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**Iowa 1997-98 Adult Household
Survey of Substance Use
and Treatment Needs**

Center for Social and
Behavioral Research



College of Social and Behavioral Sciences
University of Northern Iowa
Cedar Falls, Iowa 50614

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Table of Contents

	<u>Page</u>		<u>Page</u>
<i>List of Tables</i>	vi	<i>Prevalence of Hallucinogen Use</i>	30
<i>List of Figures</i>	viii	Ever Use	30
<i>Preface</i>	ix	Recent Use	30
<i>Acknowledgment</i>	x	Patterns of use	32
<i>Executive Summary</i>	xi	<i>Prevalence of Cocaine and Crack Use</i>	34
<i>Part 1 Introduction</i>	1	Ever Use	34
<i>Part 2 Research Design</i>	2	Recent Use	34
<i>Sampling Plan</i>	2	Patterns of use	36
<i>Questionnaire</i>	2	<i>Prevalence of Heroin and Opiate Use</i>	38
<i>Data Collection</i>	3	Ever Use	38
<i>Weights</i>	4	Recent Use	38
<i>Analysis & Results</i>	4	Patterns of use	40
<i>Clarification of terminology</i>	4	<i>Prevalence of Sedative Use</i>	42
<i>Part 3 Sample Characteristics</i>	5	Ever Use	42
<i>Part 4 Findings</i>	7	Recent Use	42
<i>Physical Health</i>	7	Patterns of use	43
<i>Psychological Health</i>	8	<i>Prevalence of Stimulant Use</i>	46
<i>Prevalence of Substance Use Among</i>		Ever Use (any stimulant)	46
<i>Adult Iowans</i>	10	Recent Use (any stimulant)	46
<i>Explanation of terminology</i>	10	Methamphetamine Use	48
<i>Overview of substance use</i>	10	Use of other stimulants	51
<i>Trends in Substance Use</i>	12	<i>Prevalence of Intravenous Injection</i>	54
Trends in Lifetime Prevalence	12	Ever Use	54
Trends in Recent Use	13	Recent Use	54
Trends in Iowa Tobacco Use	13	<i>Prevalence of Recent Multiple</i>	
<i>Prevalence of Tobacco Use</i>	15	<i>Substance Use</i>	54
Ever Use	15	Alcohol, tobacco, and/or drug(s)	54
Recent Use	15	Alcohol and drug(s)	54
Current Use	16	Profiles of recent alcohol and/or	
Patterns of use	17	drug(s) users	55
Self-reported dependency	18	<i>Prevalence of Substance Use and</i>	
<i>Prevalence of Alcohol Use</i>	19	<i>Dependency</i>	57
Ever Use	19	<i>Substance Abuse</i>	57
Recent Use	19	<i>Substance Dependency</i>	59
Current Use	20	Self-identified dependency	59
Patterns of use	21	Objective dependency criteria	60
<i>Prevalence of Marijuana Use</i>	25	DSM-III-R alcohol dependency	60
Ever Use	25	DSM-III-R drug dependency	61
Recent Use	25	DSM-III-R dependency on any	
Current Use	27	substance	62
Patterns of use	27	Relationship between self-identified	
		and criteria-based dependency	63
		Relationship between DSM-III-R	
		and DSM-IV	64
		Dependency across time	64
		Determining treatment needs:	
		A comparison of three objective	
		criteria	66

Table of Contents - continued

	<u>Page</u>		<u>Page</u>
<i>Levels of Care</i>	66	<i>Other Factors Associated with</i>	
<i>Dimensions of Care Determinations</i> .	66	<i>Substance Dependency</i>	84
<i>The Assessment Process</i>	67	<i>Overview of Physical and Sexual</i>	
<i>Selecting Placement Criteria</i>	67	<i>Abuse History</i>	84
<i>Levels of Care in the Present Study</i> .	68	<i>Physical Abuse</i>	85
Medically supervised	68	Before 18	85
Residential services	68	As an adult	85
Outpatient	68	Ever abused	85
Levels of care estimates	68	<i>Sexual Abuse</i>	85
Validity of the level of care		Before 18	85
placement criteria	72	As an adult	86
<i>Treatment Experiences</i>	73	Ever abused	86
<i>An Overview</i>	73	<i>Physical and Sexual Abuse</i>	86
<i>Treatment Experiences – Lifetime</i> ..	74	Before 18	86
Self-help treatment	74	As an adult	83
Outpatient treatment	74	Ever abused	86
Detox	74	<i>Pregnancy</i>	88
Professional counseling	74	<i>Gambling</i>	88
Residential Rehabilitation	74	<i>Criminal Justice System</i>	88
Religious counseling	75		
Halfway House	75	<i>Part 5 Summary and Conclusions</i>	89
<i>Treatment Experience – Recent</i>	76		
Self-help treatment	76	<i>References</i>	91
Additional treatment needs of			
Iowans who received treatment		<i>Appendix A — Prevalence of Substance Use for</i>	
within the past 12 months ...	77	<i>Age Group, County Type, & Region by Gender</i> 93	
<i>Treatment Needs of Iowans Not</i>			
<i>Recently in the Treatment System</i> ...	77	<i>Appendix B — DSM-III-R and DSM-IV Diagnosis</i>	
<i>Treatment Barriers</i>	77	<i>of Substance Abuse and Dependence Scoring</i> 103	
Facilities	78		
Beliefs about services	78	<i>Appendix C — Confidence Intervals for Prevalence</i>	
Personal factors	79	<i>of Use, Abuse, and Dependency</i>	111
Social group factors	79		
Social support	79	<i>Appendix D — Substance Use by Region</i>	115
Summary	80		
<i>Potential Public Client</i>	80	<i>Appendix E — Treatment Barriers</i>	129
Annual Income	80		
Health Insurance	81	<i>Appendix F – Physical and Sexual Abuse</i>	133
Special Services	81		
Summary	81		
Treatment Gap	82		

List of Tables

Table	Page	Table	Page
1	3	32	29
2	5	33	29
3	6	34	30
4	6	35	31
5	7	36	31
6	8	37	32
7	8	38	32
8	8	39	33
9	9	40	33
10	11	41	34
11	14	42	35
12	14	43	35
13	15	44	36
14	16	45	36
15	16	46	37
16	17	47	37
17	19	48	38
18	20	49	39
19	20	50	39
20	21	51	40
21	22	52	40
22	22	53	41
23	23	54	41
24	23	55	42
25	24	56	43
26	25	57	43
27	26		
28	26		
29	27		
30	28		
31	28		

List of Tables - continued

<u>Table</u>	<u>Page</u>	<u>Table</u>	<u>Page</u>
58 Recency of Sedative Use by Age Group (% of Recent Users)	44	79 Prevalence of Substance Abuse (Approximation of DSM-IV Criteria)	58
59 Recency of Sedative Use by County Type (% of Recent Users)	44	80 Substance Abuse (Approximation of DSM-IV Criteria) by Gender and Age Group	59
60 Frequency of Sedative Use by Age Group (% of Recent Users)	45	81 Self-identified Dependency	59
61 Frequency of Sedative Use by County Type (% of Recent Users)	45	82 DSM III-R Alcohol Dependency	61
62 Ever Used Stimulants (Any)	46	83 DSM III-R Drug Dependency	61
63 Recent Stimulant Use (Any)	47	84 DSM III-R Dependency on Any Substance	62
64 Population Estimates of Recent Stimulant (Any) Users: Age Group and County Type by Gender (Number of Respondents in Parentheses).	47	85 DSM-III-R Dependency on Any Substance: Age Group and County Type by Gender	63
65 Methamphetamine Ever and Recent Use	48	86 Comparison Over Time of DSM-III-R and DSM-IV Dependency Criteria by Type of Substance	65
66 Population Estimates of Recent Methamphetamine Users: Age Group and County Type by Gender (Number of Respondents in Parentheses)	48	87 Estimated Levels of Care: Statewide Prevalence Rates Using Alternative Alcohol Dependency Criteria	70
67 Recency of Methamphetamine Use by Age Group (% of Recent Users)	49	88 Level of Care Prevalence By Demographic Group (DSM-III-R with Substance Use as Dependency Criteria) (% of Total Adult Population)	70
68 Recency of Methamphetamine Use by County Type (% of Recent Users)	49	89 Ever Treatment Experiences: Population Estimates and Number of Respondents	75
69 Frequency of Methamphetamine Use by Age Group (% of Recent Users)	50	90 Treatment Experiences in the Past 12 Months: Population Estimates and Number of Respondents	76
70 Frequency of Methamphetamine Use by County Type (% of Recent Users)	50	91 Treatment Demand: Population Estimates and Number of Respondents	77
71 Other Stimulants Ever and Recent Use	51	92 Barriers Related to the Facilities (%)	78
72 Population Estimates of Recent Non- Methamphetamine Stimulant Users: Age Group, and County Type by Gender (Number of Respondents in Parentheses)	51	93 Barriers Related to Treatment Beliefs (%)	79
73 Recency of Other Stimulant Use by Age Group (% of Recent Users)	52	94 Barriers Related to Personal Factors (%)	79
74 Recency of Other Stimulant Use by County Type (% of Recent Users)	52	95 Barriers Related to Social Groups (%)	79
75 Frequency of Other Stimulant Use by Gender and Age Group (% of Recent Users)	53	96 Barriers Related to Social Support (%)	80
76 Frequency of Other Stimulant Use by Gender and County Type (% of Recent Users)	53	97 Income Levels for Dependent Iowans	81
77 Prevalence for Recent Use of Alcohol and At Least One Other Substance (excluding tobacco)	55	98 Summary of Indicators of Public Clients (% of DSM-III-R Dependent with Recent Substance Use)	82
78 Description of Recent Substance Use (% of Any Recent Alcohol and/or Drug Users)	56	99 Estimated Adult Public Treatment Gap	82
		100 Physical and Sexual Abuse by Substance Dependency, and Gender (%)	87
		101 Physical and Sexual Abuse by Substance Dependency and Age Group (%)	87
		102 Alcohol Abuse and Dependency (% of Pregnant Women with Alcohol Use in the Past 12 Months)	88

List of Figures

<u>Figure</u>	<u>Page</u>	<u>Figure</u>	<u>Page</u>
1	4	20	38
2	6	21	42
3	15	22	43
4	16	23	46
5	17	24	47
6	18	25	61
7	18	26	61
8	19	27	63
9	20	28	64
10	21	29	71
11	21	30	73
12	25	31	77
13	26	32	84
14	27		
15	30		
16	31		
17	34		
18	35		
19	38		

Preface

There is a “national conversation” occurring now about substance abuse treatment in the U.S. The Center for Substance Abuse Treatment (CSAT) of the Substance Abuse and Mental Health Services Administration (SAMHSA) is leading this discussion organized into five parts: identifying gaps in treatment, addressing stigma and attitudes toward treatment, improving and strengthening treatment systems, connecting research and practice, and addressing workforce issues. The goal is the creation of a national treatment plan that will bring greater cohesion and success to all the myriad of efforts now being made to improve treatment outcomes.

Iowa is engaged in the national conversation, as we should be. This report mostly speaks to the first of the five topics, namely gaps in treatment in Iowa. Our approach is three-fold. First, we describe the extent of use (prevalence and distribution) for all major categories of substances expressed for geographic and demographic segments of the general adult population. Second, we develop estimates of the extent of substance abuse and dependency across the state. Third, we consider the gaps between substance abuse/dependency and the need for treatment. Each part of this process is progressively more difficult as the available measures become ever less precise. Yet, the findings provide a sound basis for Iowa providers and policy makers to address all five parts of the conversation for the state. We hope readers will be active participants in an Iowa conversation to develop a renewed Iowa plan for substance abuse treatment in the near future.

Gene M. Lutz, Ph.D.
Project Director

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Executive Summary

The Iowa 1997-98 Adult Household Survey of Substance Use and Treatment Needs was based on a stratified random sampling of all Iowa households that could be reached by telephone. Interviewers at the University of Northern Iowa's Center for Social and Behavioral Research completed 6,163 interviews. The main goals of the study were to develop estimates of the substance use and treatment needs of adult Iowans. Findings were weighted according to sampling strata to provide estimates reflecting the total adult population of Iowa according to age and gender in the 1997 Census estimates. The primary measure of treatment needs was substance dependency based on the DSM-III-R criteria (American Psychiatric Association's Diagnostic and Statistical Manual).

The content of the questionnaire was based on the National Technical Center's standard treatment needs assessment instrument, prior question series utilized in the National Household Survey of Drug Abuse (NHSDA), and various single state surveys. The content areas of the questionnaire consisted of demographics, general health assessment, tobacco use, alcohol use, drug use, substance dependence, abuse treatment and assessment, and physical and sexual abuse victimization.

The key findings regarding prevalence and patterns of substance use are presented for alcohol, tobacco, and other drugs. Three estimates of prevalence are reported: ever used refers to persons who report they had ever used the substance; recent use refers to use reported within 18 months of the interview; and current use refers to use within the past 30 days. Findings related to patterns of use are also highlighted.

A comparison of lifetime and recent prevalence between Iowa, the North Central Region of the US, and the nation are included.

PREVALENCE OVERVIEW

- ▶ About half of adult Iowans (49.4%) had used tobacco at least once in their life; 29.4% used it recently and 26.9% used it currently.
- ▶ A vast majority of Iowans (92.2%) had consumed alcohol at least once in their life; 70.9% used it recently, and 54.1% used it currently.
- ▶ One in four adults (24.9%) had used marijuana at least once in their life; 5.2% used it recently, and 1.6% used it currently.
- ▶ After marijuana, the most frequently used drug was stimulants (9.3% ever and 2.5% recently) – no other drugs were recently used by more than 1% of Iowans.

TRENDS IN SUBSTANCE USE

- ▶ In comparison to five years earlier, the rates of ever and recent substance use in Iowa were largely unchanged, except for recent alcohol use and ever stimulant use which declined slightly.
- ▶ The Iowa rates of ever use and recent use of alcohol exceeded those of the North Central Region (US) and the nation.
- ▶ Iowa's rates for recent use of sedatives was unchanged from five years ago and exceeded regional and national rates.
- ▶ Iowa's rate of ever stimulant use declined from five years ago, but remained above the regional and national rates.
- ▶ Iowa's rates of tobacco use (ever and current) were mostly unchanged from five years earlier.

