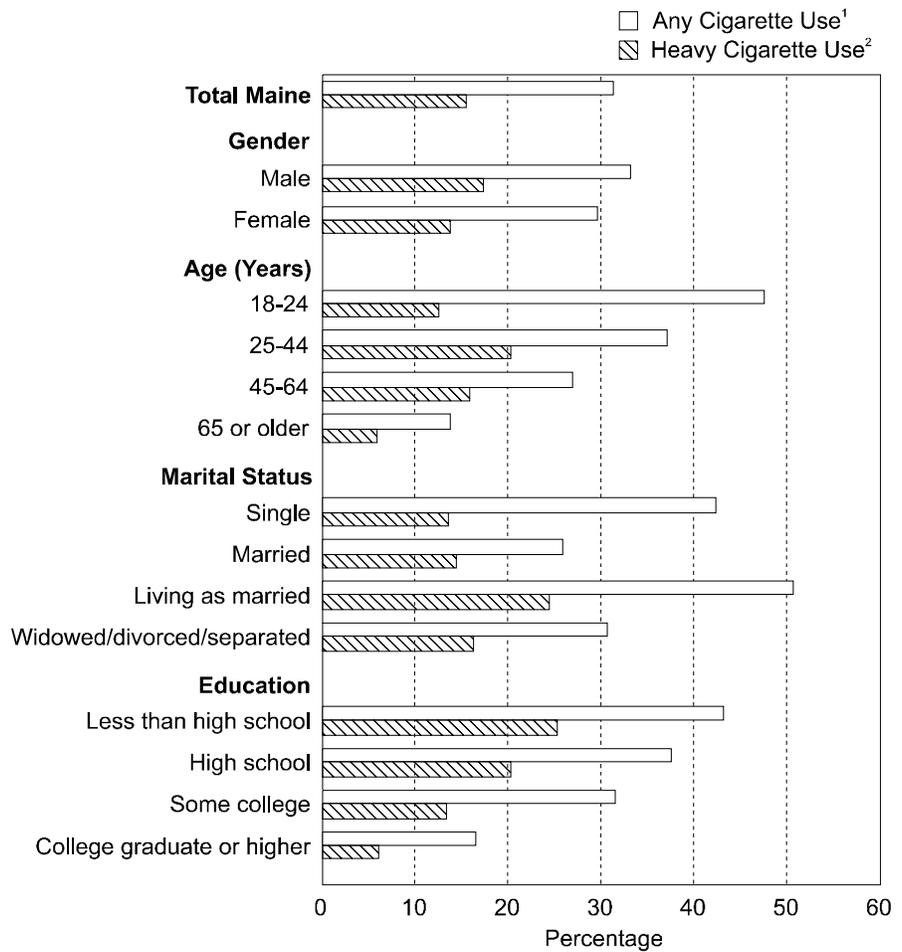
As shown in Figure 5.1 and Table 5.1, more than 30% of Maine adults smoked cigarettes at some point in the 12 months prior to the 1997 survey. This estimate translated to 293,000 adults who had smoked cigarettes in the past year.

Rates of cigarette use were particularly high among adults aged 18 to 24, single adults, and adults who were living as married. Cigarette use was less prevalent among adults with a college education.

With regard to percentages, residents who were most likely to smoke cigarettes in the past year were under the age of 45 (and particularly aged 18 to 24), nonwhite, single or living as married, or unemployed. Many of these groups that had higher rates of past year cigarette use also had higher rates of heavy alcohol and illicit drug use in the past year (see Chapter 2).

Table 5.1 also shows the estimated numbers of cigarette users in different demographic subgroups. Although these data may be useful for those interested in identifying how many people were smokers within a particular group, readers should use the *percentages* rather than the estimated numbers for making comparisons across groups. These percentages take into account the number of cigarette smokers in a given subgroup relative to the overall size of that group in the entire adult

Figure 5.1 Prevalence of Past Year Cigarette Use in the Maine Adult Household Population, by Selected Demographic Characteristics: 1997



Note: Supporting data for Figure 5.1 appears in Table 5.1.

Source: Maine Household Telephone Survey: 1997.

Table 5.1 Prevalence of Use and Estimated Numbers of Past Year Cigarette Smokers (in Thousands) in the Maine Adult Household Population, by DMHMRSAS Region and Selected Demographic Characteristics: 1997

Demographic Characteristic	Any Cigarette Use ¹			Heavy Cigarette Use ²		
	Percent	Number (Thousands)	95% CI	Percent	Number (Thousands)	95% CI
Total Maine	31.3	293	279 – 308	15.5	145	134 – 157
DMHMRSAS Region³						
Region I	30.1	96	87 – 105	13.8	44	38 – 51
Region II	31.7	117	108 – 127	16.3	60	53 – 68
Region III	32.3	81	73 – 88	16.4	41	35 – 47
Gender						
Male	33.2	149	139 – 159	17.4	78	70 – 86
Female	29.6	145	134 – 155	13.8	67	59 – 76
Age (years)						
18-24	47.6	54	48 – 59	12.5	14	11 – 18
25-44	37.2	146	137 – 154	20.2	79	72 – 87
45-64	27.0	70	62 – 78	16.0	41	35 – 49
65 or older	13.9	24	19 – 30	6.0	10	7 – 16
Race/Ethnicity						
White	30.6	273	259 – 288	15.2	136	125 – 147
Nonwhite ⁴	45.0	20	17 – 24	21.1	9	7 – 13
Marital Status						
Single	42.4	61	55 – 67	13.6	20	16 – 24
Married	25.9	145	135 – 156	14.4	81	72 – 90
Living as married	50.7	40	36 – 45	24.4	19	16 – 23
Widowed/divorced/separated	30.7	45	40 – 51	16.4	24	20 – 29
Education						
Less than high school	43.1	45	40 – 51	25.2	27	22 – 32
High school	37.5	134	125 – 144	20.2	72	65 – 80
Some college	31.6	75	68 – 82	13.5	32	27 – 37
College graduate or higher	16.6	39	34 – 45	6.2	15	11 – 19
Current Employment						
Full-time	33.8	163	153 – 173	16.7	80	73 – 89
Part-time	30.7	42	37 – 48	11.2	15	12 – 19
Unemployed ⁵	51.7	11	8 – 13	28.2	6	4 – 8
Other ⁶	26.1	76	68 – 85	14.6	42	36 – 50

Note: Unweighted numbers of respondents are shown in Table 1.1, and standard errors for the percentages are shown in Table 5.1SE in Appendix B. The 95% CI = 95% confidence interval (in thousands) of the estimated numbers of cigarette users.

¹Smoked cigarettes at least once in the past 12 months.

²Current smokers at the time of the survey who smoked one or more packs of cigarettes a day.

³Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Sagadahoc, Oxford, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

⁴"Nonwhite" represents black, Hispanic, or "other" origin.

⁵Includes persons looking for work or not looking for work.

⁶Retired, disabled, homemaker, student, or "other."

Source: Maine Household Telephone Survey: 1997.

household population. For example, an estimated 117,000 adults in Region II, were smokers in the past year, compared with 81,000 adults in Region III. However, about 40% of the adult household population is located in Region II, and only 27% is located in Region III (see Table 1.1). When one compares the *percentages* of the populations in the three different DMHMRSAS regions who smoked cigarettes in the past year, the rates of past year cigarette use do not vary significantly by region. Therefore, the remaining discussion in this section focuses on the percentages of people in different subgroups who were smokers.

Men were only somewhat more likely than women to smoke cigarettes in the past year (33% vs. 30%, respectively). In comparison, there were sizable differences between genders in the rates of heavy alcohol use and use of illicit drugs (see Tables 2.2 and 2.4). The fact that cigarettes are legal and perhaps more socially acceptable than either alcohol or illicit drugs might provide some explanation for these results.

As with alcohol and illicit drug use, the youngest residents (e.g., 18 to 24 year olds) were the most likely to use cigarettes in the past year (48%), and the eldest residents (e.g., 65 years or older) were the least likely to do so (14%). Nonwhites were more likely than whites to have smoked cigarettes in the past year (45% vs. 31%, respectively).

With respect to marital status, individuals living as married stood out as the most likely of all marital status groups to use cigarettes in the past year (51%). They were almost twice as likely as married residents, who were least likely of the marital groups, to use cigarettes in the past year. In addition, 42% of single adults (i.e., never married and not currently living as married) smoked cigarettes in the past year. Given that age and marital status are highly correlated, the higher rate of past year cigarette use among adults who were single probably reflects the higher rate among adults aged 18 to 24.

The prevalence of cigarette smoking was inversely related to educational attainment. That is, the higher the level of education, the lower the rate of cigarette use in the past year. Some 43% of Maine adults who had not completed high school were past year cigarette smokers, compared with only 17% of adults who had completed college. This finding of a lower rate of cigarette use among Maine adults with a college education or higher is consistent with 1995 NHSDA data showing considerably lower rates of cigarette use among adults with a college education and comparable rates of use among adults in the other educational levels (SAMHSA, 1997).

Among different employment status groups, unemployed residents had the highest rate of cigarette use in the past year (52%). Despite the large standard error associated with the rate of past year cigarette smoking among unemployed adults (see Table 5.1SE), this rate was notably

higher than the rates among the other employment groups. In particular, the rate of smoking among unemployed adults was nearly twice the rate for adults in the "other" employment status category. Given that the "other" employment status category included adults who were retired, the lower rate of cigarette smoking among adults aged 65 or older may explain the lower rate of smoking among people in the "other" employment category.

5.2 Substance Use Among Women of Childbearing Age

Adverse birth and developmental outcomes, such as prematurity, low birthweight, growth retardation, and unresponsive or highly irritable behaviors, have been associated with use of a variety of substances during pregnancy. In particular, adverse effects have been associated with use during pregnancy of:

- *alcohol* (e.g., Jones & Smith, 1973; Rossett & Weiner, 1984; Sokol, Ager, & Martier, 1986; Streissguth, Sampson, Barr, Clarren, & Martin, 1986),
- *cigarettes* (e.g., Kleinman & Madans, 1985; Office on Smoking and Health, 1980; Prager, Malin, Graves, Spiegler, Richards, & Placek, 1983); and
- *illicit drugs*, most notably cocaine (e.g., Chasnoff, Burns, Schnoll, & Burns, 1985; Cherukuri, Minkoff, Feldman, Parekh, & Glass, 1988; Little, Snell, Klein, & Gilstrap, 1989; MacGregor et al., 1987; Zuckerman et al., 1989).

Moreover, a number of studies have found drug use during pregnancy to be more prevalent among women who received little or no prenatal care (Cherukuri et al., 1988; Edelin, Gurganious, Golar, Oellerich, Kyei-Aboagye, & Hamid, 1988; McCalla et al., 1991; NIDA, 1995; Vega, Kolody, Hwang, & Noble, 1993). Inadequate prenatal care is an additional risk factor for prematurity and low birthweights (e.g., Feldman, Minkoff, McCalla, & Salwen, 1992; McCalla et al., 1991).

The 1997 Maine Household Telephone Survey included a question for women between the ages of 18 and 54 regarding whether they had been pregnant in the 12 months before the survey. Although women who were pregnant in the past year were not specifically asked whether they had used alcohol or other drugs during that pregnancy, these survey data provide information on substance use among women of childbearing age, and particularly among women who were pregnant in the past year.

Table 5.2 shows the prevalence of use of different substances in the year before the 1997 survey among women aged 18 to 24, 25 to 44, and 45 to 54. Table 5.2 and Figure 5.2 show the prevalence of substance use among women who were pregnant in the past year. Again, however, readers are reminded that these latter estimates do not measure actual substance use during pregnancy.

Young women aged 18 to 24 had the highest rates of substance use in the past year. In particular, nearly 30% of women in this age group used marijuana, hallucinogens, cocaine (in any form), heroin/opiates, or stimulants for nonmedical reasons in the past year. Although a comparable percentage of women in this age group used marijuana in the past year (29%), nearly 8% used drugs other than marijuana, including 4% who used stimulants for nonmedical reasons, 3% who used hallucinogens, and 3% who used cocaine. An estimated 13% of women in this age group were heavy alcohol users in the past year, based on consumption of four or more drinks per occasion on a weekly or more frequent basis.

In comparison, 9% of women aged 25 to 44 and 3% of women aged 45 to 54 were past year users of any of the illicit drugs covered in the telephone survey. However, fewer than 1% of women in these age groups used illicit drugs other than marijuana in the past year. In addition, the rate of heavy alcohol use among women aged 25 to 44 (5%) was less than half the rate for women aged 18 to 24. Similarly, the rate of heavy alcohol use among women aged 45 to 54 was only about one-fourth the rate for adult women in the youngest age group.

Cigarette use was much more prevalent compared with heavy alcohol use or use of other drugs. Nearly half of women aged 18 to 24 smoked cigarettes in the year before the 1997 survey, as did more than one-third of women aged 25 to 44 and more than one-fourth of women aged 45 to 54. About 11% to 17% of women in these three age groups were current heavy cigarette smokers, meaning that they smoked one or more packs of cigarettes a day at the time of the survey. Rates of heavy cigarette use did not vary significantly by age group for women of childbearing age (see Table 5.2SE).

Among women in the Maine adult household population who were pregnant in the past year, 15% used illicit drugs in the past year, and 6% were heavy alcohol users.

Among women in the Maine adult household population who were pregnant in the year before the survey, an estimated 15% used one or more illicit drugs covered in the telephone survey, including 14% who used marijuana. Approximately 3% of women who were pregnant in the past year used illicit drugs other than marijuana in the past year, including 3% who used cocaine and 2% who used stimulants for nonmedical reasons.

Interestingly, a smaller percentage of women who were pregnant in the past year were heavy alcohol users (5.7%) compared with the percentage

Table 5.2 Prevalence of Substance Use in the Past Year Among Women of Childbearing Age in Maine: 1997

Substance Used	Women/Age Group (Years)			Pregnant, Past 12 Months
	18-24	25-44	45-54	
Any Illicit Drug Use¹	29.7	8.9	3.4	14.5
Marijuana	28.8	8.7	3.4	14.2
Hallucinogens	3.2	0.4	0.5	0.8
Cocaine	2.9	0.3	**	2.6
Heroin/opiates	**	**	**	**
Nonmedical stimulants ²	4.1	0.4	**	1.5
Any Illicit Drug Use, Excluding Marijuana³	7.7	0.7	0.5	3.3
Alcohol				
Any alcohol use	78.6	74.3	64.8	66.0
Heavy alcohol use ⁴	13.4	5.3	2.5	5.7
Cigarettes				
Any cigarette use	46.3	33.9	26.6	30.4
Current heavy cigarette use ⁵	11.0	16.9	14.7	8.9

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table 5.2SE in Appendix B.

**Estimated percentage rounds to zero.

¹Use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

²Use of stimulants to get high, for curiosity, to go along with friends, or use of prescription-type stimulants without a doctor's prescription.

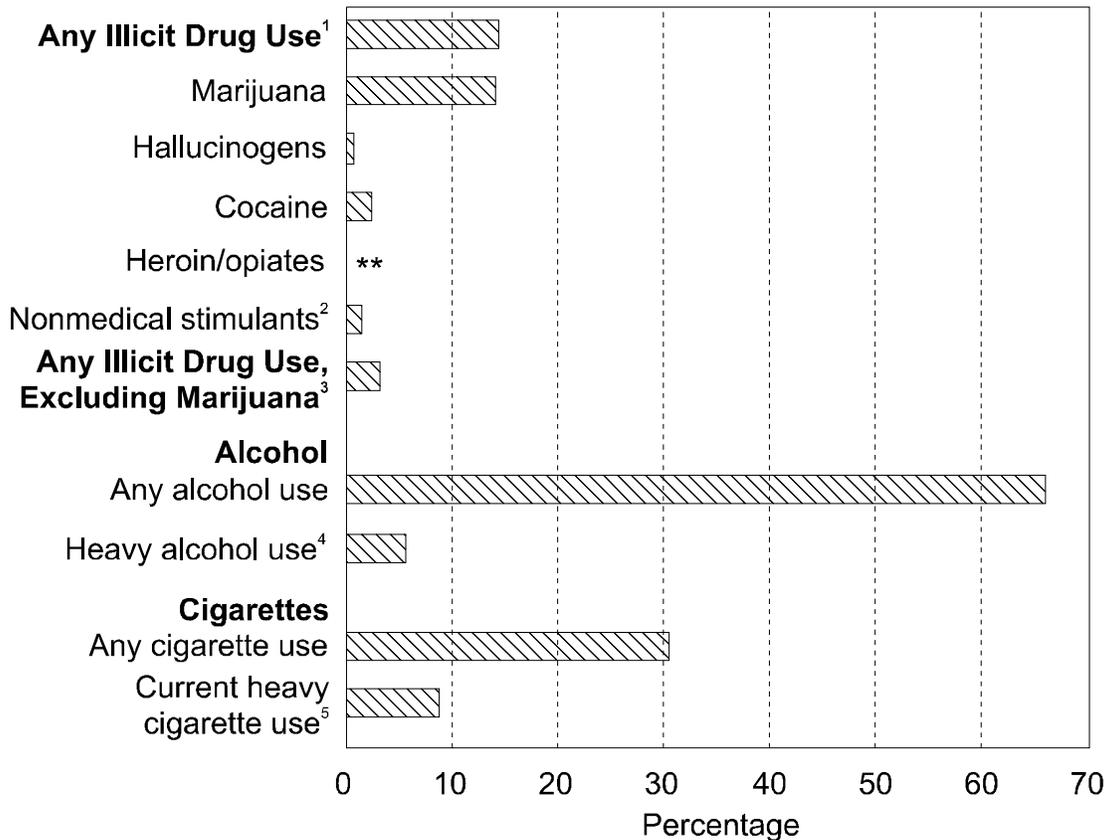
³Use of hallucinogens, cocaine (including crack), or heroin/opiates at least once.

⁴For the past year, defined for women as weekly consumption of four or more drinks in a 24-hour period, or typical consumption of four or more drinks on 4 or more days in the past month.

⁵Current smokers at the time of the survey who smoked one or more packs of cigarettes a day.

Source: Maine Household Telephone Survey: 1997.

Figure 5.2 Prevalence of Substance Use in the Past Year Among Maine Women Who Were Pregnant in the Past Year: 1997



Note: Supporting data for Figure 5.2 are shown in Table 5.2.

**Estimated percentage rounds to zero.

¹Use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

²Use of stimulants to get high, for curiosity, to go along with friends, or use of prescription-type stimulants without a doctor's prescription.

³Use of hallucinogens, cocaine (including crack), or heroin/opiates at least once.

⁴For the past year, defined for women as weekly consumption of four or more drinks in a 24-hour period, or typical consumption of four or more drinks on 4 or more days in the past month.

⁵Current smokers at the time of the survey who smoked one or more packs of cigarettes a day.