Table E1: Ever, Recent, and Current Substance Use Among Adult Iowans 1997-98

Substance	Ever Used		Recent Use		Current Use	
	%	N _w	%	N _w	%	N _w
Tobacco	49.4	1,050,757	29.4	625,411	26.9	570,986
Alcohol	92.2	1,961,905	70.9	1,509,227	54.1	1,151,194
Marijuana	24.9	529,982	5.2	110,184	1.6	34,592
Hallucinogens	6.1	129,413	0.6	13,720	0.1	1,189
Cocaine & crack	6.4	136,136	0.9	18,677	0.1	1,519
Heroin & other opiates	2.0	41,575	0.4	7,957	0.0	551
Sedatives	3.1	66,156	0.7	14,946	0.2	3,405
Stimulants (total)	9.3	197,571	2.5	52,566	0.7	14,608

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

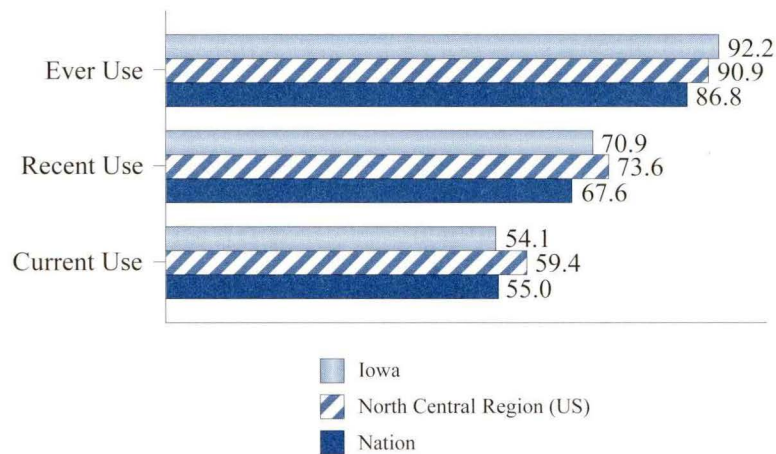


Figure E1. Iowa (1997-1998), North Central Region of US (1997), and Nation (1997): Ever, Recent, and Current Alcohol Use (%).

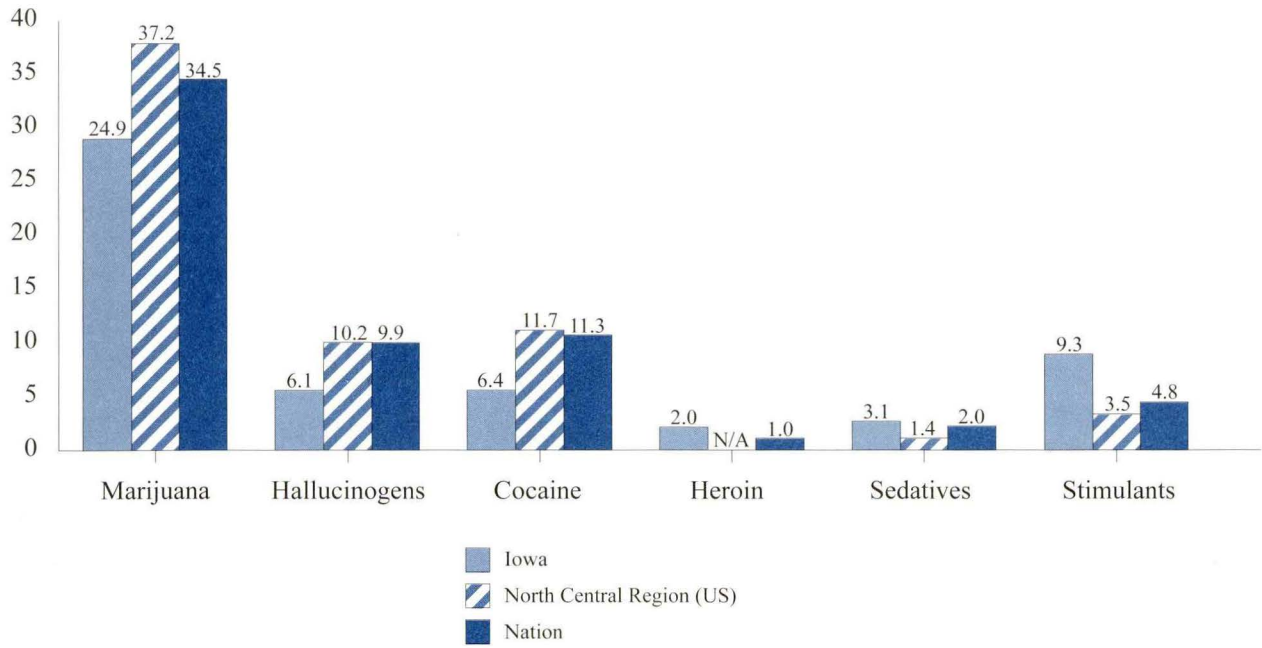


Figure E2. Iowa, North Central Region, & Nation: Ever Use of Drugs Other Than Alcohol (%)

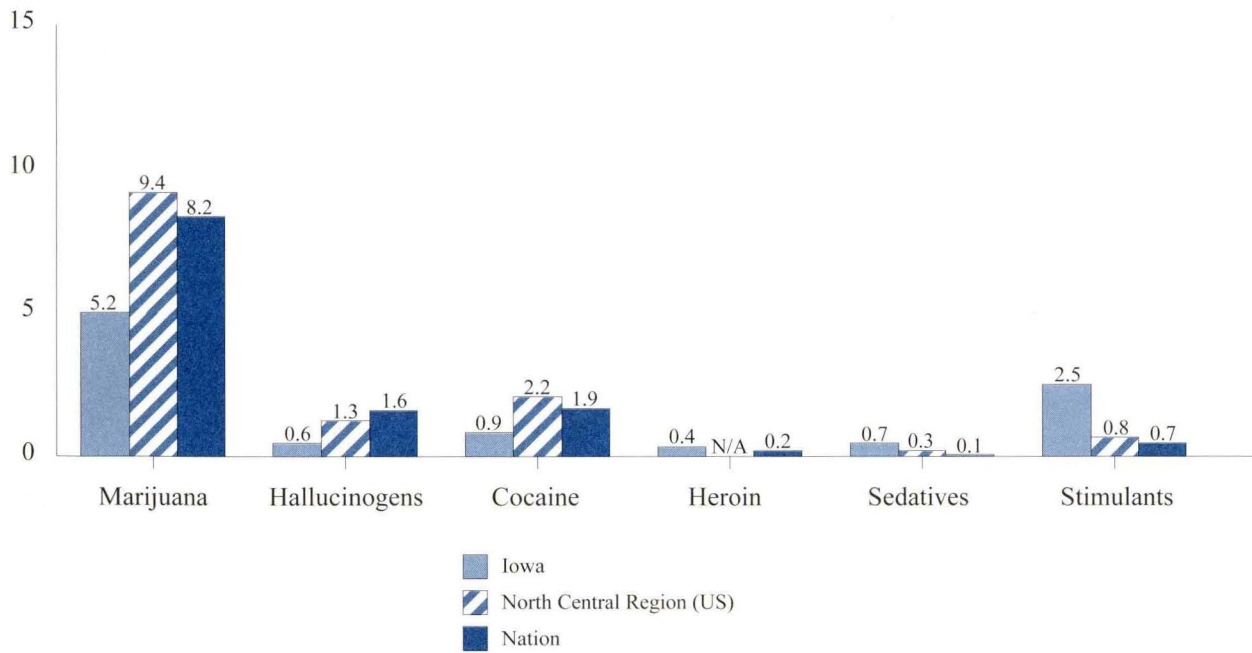


Figure E3. Iowa, North Central Region, & Nation: Recent Use of Drugs Other Than Alcohol (%)

SUMMARY FOR SPECIFIC SUBSTANCES

TOBACCO -- Approximately half of all Iowans reported using tobacco 100 or more times during their lifetimes. About half of these people (an estimated 570,986) remained current users.

- ▶ Lifetime use of tobacco was more common among persons ages 45-64, but current use of tobacco was more common among persons under 45.
- ▶ The mean age when starting to use cigarettes was 17.2 years.
- ▶ Women under 25 smoked the fewest ($M = 10.4$) and men between the ages of 25 and 64 smoked the most (approximately 20) cigarettes per day.
- ▶ 28.4% of Iowans have felt dependent on or addicted to cigarettes.
- ▶ 85.8% of those who ever felt dependent had seriously tried to quit once.
- ▶ Recent use of tobacco was lowest in the North Central Region (Region 2).

ALCOHOL -- Alcohol was the most commonly used substance among adult Iowans, and the substance responsible for most treatment needs. Among adult Iowans:

- ▶ 92.2% or an estimated 1,961,905 adults had ever used alcohol in their lifetimes.
- ▶ 70.9% or an estimated 1,509,227 had recently used alcohol.
- ▶ 4.9% of recent users drank daily or almost daily; 28.4% of recent users drank weekly; 66.7% of recent users drank monthly or less often.
- ▶ Of recent users, men were 3 times as likely as women to be daily drinkers and twice as likely to be weekly drinkers.
- ▶ Of recent users, persons age 65 or older were the most likely to report daily consumption.

- ▶ Of recent drinkers, men consumed more than women when they drank; 14.4% of men had five or more drinks when they drank.
- ▶ The Northeast and Central Regions (Regions 3 and 5) had the highest rates of recent alcohol consumption.
- ▶ 8.5% of adults or an estimated 181,749 were alcohol dependent by DSM-III-R criteria.
- ▶ 5.4% or an estimated 115,033 defined themselves as ever having a drinking problem or been addicted to alcohol.

MARIJUANA -- Marijuana (including hashish and other forms of *cannabis sativa*) was the most commonly reported illegal drug used by adult Iowans.

- ▶ 24.9% of adult Iowans or an estimated 529,982 had used marijuana in their lifetimes.
- ▶ The Central Region (Region 5) had the highest prevalence (32.1%) of ever use.
- ▶ About 5.2% or an estimated 110,184 adult Iowans had used marijuana recently.
- ▶ An estimated 34,592 or 1.6% of Iowans reported that they had used marijuana within the last 30 days.
- ▶ While adults between the ages of 25 and 44 had the highest rate of ever use, those under the age of 25 were most likely to be recent (16.7%) and current (7.8%) users.
- ▶ Adults in urban counties were the most likely to have recently used (7.3%).
- ▶ Men were twice as likely as women to have used marijuana in the last 30 days.
- ▶ 39.2% of recent users had used marijuana 11 or more times during the past 18 months.
- ▶ 1.3% of adult Iowans felt they had ever been hooked or dependent on marijuana; 1.1% or an estimated 23,558 meet the DSM-III-R criteria for dependency.

HALLUCINOGENS – Use of hallucinogenic drugs was fairly uncommon among adult Iowans.

- ▶ Although 6.1% of Iowans or an estimated 129,413 reported ever use of these drugs, only 0.6% reported recent use.
- ▶ Men were more likely than women to have used these drugs.
- ▶ Persons between ages 25-44 were more likely to have ever used these drugs.
- ▶ Persons living in urban counties were more likely to have used them.
- ▶ Approximately 10% of recent users had used hallucinogens in the past 30 days.
- ▶ The Central Region (Region 5) had the highest rate of hallucinogen use.

COCAINE AND CRACK – Use of cocaine and crack was fairly uncommon in Iowa. However, its highly addictive nature may cause problems out of proportion to its prevalence.

- ▶ 6.4% of adult Iowans or an estimated 136,136 had used cocaine or crack in their lifetimes.
- ▶ Only 0.9% of adult Iowans (18,677) had used this drug in the last 18 months.
- ▶ Men were twice as likely as women to have ever used cocaine or crack.
- ▶ Ever use was more common among adults between the ages of 25 and 44.
- ▶ Ever and recent use was more common among persons living in urban counties.
- ▶ Iowans in the Southeastern, Central, and Southwestern Regions (Regions 4, 5, 6) had the highest rates of ever use.
- ▶ Of recent cocaine or crack users, 19.4% were dependent on the drug by DSM-III-R criteria, and 25.0% of recent users reported that at some point in their life they felt addicted to cocaine or crack. The reader is cautioned that these estimates are based on a small number of such respondents.

HEROIN AND OTHER OPIATES – Use of heroin and related opiate and synthetic-opiate drugs was rare among adult Iowans.

- ▶ Only 2% of adult Iowans (41,575) had ever used these drugs, and 0.4% had used recently.
- ▶ Most of the ever users were between the ages of 25 and 44 and lived in urban counties.
- ▶ Men were more likely than women to have ever used.
- ▶ Recent opiate use was highest in the Central Region (Region 5).
- ▶ 9.2% of recent users had used the drugs within the last 30 days.

SEDATIVES – Sedative use includes the use of tranquilizers, sleeping pills, and barbiturates for non-medical reasons.

- ▶ 3.1% of adult Iowans (66,156) had ever used sedatives; 0.7% had recently used (14,946).
- ▶ Although men report higher rates of ever use, men and women were equally likely to report recent use.
- ▶ Adults between ages 25 and 44 had the highest ever use prevalence.
- ▶ Central Iowa (Region 5) had the highest rate of ever and recent sedative use.

ANY STIMULANT – Stimulants (including methamphetamine) were the third most common category of drugs used by adult Iowans.

- ▶ Iowa's rate of ever use (9.3%) was higher than the nation's (4.8%).
- ▶ 9.3% or an estimated 197,571 adults had ever used stimulants.
- ▶ 2.5% or an estimated 52, 566 of adult Iowans had used recently.
- ▶ Adults between ages 25 and 44 were the most likely to have ever used, but those under age 25 were the most likely to have recently used.
- ▶ Men were more likely to have ever used.
- ▶ Urban county residents were the most likely to have ever or recently used.
- ▶ One percent of adult Iowans met the DSM-III-R criteria for dependency.

METHAMPHETAMINE – The use of methamphetamine was relatively rare.

- ▶ Approximately 6% of adult Iowans (130,373) have used these drugs at least once, and slightly more than one percent (28,527) had recently used.
- ▶ Men were more likely than women to have ever or recently used.
- ▶ A majority (52%) of recent users were between the ages of 25 and 44.
- ▶ A vast majority (86%) lived in urban or mostly urban counties.
- ▶ An estimated 5,255 adult Iowans had used methamphetamine in the last 30 days.

USE OF OTHER STIMULANTS – This category of drug use included: illicit use of stimulants (other than methamphetamine) and non-medical use or abuse of both over-the-counter (OTC) drugs such as Vivarin® and prescription drugs.

- ▶ 5.6% of Iowans have ever used non-methamphetamine stimulants for non-medical reasons, with 1.5% of adults having done so in the past 18 months.
- ▶ One in twenty adults under the age of 25 had used such stimulant recently.
- ▶ 6% of women and 4% of men under 25 had recently used a stimulant.

MULTIPLE SUBSTANCE USE – The use of multiple substances is of interest for treatment planning.

- ▶ An estimated 94,273 adult Iowans (4.4%) had used alcohol, tobacco, and at least one drug during the past 18 months, and an additional 417,428 adult Iowans (19.6%) had recent alcohol and tobacco use but no drug use.
- ▶ 6.2% of *all adults* who had used alcohol recently had also used one or more other drug.
- ▶ Nearly all (88%) persons who reported recent use of drug(s) also reported using alcohol (132,175 adults).
- ▶ However, only an estimated 6.2% (95,300) of *recent substance users* (excluding tobacco) had recently used alcohol and *one* other drug and 2.4% (36,875) had used alcohol and *two or more* other drugs.

SUMMARY OF ABUSE, DEPENDENCY, AND TREATMENT EXPERIENCE

ABUSE – Substance abuse was approximated by DSM-IV criteria. This excludes those who have reached substance dependency.

- ▶ 3.1% of adult Iowans (67, 030 persons) were estimated to be substance abusers.
- ▶ An estimated 56,176 (2.6%) were alcohol abusers, and an estimated 14,304 (0.7%) were drug abusers.

DEPENDENCY AND TREATMENT NEEDS– A primary measure of treatment need was DSM-III-R substance dependency with recent substance use.

- ▶ 9.4% of adults (200,016) were DSM-III-R substance dependent on at least one substance and had used recently.
- ▶ As previously noted, alcohol was the substance most commonly implicated in dependency: an estimated 181,749 (8.5%) adult Iowans had some alcohol dependency problems and were using recently.
- ▶ An estimated 45,602 adult Iowans were DSM-III-R dependent on a drug (other than alcohol).
- ▶ Men were more likely than women to be dependent on at least one substance.

- ▶ Iowans 18 to 24 and living in urban counties were more likely to be dependent on a substance.
- ▶ Adults in the Central Region (Region 5) were the most likely to be dependent on a substance.
- ▶ About 45% (89,336) of those dependent on a substance were potential public clients if they were to receive treatment.
- ▶ By DSM-III-R criteria, the adult public treatment gap was approximately 66,170 persons in 1997.
- ▶ As shown in Table E4, Iowa’s dependency rates were stable or declined slightly from 1992-93. The rates of DSM-III-R ever dependency and DSM-IV recent dependency in 1997-98 were similar to the rates in 1992-93.

Table E4: DSM-III-R and DSM-IV Dependency Rates in Iowa for 1992-93 and 1997-98

Dependency Criteria	1992-93		1997-98	
	%	N _w	%	N _w
DSM-III-R Ever Dependent, with use in the past 18 months				
Alcohol	8.6	176,100	8.5	181,749
Any Other Drug	2.2	45,400	2.1	45,602
Any Substance	9.5	195,500	9.4	200,016
DSM-III-R Ever Dependent, with at least 1 symptom in the past 18 months				
Alcohol	5.8	119,800	3.9	83,553
Any Other Drug	1.0	20,800	0.7	15,346
Any Substance	6.2	126,600	4.3	90,620
DSM-IV Recent (12 Month) Dependency				
Alcohol	2.0	41,400	1.9	41,293
Any Other Drug	0.6	12,300	0.4	9,511
Any Substance	2.5	51,400	2.2	47,775

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

CONCLUDING REMARKS – Consistent with the treatment needs assessment of five years ago, alcohol is the major substance problem among adult Iowans. However, a significant number of adult Iowans use and abuse other drugs, especially marijuana and stimulants. Many Iowans need substance abuse treatment, but have not sought or received it. Denial, other personal problems, cost, availability, and having coworkers who use alcohol were often related to substance dependency and to not seeking treatment. Closing the treatment gap will require addressing these issues.

Part 1: Introduction

A rational substance abuse treatment plan requires an accurate and comprehensive assessment of treatment needs. The size and characterization of the problem should be known before treatment resources are committed. Iowa took a major step in this direction in 1992 with its first Substance Abuse Treatment Needs Assessment, funded by the Center for Substance Abuse Treatment. Much was learned from that project about the extent of substance abuse among the general Iowa adult population. However, due to a relatively small sample size ($N = 1,891$), those findings did not allow for specification of the geographic variation in substance use prevalence and treatment needs.

This second Iowa Substance Abuse Treatment Needs Assessment responds to the limitations of the first assessment. A larger sample size ($N = 6,163$) supports reliable findings for major geographical and demographic subgroups. In turn, treatment planning can proceed with greater precision. Additionally, this second study provides Iowa's first indication of the stability of comprehensive substance use rate estimates over time.

Alcohol abuse presents the largest treatment challenge in Iowa, both in terms of the number of alcohol dependents compared to other drug dependents and the failure of most of the alcohol dependent Iowans to recognize their problem. Alcohol dependence and abuse should occupy center stage in treatment program planning in Iowa. Outreach efforts by treatment programs should aim for much greater penetration into the pool of substance abusers in Iowa. The potential benefits of expanded treatment coverage are very large.

To obtain an estimate of unmet treatment needs, it is necessary to estimate the number of substance users who need treatment and the existing treatment capacity. If there is more need than current resource capacity, this provides an estimate of the pool of substance abusers who could benefit from substance abuse treatment. We recognize that the simplicity of this conceptual equation belies the many complexities and uncertainties involved in fitting actual data to the decision making process.

In addition to rates of substance use, abuse, and dependency, this study includes a levels of care estimate of unmet treatment needs for the state as a whole, within planning regions, and for select demographic groups. The levels of care range from outpatient treatment to medically supervised treatment. This kind of analysis may allow a more precise identification of unmet treatment needs.

Treatment utilization data can provide very useful information to help guide policy decisions. In combination with the substance abuse treatment rate estimates that Iowa's Substance Abuse Reporting System (SARS) provides, this survey provides data to assist treatment program administrators identify underserved substance abuser target groups, set outreach goals and objectives, and determine whether those goals and objectives were met. This kind of feedback on goals and objectives is expected to be continually more important and formalized as a means of documenting improved cost efficiency and program effectiveness.

Part 2: Research Design

Sampling Plan

The population sampled consisted of all private Iowa residents 18 years and older living in households that could be contacted by telephone using a stratified Random Digit Dialing (RDD) methodology. Our sampling technique was based on a 9:1 ratio of known residential numbers to unknown numbers (e.g., may be recently connected to households). Thus, the sampling frame for the survey included all adults aged 18 and over living in non-institutionalized residences with a telephone.

The sampling plan used the state's six substance abuse treatment planning regions combined with four age strata: 18-24, 25-44, 45-64 and over 65. These age strata matched those used in the state's block grant applications. The target total sample size was 6,000 which consisted of 1,000 respondents from each planning region distributed equally for the four age strata (i.e., 250 per age group per region). A total sample size of 6,000 predicts a maximum sampling error of 5% at the 95% confidence level for most estimates based on distributions without extreme skew.

To ensure adequate inclusion of both rural and urban households within each region (see Appendix D for a list of counties in each region), a second level pre-selection strata was used. For each region, those counties containing a city of 10,000 people or more had a sampling rate one-half that of counties without a city of 10,000 or more. The sample was drawn by Genesys Sampling Systems in accordance with sampling specifications developed by the researchers.

One consequence of using equal-sized age strata was that the youngest adults (18-24) could be over-sampled relative to their proportion of the population. Because the prevalence of substance use was expected to be greater in the younger age group, the sampling procedure increased the estimating power for this high substance use subset.

Within selected households, the "most recent birthday" technique was used for respondent selection. This technique reduced the burdens on both the respondent and interviewer that are associated with the Kish selection method that requires up-front disclosure of all household members by age and gender.

Questionnaire

The study questionnaire was designed to maximize the validity of self-reports of drug-related behaviors. Prior research suggests that the greatest underestimate of substance use occurs with the first drug queried. Following the Gfroerer and Hughes (1991) recommendation, questions about the less threatening substances of tobacco and alcohol preceded the more sensitive questions concerning illicit substance use.

The content of the questionnaire was based on the National Technical Center's standard treatment needs assessment instrument, prior question series utilized in the National Household Survey of Drug Abuse (NHSDA), and various single state surveys, including Iowa's 1993 survey. The content areas of the questionnaire consisted of demographics, general health assessment, tobacco use, alcohol use, drug use, substance dependence

and abuse assessment, substance use treatment, barriers to treatment, and physical and sexual abuse victimization. The American Psychiatric Association's Diagnostic and Statistical Manuals (editions III-R & IV) served as the basis for the substance abuse and dependency assessment.

Data Collection

All data were collected via Computer Assisted Telephone Interviewing (CATI) at the Center for Social and Behavioral Research at the University of Northern Iowa. Interviewers were trained and supervised by the research unit. Data collection began in June 1997 and concluded in October 1998. Interviewing was concentrated in the hours of 5-9 p.m. Sunday through Thursday. Interviews were also conducted weekdays from 9 a.m. until 5 p.m., and Saturdays from 10 a.m. until 2 p.m. Other times were utilized for hard-to-reach households. Tested strategies for call-backs and refusal conversions were followed to achieve a maximum response rate. Eight or more telephone connection attempts were made for each household. A minimum of 15 call-backs were made to selected respondents who were unavailable during the initial and subsequent contacts with the household.

During the initial contact, respondents were provided with a brief description of the interview purpose, identity of the study sponsor, and informed that their participation was confidential and voluntary both overall and with respect to each individual question.

The response rate (RR4; American Association for Public Opinion Research, 1998) was 48%, with a cooperation rate (COOP1; American Association for Public

Opinion Research) of 71%. The final dispositions for all telephone calls made are displayed in Table 1.

Table 1
Final Telephone Call Dispositions

Definition	N	%
Completed Interviews	6,163	10.9
Refusals & Incompletes	2,475	4.4
Non Working Number	21,017	37.1
Quota Full	15,206	26.8
Business Numbers	3,348	5.9
8 Attempts, All No Answer	2,879	5.1
8 Attempts, All Answering Machine	2,239	4.0
Non Eligible Number	1,923	3.4
Respondent Unable to Communicate	541	1.0
15+ Call Backs	495	0.9
No Eligible Respondent During Interview Period	205	0.4
Language Barrier	104	0.2
No Eligible Respondent at Number Dialed	55	0.1
Total Numbers Dialed	56,650	100

Weights

Post-stratification weights were calculated using county, age group, and gender as weighting factors. The sum of the weights equals the population estimate of the state of Iowa based on the 1997 Census estimates. Case weights were applied to each respondent so that the distribution of age group and sex in the sample approximates the distribution of these demographic factors in the state population. The accuracy of these (and other) population estimates decrease as their corresponding sample frequencies decrease. When the sample size for a subgroup analysis was 30 or less, a cautionary note was added to the table. Furthermore, estimates equivalent to 1% or less for the entire population should not be considered reliable. We have elected to report these estimates even when their accuracy was doubtful in order to provide an indication of the possible population value, but the reader is reminded to apply caution in their literal use.

Analysis & Results

Findings are reported according to four major demographic characteristics in order to facilitate making interpretations and drawing implications. These characteristics are gender, age, county type, and planning region. In 1992, the Iowa Department of Public Health (IDPH) established six substance abuse treatment planning regions for the state (see Figure 1).

Unless otherwise specified, the results reported were generated using sample weights and the corresponding population estimates are denoted as N_w . Results of analyses

generated using unweighted data are denoted as N and frequencies refer to the number of actual survey respondents.

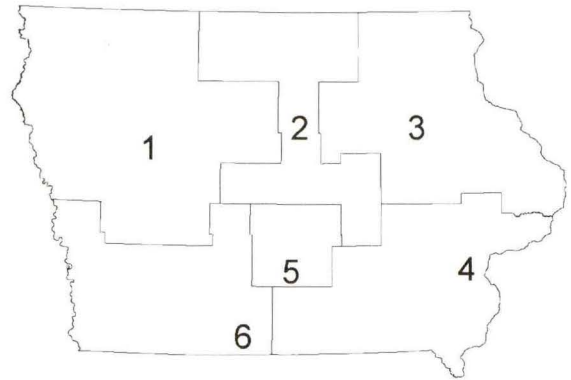


Figure 1. Map of Iowa showing the six planning regions.

Clarification of Terminology

Throughout the report, *Iowans* should be understood to refer to non-institutionalized, adult Iowans.

In many analyses, population estimates and prevalence information were provided for each of four different types of counties. Each county was categorized based on the population size of the largest place within the county – rural (largest place less than 2,500), mostly rural (largest place 2,500 - 6,999), mostly urban (largest place 7,000 - 49,999), and urban (largest place 50,000 or more).

In most cases, the phrase *North Central Region* refers to geographic areas *within* Iowa corresponding to region 5 (see Figure 1). In some cases, however, the phrase refers to the north central region of the United States. North Central Region (US) includes North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, Illinois, Indiana, Michigan, and Ohio.

Part 3: Sample Characteristics

The findings reported in this study are based on 6,163 completed telephone interviews of Iowans 18 years or older. To provide estimates of substance abuse prevalence and related variables for the entire population of Iowa, the survey responses were projected as population figures. The sampling procedure resulted in some segments of the Iowa population being over- or under-represented. For example, women comprised 52.2% of the survey responses, but 58.9% of the estimated population. As noted earlier, to adjust for these differences, the sample was weighted by age, gender, and county so that the distribution of these characteristics in the sample corresponded to their distributions in the population based on the 1997 U.S. Census data.

Table 2 illustrates the unweighted (sample) and weighted (Census) distributions for basic demographic variables for Iowa's adult population.

In addition to these distributions, the majority (96.7%) of the respondents in this study were white. African Americans and Hispanics each represented approximately one percent of the sample. Less than one percent of the sample were Asian or Native American. Although this accurately reflects Iowa's relatively small minority population (3.4% according to the 1997 Census estimates), the small numbers make it statistically problematic to estimate substance use or abuse for minority racial groups. For this reason, findings were not reported separately for racial and/or ethnic categories.

Table 2
Sample and Census Characteristics

Demographic Characteristic	Percent		N _w
	Sample	Census	
Gender			
Men	47.8	41.1	1,017,027
Women	52.2	58.9	1,112,156
Age			
18-24	12.9	24.9	273,829
25-44	38.5	25.1	818,784
45-64	28.5	25.0	605,987
65 and Older	20.2	25.1	430,584
County Type			
Rural	7.5	10.9	160,595
Mostly Rural	21.9	30.5	467,145
Mostly Urban	28.7	35.3	610,146
Urban	41.9	23.3	891,297
Region			
1.00	16.9	16.6	358,819
2.00	11.8	16.4	250,785
3.00	24.3	16.6	516,894
4.00	21.5	17.3	457,853
5.00	16.2	16.6	345,465
6.00	9.4	16.6	199,367

The education level of the sample is displayed in Figure 2. One in eight respondents had less than a high school education. Most of the sample had completed high school but had not earned a four year degree. Less than 20% of the respondents had received at least a four year college degree (e.g., BA).

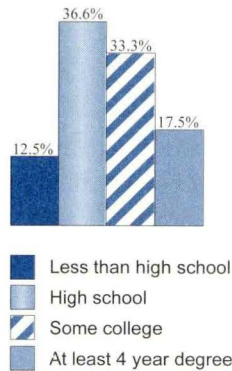


Figure 2. Distribution of the education level of respondents in the sample.

Half (50%) of the sample were currently married and approximately one-quarter were single and never married. The remainder were either divorced, separated, or widowed. Of those not currently married, one in ten were living with their partner.

The current employment status of respondents is shown in Table 3. Nearly two-thirds were working full- or part-time. Of those who were unemployed, most were not looking for work. Five percent of the sample were homemakers.

Table 3
Employment Status

Status	Percent
Full Time Employment	46.0
Part-Time Employment	16.2
Unemployed Not Looking	26.8
Homemaker	5.1
Unemployed Looking	3.1
Leave or Vacation	1.8
Something Else	0.9

One in ten respondents refused to provide information regarding their household annual income. Table 4 shows the annual income levels before taxes of those respondents providing this information.

Table 4
Annual Household Income Before Taxes

Amount	Percent
Less than \$10,000	6.5
\$10,000-14,999	7.6
\$15,000-19,999	9.3
\$20,000-25,999	14.5
\$26,000-29,999	11.5
\$30,000-39,999	16.4
\$40,000-49,999	12.7
\$50,000-69,999	12.5
\$70,000-99,999	6.2
\$100,000 or more	2.9

Part 4: Findings

Physical Health

The vast majority (82%) of adult Iowans rated their physical health as either “good” or “excellent.” Not unexpectedly, older adults were more likely to report that their physical health was ‘fair’ or “poor.” No large differences between men and women were evident (see Table 5).