Source: Maine Household Telephone Survey: 1997.

who used illicit drugs in the past year. One possible explanation is that for a woman to be defined as a heavy drinker, she had to have drunk heavily on a regular basis in the past year. Many women probably cut down on their drinking or stopped drinking entirely once they knew they were pregnant and did not have four or more drinks frequently enough (if at all) to be classified as a heavy drinker. In contrast, women were defined as using cigarettes or illicit drugs if they ever used these substances during the past 12 months, even if only once. Because the past 12 months is longer than the period in which these women were pregnant, it is possible that use of these other substances may have occurred before or after pregnancy. Nevertheless, the finding that 6% of women who were pregnant in the past 12 months had four or more drinks per day on a fairly regular basis (i.e., once a week or more often) in the past 12 months is cause for concern because of the risks for fetal alcohol syndrome.

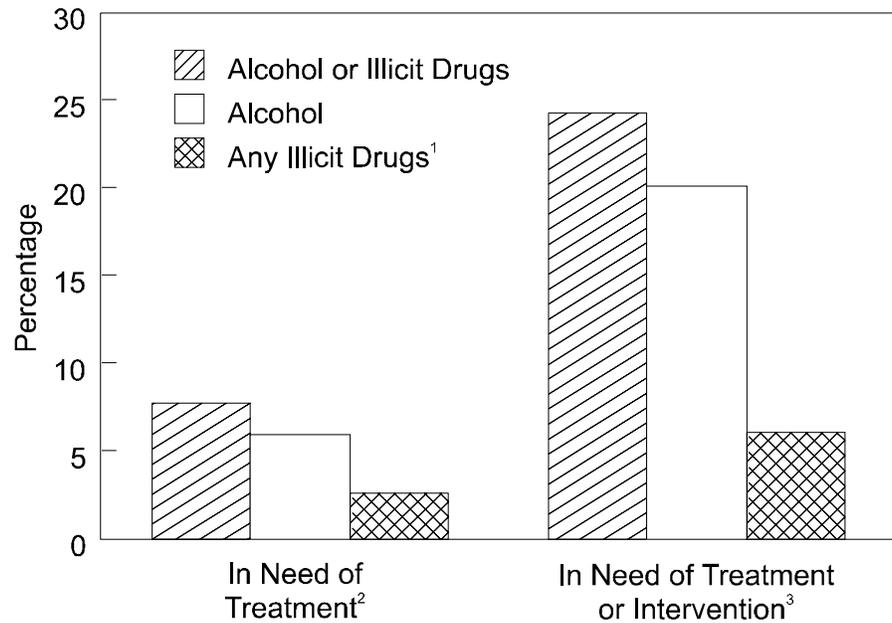
About 30% of women who were pregnant in the past year smoked cigarettes, including 9% who were current heavy smokers.

In addition, about 30% of women who were pregnant in the past year smoked cigarettes at least once during that same time period, although not necessarily while they were pregnant. This rate of past year cigarette use among women who were pregnant in the past year was comparable to the other rates of past year cigarette use shown in Table 5.2. Approximately 9% of women who were pregnant in the past year were heavy cigarette smokers. Given the level of current cigarette smoking that was required to define someone as a heavy smoker (i.e., one or more packs of cigarettes a day), many of these women may have smoked during or throughout their pregnancies. This finding may be cause for concern because of the associations between cigarette smoking during pregnancy and low birthweight or preterm delivery.

Although the telephone survey was not specifically designed to measure substance use during pregnancy, these findings do indicate that sizable percentages of women of childbearing age in Maine were smokers in the past year, and sizable percentages of younger women were heavy drinkers or used drugs other than alcohol in the past year. Even if women who became pregnant cut down sharply on their substance use or stopped altogether once they knew they were pregnant, a number of these women could still have used drugs after they became pregnant but before they were aware of it. Of particular concern are the percentages of women who were pregnant in the past year who also drank heavily during the past year or were current heavy cigarette smokers. These results underscore the importance of educational and outreach efforts in the state to encourage women to quit smoking, to abstain from alcohol or reduce their alcohol consumption sharply, and to stop their use of illegal other drugs if they are intending to become pregnant.

Figure 5.3 focuses on the percentages of women who were pregnant in the year before the survey and who were in need of treatment or intervention for their substance use. (Supporting data for Figure 5.3

Figure 5.3 Percentages of Maine Adult Women Pregnant in the Past Year Who Were in Need of Alcohol or Illicit Drug Treatment or Intervention: 1997



Note: Supporting data for Figure 5.3 are shown in Table A.18 in Appendix A.

¹Marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or stimulants.

²Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

³Includes people in need of treatment, as defined above. Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment or intervention” was defined.

Source: Maine Household Telephone Survey: 1997.

are shown in Table A.18 in Appendix A.) Table 5.3 presents the estimated numbers of pregnant women meeting these criteria. Those who were defined as being in need of treatment were those who received treatment in the past year or who qualified for a diagnosis of substance dependence or abuse. Those who were in need of intervention were those who did not necessarily qualify for a diagnosis, but did exhibit patterns of substance use that suggested the potential for impaired functioning. (See Appendix E for further details on how treatment/intervention need was defined for this report.)

About 8% of women who were pregnant in the past year needed substance abuse treatment. Nearly one in four pregnant women needed intervention for their substance use, and about one in five needed intervention specifically for their use of alcohol.

Nearly 8% of women in the Maine adult household population who were pregnant in the past year were identified as needing treatment for either alcohol or illicit drug use. This estimate translated to approximately 2,000 women who were pregnant in the past year and were in need of treatment. Approximately 6% of women who were pregnant in the past year, or approximately 1,000 women, needed treatment specifically for their use of alcohol. Further, nearly one in four women in the Maine household population who were pregnant in the past year, or about 6,000 women, were identified as needing some intervention for their use of alcohol or other drugs. About one in five women who were pregnant in the past year, or about 5,000 women, were identified as needing intervention for problems related to their alcohol use.

These results suggest that sizable numbers of adult pregnant women in Maine may be in need of either treatment or some type of services related to their substance use. Moreover, these estimates are certainly conservative, in that they do not include pregnant women under the age of 18 who may have needed substance abuse services. Nevertheless, these findings point to potentially tremendous benefits for these mothers and their unborn children—as well as broader benefits to society as a whole—if substance abuse treatment services are readily available to pregnant women in Maine who want them. In particular, efforts to decrease access barriers to prenatal care, combined with efforts to screen women for substance abuse problems when they present for prenatal care, could provide an opportunity to intervene with substance-abusing pregnant women. In addition, the high percentage of women who were pregnant in the past year who also smoked cigarettes during that time period (Table 5.2 and Figure 5.2) could suggest the need for services to help women stop smoking during pregnancy, even if they do not use alcohol or other drugs.

5.3 Gambling Among Maine Adults

In this section, findings are presented on the prevalence of gambling, gambling problems, and probable pathological gambling among Maine adults aged 18 or older. Also presented is information about the co-occurrence of substance use and problem or pathological gambling. These data about gambling identify the extent and characteristics of

Table 5.3 Estimated Numbers (in Thousands) of Maine Adult Women Pregnant in the Past Year Who Were in Need of Alcohol or Illicit Drug Treatment or Intervention: 1997

Measure	Number (Thousands)	95% CI
In Need of Treatment¹		
Alcohol or illicit drugs	2	1 – 3
Alcohol	1	1 – 3
Any illicit drugs ²	1	** – 3
In Need of Treatment or Intervention³		
Alcohol or illicit drugs	6	4 – 8
Alcohol	5	3 – 7
Any illicit drugs ²	1	1 – 3

Note: Unweighted numbers of respondents are shown in Table 1.1. The 95% CI = 95% confidence interval (in thousands) of the estimated numbers of users.

**Estimate rounds to fewer than 1,000 people.

¹Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

²Marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

³Includes people in need of treatment, as defined above. Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment or intervention” was defined.

Source: Maine Household Telephone Survey: 1997.

problems related to gambling in the state. The data also provide a baseline for observing the prevalence of problem or pathological gambling in Maine.

5.3.1 Background and Significance

There are several conceptualizations of the nature of pathological gambling behavior and its appropriate treatment, with excessive gambling often regarded as an addiction similar to drug dependence and alcoholism, but without the use of a psychoactive substance. Gamblers Anonymous (GA), for example, is a Twelve Step self-help program for pathological gamblers that has been patterned after Alcoholics Anonymous (AA). The Brecksville Treatment Program at the Brecksville Veterans Administration (VA) Hospital, the first inpatient treatment program for pathological gamblers, is a 30-day structured program whose treatment goals closely parallel those of many drug and alcohol treatment programs: complete abstinence from gambling, reduction of the urge to gamble, development of constructive substitutes for gambling, and restoration of social functioning (Custer, 1982; Russo, Taber, McCormick, & Ramirez, 1984).

Pathological gambling appears as a diagnostic category in the fourth edition of the American Psychiatric Association (APA, 1994) Diagnostic and Statistical Manual of Mental Disorders (DSM-IV). At least five of the following diagnostic criteria must be met to identify the pathological gambler:

1. preoccupation with gambling;
2. a need to gamble with increasing amounts of money to achieve the desired level of excitement;
3. repeated, unsuccessful attempts to control, cut back on, or stop gambling;
4. restlessness or irritability when unable to gamble;
5. gambling as a way of escaping from problems;
6. gambling losses, often followed by attempts to return another day to get even ("chasing" one's money);
7. lying to family members or others about the extent of one's gambling;
8. commission of illegal acts, such as forgery, fraud, or theft, to finance gambling;

9. jeopardizing or losing relationship, job, educational, or career opportunities because of gambling; and
10. relying on others to provide money to relieve a desperate financial situation caused by gambling.

Only a limited number of studies have been conducted on the prevalence of pathological gambling in the general population. A national study in 1975 by the Institute for Social Research at the University of Michigan for the Commission on the Review of National Policy Toward Gambling found that 61% of adults had placed some kind of bet involving money in 1974, and 48% had placed a bet with someone other than a friend (Kallick, Suits, Dielman, & Hybels, 1979). The survey estimated the prevalence of compulsive or pathological gambling at approximately 0.7% overall, with a higher rate among males (1.1%) than among females (0.5%). State-level surveys in Ohio, the Delaware Valley (parts of New Jersey and Pennsylvania), and New York State in 1984 and 1985 found that the rates of pathological gambling ranged between 1.4% and 3.4% of the population (Lesieur, 1989).

The study in New York State was a telephone survey using the South Oaks Gambling Screen (SOGS) of Lesieur and Blume (1987), a 20-item instrument designed to measure pathological gambling. Volberg and Steadman (1988) found that 2.8% of the New York sample scored three or four points on the SOGS, indicating "problem gambling." Another 1.4% scored five or more points on the SOGS and were classified as "probable pathological gamblers." Thus, 4.2% of the New York State population in the late 1980s could be classified as either problem or pathological gamblers. Volberg and Steadman also found that males were more likely than females to be problem or pathological gamblers, as were respondents under the age of 30, compared with those over 30; nonwhites compared with whites; persons without a high school education compared with persons with a high school education or greater; and persons with lower incomes compared with persons with higher incomes.

In comparable surveys in New Jersey and Maryland using the SOGS, Volberg and Steadman (1989a) found that 2.8% of the New Jersey sample and 2.4% of the Maryland sample could be classified as problem gamblers, and 1.4% of the New Jersey sample and 1.5% of the Maryland sample could be classified as probable pathological gamblers. Thus, the prevalence rates for problem and pathological gambling in these two East Coast states were comparable to the rates that had been previously found in New York State. As was the case in New York State, disproportionate numbers of males, nonwhites, and individuals with less than a high school education were problem or probable pathological gamblers in the New Jersey and Maryland surveys; unlike the results from the New York State survey, age and income were not significantly

related to problem and pathological gambling in either New Jersey or Maryland.

Lifetime rates of problem and pathological gambling have been found to be lower in other parts of the United States. In surveys conducted in two Midwestern states, Iowa and South Dakota, the combined prevalences of problem and pathological gambling were 1.7% in Iowa and 2.8% in South Dakota, compared with combined prevalence rates of approximately 4% on the East Coast (Volberg & Steadman, 1989b; Volberg & Stuefen, 1991). In Iowa, the prevalence of probable pathological gambling was only 0.1% (Volberg, 1994). It appears that the authors did not conduct analyses of demographic characteristics of problem and pathological gamblers within these two states, due to the greater homogeneity of their populations (i.e., predominantly white, higher income).

Results from several state-level surveys suggest that probable pathological gamblers in the general population are disproportionately male, nonwhite, less educated, and unmarried (Volberg, 1994). In analyzing data from five states, however, Volberg (1994) found that pathological gamblers entering treatment programs tend to be unrepresentative of pathological gamblers in the general population. In particular, males comprised about three-fourths of the pathological gamblers in combined general population data from these states, but males comprised more than 90% of the pathological gamblers entering treatment programs in four of the states. Similarly, whites comprised about 64% of the pathological gamblers in the general population sample for these five states, but whites comprised about 90% or more of the pathological gamblers entering treatment in these states. Although more than three-fifths of pathological gamblers in the general population were unmarried, fewer than half of the clients entering gambling treatment programs in three states were unmarried, including fewer than 30% of clients in one state.

It should be noted that the estimates of problem and pathological gambling reported by other states are not strictly comparable to the estimates offered within this report for Maine because of methodological differences between studies ranging from their sampling procedures to the design of the survey instruments. Nonetheless, although rates of pathological gambling are generally low in most states, it may be useful to view the findings of this study in light of what has been seen in prior general population studies.

For this survey, the questions on symptoms of pathological gambling were adapted from the Department of Defense's 1992 Worldwide Survey of Substance Abuse and Health Behaviors Among Military Personnel (Bray et al., 1992) and correspond to the DSM-IV (1994) symptoms of pathological gambling.

To assess the lifetime prevalence of gambling problems and the lifetime prevalence of pathological gambling among adults in the state, the 1997 Maine Household Telephone Survey asked a series of eight questions on problems related to gambling. Items on gambling-related problems were patterned after the DSM-IV (1994) diagnostic criteria (see Appendix F). Specifically, respondents who gambled on more than 5 days in the year prior to the survey were asked whether they had ever had any of the following gambling-related problems (among the list of diagnostic criteria outlined earlier):

- being increasingly preoccupied with gambling;
- needing to gamble with increased amounts of money to achieve the desired level of excitement;
- feeling restless or irritable when unable to gamble;
- gambling to escape from problems;
- going back to try to win back earlier gambling losses;
- lying to others about the extent of their gambling;
- having jeopardized or lost important relationships, a job, or career opportunities because of gambling; and
- borrowing money to relieve financial problems caused by gambling.

The survey questionnaire did not include items measuring the DSM-IV (1994) symptoms of (a) repeated unsuccessful attempts to control, cut down on, or stop gambling; and (b) commission of illegal acts to finance gambling. In particular, the latter symptom was likely to be rare among the general household population.

An affirmative answer to *at least one* of the eight items was considered to be indicative of *problem gambling* at some point in a person's life, but not necessarily pathological gambling. Answering affirmatively to *three or more* of the eight problem items was considered to indicate *probable pathological gambling* in the lifetime. The use of three items as the criterion for defining pathological gambling was based on guidance from Dr. H.R. Lesieur (personal communication, June 10, 1991), a noted expert on issues of pathological gambling (Feigelman, Wallisch, &

About 4% of the Maine adult household population had one or more lifetime gambling problems. Fewer than 1% of Maine adults could be considered probable pathological gamblers.

Among Maine adults who gambled on more than 5 days in the past year, 10% had one or more lifetime gambling problems, and 2% could be considered probable pathological gamblers.

Lesieur, 1998; Lesieur, 1989; Lesieur & Blume, 1987, 1991; Lesieur, Blume, & Zoppa, 1986).¹

Table 5.4 presents the prevalence of Maine adult household residents who had selected problems with gambling in their lifetime. Figure 5.4 presents summary information on the percentages of adults who had one or more lifetime problems or three or more problems. The data are broken out for the entire adult household population and for those who gambled on more than 5 days during the year before the survey.² About 4% of the total adult household population had ever had one or more gambling problems. The two problems most cited were "went back to try to win back money lost" (3.2%) and "increased preoccupation with gambling" (1.2%). Fewer than 1% of Maine adults had three or more gambling-related problems in their lifetimes.

Among those who gambled on more than 5 days in the past year, 10% had one or more problems, and 2% could be considered probable pathological gamblers, based on the occurrence of three or more gambling problems during their lifetime. Again, the two most common problems among this group of more frequent gamblers were "went back to try to win back money lost" (7.4%) and "increased preoccupation with gambling" (2.8%). Taken together, these findings from Table 5.4 suggest that rates of pathological gambling among Maine adults were low, even among adults who gambled on more than just a few days in the past year.

Figure 5.5 compares the occurrence of gambling-related problems according to how often Maine adults gambled in the year prior to the survey. (Supporting data for Figure 5.5 are shown in Table A.19 in Appendix A.) Adults who gambled once a month or less often in the year before the survey had lower rates of any lifetime gambling problems compared with adults who gambled more frequently. In particular, 14% of adults who gambled once a week or more often in the past year and about 10% of adults who gambled several days a month had at least one problem in the lifetime. However, rates of the occurrence of three or more problems (i.e., probable pathological gambling) were generally low among all groups. Although only 0.1% of adults who gambled 1 or 2 days a month in the past year had three or more gambling problems, this estimate did not differ significantly from the corresponding estimates for

¹As noted above, two of the DSM-IV (1994) symptoms of pathological gambling were not measured in the telephone interview. Therefore, requiring affirmative answers to five symptoms in order to identify a respondent as being a probable pathological gambler, as specified by DSM-IV (1994), would likely underestimate the prevalence of pathological gambling in Maine.

²Those respondents who gambled on 5 or fewer days in the past 12 months (including respondents who did not gamble at all in the past 12 months) were not asked the questions about lifetime gambling problems.

Table 5.4 Prevalence of Lifetime Gambling Problems Among Maine Adults: 1997

Gambling Problem	Total Adult Household Population¹	Gambled More Than 5 Days in Past Year²
Increased preoccupation with gambling	1.2	2.8
Needed to gamble with increased amounts of money to achieve desired level of excitement	0.9	2.1
Restless or irritable when unable to gamble	0.6	1.5
Gambled to escape from problems	0.5	1.3
Went back to try to win back money lost	3.2	7.4
Lied to others about extent of gambling	0.4	0.9
Jeopardized or lost important relationships, jobs, or career opportunities because of gambling	0.2	0.6
Someone provided money to relieve financial problems caused by gambling	0.2	0.5
One or more problems	4.2	9.8
Three or more problems³	0.8	1.8

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table 5.4SE in Appendix B.