Table 5
Self-Reported Physical Health

Physical Health	Percent		
	Male	Female	Total
Excellent	38.4	36.9	37.6
Good	44.6	44.1	44.3
Fair	13.8	14.7	14.3
Poor	3.3	4.4	3.9
Age Group 18-24			
Excellent	46.2	42.3	44.3
Good	45.1	47.7	46.4
Fair	7.7	8.7	8.2
Poor	1.0	1.3	1.2
Age Group 25-44			
Excellent	46.9	45.0	46.0
Good	41.1	42.8	41.9
Fair	10.7	10.2	10.4
Poor	1.4	2.0	1.7
Age Group 45-64			
Excellent	35.0	38.8	37.0
Good	45.4	41.8	43.6
Fair	14.9	13.6	14.3
Poor	4.6	5.7	5.2
Age Group 65 and Older			
Excellent	17.4	18.8	18.3
Good	51.2	46.8	48.5
Fair	24.2	26.2	25.4
Poor	7.2	8.2	7.8

Iowans in all four types of counties, considered themselves to be in good or excellent physical health (See Table 6). However, it should be noted that nearly one in four adult males living in rural counties reported that their physical health was only fair or poor.

Table 6
Self-Reported Physical Health
By County Type

Rating	Percent		
	Male	Female	Total
Rural			
Excellent	39.9	32.0	35.7
Good	34.8	46.1	40.7
Fair	20.6	18.0	19.2
Poor	4.7	3.9	4.3
Mostly Rural			
Excellent	38.3	32.8	35.4
Good	43.7	46.6	45.2
Fair	14.3	15.8	15.1
Poor	3.8	4.8	4.3
Mostly Urban			
Excellent	33.0	35.3	34.2
Good	52.5	44.9	48.6
Fair	12.0	13.9	13.0
Poor	2.5	5.9	4.3
Urban			
Excellent	42.0	40.9	41.4
Good	41.3	41.8	41.5
Fair	13.5	14.1	13.8
Poor	3.2	3.3	3.2

Psychological Health

As with physical health, the vast majority of Iowans (83%) considered their psychological/emotional health to be either good or excellent (Table 7). Among the youngest adults, women were twice as likely as men to report that their psychological health was only fair or poor. Other results were largely consistent across age and gender.

Table 7
Self-Reported Psychological Health

Rating	Percent		
	Male	Female	Total
Excellent	38.7	35.6	37.1
Good	46.4	45.8	46.1
Fair	13.2	15.7	14.5
Poor	1.7	2.9	2.4
Age Group 18-24			
Excellent	40.2	32.3	36.3
Good	50.5	48.0	49.3
Fair	8.8	18.0	13.3
Poor	0.6	1.7	1.1
Age Group 25-44			
Excellent	38.4	36.7	37.5
Good	43.2	43.0	43.1
Fair	16.4	17.4	16.9
Poor	2.1	2.9	2.5
Age Group 45-64			
Excellent	42.7	38.4	40.5
Good	46.5	45.3	45.9
Fair	9.1	13.3	11.2
Poor	1.7	2.9	2.3
Age Group 65 and Older			
Excellent	31.3	32.2	31.9
Good	50.6	49.6	50.0
Fair	16.3	14.6	15.3
Poor	1.9	3.5	2.9

Regardless of whether Iowans live in rural or urban types of counties, the majority consider themselves to be mentally healthy. In rural areas, men were somewhat more likely than women to report that their mental health was only fair or poor. In contrast, in mostly urban areas, women were more likely than men to report that their mental health was only fair or poor.

Table 8
Self-Reported Psychological Health
By County Type

Rating	Percent		
	Male	Female	Total
Rural			
Excellent	40.5	31.7	35.9
Good	39.8	52.9	46.7
Fair	18.4	14.3	16.2
Poor	1.3	1.1	1.2
Mostly Rural			
Excellent	40.4	34.2	37.2
Good	47.0	50.9	49.0
Fair	10.3	12.8	11.6
Poor	2.3	2.0	2.2
Mostly Urban			
Excellent	39.0	34.6	36.7
Good	49.0	45.7	47.3
Fair	10.6	16.5	13.7
Poor	1.3	3.2	2.3
Urban			
Excellent	37.2	37.8	37.5
Good	45.4	41.8	43.5
Fair	15.5	16.9	16.3
Poor	1.8	3.5	2.7

The strong association between physical and psychological health is apparent in Table 9. The majority of Iowans who reported excellent or good psychological health also reported the same level of physical health. However, one in three Iowans who reported poor psychological health reported that their physical health was good or excellent.

Table 9
 Percent of Self-Reported Physical Health for
 each Level of Psychological Health

Physical Health	Psychological Health			
	Excellent	Good	Fair	Poor
Excellent	66.4	23.6	13.6	8.0
Good	26.6	61.0	40.0	25.5
Fair	5.9	13.4	36.0	24.9
Poor	1.1	2.0	10.4	41.6

Prevalence of Substance Use Among Adult Iowans

The next section of the report provides estimated population prevalence and the patterns of use by Iowans with respect to tobacco, alcohol, and six categories of other substances. The other substance categories were: marijuana, hallucinogens, crack and cocaine, heroin and other opiates, sedatives, and stimulants. Stimulants were further divided into methamphetamine and other stimulants. For each substance, prevalence data are provided for age group, county type, and planning region by gender in Appendix A. Confidence intervals for use rates are provided in Appendix C. Separate analyses for each region are provided in Appendix D.

Explanation of terminology

In this report, the term **prevalence** refers to the proportion of individuals within a population who have reported substance use within a specified period of time. In this report, the terms **ever use** or **lifetime user** refer to use of a particular substance at least once in a person's lifetime. The exception to this rule was with tobacco where the criterion was not use at least once but was use 100 or more times. The terms **recent use** or **recent user** refer to individual use of a particular substance within the 18 months preceding the survey interview. The terms **current use** or **current user** refer to individual use of a particular substance within the 30 days preceding the telephone interview. Hence, in this report, the date of the interview is the point of reference for phrases such as the "last 18 months" or "current".

In addition to prevalence, this section of the report provides information concerning the patterns of substance use. Recent alcohol users were asked how frequently they consumed alcohol to determine whether the user drank daily, weekly, or monthly. Recent alcohol users were also asked how many drinks they typically consume on days they drink to determine consumption quantity.

All substance users were asked when they last used the substance. This variable is referred to as **recency of use**. Specifically, recency of use was examined in three categories -- within the 30 days preceding the interview, between 1 and 6 months preceding the interview, or between 6 to 18 months preceding the interview. Recent users were also asked the number of times that they had used the substance within the 18 months preceding the interview. This variable is referred to as **frequency of use** and has three analysis categories -- 1 or 2 times, 3 to 10 times, and 11 or more times.

Overview of substance use

The prevalence estimates and their corresponding population estimates (N_w) of ever, recent, and current use for each of the eight substances are displayed in Table 10.

A vast majority (92%) of adult Iowans have ever consumed alcohol (at least once during their lifetime), with 70% having done so recently (past 18 months) and 54% currently (past 30 days).

The second most commonly ever used substance was tobacco. About half of adult Iowans have used tobacco products during their lifetime, with approximately 30% having done so during the past 18 months and 27% using currently.

The most commonly used illicit substance among adult Iowans was marijuana. Approximately, one in four adult Iowans have used marijuana at least once during their lifetime. However, only about 5% have recently used this substance and less than 2% of adult Iowans were current marijuana users.

Stimulants (including methamphetamine) were the second most commonly used type of drug. Approximately 9% of adult Iowans have used a stimulant for non-medical reasons at least once during their lifetime, but only 2.5% had used a stimulant recently and less than 1% currently.

Use of other substances was much less common. Of those Iowans who had used any of the other drugs during their lifetime, most were not recent users. This suggests that many of these users were experimenting with the substances and their use was associated with a previous stage of their life.

Table 10
Ever, Recent, and Current Substance Use Among Adult Iowans 1997-98

Substance	Ever Used		Recent Use		Current Use	
	N _w	%	N _w	%	N _w	%
Tobacco	1,050,757	49.4	625,411	29.4	570,986	26.9
Alcohol	1,961,905	92.2	1,509,227	70.9	1,151,194	54.1
Marijuana	529,982	24.9	110,184	5.2	34,592	1.6
Hallucinogens	129,413	6.1	13,720	0.6	1,189	0.1
Cocaine and Crack	136,136	6.4	18,677	0.9	1,519	0.1
Heroin and Other Opiates	41,575	2.0	7,957	0.4	551	0.0
Sedatives	66,156	3.1	14,946	0.7	3,405	0.2
Stimulants ¹	197,571	9.3	52,566	2.5	14,608	0.7

Estimates of infrequent events (i.e., 1% or less) may be unreliable.

¹ Stimulants included methamphetamine and over-the-counter stimulants.

Trends in Substance Use

This section of the report shows the comparisons of prevalence data from the present study with data for Iowa in 1992-93 (Iowa 1993 Adult Household Survey of Substance Use and Treatment Needs, Lutz, Kramer, Crew, Lantz, & Turner, 1993), the North Central Region (US) and nation in 1992 (National Household Survey on Drug Abuse: Population Estimates 1992, National Institute on Drug Abuse, 1993) and in 1997 (National Household Survey on Drug Abuse: Main Findings 1997, Department of Health and Human Services, 1999).

Because the prevalence data reported in the national surveys included children ages 12 to 17 whereas the Iowa surveys include only adults 18 and older, we reconstructed regional and national prevalence estimates after excluding minors. The estimation procedure involved multiplying the prevalence for each of three adult age groups by their weighted frequency to determine the weighted frequency for adults. To determine the prevalence for adults, a proportion was formed with the summed weighted frequency as the numerator and the total weighted sample size for adults as the denominator. Thus, the precision of the point estimates for regional and national data is decreased due to potential rounding error.

There are also methodological differences that can obscure straight-forward comparisons. The wording of question wording was slightly different between the Iowa surveys and the national surveys. Further, the national survey changed question wording and rate estimating procedures in 1994.

An additional cautionary note concerns the interpretation of specific substances, such as the estimates of heroin use. First, the Department of Health and Human Services (DHHS) in its 1997 National Household Survey of Drug Abuse noted that, "Estimates of heroin use from the survey are likely to be low due to the probable undercoverage of the heroin-using population, many of whom are believed to be outside the sampling frame. (p. 72)". Second, Iowa estimates of heroin include other opiates, whereas regional and national data do not. Likewise, the Iowa measure of cocaine use combines cocaine and crack, while the national surveys report these separately.

In sum, comparisons across time and geography can only be suggestive, not definitive. The reader is advised to avoid concluding otherwise.

Trends in Lifetime Prevalence. As evidenced in Table 11 (page 14), ever use prevalence of alcohol and other substances in Iowa was fairly consistent from 1992-93 to 1997-98. If any trend can be discerned from these comparisons, it would be that the percentage of Iowans who have ever used substances has stabilized and may have declined to a small degree.

In 1992-93 Iowa rates for ever use of substances exceeded those of the nation and the North Central Region to a slight extent for alcohol and to a larger extent for sedatives and stimulants. We are inclined to consider the sedative difference to be mostly due to methodological differences. For stimulants, as noted in Iowa's 1993 report (p. 13), respondents may have used an "overly broad" definition. However, the stimulant finding

also may have previewed the building methamphetamine outbreak in Iowa, and therefore actually was above the national rate.

In 1997-98 the ever use rate of alcohol was still higher in Iowa than the national rate, even though it may have declined slightly both within Iowa and the nation. Rates for marijuana, hallucinogens, and cocaine remained much below the nation and region. Heroin rates were very low in all three locations and remained unchanged. Iowa's sedative and stimulant rates had declined but continued to be above those of the North Central Region (US) and the nation.

Trends in Recent Use. Table 12 (page 14) displays the comparisons of Iowa's recent substance use with prevalence estimates in the North Central Region (US) and the nation. It should be noted that recent use in Iowa was defined as use in the last 18 months, whereas recent use in the region and nation was defined as use in the last 12 months.

With some exceptions, approximately the same patterns appear for recent use as they did for ever use. Iowa's recent rate of alcohol use was now slightly below the regional rate (which may have increased) but still above the national rate (which declined as did Iowa's rate).

Recent marijuana use increased slightly in Iowa and more so for the region, but had declined nationally. Even so the Iowa rate remained below the others.

Iowa's recent rates of hallucinogens, cocaine, heroin were mostly unchanged. Hallucinogen and cocaine use rates were below regional and national rates. Heroin rates were above the regional and national rates. Because of the imprecision in estimating use rates that are less than 1%, the change from 0.2% to 0.4%

in recent heroin use in Iowa from 1992-93 to 1997-98 should not be interpreted as a doubling in use. We remind the reader of the potential unreliability of prevalence estimates of 1% or less.

Iowa's recent sedative rate was likely unchanged from 1992-93, and stayed above the regional and national rates which had declined somewhat.

Iowa's recent stimulant rate may have increased slightly over the five year period and remained above the regional and national rates which were relatively stable.

Trend in Iowa Tobacco Use. The national surveys noted above did not include tobacco use rates. However, tobacco use has been monitored in Iowa's two surveys. In 1992-93, Iowa's tobacco prevalence were: 50.1% ever and 25.7% currently (a recent rate was not assessed). In the 1997-98 survey, Iowa's prevalence estimates were: 49.4% ever, 29.4% recently, and 26.9% currently. Hence, the Iowa rates appear to be largely unchanged over the five year period.

Table 11
Comparison of Iowa, North Central Region (US), and Nation:
Percentage of Adults Ever Using Each Substance by Survey Year

Substance	Iowa		North Central		Nation	
	1992-93	1997-98	1993 ⁴	1998	1993 ⁴	1998
Alcohol	94.2	92.2	91.0	90.9	88.5	86.8
Marijuana	27.7	24.9	34.7	37.2	36.3	34.5
Hallucinogens	6.2	6.1	8.2	10.2	9.4	9.9
Cocaine ¹	6.5	6.4	9.9	11.7	12.5	11.3
Heroin ²	2.1	2.0	1.1	N/R ⁵	1.2	1.0
Sedatives	6.0	3.1	2.2	1.4	3.7	2.0
Stimulants ³	12.1	9.3	4.7	3.5	6.5	4.8

Estimates of infrequent events (i.e., 1% or less) may be unreliable.

¹ Cocaine included crack for Iowa only.

² Heroin included other opiates for Iowa only.

³ Stimulants included methamphetamine and over-the-counter stimulants.

⁴ Rates recalculated from that reported in Iowa's 1993 report.

⁵ Prevalence data not reported.

Table 12
Comparison of Iowa, North Central Region (US), and Nation:
Percentage of Adults Recently¹ Using Each Substance by Survey Year

Substance	Iowa		North Central		Nation	
	1992-93	1997-98	1993 ⁵	1998	1993 ⁵	1998
Alcohol	77.1	70.9	72.2	73.6	70.0	67.6
Marijuana	4.5	5.2	7.8	9.4	8.8	8.2
Hallucinogens	0.7	0.6	1.0	1.3	1.1	1.6
Cocaine ²	0.5	0.9	1.9	2.2	2.3	1.9
Heroin ³	0.2	0.4	1.1	N/R ⁶	0.1	0.2
Sedatives	0.5	0.7	0.5	0.3	0.8	0.1
Stimulants ⁴	1.7	2.5	0.8	0.8	1.1	0.7

Estimates of infrequent events (i.e., 1% or less) may be unreliable.