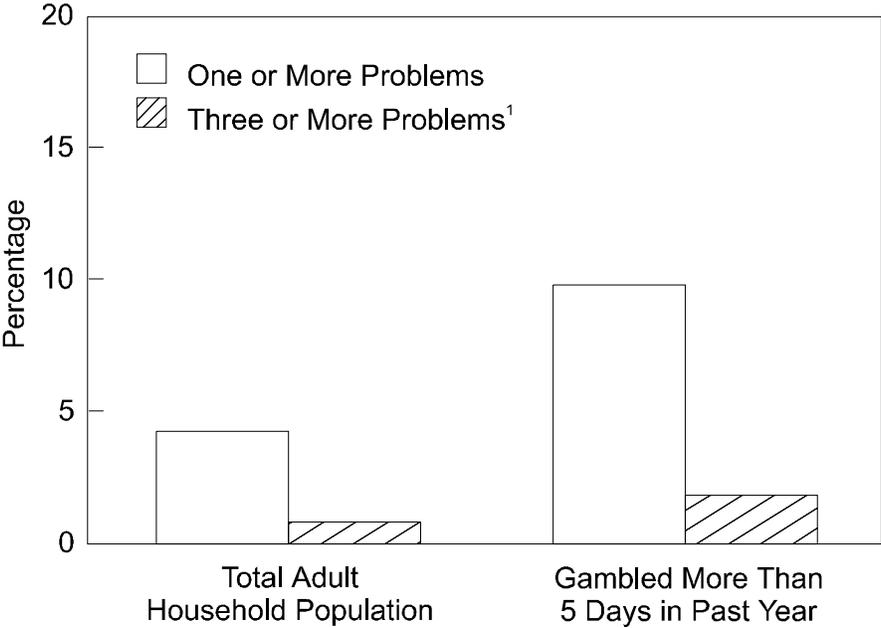
¹Based on a total sample size of 4,042 respondents. However, respondents who gambled 5 days or less in the past year ($n=2,328$) were not asked these questions.

²Based on a sample size of 1,714 respondents. This group also includes people who did not know how often they gambled or who refused to indicate how often they gambled in the past year.

³Occurrence of three or more problems indicates probable pathological gambling.

Source: Maine Household Telephone Survey: 1997.

Figure 5.4 Prevalence of Lifetime Gambling Problems Among Maine Adults: 1997

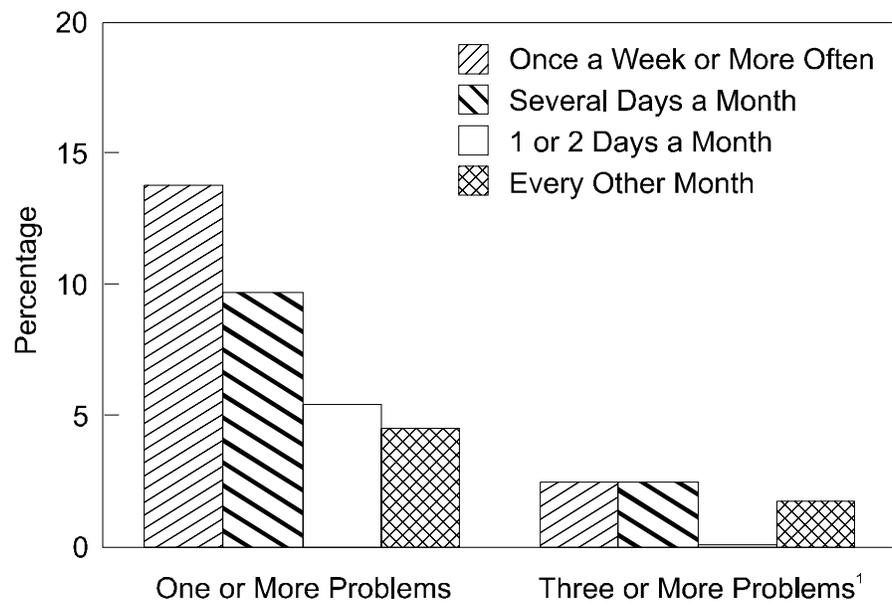


Note: Supporting data for Figure 5.4 are shown in Table 5.4.

¹Occurrence of three or more problems indicates probable pathological gambling.

Source: Maine Household Telephone Survey: 1997.

Figure 5.5 Frequency of Past Year Gambling Among Maine Adults, by Number of Lifetime Gambling Problems: 1997



Note: Supporting data for Figure 5.5 are shown in Table A.19 in Appendix A.

¹Report of three or more problems (described in Table 5.4) indicates probable pathological gambling.

Source: Maine Household Telephone Survey: 1997.

adults who gambled every other month, or even from the estimate for adults who gambled several days a month (see Table A.19SE in Appendix B). Likewise, the prevalence of three or more gambling problems among adults who gambled every other month in the past year did not differ significantly from the rates for other groups of adults who gambled more often in the past year.

5.3.2 Demographic Correlates of Pathological Gambling

As noted previously, probable pathological gambling was defined according to the occurrence of three or more of the gambling problems listed in Table 5.4 during one's lifetime. Table 5.5 presents the prevalence of probable pathological gambling among different demographic subgroups of Maine adults. Findings are presented for the household population as a whole and for adults who gambled on more than 5 days in the past year.

Pathological gambling was somewhat more prevalent among Maine adults aged 18 to 24 and adults who were single.

Both for the adult household population as a whole and for adults who gambled on more than 5 days in the past year, the prevalence of probable pathological gambling among single (i.e., never married) adults tended to be higher than the rates for married adults or for adults who were widowed, divorced, or separated. In particular, 6% of single adults who gambled on more than 5 days in the past year could be considered probable pathological gamblers, compared with fewer than 1% of corresponding adults who were married, widowed, divorced, or separated. In addition, about 7% of adults aged 18 to 24 who gambled on more than 5 days in the past year could be considered probable pathological gamblers, compared with about 1% to 2% of adults in other age groups. Although some other groups appeared to have higher rates of probable pathological gambling (e.g., nonwhites, people with less than a high school education), these higher rates could be attributed to sampling variability (see Table 5.5SE for the standard errors).

5.3.3 Pathological Gambling and Substance Use

About 2% to 3% of past year heavy alcohol users or illicit drug users in Maine were probable pathological gamblers.

To evaluate the extent to which pathological gambling and substance use were related in this population, the prevalence of pathological gambling among residents who drank heavily, used illicit drugs, or were in need of treatment for these substances was evaluated (see Table 5.6). About 12% of past year heavy alcohol users and 10% of illicit drug users in the adult household population had one or more lifetime gambling problems. Similarly, about 2% of past year heavy alcohol users and about 3% of past year illicit drug users were classified as probable pathological gamblers. These latter estimates translated to approximately 2,000 heavy alcohol users and about 2,000 illicit drug users who were also probable pathological gamblers. In comparison, about 1% of the total adult household population and 2% of adults who gambled on more than 5 days in the past year were identified as pathological gamblers (Tables

Table 5.5 Prevalence of Lifetime Pathological Gambling in the Maine Adult Household Population, by Selected Demographic Characteristics: 1997

Demographic Characteristic	Pathological Gambling ¹	
	Total Adult Household Population ²	Gambled More Than 5 Days in Past Year ³
Total Maine	0.8	1.8
DMHMRSAS Region⁴		
Region I	0.3	0.7
Region II	1.0	2.4
Region III	1.1	2.5
Gender		
Male	1.2	2.5
Female	0.4	1.0
Age (years)		
18-24	2.5	6.9
25-44	0.6	1.3
45-64	0.8	1.5
65 or older	0.2	0.5
Race/Ethnicity		
White	0.7	1.7
Nonwhite ⁵	2.0	5.1
Marital Status		
Single	2.3	6.2
Married	0.4	0.9
Living as married	1.7	3.1
Widowed/divorced/separated	0.3	0.7
Education		
Less than high school	1.2	3.0
High school	0.6	1.3
Some college	0.6	1.3
College graduate or higher	1.0	3.1
Current Employment		
Full-time	1.0	1.9
Part-time	1.4	3.4
Unemployed ⁶	**	**
Other ⁷	0.3	0.8

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table 5.5SE in Appendix B.

**Estimated percentage rounds to zero.

¹Report of three or more gambling problems (from Table 5.4).

²Based on a total sample size of 4,042 respondents. However, respondents who gambled 5 days or less in the past year (n=2,328) were not asked these questions.

³Based on a sample size of 1,714 respondents. This group also includes people who did not know how often they gambled or who refused to indicate how often they gambled in the past year.

⁴Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

⁵"Nonwhite" represents black, Hispanic, or "other" origin.

⁶Includes persons looking for work or not looking for work.

⁷Retired, disabled, homemaker, student, or "other."

Source: Maine Household Telephone Survey: 1997.

Table 5.6 Substance Use and Treatment Need in the Past Year, by Problem Gambling and Pathological Gambling: 1997

Measure	Problem Gambling ¹			Pathological Gambling ²		
	Percent	Number (Thousands)	95% CI ³	Percent	Number (Thousands)	95% CI ³
Heavy Alcohol Use ⁴	11.5	10	7 – 14	1.9	2	1 – 4
Any Illicit Drug Use ⁵	10.3	10	7 – 14	2.5	2	1 – 5
Need for Treatment for Alcohol or Other Drug Use⁶	13.6	10	8 – 14	3.1	2	1 – 5

Note: Data entries are percentages and numbers (in thousands) of individuals. Unweighted numbers of respondents are shown in Table 1.1, and standard errors for the percentages are shown in Table 5.6SE in Appendix B.

¹Report of one or more problems described in Table 5.4 indicates problem gambling.

²Report of three or more problems described in Table 5.4 indicates probable pathological gambling.

³The 95% CI = 95% confidence interval (in thousands) for the estimated numbers of people.

⁴For the past year, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period at least once a week or on 4 or more days in the past month. For the past month, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period on 4 or more days.

⁵Use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

⁶Definitions are given in Appendix E.

Source: Maine Household Telephone Survey: 1997.

5.4 and 5.5). Thus, the prevalence of pathological gambling was slightly greater among heavy alcohol users and illicit drug users compared with the adult household population as a whole, but was similar to the rate among adult household members who gambled on more than 5 days in the past year. These findings also indicate that the large majority of past year heavy alcohol users or illicit drug users did not have lifetime problems with gambling that were sufficiently serious to warrant the probable pathological gambler classification.

About 3% of Maine adults who needed substance abuse treatment were probable pathological gamblers.

Table 5.6 also presents findings on the prevalence of lifetime gambling problems, including probable pathological gambling, among adults who were considered to be in need of substance abuse treatment in the year prior to the 1997 survey. About 14% of these adults who were in need of treatment had one or more lifetime gambling problems, and 3% could be classified as probable pathological gamblers. This estimate translated to about 2,000 adults in need of substance abuse treatment who could also be considered probable pathological gamblers. These results suggest that the co-occurrence of the need for substance abuse treatment and probable pathological gambling were relatively rare among Maine adults.

5.4 Summary

This chapter reviewed the data on cigarette use among Maine adults and substance use and need for substance abuse treatment or intervention among women of childbearing age (and those who had been pregnant in the year before the survey). The chapter also examined gambling-related problems among adult Maine household residents.

Cigarette use was relatively common among these residents. Nearly one-third of Maine adults, or nearly 300,000 adults, smoked cigarettes in the year prior to the 1997 survey. Although men were somewhat more likely than women to have smoked in the past year, the difference in rates of smoking between men and women was not as great as the gender differences that were observed for heavy alcohol use and illicit drug use. Rates of cigarette use were particularly high among adults aged 18 to 24 and adults who were single (i.e., never married) or were living in a marriage-like relationship. Cigarette use was less prevalent among adults with a college education, compared with adults with less education.

Among women who were pregnant in the year before the 1997 survey, about 15% used illicit drugs in the past year, including 14% who used marijuana during this time period. In addition, about 6% of women who were pregnant in the past year had four or more drinks on a weekly or greater basis in the past year, 30% smoked cigarettes at some point in the past year, and 9% were current heavy smokers (defined as smoking a

pack or more of cigarettes a day). However, these results do not necessarily mean that these women used these substances during or throughout their pregnancies. Nevertheless, the findings that about 6% of these women drank heavily in the past year and about 9% were current heavy smokers suggest that a considerable number of these women may have continued to use alcohol or smoke cigarettes during at least part of their pregnancies.

About 8% of adult women who were pregnant in the year prior to the survey were identified as needing substance abuse treatment, and nearly one in four were identified as needing some form of treatment or intervention for their substance use. These estimates translated to about 2,000 pregnant women needing substance abuse treatment and about 6,000 pregnant women needing some form of intervention. Alcohol abuse accounted for much of this need. In particular, about one in five adult women in the Maine household population who were pregnant in the past year were identified as needing intervention because of their use of alcohol. Given the well-documented relationships between alcohol use during pregnancy and adverse developmental outcomes (e.g., fetal alcohol syndrome), this finding may be cause for concern.

With regard to gambling among Maine adults, rates of probable pathological gambling were relatively low. Fewer than 1% of adults in the overall household population and about 2% of adults who gambled on more than 5 days in the year prior to the survey were considered probable pathological gamblers, based on the lifetime occurrence of at least three out of eight possible gambling-related problems. About 3% of adults who were in need of substance abuse treatment also were identified as being probable pathological gamblers.

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Appendix A

Supplementary Tables

Table A.1 Percentages of Adult Alcohol Users in the Lifetime, Past Year, and Past Month in the Maine Adult Household Population, by DMHMRSAS Region: 1997

Alcohol Use/ DMHMRSAS Region ¹	Period of Use		
	Lifetime	Past Year	Past Month
Any Alcohol Use			
Total Maine	92.4	69.1	52.2
Region I	94.6	73.6	58.5
Region II	91.9	69.2	50.8
Region III	90.3	63.4	46.2
Heavy Alcohol Use²			
Total Maine	--	9.5	6.8
Region I	--	10.0	7.5
Region II	--	9.3	6.0
Region III	--	9.2	7.3

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table A.1SE in Appendix B. Corresponding graphics for the data in Table A.1 are shown as Figures 2.1 and 2.2 in Chapter 2.

--Not applicable.

¹Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

²For the past year, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period at least once a week or on 4 or more days in the past month. For the past month, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period on 4 or more days.

Source: Maine Household Telephone Survey: 1997.

Table A.2 Prevalence of Use of Illicit Drugs in the Lifetime, Past Year, and Past Month in the Maine Adult Household Population: 1997

Substance Used	Lifetime	Past Year	Past Month
Any Illicit Drug Use¹	32.87	10.32	5.73
Marijuana/hashish	32.12	10.04	5.57
Hallucinogens	8.05	0.98	0.28
Cocaine	7.76	0.89	0.11
Heroin/opiates	0.93	0.06	**
Nonmedical stimulants ²	6.50	0.95	0.42
Any Illicit Drug Use, Excluding Marijuana³	12.51	2.20	0.71
Any Core Illicit Drug Use⁴	32.43	10.14	5.61
Any Core Illicit Drug Use, Excluding Marijuana⁵	11.10	1.70	0.36

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table A.2SE in Appendix B. A corresponding graphic for the data in Table A.2 is shown as Figure 2.3 in Chapter 2.

**Estimated percentage rounds to zero.

¹Use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

²Use of stimulants to get high, for curiosity, to go along with friends, or use of prescription-type stimulants without a doctor's prescription.

³Use of hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

⁴Use of marijuana or hashish, hallucinogens, cocaine (including crack), or heroin/opiates at least once.

⁵Use of hallucinogens, cocaine (including crack), or heroin/opiates at least once.

Source: Maine Household Telephone Survey: 1997.

Table A.3 Prevalence of Specific Alcohol-Related Problems in the Past Year Among Males in the Maine Adult Household Population, by Age Group: 1997

Problem	Age Group				Total Males
	18-24	25-44	45-64	65 or Older	
Used larger amounts or for longer periods than intended	22.9	10.5	3.1	1.2	8.5
Unsuccessful attempts to quit, cut down, or control	4.7	4.0	1.7	0.8	2.9
Great deal of time using/getting over effects	4.7	2.6	1.0	**	2.0
Interference with work, school, or household responsibilities	6.5	2.1	0.1	0.2	1.8
Use in hazardous situations	10.0	4.4	0.8	**	3.4
Given up/reduced important activities	4.2	2.0	0.1	**	1.4
Continued use despite health problems	2.8	3.2	1.2	0.6	2.2
Continued use despite emotional problems	2.3	2.2	0.6	0.2	1.4
Developed tolerance	16.3	4.4	2.3	**	4.6
Had withdrawal symptoms	2.8	2.9	1.4	0.2	2.0
Used to prevent or relieve withdrawal symptoms	6.5	2.9	1.3	0.2	2.5

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table A.3SE in Appendix B.

**Estimated percentage rounds to zero.

Source: Maine Household Telephone Survey: 1997.

Table A.4 Prevalence of Specific Alcohol-Related Problems in the Past Year Among Females in the Maine Adult Household Population, by Age Group: 1997

Problem	Age Group				Total Females
	18-24	25-44	45-64	65 or Older	
Used larger amounts or for longer periods than intended	13.7	4.0	2.1	**	3.8
Unsuccessful attempts to quit, cut down, or control	3.3	2.0	1.4	**	1.6
Great deal of time using/getting over effects	1.2	0.7	0.6	**	0.6
Interference with work, school, or household responsibilities	4.5	0.9	0.7	**	1.1
Use in hazardous situations	4.9	0.9	0.7	**	1.1
Given up/reduced important activities	1.7	0.5	0.4	**	0.5
Continued use despite health problems	1.4	1.0	1.0	**	0.8
Continued use despite emotional problems	2.3	1.3	1.2	**	1.1
Developed tolerance	10.9	2.1	0.8	0.3	2.4
Had withdrawal symptoms	1.4	1.6	0.8	**	1.0
Used to prevent or relieve withdrawal symptoms	1.9	1.1	0.4	**	0.8

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table A.4SE in Appendix B.

**Estimated percentage rounds to zero.

Source: Maine Household Telephone Survey: 1997.

Table A.5 Prevalence of Specific Illicit Drug-Related Problems in the Past Year Among Adult Males in the Maine Adult Household Population, by Age Group: 1997

Problem²	Age Group¹			Total Males
	18-24	25-44	45-64	
Used larger amounts or for longer periods than intended	5.5	2.3	**	1.7
Unsuccessful attempts to quit, cut down, or control	2.8	1.5	**	1.0
Great deal of time using/getting over effects	4.4	1.5	**	1.2
Interference with work, school, or household responsibilities	7.4	2.9	0.2	2.3
Use in hazardous situations	7.0	1.5	**	1.6
Given up/reduced important activities	3.8	1.0	0.2	1.0
Continued use despite health problems	2.3	0.2	**	0.4
Continued use despite emotional problems	3.5	1.3	**	1.0
Developed tolerance	8.2	2.0	**	1.9
Had withdrawal symptoms	5.5	1.8	0.1	1.5
Used to prevent or relieve withdrawal symptoms	1.0	0.4	**	0.3

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table A.5SE in Appendix B.

**Estimated percentage rounds to zero.

¹Estimates are not shown for males aged 65 or older because of low rates of illicit drug use among this group.

²Problems related to use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants.

Source: Maine Household Telephone Survey: 1997.

Table A.6 Prevalence of Specific Illicit Drug-Related Problems in the Past Year Among Females in the Maine Adult Household Population, by Age Group: 1997

Problem ²	Age Group ¹			Total Females
	18-24	25-44	45-64	
Used larger amounts or for longer periods than intended	3.6	0.7	0.1	0.8
Unsuccessful attempts to quit, cut down, or control	1.8	0.4	**	0.4
Great deal of time using/getting over effects	2.6	0.3	0.1	0.4
Interference with work, school, or household responsibilities	4.6	0.3	**	0.6
Use in hazardous situations	1.7	0.3	**	0.3
Given up/reduced important activities	1.5	0.1	**	0.2
Continued use despite health problems	0.5	0.1	**	0.1
Continued use despite emotional problems	3.5	0.8	**	0.7
Developed tolerance	2.7	0.3	0.1	0.5
Had withdrawal symptoms	2.7	0.5	**	0.5
Used to prevent or relieve withdrawal symptoms	0.9	0.2	0.3	0.3

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table A.6SE in Appendix B.

**Estimated percentage rounds to zero.

¹Estimates are not shown for females aged 65 or older because of low rates of illicit drug use among this group.

²Problems related to use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants.

Source: Maine Household Telephone Survey: 1997.

Table A.7 Prevalence of Dependence or Abuse in the Lifetime and Past Year in the Maine Adult Household Population, by Drug: 1997

Drug	Problem/Period			
	Dependence		Abuse	
	Lifetime ¹	Past Year ²	Lifetime ³	Past Year ⁴
Alcohol	9.40	3.78	3.83	1.14
Marijuana	2.88	1.38	0.52	0.34
Hallucinogens	0.54	0.08	0.05	0.05
Cocaine	1.21	0.13	0.05	**
Heroin/Opiates	0.20	0.02	**	**
Stimulants	0.62	0.11	0.11	0.02

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table A.7SE in Appendix B. A corresponding graphic for the data in Table A.7 is shown as Figure 3.1 in Chapter 3.

**Estimated percentage rounds to zero.

¹As diagnosed by the DSM-III-R (1987), experienced three or more symptoms of dependence on a given drug in the lifetime. Some of these symptoms persisted for a month or more, or occurred repeatedly over a longer period of time.

²Met lifetime DSM-III-R (1987) criteria for dependence on a given drug, used the drug in the past 12 months, and had one or more symptoms of dependence on that drug in the past 12 months.

³As diagnosed by the DSM-III-R (1987), never had a lifetime diagnosis of dependence on a given drug but continued to use that drug despite adverse consequences, or continued to use that drug in hazardous situations. Some of these symptoms persisted for a month or more, or occurred repeatedly over a longer period of time.

⁴Met lifetime DSM-III-R (1987) criteria for abuse of a given drug, used the drug in the past 12 months, and had one or more symptoms of abuse for that drug in the past 12 months.

Source: Maine Household Telephone Survey: 1997.

Table A.8 Percentages of the Maine Adult Household Population and Adults Under 21 in Need of Alcohol or Illicit Drug Use Treatment or Intervention in the Past Year: 1997

Treatment or Intervention Need/Group	Percentage
Any Need for Treatment¹	
All Adults	
Alcohol or illicit drugs	8.07
Alcohol	7.03
Any illicit drugs ²	1.97
Adults Under 21	
Alcohol or illicit drugs	19.67
Alcohol	14.84
Any illicit drugs	9.80
Any Need for Treatment or Intervention³	
All Adults	
Alcohol or illicit drugs	20.78
Alcohol	18.74
Any illicit drugs ²	4.59
Adults Under 21	
Alcohol or illicit drugs	46.25
Alcohol	40.55
Any illicit drugs	19.19

Note: A corresponding graphic for the data in Table A.8 is shown as Figure 3.2 in Chapter 3. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table A.8SE in Appendix B.

¹Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

²Marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or stimulants.

³Includes people in need of treatment, as defined above. Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment or intervention” was defined.

Source: Maine Household Telephone Survey: 1997.

Table A.8a Percentages and Estimated Numbers of the Maine Adult Household Population in Need of Alcohol or Illicit Drug Use Treatment or Intervention in the Past Year, by Race/Ethnicity: 1997

Treatment or Intervention Need/Group	Percentage	Number	95% CI
Any Need for Treatment¹			
White			
Alcohol or illicit drugs	7.81	69,700	62,200 – 78,000
Alcohol	6.93	61,800	54,800 – 69,600
Any illicit drugs ²	1.70	15,200	11,800 – 19,600
Native American			
Alcohol or illicit drugs	14.04	2,200	1,100 – 4,200
Alcohol	6.08	1,000	400 – 2,400
Any illicit drugs ²	11.41	1,800	800 – 3,800
Other nonwhite			
Alcohol or illicit drugs	12.79	3,700	2,200 – 6,000
Alcohol	10.88	3,200	1,900 – 5,200
Any illicit drugs ²	5.00	1,500	600 – 3,600
Any Need for Treatment or Intervention³			
White			
Alcohol or illicit drugs	20.61	18,3900	171,900 – 196,500
Alcohol	18.75	16,7200	155,700 – 179,400
Any illicit drugs ²	4.37	39,000	33,400 – 45,400
Native American			
Alcohol or illicit drugs	25.85	4,100	2,500 – 6,100
Alcohol	16.93	2,700	1,500 – 4,400
Any illicit drugs ²	12.70	2,000	900 – 4,000
Other nonwhite			
Alcohol or illicit drugs	23.19	6,700	4,800 – 9,200
Alcohol	19.65	5,700	4,000 – 8,000
Any illicit drugs ²	7.02	2,000	1,000 – 4,200

Note: A corresponding graphic for the data in Table A.8a is shown as [Figure 3.2](#) in Chapter 3. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table A.8aSE in Appendix B.

¹Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

²Marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or stimulants.

³Includes people in need of treatment, as defined above. Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment or intervention” was defined.

Source: Maine Household Telephone Survey: 1997.

Table A.9 Past Year Prevalence of Maine Adults in Need of Treatment, by Gender and Age Group: 1997

Age Group	Gender				Total	
	Male		Female		Percentage	95% CI
	Percentage	95% CI	Percentage	95% CI		
18-24	26.61	20.62 – 33.60	13.88	9.94 – 19.05	20.26	16.55 – 24.56
25-44	15.33	13.03 – 17.96	4.85	3.76 – 6.22	10.05	8.74 – 11.52
45-64	6.65	4.71 – 9.32	2.62	1.41– 4.83	4.60	3.39 – 6.21
65 or Older	1.58	0.62 – 3.99	0.27	0.02 – 2.91	0.80	0.31 – 2.08
Total	12.14	10.68 – 13.79	4.33	3.54 – 5.29	8.07	7.23 – 9.00

Note: A corresponding graphic for the data in Table A.9 is shown as Figure 3.3 in Chapter 3. Total includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined. Appendix B does not include a corresponding standard error table for this table because the 95% confidence intervals shown here indicate the precision of these estimates. The 95% CI = 95% confidence interval for the estimate.

Source: Maine Household Telephone Survey: 1997.

Table A.10 Past Year Prevalence and Estimated Number of Maine Adults in Need of Treatment Due to Alcohol Dependence, by Gender and Age Group: 1997

Age Group/CI	Gender			
	Male		Female	
	Percentage	Number ¹	Percentage	Number ¹
18-24	15.30	8,700	6.69	3,800
95% CI, lower limit	10.71	6,100	4.06	2,300
95% CI, upper limit	21.40	12,100	10.82	6,100
25-44	8.50	16,500	3.18	6,300
95% CI, lower limit	6.77	13,200	2.30	4,600
95% CI, upper limit	10.61	20,600	4.39	8,700
45-64	3.68	4,700	1.38	1,800
95% CI, lower limit	2.30	2,900	0.60	800
95% CI, upper limit	5.82	7,400	3.18	4,200
65 or Older	0.59	400	**	**
95% CI, lower limit	0.13	100	**	**
95% CI, upper limit	2.71	1,900	**	**
Total	6.75	30,300	2.44	11,900
95% CI, lower limit	5.65	25,300	1.86	9,100
95% CI, upper limit	8.05	36,100	3.18	15,500

Note: Estimates were based on people who (a) met lifetime DSM-III-R (1987) criteria for alcohol dependence, (b) used alcohol in the past 12 months, and (c) had one or more symptoms of alcohol dependence in the past 12 months (see Appendix E). A corresponding standard error table is not included for Table A.10 because the 95% confidence intervals shown here indicate the precision of these estimates. The 95% CI = 95% confidence interval for the estimate.

**Estimate rounds to zero (for percentages), or to fewer than 100 people (for estimated numbers of people).

¹Estimated number of people rounded to the nearest hundred.

Source: Maine Household Telephone Survey: 1997.

Table A.11 Past Year Prevalence and Estimated Number of Maine Adults in Need of Treatment Due to Alcohol Abuse, by Gender and Age Group: 1997

Age Group/CI	Gender			
	Male		Female	
	Percentage	Number ¹	Percentage	Number ¹
18-24	6.42	3,600	4.16	2,300
95% CI, lower limit	3.65	2,100	2.22	1,300
95% CI, upper limit	11.04	6,200	7.65	4,300
25-44	2.46	4,800	0.26	500
95% CI, lower limit	1.56	3,000	0.09	200
95% CI, upper limit	3.84	7,500	0.78	1,500
45-64	0.65	800	0.14	200
95% CI, lower limit	0.22	300	0.01	**
95% CI, upper limit	1.87	2,400	1.95	2,600
65 or Older	**	**	**	**
95% CI, lower limit	**	**	**	**
95% CI, upper limit	**	**	**	**
Total	2.06	9,200	0.62	3,000
95% CI, lower limit	1.48	6,600	0.37	1,800
95% CI, upper limit	2.87	12,900	1.06	5,200

Note: Estimates were based on people who (a) met lifetime DSM-III-R (1987) criteria for alcohol abuse, (b) used alcohol in the past 12 months, and (c) had one or more symptoms of alcohol abuse in the past 12 months (see Appendix E). A corresponding standard error table is not included for Table A.11 because the 95% confidence intervals shown here indicate the precision of these estimates. The 95% CI = 95% confidence interval for the estimate.

**Estimate rounds to zero (for percentages), or to fewer than 100 people (for estimated numbers of people).

¹Estimated number of people rounded to the nearest hundred.

Source: Maine Household Telephone Survey: 1997.

Table A.12 Percentages and Estimated Numbers of the Region I Adult Household Population in Need of Alcohol or Illicit Drug Use Treatment in the Past Year, by Gender and Age Group: 1997

Age Group/CI	Gender				Total Region I ¹	
	Male		Female		Percentage	Number ²
	Percentage	Number ²	Percentage	Number ²		
18-24	27.64	5,100	19.30	3,600	23.45	8,700
95% CI, lower limit	17.68	3,300	11.24	2,100	16.70	6,200
95% CI, upper limit	40.45	7,500	31.11	5,800	31.89	11,800
25-44	15.85	11,000	5.16	3,700	10.43	14,700
95% CI, lower limit	12.07	8,400	3.45	2,500	8.30	11,700
95% CI, upper limit	20.53	14,200	7.64	5,500	13.03	18,300
45-64	8.05	3,300	4.35	1,900	6.16	5,200
95% CI, lower limit	4.30	1,800	1.86	800	3.73	3,200
95% CI, upper limit	14.58	6,000	9.82	4,300	10.00	8,500
65 or Older	1.31	300	**	**	0.52	300
95% CI, lower limit	0.18	**	**	**	0.06	**
95% CI, upper limit	8.70	1,900	**	**	4.29	2,400
Total	13.04	19,700	5.49	9,100	9.08	28,800
95% CI, lower limit	10.46	15,800	3.99	6,600	7.56	24,000
95% CI, upper limit	16.15	24,400	7.51	12,500	10.87	34,500

Note: Definitions of need for treatment are given in Appendix E. A corresponding standard error table is not included for Table A.12 because the 95% confidence intervals shown here indicate the precision of these estimates. The 95% CI = 95% confidence interval for the estimate.

**Estimate rounds to zero (for percentages), or to fewer than 100 people (for estimated numbers of people).

¹Region I includes York and Cumberland Counties.

²Estimated number of people rounded to the nearest hundred.

Source: Maine Household Telephone Survey: 1997.

Table A.13 Percentages and Estimated Numbers of the Region II Adult Household Population in Need of Alcohol or Illicit Drug Use Treatment in the Past Year, by Gender and Age Group: 1997

Age Group/CI	Gender				Total Region II ¹	
	Male		Female		Percentage	Number ²
	Percentage	Number ²	Percentage	Number ²		
18-24	22.03	4,800	15.20	3,300	18.61	8,200
95% CI, lower limit	13.92	3,000	9.40	2,100	13.37	5,900
95% CI, upper limit	33.06	7,200	23.65	5,200	25.29	11,100
25-44	15.58	11,800	5.97	4,600	10.75	16,300
95% CI, lower limit	11.93	9,000	4.10	3,100	8.62	13,100
95% CI, upper limit	20.10	15,200	8.63	6,600	13.33	20,200
45-64	5.63	2,900	1.06	600	3.30	3,500
95% CI, lower limit	3.28	1,700	0.24	100	1.92	2,000
95% CI, upper limit	9.48	4,900	4.64	2,500	5.62	5,900
65 or Older	1.44	400	**	**	0.59	400
95% CI, lower limit	0.31	100	**	**	0.10	100
95% CI, upper limit	6.34	1,800	**	**	3.35	2,300
Total	11.21	19,900	4.39	8,500	7.66	28,300
95% CI, lower limit	9.06	16,100	3.21	6,200	6.42	23,800
95% CI, upper limit	13.78	24,400	5.99	11,500	9.11	33,700

Note: Definitions of need for treatment are given in Appendix E.. A corresponding standard error table is not included for Table A.13 because the 95% confidence intervals shown here indicate the precision of these estimates. The 95% CI = 95% confidence interval for the estimate.

**Estimate rounds to zero (for percentages), or to fewer than 100 people (for estimated numbers of people).

¹Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties.

²Estimated number of people rounded to the nearest hundred.

Source: Maine Household Telephone Survey: 1997.

Table A.14 Percentages and Estimated Numbers of the Region III Adult Household Population in Need of Alcohol or Illicit Drug Use Treatment in the Past Year, by Gender and Age Group: 1997

Age Group/CI	Gender				Total Region III ¹	
	Male		Female		Percentage	Number ²
	Percentage	Number ²	Percentage	Number ²		
18-24	31.58	5,100	5.68	900	18.83	6,000
95% CI, lower limit	20.16	3,300	2.26	400	12.48	4,000
95% CI, upper limit	45.77	7,500	13.58	2,100	27.41	8,800
25-44	14.23	7,100	2.68	1,300	8.44	8,400
95% CI, lower limit	10.31	5,100	1.35	700	6.28	6,300
95% CI, upper limit	19.31	9,600	5.23	2,600	11.24	11,200
45-64	6.51	2,200	2.87	1,000	4.66	3,300
95% CI, lower limit	3.45	1,200	0.85	300	2.64	1,900
95% CI, upper limit	11.94	4,100	9.27	3,300	8.09	5,700
65 or Older	2.11	400	1.00	300	1.46	700
95% CI, lower limit	0.46	100	0.10	**	0.39	200
95% CI, upper limit	9.17	1,800	9.33	2,600	5.33	2,500
Total	12.40	14,900	2.74	3,500	7.40	18,400
95% CI, lower limit	9.72	11,700	1.65	2,100	5.92	14,700
95% CI, upper limit	15.70	18,900	4.52	5,800	9.21	23,000

Note: Definitions of need for treatment are given in Appendix E. A corresponding standard error table is not included for Table A.14 because the 95% confidence intervals shown here indicate the precision of these estimates. The 95% CI = 95% confidence interval for the estimate.

**Estimate rounds to zero (for percentages), or to fewer than 100 people (for estimated numbers of people).

¹Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

²Estimated number of people rounded to the nearest hundred.

Source: Maine Household Telephone Survey: 1997.

Table A.15 Past Year Prevalence of Maine Adults in Need of Treatment or Intervention, by Gender and Age Group: 1997

Age Group (Years)	Gender				Total	
	Male		Female			
	Number ¹	95% CI	Number ¹	95% CI	Number ^{1,2}	95% CI
18-24	55.75	48.19 – 63.05	42.88	36.46 – 49.54	49.33	44.34 – 54.33
25-44	34.93	31.76 – 38.24	16.29	14.28 – 18.53	25.54	23.61 – 27.57
45-64	16.66	13.45 – 20.46	7.22	4.92 – 10.46	11.85	9.78 – 14.27
65 or Older	7.52	4.88 – 11.43	2.75	1.15 – 6.41	4.69	3.10 – 7.04
Total	28.09	25.99 – 30.30	14.07	12.57 – 15.71	20.78	19.46 – 22.16

Note: Definitions of need for treatment or intervention are given in Appendix E. Total includes people in need of treatment (see Appendix E). Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months, as defined in Appendix E. Appendix B does not include a corresponding standard error table for this table because the 95% confidence intervals shown here indicate the precision of these estimates. The 95% CI = 95% confidence interval for the estimate.

Source: Maine Household Telephone Survey: 1997.

Table A.16 Demographic and Substance Use Correlates of Health Perceptions Among the Maine Adult Household Population: 1997

Characteristic	Perception of Physical Health ¹	Perception of Mental Health ²
Age (years)		
18-44	0.30 ^a (0.23 - 0.38)	0.73 ^a (0.55 - 0.97)
45-64	0.86 (0.65 - 1.13)	1.02 (0.75 - 1.40)
65 or older	1.00 (--)	1.00 (--)
Gender		
Male	0.96 (0.79 - 1.15)	0.81 ^a (0.68 - 0.97)
Female	1.00 (--)	1.00 (--)
Race/Ethnicity		
Nonwhite	1.24 (0.83 - 1.86)	1.91 ^a (1.34 - 2.72)
White	1.00 (--)	1.00 (--)
Income		
No income information provided	2.12 ^a (1.47 - 3.06)	1.98 ^a (1.38 - 2.84)
Less than \$20,000	3.02 ^a (2.33 - 3.91)	2.27 ^a (1.78 - 2.89)
\$20,000-\$39,999	1.23 (0.94 - 1.60)	1.32 ^a (1.04 - 1.67)
\$40,000 or more	1.00 (--)	1.00 (--)
Cigarette Use		
Current heavy use ³	1.73 ^a (1.35 - 2.21)	1.87 ^a (1.49 - 2.34)
Current nonheavy use ⁴	0.98 (0.71 - 1.35)	1.15 (0.88 - 1.51)
Use in past 12 months, but not currently	0.98 (0.65 - 1.48)	1.13 (0.78 - 1.62)
No use in past 12 months	1.00 (--)	1.00 (--)
Alcohol Use		
Any frequent heavy use, past 12 months ⁵	1.08 (0.66 - 1.76)	1.49 (0.91 - 2.44)
No frequent heavy use, past 12 months ⁶	0.93 (0.64 - 1.36)	1.19 (0.78 - 1.82)
Lifetime use ⁷	1.57 ^a (1.06 - 2.31)	1.36 (0.89 - 2.09)
Lifetime nonuse	1.00 (--)	1.00 (--)
Illicit Drug Use		
Any use in past 12 months	1.20 (0.86 - 1.66)	2.43 ^a (1.84 - 3.20)
Lifetime use ⁸	1.28 ^a (1.01 - 1.62)	1.56 ^a (1.26 - 1.92)
Lifetime nonuse	1.00 (--)	1.00 (--)

Note: Data entries are expressed as odds ratios relative to a given reference group (with lower and upper limits of the 95% confidence intervals in parentheses). Reference groups have odds ratios of 1.00. No standard error table appears in Appendix B for this table because the confidence intervals define the variation in estimates.