¹ Recently was last 18 months for Iowa; last 12 months for North Central Region and nation.

² Cocaine included crack for Iowa only.

³ Heroin included other opiates for Iowa only.

⁴ Stimulants included methamphetamine and over-the-counter stimulants.

⁵ Rates recalculated from that reported in Iowa's 1993 report.

⁶ Prevalence data not reported.

Prevalence of Tobacco Use

Ever Use. Approximately half of all adult Iowans reported using a tobacco product more than 100 times during their life. Nearly 59% of men as compared to 41% of women reported ever using tobacco products at least 100 times. Iowans ages 18 to 24 (41%) were the least and Iowans ages 45 to 64 the most (57%) likely to report ever using tobacco 100 or more times. The rate of ever using tobacco 100 or more times was lowest (44%) among Iowans living in rural counties. Prevalence of ever use for tobacco was highest in Region 5 (52%) and lowest in Region 2 (45%).

Table 13
Ever Used Tobacco

	N _w	Percent
Total	1,050,757	49.4
Gender		
Male	596,030	58.6
Female	454,727	41.0
Age		
18-24	111,127	40.6
25-44	397,724	48.7
45-64	343,452	56.7
65 and Older	198,454	46.2
County Type		
Rural	70,239	43.9
Mostly Rural	225,371	48.3
Mostly Urban	302,145	49.5
Urban	453,002	51.0

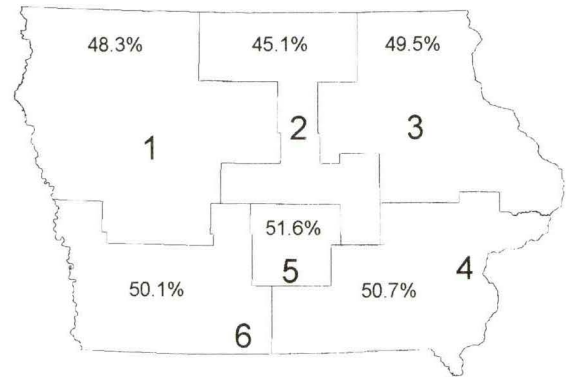


Figure 3. Ever used tobacco 100 or more times in lifetime. Region 1 (N_w = 172,824); Region 2 (N_w = 113,053); Region 3 (N_w = 255,575); Region 4 (N_w = 231,236); Region 5 (N_w = 178,200); Region 6 (N_w = 99,869)

Recent Use. More than one-quarter (29%) of Iowans reported using a tobacco product in the past 18 months and have used tobacco at least 100 times during their life (see Table 14). Recent use was higher among men than women with slightly more than one in three men recently using a tobacco product as compared to one in four women. Unlike ever use, the youngest adults (18-24) were 3 times more likely to have recently used tobacco than Iowans 65 and older. In general, use rates decreased as the age groups increased. There was slight variation by county type with the percent of recent users highest for urban counties (31%). In terms of regional variation, Region 2 had the lowest rate (26%).

Table 14
Recent Tobacco Use

	N_w	Percent
Total	625,411	29.4
Gender		
Male	359,746	35.4
Female	265,665	24.0
Age		
18-24	104,637	38.2
25-44	295,994	36.3
45-64	170,688	28.2
65 and Older	54,092	12.6
County Type		
Rural	41,560	26.0
Mostly Rural	128,123	27.4
Mostly Urban	180,670	29.6
Urban	275,057	30.9

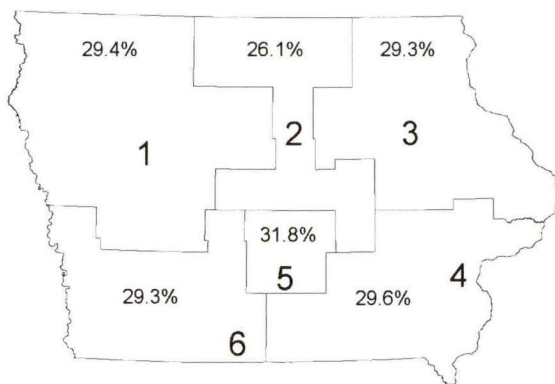


Figure 4. Used tobacco in last 18 months. Region 1 ($N_w = 105,348$); Region 2 ($N_w = 65,563$); Region 3 ($N_w = 151,095$); Region 4 ($N_w = 135,131$); Region 5 ($N_w = 109,852$); Region 6 ($N_w = 58,421$)

Current Use. The number of Iowans who had used a tobacco product in the last 18 months and those who had used a tobacco product in the last 30 days are nearly the same (see Tables 14 and 15 for comparison). This suggests that only a small percentage of Iowans have recently quit using tobacco products and/or there are still experimental users in this group. As with recent use, current use was inversely related to age with younger adults having the highest prevalence. Current use was greatest in urban and mostly urban counties. As with recent use, Region 5 had the highest current use (30%) and Region 2 the lowest (22%).

Table 15
Current Tobacco Use

	N_w	Percent
Total	570,986	26.9
Gender		
Male	330,220	32.5
Female	240,766	21.7
Age		
18-24	93,049	34.0
25-44	274,727	33.7
45-64	154,805	25.6
65 and Older	48,390	11.3
County Type		
Rural	38,856	24.3
Mostly Rural	119,330	25.6
Mostly Urban	162,961	26.7
Urban	249,839	28.1

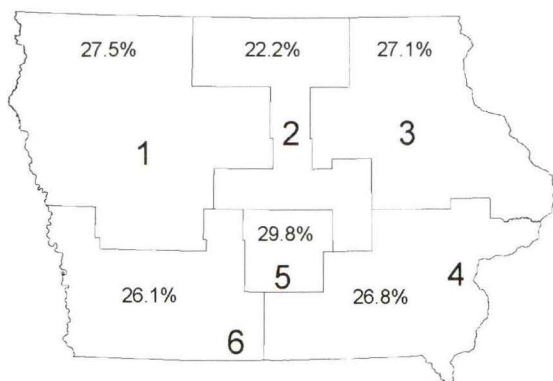


Figure 5. Used tobacco in the last 30 days. Region 1 ($N_w = 98,561$); Region 2 ($N_w = 55,633$); Region 3 ($N_w = 139,745$); Region 4 ($N_w = 122,151$); Region 5 ($N_w = 103,000$); Region 6 ($N_w = 51,897$)

Patterns of Use. Cigarettes were the most popular form of tobacco used by Iowans. In the past 30 days, 23.5% ($N_w = 499,520$) Iowans smoked at least one cigarette. Current cigarette use was reasonably comparable between men (52%) and women (48%). A majority (65.2%) of these users were under the age of 45.

In comparison, less than 3% of adult Iowans have used smokeless tobacco (2.8%, $N_w = 58,978$) in the past 30 days. Nearly all of these users were men (99.2%) and a vast majority (74.7%) were under the age of 45. In the past 30 days, 2.2% ($N_w = 47,117$) of adult Iowans have smoked cigars. Nearly all of these users were men (95.2%) and a majority (58.2%) were under the age of 45. Less than one half of one percent (0.3%, $N_w = 6,669$) of adult Iowans have smoked tobacco using a pipe in the past 30 days. Nearly all of these users were men (98.7%) and a majority (66.2%) were over the age of 44.

The average cigarette user started smoking at age 17 ($M = 17.2$, $SD = 4.4$). Importantly, 59.2% of cigarette users started smoking before they were 18. Ninety percent (89.8%) of those who have ever smoked cigarettes began smoking by the age of 21, and only 1% started smoking after age 34.

The average number of cigarettes smoked per day by Iowans who are currently using cigarettes was slightly under one pack. Women smokers under the age of 25 smoked the fewest number of cigarettes per day, and men between the ages of 25 to 64 smoked the most cigarettes per day. As evident in Table 16, there was considerable variability in the number of cigarettes adult Iowans smoke on average.

Table 16
Number of Cigarettes Per Day Among
Current Tobacco Users

Gender (Age Group)	<u>M</u>	<u>SD</u>	<u>Mdn</u>
Total	17.1	11.4	20.0
Male (18-24)	14.2	9.7	12.0
Male (25-44)	19.6	11.2	20.0
Male (45-64)	19.8	11.5	20.0
Male (65 & older)	18.4	13.1	20.0
Female (18-24)	10.4	6.7	10.0
Female (25-44)	15.9	12.1	17.0
Female (45-64)	17.9	10.6	20.0
Female (65 & Older)	15.9	11.6	12.0

Self-reported dependency. Over 600,000 adult Iowans (28.4%, $N_w = 605,644$) reported that at least once in their life they felt dependent or addicted to cigarettes. When considering only current cigarette users (represented by the first pie in Figure 6), 63.9% reported that they have ever felt dependent or addicted to cigarettes. Of these Iowans, 85.8% report having seriously tried to quit at least once.

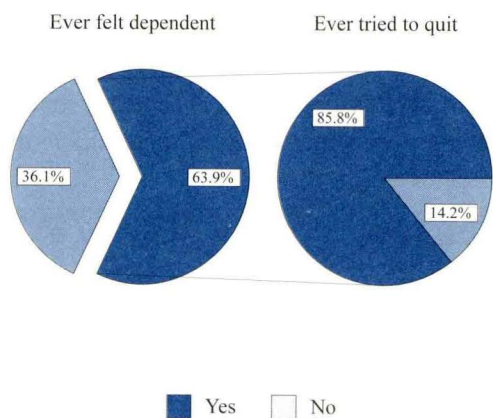


Figure 6. Relationship between feeling dependent on cigarettes and seriously trying to quit among current cigarette smokers.

Most current cigarette smokers who have ever felt dependent have tried to quit more than once, but only a minority have seriously tried to quit 10 or more times. As evident from Figure 7, smokers who have felt dependent were more likely than other smokers to have tried to quit numerous times.

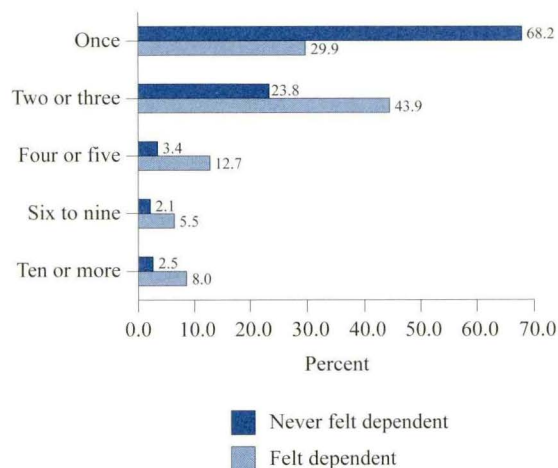


Figure 7. Number of times that current smokers have seriously tried to quit: A comparison of those who have versus have never felt dependent.

Of those current smokers who have felt dependent on cigarettes and who have tried to quit, 70.3% had not tried within the past year. That is, many Iowans currently smoking cigarettes at some point recognized that they had a problem but were unsuccessful in quitting. Unfortunately, a year or more has passed for many since their last attempt to cease smoking.

Prevalence of Alcohol Use

Ever Use. Alcohol was by far the substance most commonly used by adult Iowans. As shown in Table 17, the vast majority of both men and women have used alcohol during their lifetime. Iowans between the ages of 25 and 44 were the most likely to have used alcohol during their lifetime, whereas Iowans 65 and older were least likely to have used. The prevalence of ever use for both men and women in all age groups approached or exceeded 90%, with the exception of women over the age of 64 where the lifetime prevalence was 77% (see Table A-2 in Appendix A).

Table 17
Ever Used Alcohol

	N _w	Percent
Total	1,961,905	92.2
Gender		
Male	961,299	94.6
Female	1,000,606	90.0
Age		
18-24	247,612	90.4
25-44	796,172	97.3
45-64	562,763	92.9
65 and Older	355,358	82.6
County Type		
Rural	141,758	88.3
Mostly Rural	421,524	90.3
Mostly Urban	562,253	92.2
Urban	836,369	93.9

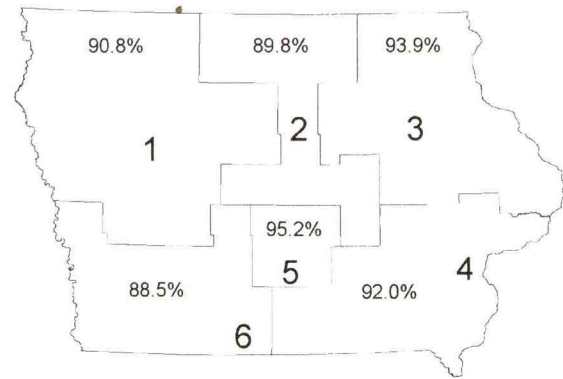


Figure 8. Ever used alcohol during lifetime. Region 1 (N_w = 325,423); Region 2 (N_w = 225,162); Region 3 (N_w = 485,223); Region 4 (N_w = 421,251); Region 5 (N_w = 328,782); Region 6 (N_w = 176,063)

Recent Use. As shown in Table 18, a majority (71%) of adult Iowans used alcohol within the past 18 months. Approximately three-fourths of men (76%) and two-thirds of women (66%) had consumed at least one alcoholic beverage during the past 18 months. Recent alcohol use was least common among Iowa's older residents with fewer than half of Iowans aged 65 or older having recently used alcohol. Two-thirds (67%) of Iowans living in rural counties as compared to three-fourths (74%) of Iowans living in urban counties used alcohol in the last 18 months. Figure 9 shows that planning Regions 3 and 5 had the highest prevalence of recent users with 75% and 73%, respectively.

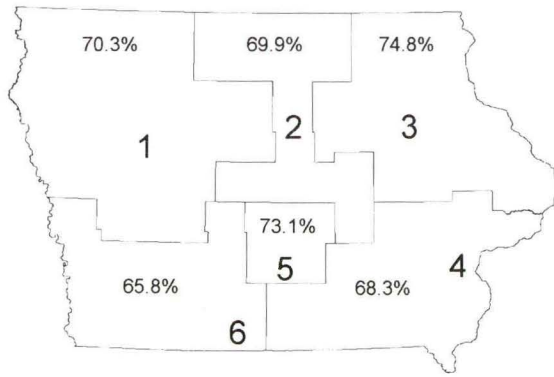


Figure 9. Used alcohol in the last 18 months. Region 1 ($N_w = 251,759$); Region 2 ($N_w = 175,115$); Region 3 ($N_w = 386,567$); Region 4 ($N_w = 312,664$); Region 5 ($N_w = 252,429$); Region 6 ($N_w = 130,694$)

Table 18
Recent Alcohol Use

	N_w	Percent
Total	1,509,227	70.9
Gender		
Male	772,839	76.1
Female	736,388	66.2
Age		
18-24	225,975	82.5
25-44	647,595	79.1
45-64	434,656	71.8
65 and Older	201,002	46.7
County Type		
Rural	107,194	66.9
Mostly Rural	321,220	68.8
Mostly Urban	424,803	69.7
Urban	656,010	73.6

Current Use. Over half (54%) of Iowans had consumed alcohol within the previous 30 days. Men were more likely than women to be current users. Current alcohol use was twice as likely among Iowans aged 18 to 24 than among Iowans aged 65 and older. Current alcohol use was most prevalent in urban counties and in Region 3.

Table 19
Current Alcohol Use

	Frequency	Percent
Total	1,151,194	54.1
Gender		
Male	636,310	62.6
Female	514,884	46.3
Age		
18-24	177,178	64.7
25-44	504,054	61.6
45-64	330,708	54.7
65 and Older	139,253	32.4
County Type		
Rural	79,956	49.9
Mostly Rural	241,019	51.6
Mostly Urban	308,741	50.7
Urban	521,479	58.5

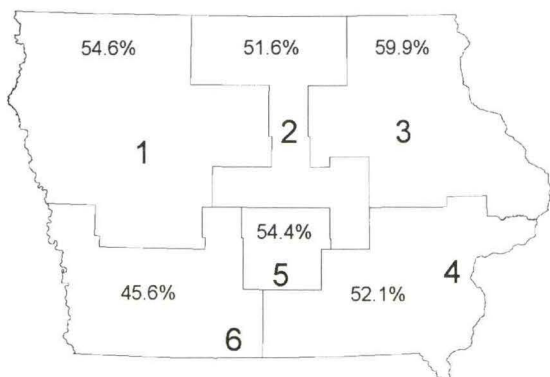


Figure 10. Used alcohol in the last 30 days. Region 1 ($N_w = 195,601$); Region 2 ($N_w = 129,390$); Region 3 ($N_w = 309,556$); Region 4 ($N_w = 238,307$); Region 5 ($N_w = 187,729$); Region 6 ($N_w = 90,611$)

Figure 11 shows the rates of current alcohol use for men and women in each age group. For women, there was a steady decrease in the rate of current use as one moves from the youngest to the oldest age group. For men, however, there were no dramatic differences across age groups except among men in the oldest age group.

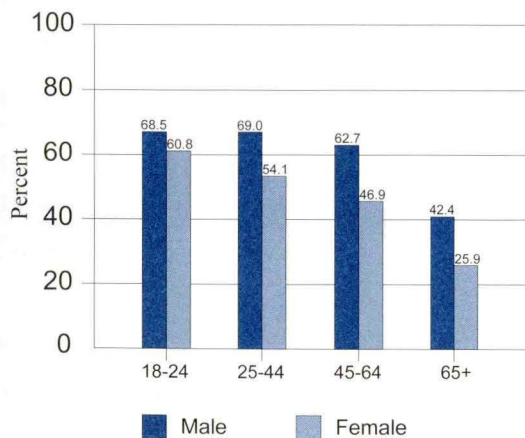


Figure 11. Current alcohol use by gender and age group.

Patterns of use. Tables 20 through 22 show the frequency and amount of recent alcohol consumption. Overall, daily use was not typical of recent alcohol users. In fact, two in three recent users consumed alcohol three or fewer days per month. Nearly 5% of recent users consumed alcohol on a daily or almost daily basis. The percentage of recent male users who consume alcohol on a daily or almost daily basis was 7.4% as compared to 2.3% for female users.

Table 20
Alcohol Frequency of Use
(% of Recent Users)

Frequency	Percent		
	Male	Female	Total
Daily	7.4	2.3	4.9
Weekly	37.3	19.2	28.4
Monthly	55.3	78.6	66.7

The likelihood of daily or near daily alcohol consumption increased across the age groups (Table 21). Specifically, slightly more than 1% of recent adult users between the ages of 18 and 24 reported daily use as compared with nearly 12% of recent users age 65 and older. Daily or near daily use was highest among recent male users ages 65 or older, and lowest among the youngest females.

Table 21
Alcohol Frequency of Use by Age Group
(% of Recent Users)

Frequency	Percent		
	Male	Female	Total
Age Group 18-24			
Daily	2.3	0.3	1.3
Weekly	42.8	22.2	32.6
Monthly	54.8	77.4	66.0
Age Group 25-44			
Daily	5.6	0.6	3.2
Weekly	39.0	18.8	29.4
Monthly	55.3	80.5	67.4
Age Group 45-64			
Daily	8.2	3.9	6.1
Weekly	35.6	18.3	27.1
Monthly	56.2	77.8	66.8
Age Group 65 and Older			
Daily	17.8	5.9	11.7
Weekly	28.5	18.7	23.5
Monthly	53.7	75.4	64.9

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Among recent male users, there was noticeable variation across county type (see Table 22). Specifically, the highest percent of recent male users who reported daily use lived in rural counties and the lowest percent lived in mostly urban counties. For women, there was considerably less variation across county types.

Table 22
Alcohol Frequency of Use by County Type
(% of Recent Users)

Frequency	Percent		
	Male	Female	Total
Rural			
Daily	10.7	2.2	6.6
Weekly	35.9	19.5	27.9
Monthly	53.5	78.3	65.5
Mostly Rural			
Daily	9.4	2.4	6.1
Weekly	36.1	16.3	26.6
Monthly	54.5	81.3	67.3
Mostly Urban			
Daily	5.0	2.9	3.9
Weekly	32.7	16.5	24.4
Monthly	62.4	80.6	71.8
Urban			
Daily	7.4	1.8	4.7
Weekly	40.8	22.4	32.0
Monthly	51.8	75.9	63.3

Most (70.2%) recent alcohol users reported that on days when they drank they typically consumed two or fewer drinks (see Table 23). Only one in ten recent users typically consumed five or more drinks on days that they were *drinking*. This pattern of heavy alcohol consumption was reported by 14% of recent male and 6% of recent female users.

Table 23
Number of Drinks Per Drinking Day
(% of Recent Users)

Number of Drinks	Percent		
	Male	Female	Total
One or Less	34.5	53.1	43.6
Two	26.9	26.2	26.6
Three or Four	24.2	14.9	19.6
Five or More	14.4	5.9	10.2

Adults under the age of 25 were most likely to consume large numbers of drinks per *drinking day* (see Table 24). Nearly 40% of recent male users and 18% of recent female users between the ages of 18 and 24 consumed five or more drinks per *drinking day*. These percentages were far higher than for all older adults. That is, older adults were more likely to drink daily but in moderation. In contrast, younger adults were less likely to drink daily but consumed larger amounts of alcohol when they did drink.

Table 24
Number of Drinks Per Drinking Day
by Gender by Age Group
(% of Recent Users)

Number of Drinks	Percent		
	Male	Female	Total
Age Group 18-24			
One or Less	14.4	23.2	18.8
Two	16.8	28.8	22.8
Three or Four	29.5	30.4	30.0
Five or More	39.3	17.6	28.5
Age Group 25-44			
One or Less	25.6	46.3	35.6
Two	27.0	29.7	28.3
Three or Four	31.9	17.6	25.0
Five or More	15.4	6.4	11.1
Age Group 45-65			
One or Less	42.2	63.8	52.6
Two	33.8	25.7	29.9
Three or Four	17.9	8.8	13.5
Five or More	6.1	1.7	4.0
Age Group 65 and Older			
One or Less	70.9	83.9	77.6
Two	22.0	14.0	17.9
Three or Four	6.2	2.0	4.0
Five or More	0.9	0	0.4

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

As evident in Table 25, the pattern of alcohol consumption with respect to number of drinks per drinking day did not differ markedly by county type.

Table 25
 Number of Drinks Per Drinking Day
 by Gender by County Type
 (% of Recent Users)

Number of Drinks	Percent		
	Male	Female	Total
Rural			
One or Less	41.2	58.7	49.7
Two	27.7	22.1	25.0
Three or Four	17.8	18.2	18.0
Five or More	13.3	1.0	7.3
Mostly Rural			
One or Less	35.6	58.3	46.5
Two	24.8	21.5	23.2
Three or Four	22.4	14.2	18.5
Five or More	17.1	6.0	11.8
Mostly Urban			
One or Less	35.9	52.9	44.6
Two	27.6	27.3	27.5
Three or Four	25.1	14.5	19.7
Five or More	11.3	5.2	8.2
Urban			
One or Less	32.0	49.6	40.5
Two	27.3	28.5	27.9
Three or Four	25.6	14.9	20.4
Five or More	15.1	7.1	11.2

Prevalence of Marijuana Use

Ever Use. Marijuana (including hashish and other forms of *cannabis sativa*) was the most commonly used illicit drug. One in four adult Iowans have used marijuana during their lifetime (see Table 26). Men were more likely than women to have used marijuana at least once. By far, lifetime marijuana use was most prevalent among adults aged 25 to 44. Young adults (18 to 24) also reported a fairly high prevalence of lifetime use. Virtually none of the adults 65 and older reported marijuana use. The highest lifetime prevalence was among adults living in urban counties where nearly one in three adults have used marijuana in their lifetime. In contrast, only one in six adults living in rural counties have ever used marijuana. Consistent with this, Region 5 had the highest lifetime prevalence of 32% (see Figure 12).

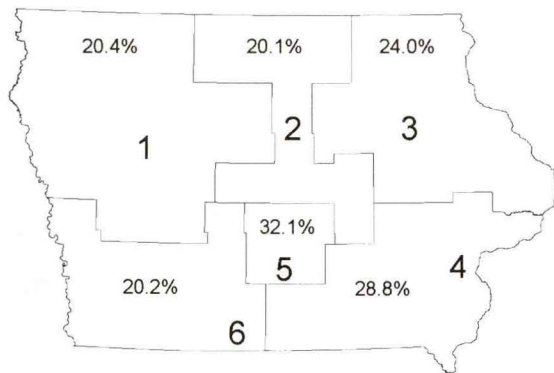


Figure 12. Ever used marijuana in lifetime. Region 1 ($N_w = 73,215$); Region 2 ($N_w = 50,200$); Region 3 ($N_w = 123,526$); Region 4 ($N_w = 131,895$); Region 5 ($N_w = 110,959$); Region 6 ($N_w = 40,186$)

Table 26
Ever Used Marijuana

	N_w	Percent
Total	529,982	24.9
Gender		
Male	312,679	30.8
Female	217,303	19.5
Age		
18-24	78,977	28.9
25-44	348,277	42.6
45-64	101,064	16.7
65 and Older	1,663	0.4
County Type		
Rural	26,314	16.4
Mostly Rural	78,358	16.8
Mostly Urban	136,317	22.4
Urban	288,993	32.5

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Recent Use. Although Iowans aged 25 to 44 reported the highest lifetime use, young adults under the age of 25 were the most likely to have recently used (see Tables 26 and 27 for comparison). Approximately 7% of men as compared to 4% of women had used marijuana in the last 18 months. Iowans living in urban counties were three times more likely than Iowans living in rural counties to have recently used marijuana. As with lifetime use, Region 5 had the highest prevalence (8%) of recent use (see Figure 13). Table 28 shows the number of survey respondents on which the population estimates were based.

Table 27
Recent Marijuana Use

	N_w	Percent
Total	110,184	5.2
Gender		
Male	68,035	6.7
Female	42,150	3.8
Age		
18-24	45,743	16.7
25-44	45,224	5.5
45-64	18,845	3.1
65 and Older	373	0.1
County Type		
Rural	3,831	2.4
Mostly Rural	12,868	2.8
Mostly Urban	28,573	4.7
Urban	64,913	7.3

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

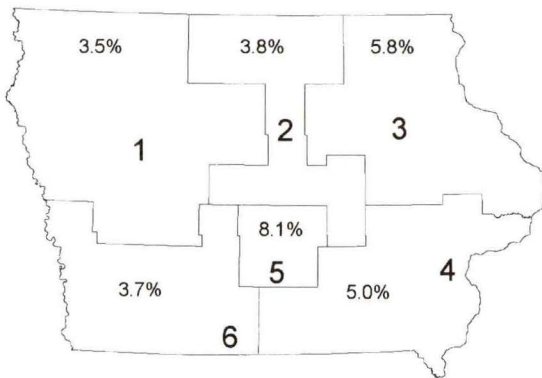


Figure 13. Used marijuana in past 18 months. Region 1 ($N_w = 12,539$); Region 2 ($N_w = 9,428$); Region 3 ($N_w = 29,872$); Region 4 ($N_w = 22,781$); Region 5 ($N_w = 28,132$); Region 6 ($N_w = 7,433$)

Table 28
Population Estimates of Recent Marijuana Users: Age Group and County Type by Gender
(Number of Respondents in Parentheses)

	Male	Female
Age		
18-24	26,253 (129)	19,490 (87)
25-44	28,025 (37)	17,199 (32)
45-64	13,757 (20)	5,088 (8)
65 and Older	0 (0)	373 (1)
County Type		
Rural	2,878 (16)	953 (7)
Mostly Rural	9,219 (42)	3,649 (29)
Mostly Urban	16,530 (63)	12,043 (49)
Urban	39,408 (65)	25,504 (43)

Current Use. Men were twice as likely as women to have used marijuana in the last 30 days (2% vs. 1%, respectively). Iowans between the age of 18 and 24 were the most likely to be currently using marijuana (8%). The highest prevalence of current marijuana use by county type was among Iowans residing in urban counties. the highest current use was in Region 3 (3%) and Region 5 (2%) (Figure 14). As with recent use, current use was most prevalent among the young, men, and people living in urban counties.

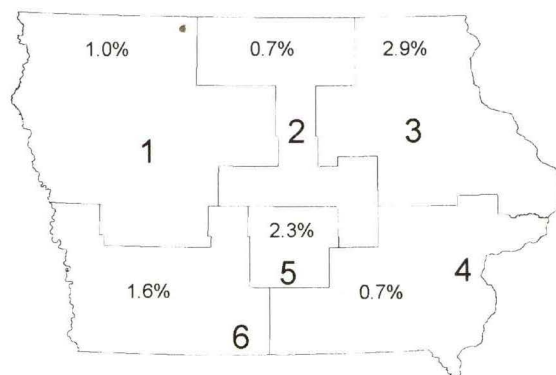


Table 29
Current Marijuana Use

	N _w	Percent
Total	34,592	1.6
Gender		
Male	22,805	2.2
Female	11,788	1.1
Age		
18-24	21,214	7.8
25-44	7,984	1.0
45-64	5,394	0.9
65 and Older	0	0
County Type		
Rural	1,462	0.9
Mostly Rural	4,774	1.0
Mostly Urban	5,057	0.8
Urban	23,300	2.6

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Figure 14. Used marijuana in past 30 days. Region 1 (N_w = 3,481); Region 2 (N_w = 1,856); Region 3 (N_w = 14,856); Region 4 (N_w = 3,127); Region 5 (N_w = 8,100); Region 6 (N_w = 3,171)

Patterns of use. Recent marijuana users were asked to recall the last time that they had used marijuana (see Tables 30 and 31). Of those who have recently used marijuana, 31% have used marijuana within the past 30 days. Of recent users, a majority of the females (55%) had not used marijuana in the six months preceding the interview. In contrast, most of the male users (64%) had used within the six months preceding the interview. Marijuana use within the last 30 days was particularly pronounced among adult males under 25. The reader should note that recency and frequency estimates for adults over 44 may not be reliable due to small sample size (refer to Table 28). Use within the last 30 days was fairly uniform across types of counties except that mostly urban counties had the lowest percent of current users, especially among men in these counties.