-- Not applicable.

^aSignificantly different from the reference group at the 95% confidence level.

¹People who described their physical health as fair or poor.

²People who described their mental health as fair or poor.

³Current smoker, and smoke a pack or more of cigarettes a day.

⁴Current smoker, and smoke less than a pack of cigarettes a day.

⁵For the past year, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period at least once a week.

⁶Consumed alcohol in the past 12 months, but not at the level defined in footnote 5.

⁷Used alcohol at least once in the lifetime, but not in the past 12 months.

⁸Used illicit drugs at least once in the lifetime, but not in the past 12 months.

Source: Maine Household Telephone Survey: 1997.

Table A.17 Demographic and Substance Use Correlates of Specific Medical Problems in the Past Year Among the Maine Adult Household Population: 1997

Characteristic	Hypertension	Heart Problems	Respiratory Problems	Digestive System Problems
Age (years)				
18-44	0.15 ^a (0.11 - 0.20)	0.12 ^a (0.08 - 0.19)	0.83 (0.62 - 1.09)	0.91 (0.59 - 1.40)
45-64	0.60 ^a (0.45 - 0.79)	0.54 ^a (0.34 - 0.83)	0.88 (0.65 - 1.21)	1.71 ^a (1.08 - 2.73)
65 or older	1.00 (--)	1.00 (--)	1.00 (--)	1.00 (--)
Gender				
Male	1.00 (0.81 - 1.23)	1.71 ^a (1.20 - 2.44)	0.68 ^a (0.57 - 0.82)	0.89 (0.67 - 1.18)
Female	1.00 (--)	1.00 (--)	1.00 (--)	1.00 (--)
Race/Ethnicity				
Nonwhite	0.79 (0.49 - 1.29)	0.72 (0.32 - 1.63)	1.02 (0.68 - 1.53)	1.30 (0.77 - 2.21)
White	1.00 (--)	1.00 (--)	1.00 (--)	1.00 (--)
Income				
No income information provided	1.58 ^a (1.06 - 2.35)	1.59 (0.78 - 3.25)	1.23 (0.83 - 1.81)	1.58 (0.87 - 2.88)
Less than \$20,000	1.54 ^a (1.15 - 2.07)	2.59 ^a (1.55 - 4.31)	1.73 ^a (1.36 - 2.20)	2.64 ^a (1.76 - 3.95)
\$20,000-\$39,999	1.10 (0.82 - 1.47)	1.30 (0.75 - 2.28)	1.00 (0.78 - 1.27)	1.29 (0.85 - 1.97)
\$40,000 or more	1.00 (--)	1.00 (--)	1.00 (--)	1.00 (--)
Cigarette Use				
Current heavy use ¹	0.96 (0.69 - 1.33)	1.05 (0.62 - 1.78)	1.51 ^a (1.18 - 1.95)	1.70 ^a (1.21 - 2.40)
Current nonheavy use ²	0.61 ^a (0.40 - 0.92)	0.88 (0.44 - 1.74)	0.78 (0.56 - 1.09)	0.86 (0.53 - 1.41)
Use in past 12 months, but not currently	1.30 (0.83 - 2.01)	0.89 (0.36 - 2.15)	1.20 (0.82 - 1.75)	0.92 (0.51 - 1.64)
No use in past 12 months	1.00 (--)	1.00 (--)	1.00 (--)	1.00 (--)

See notes at end of table.

Table A.17 (continued)

Characteristic	Hypertension	Heart Problems	Respiratory Problems	Digestive System Problems
Alcohol Use				
Any frequent heavy use, past 12 months ³	1.54 (0.90 - 2.65)	0.28 ^a (0.11 - 0.67)	0.77 (0.47 - 1.27)	0.69 (0.33 - 1.44)
No frequent heavy use, past 12 months ⁴	0.89 (0.59 - 1.34)	0.43 ^a (0.24 - 0.78)	0.90 (0.61 - 1.33)	0.80 (0.44 - 1.45)
Lifetime use ⁵	1.05 (0.69 - 1.61)	0.87 (0.47 - 1.60)	1.15 (0.77 - 1.73)	1.23 (0.67 - 2.27)
Lifetime nonuse	1.00 (--)	1.00 (--)	1.00 (--)	1.00 (--)
Illicit Drug Use				
Any use in past 12 months	0.72 (0.47 - 1.10)	1.44 (0.73 - 2.83)	1.76 ^a (1.29 - 2.39)	1.36 (0.85 - 2.17)
Lifetime use ⁶	0.81 (0.61 - 1.07)	1.08 (0.64 - 1.84)	1.36 ^a (1.09 - 1.71)	1.58 ^a (1.11 - 2.25)
Lifetime nonuse	1.00 (--)	1.00 (--)	1.00 (--)	1.00 (--)

Note: Data entries are expressed as odds ratios relative to a given reference group (with lower and upper limits of the 95% confidence intervals in parentheses). Reference groups have odds ratios of 1.00. No standard error table for this table appears in Appendix B because the confidence intervals define the variation in estimates.

-- Not applicable.

^aSignificantly different from the reference group at the 95% confidence level.

¹Current smoker, and smoke a pack or more of cigarettes a day.

²Current smoker, and smoke less than a pack of cigarettes a day.

³For the past year, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period at least once a week.

⁴Consumed alcohol in the past 12 months, but not at the level defined in footnote 3.

⁵Used alcohol at least once in the lifetime, but not in the past 12 months.

⁶Used illicit drugs at least once in the lifetime, but not in the past 12 months.

Source: Maine Household Telephone Survey: 1997.

Table A.18 Percentages of Maine Adult Women Pregnant in the Past Year Who Were in Need of Alcohol or Illicit Drug Treatment or Intervention: 1997

Measure	Percentage
In Need of Treatment¹	
Alcohol or illicit drugs	7.7
Alcohol	5.9
Any illicit drugs ²	2.6
In Need of Treatment or Intervention³	
Alcohol or illicit drugs	24.3
Alcohol	20.1
Any illicit drugs ²	6.1

Note: Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table A.18SE in Appendix B. A corresponding graphic of the data in Table A.18 is shown as Figure 5.3 in Chapter 5.

¹Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

²Marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or stimulants.

³Includes people in need of treatment, as defined above. Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment or intervention” was defined.

Source: Maine Household Telephone Survey: 1997.

Table A.19 Frequency of Past Year Gambling Among Maine Adults, by Number of Lifetime Gambling Problems: 1997

Frequency of Gambling, Past Year	Lifetime Gambling Problems	
	One or More Problems	Three or More Problems ¹
Once a Week or More Often	13.8	2.5
Several Days a Month	9.7	2.5
1 or 2 Days a Month	5.4	0.1
Every Other Month	4.5	1.7

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1, and standard errors are shown in Table A.19SE in Appendix B. A corresponding graphic of the data in Table A.19 is shown as Figure 5.5 in Chapter 5.

¹Report of three or more problems (described in Table 5.4) indicates probable pathological gambling.

Source: Maine Household Telephone Survey: 1997.

Appendix B

Standard Error Tables

Table 2.2SE Standard Errors for Table 2.2: Prevalence of Heavy Alcohol Use in the Past Year and Past Month in the Maine Adult Household Population, by Selected Demographic Characteristics: 1997

Demographic Characteristic	Period of Use ¹	
	Past Year	Past Month
Total Maine	0.5	0.4
Gender		
Male	0.9	0.8
Female	0.5	0.4
Age (years)		
18-24	2.1	2.0
18-20	2.7	2.5
21-24	3.3	3.1
25-44	0.7	0.6
45-64	0.9	0.8
65 or older	0.9	0.7
Race/Ethnicity		
White	0.5	0.5
Native American	3.4	3.0
Other nonwhite ²	2.7	2.2
Marital Status		
Single	1.8	1.7
Married	0.6	0.5
Living as married	2.1	1.8
Widowed/divorced/ separated	1.1	0.9
Education		
Less than high school	1.7	1.4
High school	0.8	0.7
Some college	1.1	1.0
College graduate or higher	0.9	0.8
Current Employment		
Full-time	0.7	0.6
Part-time	1.3	1.2
Unemployed ³	4.5	3.3
Other ⁴	0.9	0.8

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

¹For the past year, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period at least once a week or on 4 or more days in the past month. For the past month, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period on 4 or more days.

²"Other nonwhite" represents black, Hispanic, or "other" origin (not including Native Americans).

³Includes persons looking for work or not looking for work.

⁴Retired, disabled, homemaker, student, or "other."

Source: Maine Household Telephone Survey: 1997.

Table 2.4SE Standard Errors for Table 2.4: Prevalence of Illicit Drug Use in the Past Year in the Maine Adult Household Population, by Selected Demographic Characteristics: 1997

Demographic Characteristic	Prevalence¹
Total Maine	0.5
DMHMRSAS Region²	
Region I	1.0
Region II	0.8
Region III	0.9
Gender	
Male	0.8
Female	0.6
Age (years)	
18-24	2.5
18-20	3.6
21-24	3.3
25-44	0.8
45-64	0.6
65 or older	0.3
Race/Ethnicity	
White	0.5
Native American	5.6
Other nonwhite ³	3.1
Marital Status	
Single	2.0
Married	0.5
Living as married	2.4
Widowed/divorced/separated	0.8
Education	
Less than high school	1.7
High school	0.8
Some college	1.1
College graduate or higher	0.9
Current Employment	
Full-time	0.7
Part-time	1.7
Unemployed ⁴	4.5
Other ⁵	0.8

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

¹Use of marijuana or hashish, hallucinogens, cocaine (including crack), or heroin/opiates, or nonmedical use of stimulants at least once.

²Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

³“Other nonwhite” represents black, Hispanic, and “other” origin (not including Native Americans).

⁴Includes persons looking for work or not looking for work.

⁵Retired, disabled, homemaker, student, or “other.”

Source: Maine Household Telephone Survey: 1997.

Table 2.5SE Standard Errors for Table 2.5: Past Year Substance Use in the Maine Adult Household Population, by Gender and Selected Demographic Groups: 1997

Demographic Group	Heavy Alcohol Use, Past Year ¹		Any Illicit Drugs, Past Year ²	
	Male	Female	Male	Female
Age (years)				
18-24	3.5	2.3	3.8	3.2
18-20	4.2	3.1	5.0	5.0
21-24	5.5	3.3	5.5	3.6
25-44	1.3	0.7	1.3	0.8
45-64	1.5	0.8	1.0	0.8
65 or older	1.5	1.2	0.6	**
Race/Ethnicity				
White	0.9	0.5	0.8	0.6
Native American	5.3	*	8.0	*
Other nonwhite ³	4.4	3.1	5.4	2.5
Marital Status				
Single	2.8	1.9	2.9	2.7
Married	0.9	0.5	0.7	0.6
Living as married	3.6	2.1	3.9	2.9
Widowed/divorced/ separated	3.0	1.1	2.7	0.7
Current Employment				
Full-time	1.1	0.7	1.0	0.9
Part-time	3.3	1.2	3.4	1.9
Unemployed ⁴	7.9	3.9	7.4	5.2
Other ⁵	1.8	0.9	1.7	0.7

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

*Low precision; no estimate reported.

**Corresponding estimated percentage rounds to zero.

¹For the past year, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period at least once a week or on 4 or more days in the past month.

²Use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

³“Other nonwhite” represents black, Hispanic, and “other” origin (not including Native Americans).

⁴Includes persons looking for work or not looking for work.

⁵Retired, disabled, homemaker, student, or “other.”

Source: Maine Household Telephone Survey: 1997.

Table 2.6SE Standard Errors for Table 2.6: Prevalence of Multiple Substance Use in the Past Year in the Maine Adult Household Population, by DMHMRSAS Region and Gender: 1997

	Multiple Substance Use		
	Heavy Alcohol and at Least One Drug ¹	More Than One Drug ²	Heavy Alcohol and More Than One Drug ³
Total Maine	0.3	0.2	0.2
DMHMRSAS Region⁴			
Region I	0.6	0.4	0.3
Region II	0.4	0.4	0.2
Region III	0.6	0.5	0.4
Gender			
Male	0.6	0.4	0.3
Female	0.3	0.2	0.2

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

¹Weekly consumption of five or more drinks in a 24-hour period for men or four or more drinks in a 24-hour period for women, and any use of marijuana, hallucinogens, cocaine, opiates, or nonmedical use of stimulants in the past 12 months (but not necessarily in combination with alcohol).

²Use of *two or more* of the following drugs at any time in the past 12 months: marijuana, hallucinogens, cocaine, opiates, or nonmedical use of stimulants.

³Heavy alcohol use in the past 12 months, as defined above in footnote 1, and use of two or more illicit drugs in the past 12 months, as defined above in footnote 2.

⁴Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

Source: Maine Household Telephone Survey: 1997.

Table 3.1SE Standard Errors for Table 3.1: Percentages Reporting Substance Use Problems in the Lifetime and Past Year in the Maine Adult Household Population: 1997

Substance Use Problem	Alcohol		Any Illicit Drug ¹		Alcohol or Any Illicit Drug	
	Lifetime	Past Year	Lifetime	Past Year	Lifetime	Past Year
Used larger amounts or for longer periods than intended	0.6	0.4	0.3	0.2	0.6	0.4
Unsuccessful attempts to quit, cut down, or control	0.4	0.2	0.3	0.1	0.5	0.3
Great deal of time using/getting over effects	0.4	0.2	0.3	0.2	0.5	0.2
Interference with work, school, or household responsibilities	0.4	0.2	0.3	0.2	0.5	0.3
Use in hazardous situations	0.5	0.2	0.3	0.2	0.5	0.3
Given up/reduced important activities	0.3	0.2	0.3	0.1	0.4	0.2
Continued use despite health problems	0.3	0.2	0.1	0.1	0.3	0.2
Continued use despite emotional problems	0.3	0.2	0.3	0.2	0.4	0.2
Developed tolerance	0.5	0.3	0.3	0.2	0.5	0.3
Had withdrawal symptoms	0.4	0.2	0.3	0.2	0.5	0.2
Used to prevent or relieve withdrawal symptoms	0.4	0.2	0.2	0.1	0.4	0.2

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

¹Use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

Source: Maine Household Telephone Survey: 1997.

Table 3.8SE Standard Errors for Table 3.8: Health Insurance Coverage and Receipt of Social Services Among Adult Maine Household Residents in Need of Treatment or Intervention: 1997

Measure	In Need of Treatment, Past 12 Months ¹	In Need of Treatment or Intervention, Past 12 Months ²
Insurance Coverage, Past Month		
Any insurance coverage	2.6	1.5
Private insurance	2.8	1.8
Government-funded insurance ³	1.8	1.2
No insurance coverage reported	2.6	1.5
Services		
Any receipt of AFDC, SSI, or food stamps ⁴	1.8	1.0

Note: Estimates are percentages of (a) people in need of treatment or (b) people in need of intervention or treatment who were covered by different insurance plans or had some other indicator of potential Medicaid eligibility. Unweighted numbers of respondents are shown in Table 1.1.

¹Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

²Includes people in need of treatment, as defined above. Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment or intervention” was defined.

³Includes such coverage as Medicare, Medicaid, or Veterans Administration (VA) coverage.

⁴AFDC = Aid to Families with Dependent Children. SSI = Supplemental Security Income.

Source: Maine Household Telephone Survey: 1997.

Table 3.9SE Standard Errors for Table 3.9: History of Alcohol or Drug Treatment in the Lifetime and Past Year in the Maine Adult Household Population: 1997

Measure	Total Maine ¹		In Need of Treatment ²	
	Lifetime	Past Year	Lifetime	Past Year
Any Treatment³	0.31	0.13	2.27	1.56
Detoxification	0.25	0.07	1.69	0.80
Residential treatment	0.24	0.07	1.81	0.87
Halfway house	0.12	0.03	0.94	0.34
Outpatient treatment	0.26	0.13	1.99	1.53
Other Forms of Assistance⁴	0.48	0.26	2.85	2.11
Mental health counseling	0.27	0.12	2.18	1.40
Self-help groups	0.39	0.22	2.59	1.73
Pastoral counseling	0.27	0.16	1.90	1.46
OUI programs ⁵	0.28	0.07	2.09	0.66
Any Treatment or Assistance⁶	0.48	0.27	2.86	2.23

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

¹Questions about treatment history were not asked of respondents who were lifetime abstainers of alcohol or other drugs.

²Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a "problem" pattern of use in the past 12 months. See Appendix E for a detailed discussion of how "need for treatment" was defined.

³Includes detoxification, residential treatment, halfway house services, or outpatient treatment.

⁴Includes substance abuse counseling through a mental health provider, attendance at self-help groups, receipt of pastoral counseling for substance abuse, or participation in programs for people arrested or convicted of operating a motor vehicle under the influence of alcohol (OUI).

⁵OUI= Operating a motor vehicle under the influence of alcohol. Because the survey inquired about driving while under the influence (DWI), the study definition of OUI differs from the official state definition. The official state definition of OUI includes operating a vehicle while under the influence of alcohol or drugs. DWI refers to driving while under the influence of alcohol only.

⁶Any treatment, as defined in footnote 3, or any other form of assistance, as defined in footnote 4.

Source: Maine Household Telephone Survey: 1997.

Table 3.11SE Standard Errors for Table 3.11: Demand for Treatment Services in the Past Year in the Maine Adult Household Population: 1997

Measure	Percentage
Received Assistance	
Any assistance ¹	0.27
Treatment ²	0.13
Other assistance ³	0.26
Unmet Demand	
Any unmet demand ⁴	0.17
Wanted additional services ⁵	0.14
Felt the need for treatment, but did not receive assistance	0.10

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

¹Any receipt of treatment or other forms of assistance in the past 12 months for alcohol or other drug abuse, as described in footnotes 2 and 3.

²Received detoxification, residential treatment, halfway house services, or outpatient treatment in the past 12 months.

³Received mental health counseling for substance abuse, attended self-help groups, received pastoral counseling, or attended an operating-under-the-influence (OUI) program in the past 12 months.

⁴Wanted additional treatment or other services in the past 12 months, or felt the need for treatment in the past 12 months, but did not receive assistance.

⁵Received at least some assistance for alcohol or drug abuse, but wanted additional services.

Source: Maine Household Telephone Survey: 1997

Table 3.12SE Standard Errors for Table 3.12: Perceptions of Serious Problems with Alcohol or Drugs Among Family Members and Friends in the Maine Adult Household Population, by Need for Treatment or Intervention: 1997

Measure	Family Member Had Serious Problem with Alcohol or Drugs	Close Friend or Co-Worker Had Serious Problem with Alcohol or Drugs
Total Maine	0.8	0.8
In Need of Treatment¹		
Alcohol or illicit drugs	2.9	2.8
Alcohol	3.0	3.0
Any illicit drugs ²	5.8	5.8
In Need of Treatment or Intervention³		
Alcohol or illicit drugs	1.8	1.9
Alcohol	1.9	2.0
Any illicit drugs ²	3.8	3.7

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

¹Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

²Use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

³Includes people in need of treatment, as defined above. Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment or intervention” was defined.

Source: Maine Household Telephone Survey: 1997.

Table 4.1SE Standard Errors for Table 4.1: Perceptions of Physical Health, Medical Problems, and Mental Health Among the Maine Adult Household Population, by Age Group: 1997

Health Measure	Age Group		Total Maine
	18-44	45 or Older	
Physical Health Perception			
Good	0.7	1.3	0.7
Fair or poor	0.7	1.3	0.7
Specific Medical Problems, Past 12 Months			
Hypertension	0.5	1.3	0.7
Heart problem	0.3	0.8	0.4
Respiratory problem	0.8	1.2	0.7
Digestive system/stomach problem	0.5	0.8	0.4
Mental Health Perception			
Good	0.8	1.2	0.7
Fair or poor	0.8	1.2	0.7

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

Source: Maine Household Telephone Survey: 1997.

Table 4.4SE Standard Errors for Table 4.4: Perceptions of Physical Health and Specific Medical Conditions According to Substance Abuse Treatment Need in the Past Year in Maine: 1997

Health Measure	Service Needs, Past Year	
	Need for Treatment ¹	Need for Treatment or Intervention ²
Perception of Physical Health		
Good	2.5	1.5
Fair or poor	2.5	1.5
Specific Medical Problems, Past 12 Months		
Hypertension	1.9	1.2
Heart problem	0.7	0.5
Respiratory problems	2.6	1.5
Digestive system/stomach problems	1.9	0.9

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

¹Need for treatment related to use of alcohol or other drugs. Criteria for establishing need for treatment are discussed in Appendix E.

²Need for treatment or intervention related to use of alcohol or other drugs. Criteria for establishing need for treatment or intervention are discussed in Appendix E.

Source: Maine Household Telephone Survey: 1997.

Table 4.5SE Standard Errors for Table 4.5: Perceptions of Mental Health and Pharmacological Interventions for Mental Health Problems According to Substance Abuse Treatment Need in the Past Year in Maine: 1997

Health Measure	Service Needs, Past Year	
	Need for Treatment ¹	Need for Treatment or Intervention ²
Perceptions of Mental Health		
Good	2.9	1.7
Fair or poor	2.9	1.7
Receipt of Psychotherapeutic Medication, Past 12 Months		
Sedatives/tranquilizers	1.9	1.0
Antidepressants	2.0	1.0
Other medications	1.7	0.8
Any of the above	2.2	1.3

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

¹Need for treatment related to use of alcohol or other drugs. Criteria for establishing need for treatment are discussed in Appendix E.

²Need for treatment or intervention related to use of alcohol or other drugs. Criteria for establishing need for treatment or intervention are discussed in Appendix E.

Source: Maine Household Telephone Survey: 1997.

Table 4.6SE Standard Errors for Table 4.6: Arrests in the Past Year Among Different Categories of Substance Users in Maine: 1997

Type of Arrest	Alcohol Use, Past Year			Other Drug Use, Past Year	
	None	No Frequent Heavy Use ¹	Any Frequent Heavy Use ²	None	Any ³
Any Arrest	0.3	0.2	1.3	0.2	1.3
OUI or Other Alcohol- Related Arrest⁴	--	0.1	1.1	0.1	1.1
Illicit Drug-Related Arrest	**	**	0.3	--	0.4

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

--Not applicable.

**Estimated percentage rounds to zero.

¹No occurrence of frequent heavy alcohol use in the past 12 months (or past 30 days), as defined below.

²Any frequent heavy use in the past 12 months (or past 30 days) based on (a) weekly consumption in the past 12 months of five or more drinks in a 24-hour period or four or more drinks in a 24-hour period for women, or (b) consumption of five or more drinks in a 24-hour period on 4 or more days in the past 30 days, or typical consumption of four or more drinks on 4 or more days in the past 30 days for women.

³Any use of marijuana, hallucinogens, cocaine, opiates, or nonmedical use of stimulants in the past 12 months.

⁴OUI= Operating a motor vehicle under the influence of alcohol. Because the survey inquired about driving while under the influence (DWI), the study definition of OUI differs from the official state definition. The official state definition of OUI includes operating a vehicle while under the influence of alcohol or drugs. DWI refers to driving while under the influence of alcohol, not drugs.

Source: Maine Household Telephone Survey: 1997.

Table 5.1SE Standard Errors for Table 5.1: Prevalence of Use and Estimated Numbers of Past Year Cigarette Smokers (in Thousands) in the Maine Adult Household Population, by DMHMRSAS Region and Selected Demographic Characteristics: 1997

Demographic Characteristic	Any Cigarette Use ¹	Heavy Cigarette Use ²
Total Maine	0.8	0.6
DMHMRSAS Region³		
Region I	1.4	1.0
Region II	1.3	1.0
Region III	1.6	1.2
Gender		
Male	1.2	0.9
Female	1.1	0.9
Age (years)		
18-24	2.6	1.6
25-44	1.1	0.9
45-64	1.6	1.3
65 or older	1.7	1.3
Race/Ethnicity		
White	0.8	0.6
Nonwhite ⁴	3.9	3.2
Marital Status		
Single	2.2	1.4
Married	1.0	0.8
Living as married	2.8	2.4
Widowed/divorced/separated	2.0	1.5
Education		
Less than high school	2.8	2.5
High school	1.4	1.1
Some college	1.6	1.1
College graduate or higher	1.2	0.8
Current Employment		
Full-time	1.1	0.9
Part-time	2.0	1.3
Unemployed ⁵	5.7	5.1
Other ⁶	1.5	1.2

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

¹Smoked cigarettes at least once in the past 12 months.

²Current smokers at the time of the survey who smoked one or more packs of cigarettes a day.

³Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

⁴"Nonwhite" represents black, Hispanic, or "other" origin.

⁵Includes persons looking for work or not looking for work.

⁶Retired, disabled, homemaker, student, or "other."

Source: Maine Household Telephone Survey: 1997.

Table 5.2SE Standard Errors for Table 5.2: Prevalence of Substance Use in the Past Year Among Women of Childbearing Age in Maine: 1997

Substance Used	Women/Age Group (Years)			Pregnant, Past 12 Months
	18-24	25-44	45-54	
Any Illicit Drug Use¹	3.2	0.8	1.2	3.4
Marijuana	3.2	0.8	1.2	3.3
Hallucinogens	1.2	0.2	0.5	0.8
Cocaine	1.2	0.2	**	1.9
Heroin/opiates	**	**	**	**
Nonmedical stimulants ²	1.3	0.2	**	1.1
Any Illicit Drug Use, Excluding Marijuana³	1.9	0.2	0.5	2.0
Alcohol				
Any alcohol use	2.8	1.3	3.3	4.5
Heavy alcohol use ⁴	2.3	0.7	1.0	2.1
Cigarettes				
Any cigarette use	3.3	1.4	3.1	4.3
Current heavy cigarette use ⁵	2.0	1.1	2.5	2.7

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

**Estimated percentage rounds to zero.

¹Use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

²Use of stimulants to get high, for curiosity, to go along with friends, or use of prescription-type stimulants without a doctor's prescription.

³Use of hallucinogens, cocaine (including crack), or heroin/opiates at least once.

⁴For the past year, defined for women as weekly consumption of four or more drinks in a 24-hour period, or typical consumption of four or more drinks on 4 or more days in the past month.

⁵Current smokers at the time of the survey who smoked one or more packs of cigarettes a day.

Source: Maine Household Telephone Survey: 1997.

Table 5.4SE Standard Errors for Table 5.4: Prevalence of Lifetime Gambling Problems Among Maine Adults: 1997

Gambling Problem	Total Adult Household Population¹	Gambled More Than 5 Days in Past Year²
Increased preoccupation with gambling	0.2	0.4
Needed to gamble with increased amounts of money to achieve desired level of excitement	0.2	0.4
Restless or irritable when unable to gamble	0.1	0.3
Gambled to escape from problems	0.1	0.3
Went back to try to win back money lost	0.3	0.7
Lied to others about extent of gambling	0.1	0.3
Jeopardized or lost important relationships, jobs, or career opportunities because of gambling	0.1	0.2
Someone provided money to relieve financial problems caused by gambling	0.1	0.2
One or more problems	0.4	0.8
Three or more problems³	0.2	0.4

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

¹Based on a total sample size of 4,042 respondents. However, respondents who gambled 5 days or less in the past year (n=2,328) were not asked these questions.

²Based on a sample size of 1,714 respondents. This group also includes people who did not know how often they gambled or who refused to indicate how often they gambled in the past year.

³Occurrence of three or more problems indicates probable pathological gambling.

Source: Maine Household Telephone Survey: 1997.

Table 5.5SE Standard Errors for Table 5.5: Prevalence of Lifetime Pathological Gambling in the Maine Adult Household Population, by Selected Demographic Characteristics: 1997

Demographic Characteristic	Pathological Gambling ¹	
	Total Adult Household Population ²	Gambled More Than 5 Days in Past Year ³
Total Maine	0.2	0.4
DMHMRSAS Region⁴		
Region I	0.2	0.4
Region II	0.3	0.7
Region III	0.3	0.8
Gender		
Male	1.2	2.5
Female	0.1	0.4
Age (years)		
18-24	0.8	2.3
25-44	0.2	0.4
45-64	0.3	0.6
65 or older	0.2	0.5
Race/Ethnicity		
White	0.2	0.3
Nonwhite ⁵	1.2	3.2
Marital Status		
Single	0.7	1.9
Married	0.1	0.3
Living as married	0.8	1.4
Widowed/divorced/separated	0.2	0.5
Education		
Less than high school	0.6	1.5
High school	0.2	0.4
Some college	0.3	0.6
College graduate or higher	0.3	1.0
Current Employment		
Full-time	0.2	0.5
Part-time	0.6	1.4
Unemployed ⁶	**	**
Other ⁷	0.2	0.6

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

**Estimated percentage rounds to zero.

¹Report of three or more gambling problems (from Table 5.4).

²Based on a total sample size of 4,042 respondents. However, respondents who gambled 5 days or fewer in the past year (n=2,328) were not asked these questions.

³Based on a sample size of 1,714 respondents. This group also includes people who did not know how often they gambled or who refused to indicate how often they gambled in the past year.

⁴Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

⁵“Nonwhite” represents black, Hispanic, or “other” origin.

⁶Includes persons looking for work or not looking for work.

⁷Retired, disabled, homemaker, student, or “other.”

Source: Maine Household Telephone Survey: 1997.

Table 5.6SE Standard Errors for Table 5.6: Substance Use and Treatment Need in the Past Year, by Problem Gambling and Pathological Gambling: 1997

Measure	Problem Gambling ¹	Pathological Gambling ²
Heavy Alcohol Use ³	2.0	0.8
Any Illicit Drug Use ⁴	1.8	0.9
Need for Treatment for Alcohol or Other Drug Use ⁵	2.0	1.1

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

¹Report of one or more problems described in Table 5.4 indicates problem gambling.

²Report of three or more problems described in Table 5.4 indicates probable pathological gambling.

³For the past year, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period at least once a week or on 4 or more days in the past month. For the past month, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period on 4 or more days.

⁴Use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

⁵Definitions are given in Appendix E.

Source: Maine Household Telephone Survey: 1997.

Table A.1SE Standard Errors for Table A.1: Percentages of Adult Alcohol Users in the Lifetime, Past Year, and Past Month in the Maine Adult Household Population, by DMHMRSAS Region: 1997

Alcohol Use/ DMHMRSAS Region ¹	Period of Use		
	Lifetime	Past Year	Past Month
Any Alcohol Use			
Total Maine	0.5	0.8	0.9
Region I	0.8	1.4	1.5
Region II	0.9	1.3	1.4
Region III	1.1	1.6	1.7
Heavy Alcohol Use²			
Total Maine	--	0.5	0.4
Region I	--	0.9	0.9
Region II	--	0.8	0.6
Region III	--	1.0	0.9

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

--Not applicable.

¹Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

²For the past year, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period at least once a week or on 4 or more days in the past month. For the past month, defined as drinking five or more drinks (four or more drinks for women) in a 24-hour period on 4 or more days.

Source: Maine Household Telephone Survey: 1997.

Table A.2SE Standard Errors for Table A.2: Prevalence of Use of Illicit Drugs in the Lifetime, Past Year, and Past Month in the Maine Adult Household Population: 1997

Substance Used	Lifetime	Past Year	Past Month
Any Illicit Drug Use¹	0.79	0.51	0.39
Marijuana/hashish	0.79	0.51	0.39
Hallucinogens	0.44	0.17	0.09
Cocaine	0.42	0.16	0.06
Heroin/opiates	0.15	0.04	**
Nonmedical stimulants ²	0.39	0.16	0.11
Any Illicit Drug Use, Excluding Marijuana³	0.53	0.25	0.15
Any Core Illicit Drug Use⁴	0.79	0.51	0.39
Any Core Illicit Drug Use, Excluding Marijuana⁵	0.50	0.22	0.10

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

**Estimated percentage rounds to zero. Corresponding standard error not shown.

¹Use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

²Use of stimulants to get high, for curiosity, to go along with friends, or use of prescription-type stimulants without a doctor's prescription.

³Use of hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

⁴Use of marijuana or hashish, hallucinogens, cocaine (including crack), or heroin/opiates at least once.

⁵Use of hallucinogens, cocaine (including crack), or heroin/opiates at least once.

Source: Maine Household Telephone Survey: 1997.

Table A.3SE Standard Errors for Table A.3: Prevalence of Specific Alcohol-Related Problems in the Past Year Among Males in the Maine Adult Household Population, by Age Group: 1997

Problem	Age Group				Total Males
	18-24	25-44	45-64	65 or Older	
Used larger amounts or for longer periods than intended	3.3	1.1	0.8	0.7	0.7
Unsuccessful attempts to quit, cut down, or control	1.6	0.7	0.6	0.6	0.4
Great deal of time using/getting over effects	1.7	0.5	0.4	**	0.3
Interference with work, school, or household responsibilities	1.9	0.5	0.1	0.3	0.3
Use in hazardous situations	2.2	0.7	0.4	**	0.4
Given up/reduced important activities	1.5	0.5	0.1	**	0.3
Continued use despite health problems	1.2	0.6	0.5	0.5	0.3
Continued use despite emotional problems	1.1	0.5	0.3	0.3	0.3
Developed tolerance	3.0	0.7	0.7	**	0.6
Had withdrawal symptoms	1.2	0.6	0.5	0.3	0.3
Used to prevent or relieve withdrawal symptoms	1.8	0.6	0.5	0.3	0.4

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

**Estimated percentage rounds to zero.

Source: Maine Household Telephone Survey: 1997.

Table A.4SE Standard Errors for Table A.4: Prevalence of Specific Alcohol-Related Problems in the Past Year Among Females in the Maine Adult Household Population, by Age Group: 1997

Problem	Age Group				Total Females
	18-24	25-44	45-64	65 or Older	
Used larger amounts or for longer periods than intended	2.3	0.6	0.7	**	0.4
Unsuccessful attempts to quit, cut down, or control	1.2	0.4	0.6	**	0.3
Great deal of time using/getting over effects	0.7	0.2	0.5	**	0.2
Interference with work, school, or household responsibilities	1.4	0.3	0.4	**	0.2
Use in hazardous situations	1.4	0.3	0.4	**	0.2
Given up/reduced important activities	0.8	0.2	0.3	**	0.2
Continued use despite health problems	0.7	0.3	0.5	**	0.2
Continued use despite emotional problems	0.9	0.4	0.6	**	0.2
Developed tolerance	2.1	0.4	0.5	0.4	0.3
Had withdrawal symptoms	0.7	0.4	0.5	**	0.2
Used to prevent or relieve withdrawal symptoms	0.9	0.3	0.3	**	0.2

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

**Estimated percentage rounds to zero.

Source: Maine Household Telephone Survey: 1997.

Table A.5SE Standard Errors for Table A.5: Prevalence of Specific Illicit Drug-Related Problems in the Past Year Among Adult Males in the Maine Adult Household Population, by Age Group: 1997

Problem ²	Age Group ¹			Total Males
	18-24	25-44	45-64	
Used larger amounts or for longer periods than intended	1.7	0.6	**	0.3
Unsuccessful attempts to quit, cut down, or control	1.3	0.4	**	0.2
Great deal of time using/getting over effects	1.5	0.5	**	0.3
Interference with work, school, or household responsibilities	1.9	0.7	0.2	0.4
Use in hazardous situations	1.9	0.4	**	0.3
Given up/reduced important activities	1.5	0.4	0.2	0.3
Continued use despite health problems	1.1	0.1	**	0.2
Continued use despite emotional problems	1.3	0.5	**	0.3
Developed tolerance	2.2	0.5	**	0.4
Had withdrawal symptoms	1.7	0.5	0.1	0.3
Used to prevent or relieve withdrawal symptoms	0.7	0.2	**	0.1

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

**Estimated percentage rounds to zero.

¹Estimates are not shown for males aged 65 or older because of low rates of illicit drug use among this group.

²Problems related to use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants.

Source: Maine Household Telephone Survey: 1997.

Table A.6SE Standard Errors for Table A.6: Prevalence of Specific Illicit Drug-Related Problems in the Past Year Among Females in the Maine Adult Household Population, by Age Group: 1997

Problem ²	Age Group ¹			Total Females
	18-24	25-44	45-64	
Used larger amounts or for longer periods than intended	1.2	0.2	0.2	0.2
Unsuccessful attempts to quit, cut down, or control	0.8	0.2	**	0.1
Great deal of time using/getting over effects	1.1	0.1	0.2	0.1
Interference with work, school, or household responsibilities	1.5	0.1	**	0.2
Use in hazardous situations	0.8	0.2	**	0.1
Given up/reduced important activities	0.8	0.1	**	0.1
Continued use despite health problems	0.5	0.1	**	0.1
Continued use despite emotional problems	1.1	0.3	**	0.2
Developed tolerance	1.1	0.2	0.2	0.1
Had withdrawal symptoms	1.0	0.2	**	0.2
Used to prevent or relieve withdrawal symptoms	0.6	0.1	0.3	0.1

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

**Estimated percentage rounds to zero.

¹Estimates are not shown for females aged 65 or older because of low rates of illicit drug use among this group.