Table 30
Recency of Marijuana Use by Age Group
(% of Recent Users)

Recency of Use	Percent		
	Male	Female	Total
Last 30 Days	33.5	28.0	31.4
1-6 Months	30.3	17.0	25.2
6-18 Months	36.2	55.0	43.4
Age Group 18-24			
Last 30 Days	53.4	37.0	46.4
1-6 Months	19.6	21.3	20.3
6-18 Months	27.0	41.7	33.3
Age Group 25-44			
Last 30 Days	13.2	24.9	17.7
1-6 Months	55.2	17.7	40.9
6-18 Months	31.6	57.4	41.4
Age Group 45-64*			
Last 30 Days	37.1	5.7	28.6
1-6 Months	0	0	0
6-18 Months	62.9	94.3	71.47
Age Group 65 and Older*			
Last 30 Days	0	0	0
1-6 Months	0	0	0
6-18 Months	0	100	100

*Estimate may be unreliable due to the small number of such respondents.

Table 31
Recency of Marijuana Use By County Type
(% of Recent Users)

Recency of Use	Percent		
	Male	Female	Total
Rural*			
Last 30 Days	31.3	58.9	38.2
1-6 Months	5.7	24.3	10.4
6-18 Months	63.0	16.8	51.5
Mostly Rural			
Last 30 Days	44.0	19.6	37.1
1-6 Months	28.4	36.9	30.8
6-18 Months	27.6	43.5	32.1
Mostly Urban			
Last 30 Days	11.9	25.7	17.7
1-6 Months	30.2	32.6	31.2
6-18 Months	57.9	41.7	51.1
Urban			
Last 30 Days	40.3	29.1	35.9
1-6 Months	32.6	6.6	22.4
6-18 Months	27.1	64.4	41.7

*Estimate may be unreliable due to the small number of such respondents.

As shown in Table 32, approximately 40% of recent users had used marijuana 11 or more times during the past 18 months. This percentage was similar for men and women.

Table 32
 Frequency of Recent Marijuana Use by
 Gender and Age Group
 (% of Recent Users)

Frequency of Use	Percent		
	Male	Female	Total
1 to 2	30.1	40.2	33.6
3 to 10	30.7	20.6	27.2
11 or more	39.2	39.3	39.2
Age Group 18-24			
1 to 2	34.1	44.7	38.4
3 to 10	17.2	24.0	20.0
11 or more	48.7	31.3	41.6
Age Group 25-44			
1 to 2	23.6	33.5	26.7
3 to 10	50.0	12.3	38.2
11 or more	26.3	54.2	35.1
Age Group 45-64*			
1 to 2	37.9	0	36.0
3 to 10	15.2	100	19.5
11 or more	46.9	0	44.5
Age Group 65 and Older*			
1 to 2	0	0	0
3 to 10	0	0	0
11 or more	0	0	0

*Estimate may be unreliable due to the small number of such respondents.

As shown in Table 33, occasional use (i.e., 1 or 2 times in the past 18 months) was similar across the different county types. Frequent use was least common in mostly urban counties. Frequent use was most likely among men in mostly rural counties. This does not mean there are more frequent male users in mostly

rural counties; the number of recent male users was much larger in the urban counties (Table 27). In contrast, frequent use was most likely among women in urban counties and least likely among women in mostly rural counties. The findings shown in Table 33 suggest that usage patterns vary across geographic locations and gender in ways that may be relevant to treatment and prevention planning.

Table 33
 Frequency of Recent Marijuana Use
 by Gender and County Type
 (% of Recent Users)

Frequency of Use	Percent		
	Male	Female	Total
Rural*			
1 to 2	49.5	10.6	35.7
3 to 10	14.9	41.4	24.3
11 or more	35.6	48.0	40.0
Mostly Rural			
1 to 2	26.6	54.5	34.4
3 to 10	17.2	35.8	22.4
11 or more	56.3	9.7	43.3
Mostly Urban			
1 to 2	38.0	36.9	37.4
3 to 10	30.9	33.8	32.4
11 or more	31.1	29.3	30.2
Urban			
1 to 2	27.9	41.2	31.8
3 to 10	34.1	7.5	26.3
11 or more	38.0	51.3	41.9

*Estimate may be unreliable due to the small number of such respondents.

Prevalence of Hallucinogen Use

Ever Use. Hallucinogens include a number of drugs such as LSD, PCP, and mescaline that have the potential of altering cognition and perception. Only 6% of adult Iowans reported ever having used a hallucinogenic substance in their lifetime (see Table 34).

Table 34
Ever Used Hallucinogens

	N _w	Percent
Total	129,413	6.1
Gender		
Male	91,121	9.1
Female	37,292	3.4
Age		
18-24	15,032	5.5
25-44	89,290	10.9
45-64	25,091	4.1
65 and Older	0	0
County Type		
Rural	6,594	4.1
Mostly Rural	16,626	3.6
Mostly Urban	26,186	4.3
Urban	80,008	9.0

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Men were almost three times as likely as women to have used hallucinogens in their lifetime. Eleven percent of adults between the ages of 25 and 44 have used hallucinogens in their lifetime as compared to less than 6% of adults under the age of 25. Approximately 4% of Iowans living in non-urban (including

mostly urban) counties have used an hallucinogen at least once, as compared to 9% of Iowans living in urban counties. In addition to the data presented in Table 34, a more detailed analysis was conducted examining gender differences within urban counties. In urban counties, approximately 13% of men and 5% of women have used a hallucinogen (see Table A-4 in Appendix A). As shown in Figure 15, the pattern of use across regions reveals that Region 5 had the highest prevalence (10%) of ever use.

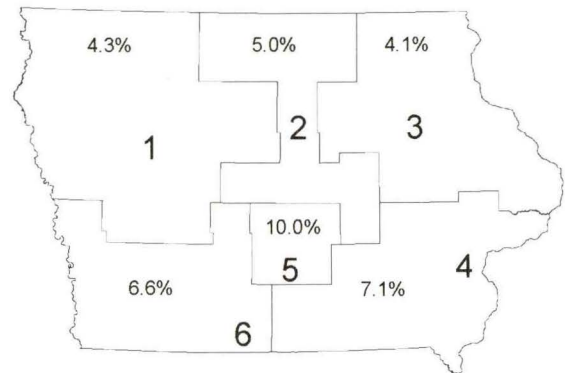


Figure 15. Ever used hallucinogen in lifetime. Region 1 (N_w = 15,371); Region 2 (N_w = 12,541); Region 3 (N_w = 21,008); Region 4 (N_w = 32,641); Region 5 (N_w = 34,621); Region 6 (N_w = 13,231)

Recent Use. As shown in Table 35, fewer than 1% of adult Iowans had used hallucinogens within the last 18 months. Of those adult Iowans who had used hallucinogens in the last 18 months – most (65%) were men, nearly half (47%) were under the age of 24, and most (85%) lived in urban or mostly urban counties.

Table 35
Recent Hallucinogen Use

	N_w	Percent
Total	13,720	0.6
Gender		
Male	8,838	0.9
Female	4,884	0.4
Age		
18-24	6,441	2.4
25-44	4,921	0.6
45-64	2,360	0.4
65 and Older	0	0
County Type		
Rural	564	0.4
Mostly Rural	1,479	0.3
Mostly Urban	1,880	0.3
Urban	9,798	1.1

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

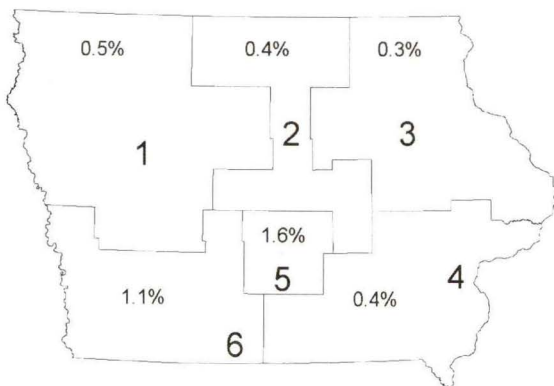


Figure 16. Used hallucinogen in the last 18 months. Region 1 ($N_w = 1,867$); Region 2 ($N_w = 895$); Region 3 ($N_w = 1,693$); Region 4 ($N_w = 1,695$); Region 5 ($N_w = 2,184$); Region 6 ($N_w = 5,387$)

Table 36
Population Estimates of Recent
Hallucinogen Users: Age Group and
County Type by Gender
(Number of Respondents in Parentheses)

	Male	Female
Age		
18-24	5,450 (25)	991 (10)
25-44	3,090 (5)	1,831 (3)
45-64	298 (1)	2,062 (2)
65 and Older	0 (0)	0 (0)
County Type		
Rural	419 (2)	145 (1)
Mostly Rural	1,333 (5)	146 (2)
Mostly Urban	1,409 (7)	471 (5)
Urban	5,676 (17)	4,122 (7)

Patterns of use. Of those who had used hallucinogens recently, less than one-tenth ($N_w = 1,189$) had used in the past 30 days, nearly one-fourth had used 1 to 6 months ago, and two-thirds had used 6 to 18 months ago.

Table 37
Recency of Hallucinogen Use by Age Group
(% of Recent Users)

Recency of Use	Percent		
	Male	Female	Total
Last 30 Days	10.5	7.3	9.3
1-6 Months	33.3	8.0	23.6
6-18 Months	56.2	84.7	67.1
Age Group 18-24			
Last 30 Days	17.3	36.1	20.5
1-6 Months	48.4	39.5	46.9
6-18 Months	34.3	24.4	32.6
Age Group 25-44*			
Last 30 Days	0	0	0
1-6 Months	10.8	0	6.5
6-18 Months	89.2	100.0	93.5
Age Group 45-64*			
Last 30 Days	0	0	0
1-6 Months	0	0	0
6-18 Months	100.0	100.0	100.0
Age Group 65 and Older*			
Last 30 Days	0	0	0
1-6 Months	0	0	0
6-18 Months	0	0	0

*Estimate may be unreliable due to small number of such respondents.

Table 38
Recency of Hallucinogen Use by County
Type (% of Recent Users)

Recency of Use	Percent		
	Male	Female	Total
Rural*			
Last 30 Days	79.5	0	59.0
1-6 Months	0	100.0	25.7
6-18 Months	20.5	0	15.2
Mostly Rural*			
Last 30 Days	0	0	0
1-6 Months	30.7	48.6	32.5
6-18 Months	69.3	51.4	67.5
Mostly Urban*			
Last 30 Days	0	0	0
1-6 Months	6.7	25.3	11.3
6-18 Months	93.3	74.7	88.7
Urban*			
Last 30 Days	10.5	8.7	9.7
1-6 Months	44.8	1.4	24.6
6-18 Months	44.7	89.9	65.7

*Estimate may be unreliable due to small number of such respondents.

A majority of recent users reported using hallucinogens only once or twice in the past 18 months. Only 15% reported using 11 or more times during that time period. Although men were more likely than women to be recent users (see Table 35), use was more frequent among women (Table 39).

Table 39
Frequency of Hallucinogen Use by Age Group (% of Recent Users)

Frequency of Use	Percent		
	Male	Female	Total
1 to 2	66.7	16.8	57.3
3 to 10	22.2	49.5	27.3
11 or more	11.1	33.7	15.4
Age Group 18-24			
1 to 2	68.6	23.5	61.5
3 to 10	19.1	69.3	26.9
11 or more	12.4	7.2	11.6
Age Group 25-44*			
1 to 2	50.0	0	30.1
3 to 10	50.0	0	30.1
11 or more	0	100	39.8
Age Group 45-64*			
1 to 2	0	0	0
3 to 10	0	0	0
11 or more	0	0	0
Age Group 65 and Older*			
1 to 2	0	0	0
3 to 10	0	0	0
11 or more	0	0	0

*Estimate may be unreliable due to small number of such respondents.

Table 40
Frequency of Hallucinogen Use by County Type (% of Recent Users)

Frequency of Use	Percent		
	Male	Female	Total
Rural*			
1 to 2	20.5	0	15.2
3 to 10	0	100	25.7
11 or more	79.5	0	59.0
Mostly Rural*			
1 to 2	9.0	0	7.2
3 to 10	70.6	51.4	66.8
11 or more	20.5	48.6	26.0
Mostly Urban*			
1 to 2	93.0	52.0	87.1
3 to 10	7.0	48.0	12.9
11 or more	0	0	0
Urban*			
1 to 2	71.4	13.1	60.2
3 to 10	22.7	41.2	26.2
11 or more	5.9	45.7	13.6

*Estimate may be unreliable due to small number of such respondents.

Prevalence of Cocaine & Crack Use

Ever Use. Approximately 6% of adult Iowans have used cocaine or crack at least once during their lifetime. As shown in Table 41, men were twice as likely as women to have ever used cocaine or crack. The highest lifetime prevalence was for Iowans between the ages of 25 and 44. Iowans in urban counties were three times more likely than Iowans in rural counties to have used cocaine or crack at least once. Prevalence of ever use was highest in Region 5 (10%) and lowest (4%) in Region 3 (see Figure 17).

Table 41
Ever Used Cocaine

	N _w	Percent
Total	136,136	6.4
Gender		
Male	88,476	8.7
Female	47,659	4.3
Age		
18-24	11,636	4.2
25-44	102,008	12.5
45-64	22,492	3.7
65 and Older	0	0
County Type		
Rural	4,744	3.0
Mostly Rural	15,297	3.3
Mostly Urban	27,488	4.5
Urban	88,607	9.9

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

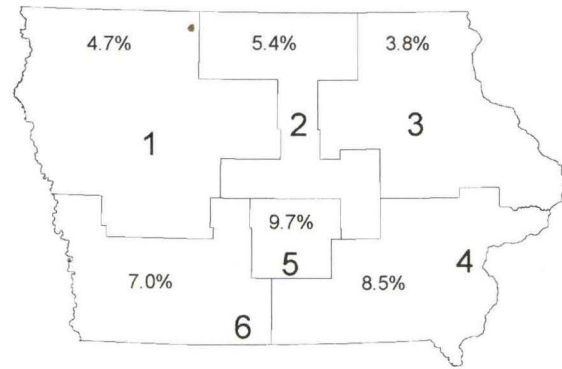


Figure 17. Ever used cocaine in lifetime. Region 1 (N_w = 16,781); Region 2 (N_w = 13,572); Region 3 (N_w = 19,628); Region 4 (N_w = 38,887); Region 5 (N_w = 33,378); Region 6 (N_w = 13,888)

Recent Use. Approximately one in one hundred adult Iowans had used cocaine or crack in the past 18 months. Iowans under the age of 45 were five times more likely as those between the ages of 45 and 64 to have recently used cocaine. As shown in Table 42, most of the Iowans who had recently used cocaine resided in strictly urban counties and most were between the ages of 18 and 44. Rates of recent use by planning region are shown in Figure 18.