²Problems related to use of marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants.

Source: Maine Household Telephone Survey: 1997.

Table A.7SE Standard Errors for Table A.7: Prevalence of Dependence or Abuse in the Lifetime and Past Year in the Maine Adult Household Population, by Drug: 1997

Drug	Problem/Period			
	Dependence		Abuse	
	Lifetime ¹	Past Year ²	Lifetime ³	Past Year ⁴
Alcohol	0.47	0.31	0.31	0.17
Marijuana	0.27	0.20	0.12	0.11
Hallucinogens	0.12	0.04	0.04	0.04
Cocaine	0.17	0.06	0.03	**
Heroin/Opiates	0.07	0.02	**	**
Stimulants	0.12	0.05	0.05	0.02

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

**Estimated percentage rounds to zero.

¹As diagnosed by the DSM-III-R (1987), experienced three or more symptoms of dependence on a given drug in the lifetime. Some of these symptoms persisted for a month or more, or occurred repeatedly over a longer period of time.

²Met lifetime DSM-III-R (1987) criteria for dependence on a given drug, used the drug in the past 12 months, and had one or more symptoms of dependence on that drug in the past 12 months.

³As diagnosed by the DSM-III-R (1987), never had a lifetime diagnosis of dependence on a given drug but continued to use that drug despite adverse consequences, or continued to use that drug in hazardous situations. Some of these symptoms persisted for a month or more, or occurred repeatedly over a longer period of time.

⁴Met lifetime DSM-III-R (1987) criteria for abuse of a given drug, used the drug in the past 12 months, and had one or more symptoms of abuse for that drug in the past 12 months.

Source: Maine Household Telephone Survey: 1997.

Table A.8SE Standard Errors for Table A.8: Percentages and Estimated Numbers of the Maine Adult Household Population in Need of Alcohol or Illicit Drug Use Treatment or Intervention in the Past Year: 1997

Treatment or Intervention Need	Percentage
Any Need for Treatment¹	
All Adults	
Alcohol or illicit drugs	0.45
Alcohol	0.42
Any illicit drugs ²	0.24
Adults Under 21	
Alcohol or illicit drugs	2.91
Alcohol	2.51
Any illicit drugs ²	2.25
Any Need for Treatment or Intervention³	
All Adults	
Alcohol or illicit drugs	0.69
Alcohol	0.66
Any illicit drugs ²	0.35
Adults Under 21	
Alcohol or illicit drugs	3.65
Alcohol	3.59
Any illicit drugs ²	2.87

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

¹Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

²Marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or stimulants.

³Includes people in need of treatment, as defined above. Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment or intervention” was defined.

Source: Maine Household Telephone Survey: 1997.

Table A.8aSE Standard Errors for Table A.8a: Percentages and Estimated Numbers of the Maine Adult Household Population in Need of Alcohol or Illicit Drug Use Treatment or Intervention in the Past Year, by Race/Ethnicity: 1997

Treatment or Intervention Need/Group	Percentage
Any Need for Treatment¹	
White	
Alcohol or illicit drugs	0.45
Alcohol	0.42
Any illicit drugs ²	0.22
Native American	
Alcohol or illicit drugs	5.00
Alcohol	2.98
Any illicit drugs ²	4.75
Other nonwhite	
Alcohol or illicit drugs	3.31
Alcohol	2.86
Any illicit drugs ²	2.40
Any Need for Treatment or Intervention³	
White	
Alcohol or illicit drugs	0.70
Alcohol	0.68
Any illicit drugs ²	0.34
Native American	
Alcohol or illicit drugs	5.97
Alcohol	4.72
Any illicit drugs ²	4.87
Other nonwhite	
Alcohol or illicit drugs	3.93
Alcohol	3.53
Any illicit drugs ²	2.65

Note: Unweighted numbers of respondents are shown in Table 1.1.

¹Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a "problem" pattern of use in the past 12 months. See Appendix E for a detailed discussion of how "need for treatment" was defined.

²Marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or stimulants.

³Includes people in need of treatment, as defined above. Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a "problem" pattern of use in the past 12 months. See Appendix E for a detailed discussion of how "need for treatment or intervention" was defined.

Source: Maine Household Telephone Survey: 1997.

Table A.18SE Standard Errors for Table A.18: Percentages of Maine Adult Women Pregnant in the Past Year Who Were in Need of Alcohol or Illicit Drug Treatment or Intervention: 1997

Measure	Percentage
In Need of Treatment¹	
Alcohol or illicit drugs	2.6
Alcohol	2.1
Any illicit drugs ²	1.9
In Need of Treatment or Intervention³	
Alcohol or illicit drugs	4.1
Alcohol	3.7
Any illicit drugs ²	2.5

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

¹Includes people who (a) received formal treatment in the past 12 months, or (b) met lifetime DSM-III-R (1987) criteria for dependence or abuse for a given drug covered in the telephone survey, used the drug in the past 12 months, and had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment” was defined.

²Marijuana or hashish, hallucinogens, cocaine (including crack), heroin/opiates, or nonmedical use of stimulants at least once.

³Includes people in need of treatment, as defined above. Also includes people who never met lifetime DSM-III-R (1987) criteria for dependence or abuse for any drugs covered in the telephone survey, but who nevertheless had one or more symptoms in the past 12 months or had a “problem” pattern of use in the past 12 months. See Appendix E for a detailed discussion of how “need for treatment or intervention” was defined.

Source: Maine Household Telephone Survey: 1997.

Table A.19SE Standard Errors for Table A.19: Frequency of Past Year Gambling Among Maine Adults, by Number of Lifetime Gambling Problems: 1997

Frequency of Gambling, Past Year	Lifetime Gambling Problems	
	One or More Problems	Three or More Problems ¹
Once a Week or More Often	1.3	0.6
Several Days a Month	2.8	1.5
1 or 2 Days a Month	1.7	0.2
Every Other Month	1.3	0.8

Note: Data entries are percentages. Unweighted numbers of respondents are shown in Table 1.1.

¹Report of three or more problems (described in Table 5.4) indicates probable pathological gambling.

Source: Maine Household Telephone Survey: 1997.

Appendix C

Sample Design and Weighting Procedures

Sample Design and Weighting Procedures

The 1997 Maine Household Telephone Survey was a stratified two-phase, two-stage random-digit-dialed (RDD) sample of adults living in households with telephones. The RDD sample included both unlisted and listed telephone numbers. In this appendix, the frame source materials, stratification, sample allocation, sample selection, and weighting procedures for the survey are briefly described.

C.1 Frame Source Materials

BellCore of Morristown, New Jersey, updates monthly a magnetic tape file of all working area codes and exchanges in the United States. Nielsen Media Research augments this file four times a year with the number of listed telephone numbers within each 100-block of telephone numbers (i.e., a group of 100 telephone numbers with the same first eight digits); in an RDD design, the final two digits of a telephone number are generated randomly. This augmented file, called the Nielsen Total Telephone Frame (TTF), was used as the frame for the study.

C.2 Frame Construction and Stratification

Starting with the Nielsen TTF, the file was subset to telephone numbers with a Maine area code (i.e., 207). Also excluded were a few exchanges known not to serve households, such as those solely dedicated to cellular phones. The rate-center-cities associated with the exchanges within the area code then were used to assign the telephone number to a county. Next, the county was used to assign the telephone number to the Region I, Region II, or Region III DMHMRSAS region. Within each DMHMRSAS region, the 100-blocks were stratified into two groups: (a) those 100-blocks with no listed telephone numbers, and (b) those with at least one listed telephone number. Crossing the three DMHMRSAS regions with the two telephone list-count strata gave a total of six strata.

C.3 Sample Allocation

In this sample design, a total of 4,000 interviews were allocated to the three DMHMRSAS regions:

- 1,355 to Region I,
- 1,574 to Region II, and
- 1,071 to Region III.

Only a small fraction of the sample of telephone numbers was expected to yield a completed interview. Noninterviews in an RDD telephone survey arise from many sources, the three major ones being telephone numbers not assigned to residences (e.g., nonworking numbers, businesses), failure to contact anyone at the telephone number after repeated attempts, and refusals. Consequently, the initial sample of telephone numbers was much larger than the targeted number of interviews to compensate for the expected attrition. Nearly 26,000 telephone numbers were selected and allocated proportional to the targeted number of interviews in each DMHMRSAS region. Within each region, telephone numbers

were sampled from the zero-listings groups at one-third the rate of the 1+ listing group. Indeed, out of more than 21,500 telephone numbers where the eligibility status was determined by the conclusion of data collection, fewer than 40% served eligible households (see Table 1.2).

C.4 Sample Selection and Screening

A simple random sample of telephone numbers was selected from each of the six strata. The majority of the sample numbers were screened initially by an autodialer to eliminate many of the nonworking numbers. Numbers that remained after the screening were randomly assigned to subsets called *waves*. The waves then were provided to the Telephone Survey Unit (TSU) at Research Triangle Institute (RTI), subcontractor to the state of Maine, on a flow basis for additional manual screening and for interviewing.

A total of 25,957 numbers were eventually released to the TSU and comprise the total sample for the study. This total included telephone numbers that were initially released for a pilot test (conducted from February 24 to March 2, 1997) as well as numbers that were fielded in the full study (conducted from March 20 to June 24, 1997). In the full study, interviewers called the sample numbers up to 10 times to identify working residential numbers for interviewing and to select an adult household member to be interviewed. Once an eligible household had been reached, the interviewer constructed a roster of all adult household members. During the rostering procedure, the interviewer identified how many adults were in each of the following age categories: 18 to 24, 25 to 44, and 45 or older. Adults aged 18 to 44 were oversampled because treatment admission data from the Maine Addiction Treatment System indicated that adults under the age of 45 accounted for the large majority of the state's treatment admissions.

Two steps were taken to increase the number of interviews with adults aged 18 to 44:

- within households containing adults aged 18 to 44 and adults aged 45 or older, the selection probability for adults aged 18 to 44 was set to approximately twice (2.0471) the selection probability for adults aged 45 or older, and
- interviews were attempted in only about half (0.4885) of the households containing no adults aged 18 to 44.

Once an adult household member had been selected, interviewers attempted up to 10 additional calls to obtain a completed interview. Response data and performance rates are shown in Table 1.2 and described in Section 1.5.

C.5 Weighting and Nonresponse Weighting Adjustments

To make accurate estimates for the Maine adult household population using the telephone survey data, the individual questionnaire responses had to be properly weighted. Weighting was done to reflect the probability of an individual's inclusion in the sample and to compensate for different response rates and coverage rates for specific demographic subsets of the population. The weighting was accomplished in several steps.

First, the probability that the telephone number was selected and released for the second phase of screening was calculated. As part of the interview, those households in the sample that were served by

more than one phone number were identified. Using this information, the selection probabilities were adjusted to compensate for the fact that these households could have been selected via more than one phone number. Households that were served by only one residential telephone number did not require this adjustment to their selection probabilities. These steps gave the multiplicity-adjusted probability that a given household was selected in the sample. The inverse of this probability is the household sampling weight, $W(1)$.

Once a household was determined to be eligible, all adults were rostered and assigned to age categories. The eligible households were then randomly selected for an attempted interview based on the presence or absence of adults aged 18 to 44. The probability of an attempted interview, $P(2)$, was calculated as follows:

$$\begin{aligned} P(2) &= 0.4885 \text{ for households containing no adults aged 18 to 44, or} \\ &= 1.0000 \text{ for households containing one or more adults aged 18 to 44.} \end{aligned}$$

The inverse of this probability is the conditional household attempted interview weight, $W(2|1)$. If a household was selected for interviewing, one person was randomly selected for the interview by assigning different probabilities to adults aged 18 to 44 and adults aged 45 or older. The probability of selection for the i^{th} adult, $p(i)$, within a given household was

$$p(i) = k(i) / [k(1) + \dots + k(n)]$$

$$\begin{aligned} \text{where } k(i) &= 1.0000 \text{ if the } i^{\text{th}} \text{ adult was in the 18 to 44 age category or} \\ &= 0.4885 \text{ if the } i^{\text{th}} \text{ adult was in the 45 or older age category, and} \\ n &= \text{the number of adults in the household.} \end{aligned}$$

A person to be interviewed then was randomly selected within each household using the person-level selection probabilities, $p(1), \dots, p(n)$. In households where all adults were aged 18 to 44 or where all adults were aged 45 or older, an individual's selection probability was $1/n$. For example, if a household contained two adults, both aged 45 or older, an individual adult's probability of selection $p(i)$ would be

$$0.4885 / (0.4885 + 0.4885) = 0.4885 / (2 \times 0.4885) = 1/2.$$

In households that contained adults aged 18 to 44 and adults aged 45 or older, adults aged 18 to 44 had a higher probability of selection. For example, if a household contained two adults, one aged 44 and the other aged 45, the 44 year old's probability of selection within that household would be

$$1.0000 / (1.0000 + 0.4885) = 1.0000 / 1.4885 = 0.6718.$$

As shown in this example, the sampling procedure would favor selection of the 44 year old, but the 45-year-old adult would still have some chance of being selected for the interview. In the absence of this age oversampling procedure, however, the selection probabilities for the 44 year old and the 45 year old would each have been 0.5.

The conditional person-sampling probability, $P(3|1,2)$, was equal to the selection probability for the selected adult. Hence, the conditional person sampling weight, $W(3|1,2)$, equaled $1/P(3|1,2)$. The unconditional person sampling weight is the product, $W(1)W(2|1)W(3|1,2)$.

The above sampling weights were calculated based on the six sampling strata formed as part of the study design. Because the county of the respondent was known, weighting classes could be constructed and analysis domains defined to coincide with the three DMHMRSAS regions.

To adjust the sampling weights for noncoverage, two sets of population estimates were obtained:

- Postcensal estimates of the population for July 1, 1997, of Maine counties, by age break (15-19, 20-24, 25-29, ..., 80-84, 85+), and by gender (male, female), obtained from the Maine Office of Data Research and Vital Statistics on July 10, 1997;
- U.S. Census Bureau estimates of the population for July 1, 1996, of the state of Maine, by age (<1, 1, 2, 3, ..., 83, 84, 85+) and by gender (male, female) at the following World Wide Web (WWW) site as of September 9, 1997:
<http://www.census.gov/population/estimates/state/stats/96age796.txt>

Table C.1 shows 1997 state projections for Maine, broken down by DMHMRSAS region, age break, and gender.

The 1997 state population estimates for Maine counties contained estimates for persons in the 15 to 19 age break. However, the age breaks that were established for weighting controls were 18-24, 25-44, 45-64, and 65+. The following steps were performed to create the desired population estimates to be used as weighting controls:

- summarizing the 1997 Census county estimates to the DMHMRSAS region level for gender, and age breaks (15-19, 20-24, 25-44, 45-64, 65+);
- summarizing the 1996 Census state-level estimates for the 15-19 and 18-19 age breaks for gender;
- calculating the 1997 male population estimates for the 18-19 age break by multiplying the 15-19 region-level age breaks by the ratio of the 1996 state-level male population estimates for the 18-19 and the 15-19 age breaks;
- calculating the 1997 female population estimates for the 18-19 age break by multiplying the 15-19 region-level age breaks by the ratio of the 1996 state-level female estimates for the 18-19 and the 15-19 age breaks;
- calculating the final 1997 region-level population estimates by gender and reported age break (18-24, 25-44, 45-64, 65+);

The sampling weights then were adjusted so that the sum of the sampling weights equaled the adjusted population estimates by reported age break (18-24, 25-44, 45-64, 65+) and by gender (male, female) at the DMHMRSAS region level. These adjustments compensate for the fact that the demographic distribution of households with telephones is different from that of the entire Maine population and also for the fact that some age and gender groups cooperated with the survey at lower rates than did others. All tabulations used these fully adjusted analysis weights.

Table C.1 1997 State Population Projections for Maine, by DMHMRSAS Region, Gender, and Age Break

DMHMRSAS Region ¹	Gender	Age Category (years)											Total	
		<15	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64		65+
Region I	Male	44,093	13,579	13,229	14,734	17,954	18,934	17,642	15,145	10,742	8,205	7,260	21,892	203,409
Region I	Female	<u>41,682</u>	<u>12,895</u>	<u>13,546</u>	<u>15,432</u>	<u>18,720</u>	<u>19,649</u>	<u>17,512</u>	<u>15,168</u>	<u>11,139</u>	<u>8,719</u>	<u>8,259</u>	<u>33,380</u>	<u>216,101</u>
Total Region I		85,775	26,474	26,775	30,166	36,674	38,583	35,154	30,313	21,881	16,924	15,519	55,272	419,510
Region II	Male	52,303	17,671	15,116	14,341	18,957	21,363	20,749	17,806	13,260	10,519	9,753	28,723	240,561
Region II	Female	<u>49,564</u>	<u>17,235</u>	<u>15,301</u>	<u>14,796</u>	<u>19,688</u>	<u>21,684</u>	<u>20,109</u>	<u>18,006</u>	<u>13,670</u>	<u>10,956</u>	<u>10,679</u>	<u>41,171</u>	<u>252,859</u>
Total Region II		101,867	34,906	30,417	29,137	38,645	43,047	40,858	35,812	26,930	21,475	20,432	69,894	493,420
Region III	Male	33,004	12,437	11,546	10,116	12,163	13,913	13,620	11,919	8,769	7,126	6,752	19,416	160,781
Region III	Female	<u>31,337</u>	<u>11,693</u>	<u>11,264</u>	<u>10,270</u>	<u>12,622</u>	<u>13,949</u>	<u>13,243</u>	<u>11,658</u>	<u>9,061</u>	<u>7,682</u>	<u>7,329</u>	<u>27,563</u>	<u>167,671</u>
Total Region III		64,341	24,130	22,810	20,386	24,785	27,862	26,863	23,577	17,830	14,808	14,081	46,979	328,452

¹Region I includes York and Cumberland Counties. Region II includes Androscoggin, Franklin, Kennebec, Knox, Lincoln, Oxford, Sagadahoc, Somerset, and Waldo Counties. Region III includes Aroostook, Hancock, Penobscot, Piscataquis, and Washington Counties.

Source: 1997 Projections from state of Maine Department of Human Services, Office of Data Research and Vital Statistics.

Appendix D

Suppression Rule for Prevalence Estimates

Suppression Rule for Prevalence Estimates

This appendix describes the rule used in this report to suppress unreliable prevalence estimates (i.e., rates that cannot be reported with confidence because they are based on small sample sizes or have large sampling errors). In defining a rule for deciding not to publish unreliable estimates, important goals are to be able to identify unreliable estimates easily and to have a rule that can be easily incorporated into software for producing tables.

One rule that has been used in national surveys (e.g., the National Household Survey on Drug Abuse [NHSDA] prior to 1990) is to suppress estimates if they have a relative standard error (RSE) greater than or equal to 50% of the prevalence estimate. The RSE is computed by dividing the standard error of the estimate by the estimate itself. That is,

RSE = SE(p)/ p , where p is the estimated proportion, and SE(p) denotes the standard error of the proportion p .

Although the 50% RSE rule is easy to implement and understand, it has some undesirable properties, particularly for small estimates. Specifically, the rule imposes a very stringent suppression requirement on small prevalence estimates, but a very lax requirement on large rates. That is, small prevalence rates must have relatively large sample sizes to avoid being suppressed, but large rates require much smaller sample sizes. Given that most drug use and need for treatment estimates are likely to be small, a rule that imposes stringent sample size requirements on small estimates would be less desirable.

Because of the limitation of the 50% RSE rule, a different suppression rule was used for the 1997 Maine Household Telephone Survey report. The rule used in this report is based on (a) a sample size requirement, and (b) the RSE of the natural log of the estimate. The rule specified that estimates should be suppressed (i.e., not published) and shown as an asterisk (*) in tables when:

- (a) the number of cases in the *denominator* was less than 30; or
- (b) if an estimate was based on 30 or more cases in the denominator, it failed to pass the rule below, using the RSE of the natural log of the estimate p , where p is a proportion.

If an estimate was based on 30 or more cases in the denominator, the rule specified that the estimate should be suppressed if

$$\begin{aligned} \text{RSE} [-\ln(p)] &> .275 \quad \text{for } p \leq .5 \\ \text{RSE} [-\ln(1-p)] &> .275 \quad \text{for } p > .5 \end{aligned}$$

For computational purposes, note that $RSE[-\ln(p)] = RSE(p)/[-\ln(p)] = SE(p)/[-p \ln(p)]$, where $SE(p)$ denotes the standard error of p , the estimated proportion.¹

In addition, note that the sample size requirement for publishing estimates applied to the number of cases in the *denominator*, not the number of cases in the *numerator*. For example, if fewer than 30 respondents in the entire sample ($n=4,042$) reported a particular behavior (e.g., use of heroin or other opiates in the 12 months prior to the survey), the estimate could still be considered reliable if it passed the requirement based on the RSE of the natural log of the estimate.

Statisticians at the Research Triangle Institute (RTI) developed the rule based on the RSE of the natural log of the estimate through their work on the NHSDA and the Washington, DC, Metropolitan Area Drug Study (DC*MADS), a comprehensive study of drug use and related issues in that metropolitan area.

The rule based on the RSE of the natural log is more liberal with regard to reporting smaller estimates but is more stringent with regard to larger estimates. Under the rule based on the natural log of the RSE, for example, prevalence estimates of 1% would require a sample size of 61 to be presented. In comparison, a suppression rule based on $RSE(p) > .50$ would require an effective sample size of 400 respondents to publish percentages of approximately 1%.

As noted above, estimated percentages that failed to pass the suppression criteria listed above would be shown as a single asterisk (*) in the tables. The corresponding standard errors also would be shown as * in the corresponding standard error tables (see Appendix B). In situations where a population *count* was shown (i.e., estimated number of adults in the Maine household population showing a characteristic of interest), the suppression rule specified that the estimated number also would be suppressed if the corresponding proportion of the population showing this characteristic did not pass the suppression criteria.

An additional convention was implemented for *very small* percentages (i.e., < 0.05% for estimates shown to the nearest tenth of a percentage; < 0.005% for estimates shown to the nearest hundredth of a percentage) that passed the suppression criteria, but would round to zero if shown to a given level of precision in the prevalence tables. These estimates were shown as two asterisks (**). In this situation, the corresponding standard error also was shown as two asterisks.

In addition, if an estimated percentage was less than 0.05% (for estimates shown to the nearest tenth of a percentage) or less than 0.005% (for estimates shown to the nearest hundredth of a percentage), any accompanying estimate of the number of people showing this characteristic was shown with a double asterisk. This was done in order to minimize confusion or misunderstanding that could occur if an estimated percentage was reported as rounding to zero, but an estimated number of people had been shown.

¹Preliminary analyses identified some situations where estimates would be suppressed due to small sample sizes. In these situations, categories were sometimes collapsed to increase the effective sample size and improve the precision of estimates. For example, there was only a small number of nonwhite respondents in the entire sample (see Table 1.1). Consequently, estimates for nonwhites that were further subdivided by both age group and gender often did not have adequate precision due to small sample sizes. However, estimates for nonwhites aged 18 or older in Maine that were subdivided only by gender had adequate precision (see Tables 3.5 and 3.7).

Appendix E

Defining the Need for Treatment or Intervention

Defining the Need for Treatment or Intervention

By definition, anyone who received treatment in the past 12 months for abuse of alcohol or other drugs should probably be considered in need of treatment. However, this measure of need would miss people who did not receive treatment because they did not seek it or because services were not available to them. Nevertheless, their pattern of substance use or related problems would strongly suggest that treatment is warranted for them. Consequently, relying solely on information about actual use of treatment services would certainly underestimate the size of the Maine population in need of treatment.

E.1 Symptoms of Dependence and Abuse

Regardless of whether people actually received treatment, one group of people in Maine who would clearly be in need of substance abuse treatment services would be people who continued to use a given drug (e.g., alcohol, marijuana), even though that drug was causing them serious health problems or serious problems in their social functioning (e.g., relationship problems, problems at work or school). Few people would question the need to offer substance abuse treatment services or other help to someone who was unable to stop using a drug on his or her own despite the amount and seriousness of the problems that use of this drug was causing.

The American Psychiatric Association (APA) has established criteria for psychoactive substance dependence or abuse that have been widely used as a standard for identifying people with serious problems, based on significant impairment in multiple domains of their lives. These criteria have been updated periodically and published in diagnostic manuals, such as the third revised edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R) (APA, 1987), and the more recent fourth edition of this manual (DSM-IV) (APA, 1994). The Maine Household Telephone Survey questionnaire measured symptoms of dependence or abuse based on the DSM-III-R (1987) criteria.

For a person to meet lifetime DSM-III-R (1987) diagnostic criteria for psychoactive substance dependence, three or more of the following symptoms need to have occurred in a person's lifetime:

1. use of a substance in larger amounts or over a longer period than intended;
2. persistent desire or one or more unsuccessful efforts to cut down or control substance use;
3. great deal of time spent getting the substance, taking the substance, or recovering from its effects;
4. frequent intoxication or withdrawal symptoms when expected to fulfill major role obligations, or when substance use is physically hazardous

(e.g., operating a motor vehicle under the influence of alcohol or other drugs [OUI]);

5. avoidance of important activities because of substance use;
6. continued substance use despite knowledge of persistent or recurrent problems caused or exacerbated by substance use;
7. marked tolerance (i.e., need for larger amounts of the substance to produce the desired effect);
8. characteristic withdrawal symptoms; and
9. use of the substance to relieve or avoid withdrawal symptoms.

Some of the symptoms need to have persisted for at least 1 month or to have occurred repeatedly for an extended period of time.

The DSM-III-R (1987) category of psychoactive substance abuse is a residual category for people who have never met the criteria for a diagnosis of dependence. Among people who have never met dependence criteria, a pattern of substance abuse is characterized by:

1. continued substance use despite knowledge of persistent or recurrent problems caused or exacerbated by substance use, or
2. recurrent use in hazardous situations (e.g., OUI).

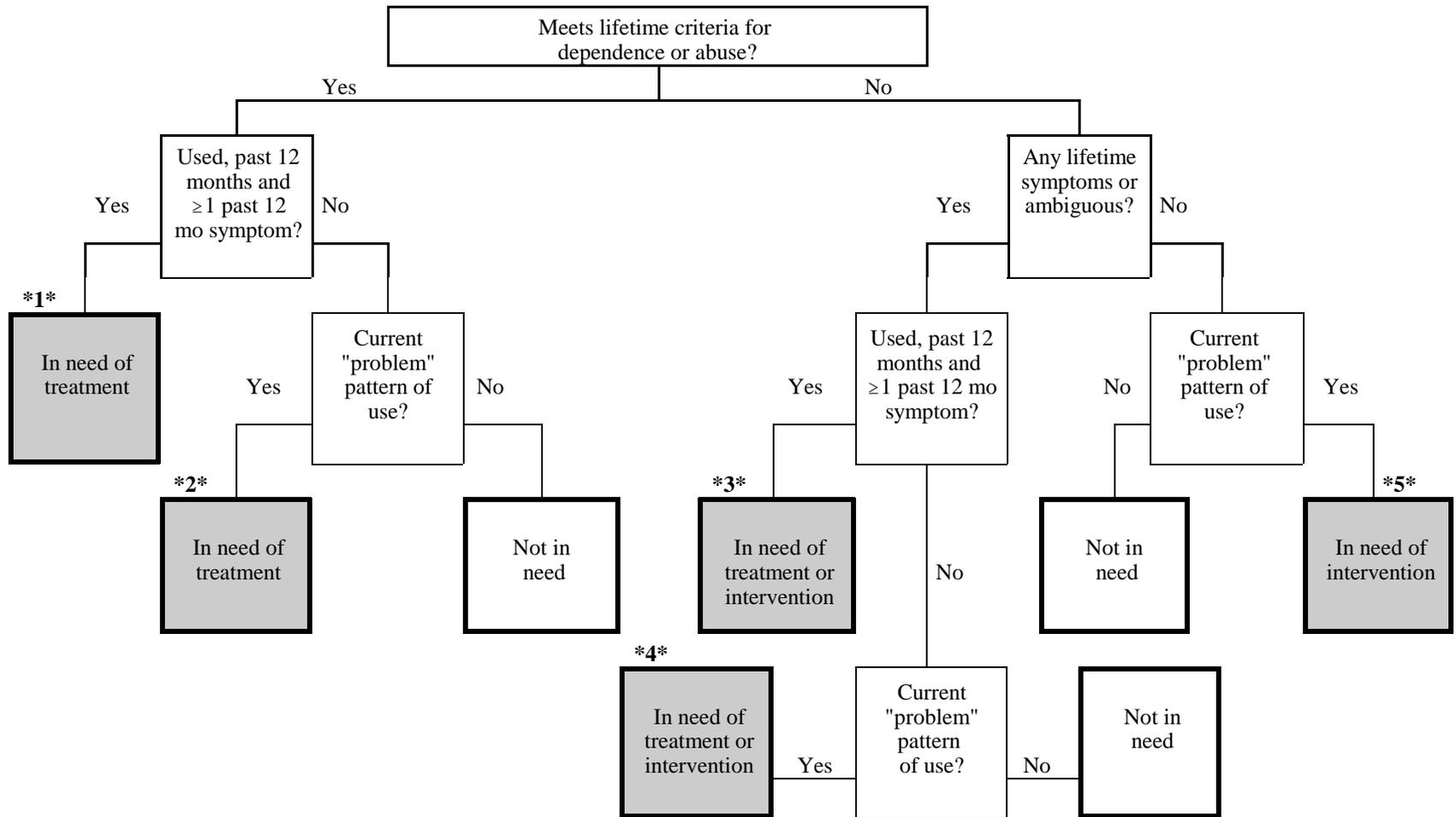
As for substance dependence, for a person to meet the diagnostic criteria for abuse, some of these symptoms need to have persisted for at least 1 month or to have occurred repeatedly for an extended period of time.

Figure E.1 shows how treatment need could be determined based on the DSM-III-R (1987) diagnostic criteria and other factors. The box labeled *1* consists of people who:

- met lifetime DSM-III-R (1987) dependence or abuse criteria for alcohol or another drug, as described above;
- used the substance of interest at least once in the past 12 months; and
- had one or more symptoms of dependence or abuse in the past 12 months.

As noted in Figure E.1, people who met these conditions would be considered in need of treatment services in the past 12 months (McAuliffe et al., 1995). Stated another way, people who met the conditions for Box *1* (a) have had a significant lifetime history of substance abuse

Figure E.1 Criteria for Determining Need for Treatment or Intervention



Source: Maine Household Telephone Survey: 1997.

problems, (b) have recently used the substance that caused them problems, and (c) have had one or more recent problems related to their continued use of that substance.

E.2 Problem Patterns of Use

However, sole reliance on symptoms of dependence or abuse for establishing treatment need in Maine could be too stringent and might miss a group of people in need of treatment. Some people who might have a lifetime history of dependence or abuse might deny the existence of recent problems (i.e., problems in the past 12 months), even though they might be exhibiting patterns of frequent or heavy substance use that would be considered problematic. For example, consumption of eight or more drinks of an alcoholic beverage in a single day¹ would probably be indicative of "problem" alcohol use, even if a person denied that this level of heavy consumption was causing any current problems.

Box *2* in Figure E.1 consists of people who:

- met lifetime DSM-III-R (1987) dependence or abuse criteria for alcohol or another drug, as described above, and
- exhibited a "problem" pattern of use, as described below.

As with people meeting the definitions for Box *1*, people who had a lifetime diagnosis of dependence or abuse would be considered in need of treatment services if they reported a current "problem" pattern of substance use—even if they denied that such use was causing them problems. That is, a current "problem" pattern of consumption in conjunction with a lifetime history of dependence or abuse would suggest relapse and the need for treatment. People were defined as having a current "problem" pattern of alcohol use if they indicated any of the following:

- an extended period (i.e., 2 or more days) of heavy drinking without sobering up in the past 12 months;
- consumption of eight or more drinks in a 24-hour period (six or more drinks for women)² at least once in the past 12 months;
- consumption of five or more drinks in a 24-hour period (four or more drinks for women) at least once a week in the past 12 months;
- consumption of five or more drinks in a 24-hour period on 4 or more days in the past month; or

¹Consumption of eight or more drinks in a single day would be equivalent to consumption of more than a six-pack of beer, more than a bottle of wine, or about $\frac{3}{4}$ pint of liquor.

²Women who had eight or more drinks in a 24-hour period would also meet the "six or more drinks" criterion.

- for women, typical consumption of four or more drinks in a 24-hour period on 4 or more days in the past month.³

A report of any of these behaviors would indicate some considerable consumption of alcohol in the past 12 months, either on a regular or an episodic basis.

For drugs other than alcohol, people were defined as having a current "problem" pattern of use in the past 12 months if they indicated:

- use of marijuana at least once a week,
- use of hallucinogens at least once a week,
- any use of cocaine (including "crack" cocaine),
- any use of heroin or other opiates, or
- use of stimulants for nonmedical reasons⁴ at least once a week.

Any use of cocaine or heroin in the past 12 months was considered to be a "problem" pattern because of the highly addictive potential of these drugs once a person has tried them. For the other drugs, weekly use suggests "hard-core" use that may be more likely to be associated with dependence on these drugs.

E.3 Need for Intervention

Some substance users who have never met the criteria for a lifetime diagnosis of dependence or abuse (or who had an "ambiguous" diagnosis⁵) may also be in need of treatment, or they may be in need of some type of less intensive intervention, short of treatment in a formal treatment program. For example, a medical or mental health professional might counsel someone who used alcohol heavily about the potential adverse effects of continued heavy use and offer assistance in moderating or curtailing use. In addition, estimates of the size of the Maine adult household population in need of some form of intervention provide a broader picture of the population at risk for substance-related problems.

Box *3* in Figure E.1 consists of people who:

³The questionnaire did not ask how often respondents had four or more drinks in a 24-hour period in the past month. However, the questionnaire did ask how many drinks respondents usually had in the past month and on how many days they drank in the past month.

⁴"Nonmedical" reasons was defined as use of stimulants to get high, for curiosity, to go along with friends, or use of prescription-type stimulants without a doctor's prescription.

⁵Consistent with McAuliffe et al. (1995), information about substance dependence was considered to be "ambiguous" if the respondent did not meet lifetime diagnostic criteria for dependence but (a) the respondent refused to answer or answered "don't know" to some the questions needed to establish whether he or she met lifetime diagnostic criteria for dependence, and (b) the respondent would have otherwise met diagnostic criteria for dependence if he or she had answered "yes" to these questions, instead of refusing or answering "don't know."

- never met lifetime DSM-III-R (1987) dependence or abuse criteria for alcohol or another drug, as described above;

but who

- nevertheless had one or more lifetime symptoms of dependence or abuse;
- had one or more symptoms of dependence or abuse for a given drug in the past 12 months; and
- used that particular drug in the past 12 months.

People who meet the definitions for Box *3* would be considered in need of some form of intervention, and some of these people could even be in need of treatment. For example, a person who was arrested for operating a motor vehicle under the influence of alcohol (OUI) in the past 12 months might not have had enough of a history of alcohol problems to "qualify" for a full diagnosis of alcohol dependence in his or her lifetime. Nevertheless, this would be an example of someone in need of at least some form of intervention to prevent his or her problems with alcohol from worsening.

Box *4* in Figure E.1 consists of people who:

- never met lifetime DSM-III-R (1987) dependence or abuse criteria for alcohol or another drug, as described above;
- did not report any symptoms of dependence or abuse for a given drug in the past 12 months;

but who

- nevertheless had one or more lifetime symptoms of dependence or abuse; and
- reported a "problem" pattern of use, as described above.

As with Box *3*, people who met the definitions for Box *4* would be considered in need of at least some form of intervention. For example, a person who reported weekly use of marijuana in the past year might also report that he or she had one or more lifetime problems with marijuana (e.g., problems at school because of marijuana use), but that these problems occurred more than a year ago. However, a current pattern of weekly marijuana use might put this person at high risk for developing new problems.

Finally, Box *5* in Figure E.1 consists of people who:

- never had any symptoms of dependence or abuse in their lifetimes,

but who

- reported a "problem" pattern of use, as described above.

As with Boxes *3* and *4*, people meeting the definitions for Box *5* would be considered in need of at least some form of intervention. For example, a person might deny that drinking has ever caused problems in his or her life, but may report a pattern of heavy alcohol use that could lead to adverse health, social, or legal consequences.

E.4 Summary of Definitions

In summary, Maine adults who met the criteria for boxes *1* or *2* in Figure E.1 were defined as being in need of *treatment*. Adults who met the criteria for boxes *1* through *5* in Figure E.1 were defined as being in need of *treatment or intervention*.

That is, any adults who met the criteria for boxes *1* through *5* can be considered at a minimum to need some form of intervention in the past 12 months because they experienced past year problems related to their substance use, or they engaged in patterns of substance use that suggest impaired functioning. Those adults who met the narrower treatment need criteria for boxes *1* or *2* were specifically in need of substance abuse treatment services.

Appendix F

***Core Substance Use, Treatment History,
and Gambling Questions***

For a copy of the full questionnaire, please contact

Maine Office of Substance Abuse
Information and Resource Center
#159 State House Station
A.M.H.I. Complex
Marquardt Building, 3rd Floor
Augusta, Maine 04333-0159
Web: <http://janus.state.me.us/dmhmrso/osa>
E-mail: osa.ircosa@state.me.us
1-800-499-0027
TTY: 207-287-4475
TTY (toll free in Maine): 1-800-215-7604