Table 42
Recent Cocaine Use

	N_w	Percent
Total	18,677	0.9
Gender		
Male	10,094	1.0
Female	8,583	0.8
Age		
18-24	4,505	1.6
25-44	12,534	1.5
45-64	1,638	0.3
65 and Older	0	0
County Type		
Rural	445	0.3
Mostly Rural	2,198	0.5
Mostly Urban	3,780	0.6
Urban	12,253	1.4

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

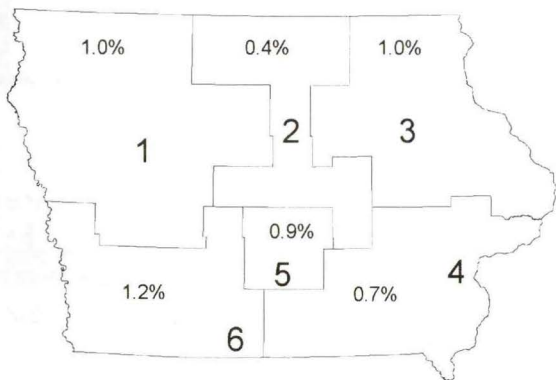


Figure 18. Used cocaine in the last 18 months.
Region 1 ($N_w = 3,766$); Region 2 ($N_w = 1,026$);
Region 3 ($N_w = 5,035$); Region 4 ($N_w = 3,208$);
Region 5 ($N_w = 3,200$); Region 6 ($N_w = 2,422$)

Table 43
Population Estimates of Recent Cocaine
Users: Age Group and County Type by
Gender (Number of Respondents in
Parentheses)

	Male	Female
Age		
18-24	3,237 (19)	1,268 (12)
25-44	6,250 (9)	6,284 (11)
45-64	607 (2)	1,031 (1)
65 and Older	0 (0)	0 (0)
County Type		
Rural	300 (2)	145 (1)
Mostly Rural	1,517 (8)	681 (6)
Mostly Urban	400 (5)	3,380 (10)
Urban	7,876 (15)	4,377 (7)

Prevalence of Heroin & Opiate Use

Ever Use. Only 2% of the adult Iowans have used heroin or another opiate for non-medical reasons during their lifetime. Men were three times as likely as women to have used heroin or another opiate at least once. Iowans between the ages of 25 and 44 had the highest prevalence of ever using heroin. Iowans in urban counties were the most likely to report having ever used heroin (3%). Region 5 had the highest percent (4%) of residents who had ever used heroin for non-medical reasons (see Figure 19).

Table 48
Ever Used Heroin or Other Opiates

	N_w	Percent
Total	41,575	2.0
Gender		
Male	30,897	3.0
Female	10,678	1.0
Age		
18-24	4,150	1.5
25-44	25,707	3.1
45-64	11,166	1.8
65 and Older	551	0.1
County Type		
Rural	2,938	1.8
Mostly Rural	3,510	0.8
Mostly Urban	7,548	1.2
Urban	27,579	3.1

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

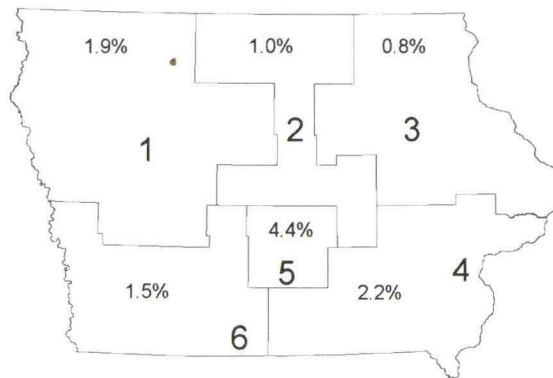


Figure 19. Ever used heroin or another opiate in lifetime. Region 1 ($N_w = 6,654$); Region 2 ($N_w = 2,505$); Region 3 ($N_w = 3,936$); Region 4 ($N_w = 10,190$); Region 5 ($N_w = 15,200$); Region 6 ($N_w = 3,089$)

Recent Use. Less than one percent of adult Iowans had used heroin or another opiate in the last 18 months. Of those Iowans who have used heroin or another opiate in the last 18 months, two-thirds were between the ages of 25 and 44 and over three-fourths lived in urban counties (see Table 49).

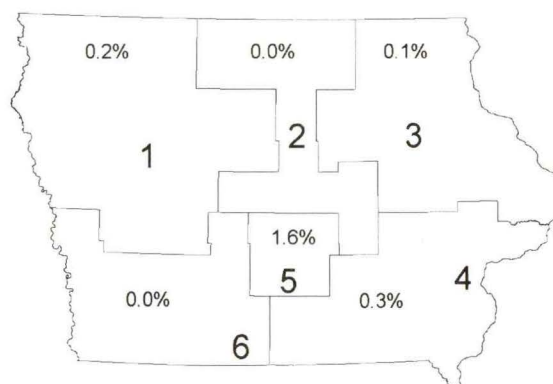


Figure 20. Used heroin or another opiate in the past 18 months. Region 1 ($N_w = 551$); Region 2 ($N_w = 0$); Region 3 ($N_w = 554$); Region 4 ($N_w = 1,216$); Region 5 ($N_w = 5,580$); Region 6 ($N_w = 57$)

Table 49
Recent Heroin or Other Opiate Use

	N _w	Percent
Total	7,957	0.4
Gender		
Male	4,281	0.4
Female	3,676	0.3
Age		
18-24	1,426	0.5
25-44	5,222	0.6
45-64	1,309	0.2
65 and Older	0	0
County Type		
Rural	0	0
Mostly Rural	0	0
Mostly Urban	1,851	0.3
Urban	6,107	0.7

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table 50
Population Estimates of Recent
Heroin/Opiate Users: Age Group and
County Type by Gender (Number of
Respondents in Parentheses)

	Male	Female
Age		
18-24	994 (4)	432 (3)
25-44	1,978 (1)	3,244 (3)
45-64	1,309 (1)	0 (0)
65 and Older	0 (0)	0 (0)
County Type		
Rural	0 (0)	0 (0)
Mostly Rural	0 (0)	0 (0)
Mostly Urban	213 (2)	1,638 (3)
Urban	4,069 (4)	2,038 (3)

Patterns of use. Less than 10% of recent heroin users had used within the last 30 days. A majority (60%) had not used in the past 6 to 18 months. Most (75%) of recent users reported having used heroin only once or twice during the last 18 months.

Table 51
Recency of Heroin or other Opiate Use
by Age Group (% of Recent Users)

Recency of Use	Percent		
	Male	Female	Total
Last 30 Days	6.2	11.0	9.2
1-6 Months	8.4	44.6	30.5
6-18 Months	85.4	44.4	60.3
Age Group 18-24*			
Last 30 Days	40.5	0	18.4
1-6 Months	54.7	3.9	27.0
6-18 Months	4.7	96.1	54.7
Age Group 25-44*			
Last 30 Days	0	12.5	7.8
1-6 Months	0	50.0	31.1
6-18 Months	100.0	37.5	61.2
Age Group 45-64*			
Last 30 Days	0	0	0
1-6 Months	0	0	0
6-18 Months	0	0	0
Age Group 65 and Older*			
Last 30 Days	0	0	0
1-6 Months	0	0	0
6-18 Months	0	0	0

*Estimate may be unreliable due to the small number of such respondents.

Table 52
Recency of Heroin or other Opiate Use
by County Type (% of Recent Users)

Recency of Use	Percent		
	Male	Female	Total
Rural*			
Last 30 Days	0	0	0
1-6 Months	0	0	0
6-18 Months	0	0	0
Mostly Rural*			
Last 30 Days	0	0	0
1-6 Months	0	0	0
6-18 Months	0	0	0
Mostly Urban*			
Last 30 Days	0	24.7	21.9
1-6 Months	92.0	1.0	11.5
6-18 Months	8.0	74.2	66.6
Urban*			
Last 30 Days	6.8	0	3.5
1-6 Months	0	79.6	39.0
6-18 Months	93.2	20.4	57.5

*Estimate may be unreliable due to the small number of such respondents.

Table 53
 Frequency of Heroin and Opiates Use by
 Age Group (% of Recent Users)

Frequency of Use	Percent		
	Male	Female	Total
1 to 2	36.1	100	75.2
3 to 10	6.3	0	2.4
11 or more	57.6	0	22.4
Age Group 18-24*			
1 to 2	83.7	100	88.2
3 to 10	14.6	0	10.6
11 or more	1.7	0	1.2
Age Group 25-44*			
1 to 2	0	100	100
3 to 10	0	0	0
11 or more	100	0	0
Age Group 45-64*			
1 to 2	0	0	0
3 to 10	0	0	0
11 or more	0	0	100
Age Group 65 and Older*			
1 to 2	0	0	0
3 to 10	0	0	0
11 or more	0	0	0

*Estimate may be unreliable due to the small number of such respondents.

Table 54
 Frequency of Heroin and Opiates Use by
 County Type (% of Recent Users)

Frequency of Use	Percent		
	Male	Female	Total
Rural*			
1 to 2	0	0	0
3 to 10	0	0	0
11 or more	0	0	0
Mostly Rural*			
1 to 2	0	0	0
3 to 10	0	0	0
11 or more	0	0	0
Mostly Urban*			
1 to 2	92.0	100	99.1
3 to 10	0	0	0
11 or more	8.0	0	0.9
Urban*			
1 to 2	30.4	100	64.3
3 to 10	6.9	0	3.6
11 or more	62.6	0	32.2

*Estimate may be unreliable due to the small number of such respondents.

Prevalence of Sedative Use

Ever Use. Approximately 3% of adult Iowans reported having ever used sedatives such as tranquilizers, sleeping pills, and barbiturates for non-medical reasons. Four percent of men as compared to 2% of women had used a sedative for a non-medical reason at least once during their lifetime. Prevalence by age group and county type are displayed in Table 55. Region 5 had the highest rate (7%) of lifetime sedative use (see Figure 21).

Table 55
Ever Used Sedatives

	N _w	Percent
Total	66,156	3.1
Gender		
Male	41,903	4.1
Female	24,252	2.2
Age		
18-24	9,231	3.4
25-44	35,700	4.4
45-64	18,974	3.1
65 and Older	2,251	0.5
County Type		
Rural	2,998	1.9
Mostly Rural	7,430	1.6
Mostly Urban	17,331	2.8
Urban	38,396	4.3

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

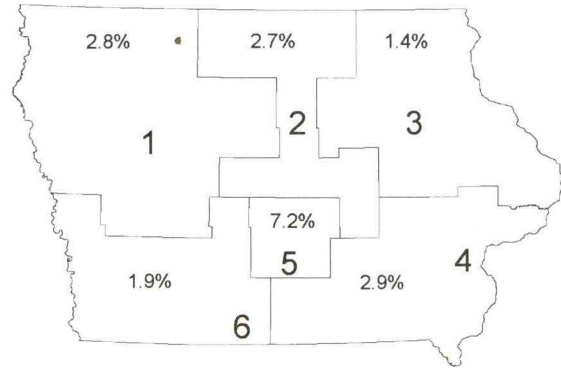


Figure 21. Ever used sedatives in lifetime. Region 1 (N_w = 9,880); Region 2 (N_w = 6,852); Region 3 (N_w = 7,357); Region 4 (N_w = 13,402); Region 5 (N_w = 24,830); Region 6 (N_w = 3,834)

Recent Use. Less than 1% of adult Iowans had used a sedative for non-medical reasons within the last 18 months (see Table 56). Although men had a higher rate of ever using sedatives, recent sedative use was equally likely among men and women. Although adults between the ages of 25 and 44 had the highest lifetime prevalence, adults under the age of 25 had the highest prevalence of recent sedative use. Region 5 had the highest rate (2%) of recent sedative users (see Figure 22).

Table 56
Recent Sedative Use

	N_w	Percent
Total	14,946	0.7
Gender		
Male	7,164	0.7
Female	7,782	0.7
Age		
18-24	4,056	1.5
25-44	6,995	0.9
45-64	3,078	0.5
65 and Older	817	0.2
County Type		
Rural	46	0.0
Mostly Rural	1,983	0.4
Mostly Urban	5,724	0.9
Urban	7,191	0.8

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

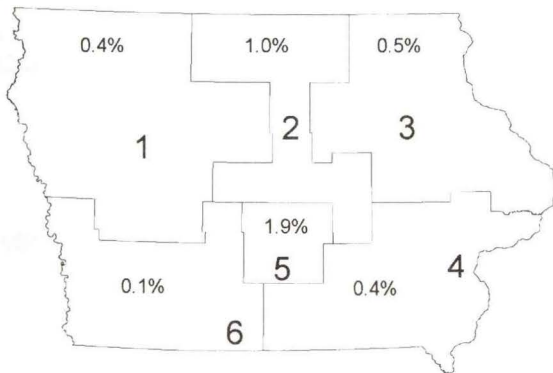


Figure 22. Used sedative in the past 18 months. Region 1 ($N_w = 1,384$); Region 2 ($N_w = 2,494$); Region 3 ($N_w = 2,576$); Region 4 ($N_w = 1,840$); Region 5 ($N_w = 6,401$); Region 6 ($N_w = 251$)

Table 57
Population Estimates of Recent Sedative Users: Age Group and County Type by Gender (Number of Respondents in Parentheses)

	Male	Female
Age		
18-24	2,648 (11)	1,408 (7)
25-44	1,808 (4)	5,187 (6)
45-64	2,047 (1)	1,031 (1)
65 and Older	661 (2)	156 (1)
County Type		
Rural	0 (0)	46 (1)
Mostly Rural	1,472 (7)	511 (4)
Mostly Urban	3,967 (6)	1,757 (6)
Urban	1,724 (5)	5,467 (4)

Patterns of use. Most (53%) of recent users reported that they had not used a sedative within the last 6 months. Only 23% reported having used a sedative within the last 30 days (see Tables 58 and 59). A majority (54%) of recent users reported having used a sedative only once or twice during the past 18 months, and only 12% reported using sedative 11 or more times during the last 18 months (see Tables 60 and 61).

Table 58
Recency of Sedative Use by Age Group
(% of Recent Users)

Recency of Use	Percent		
	Male	Female	Total
Last 30 Days	30.8	15.4	22.8
1-6 Months	22.7	25.3	24.0
6-18 Months	46.6	59.3	53.2
Age Group 18-24*			
Last 30 Days	43.9	82.1	57.2
1-6 Months	31.6	13.4	25.3
6-18 Months	24.5	4.5	17.6
Age Group 25-44*			
Last 30 Days	46.6	0.8	12.7
1-6 Months	18.0	31.3	27.8
6-18 Months	35.4	67.9	59.5
Age Group 45-64*			
Last 30 Days	0	0	0
1-6 Months	0	0	0
6-18 Months	100.0	100.0	100.0
Age Group 65 and Older*			
Last 30 Days	30.1	0	24.4
1-6 Months	69.9	100.0	75.6
6-18 Months	0	0	0

*Estimate may be unreliable due to the small number of such respondents.

Table 59
Recency of Sedative Use by County Type
(% of Recent Users)

Recency of Use	Percent		
	Male	Female	Total
Rural*			
Last 30 Days	0	0	0
1-6 Months	0	0	0
6-18 Months	0	100.0	100.0
Mostly Rural*			
Last 30 Days	66.8	8.6	51.8
1-6 Months	33.2	36.9	34.1
6-18 Months	0	54.5	14.1
Mostly Urban*			
Last 30 Days	15.7	65.8	31.1
1-6 Months	11.6	8.9	10.8
6-18 Months	72.7	25.3	58.1
Urban*			
Last 30 Days	34.6	0	8.3
1-6 Months	39.1	29.7	31.9
6-18 Months	26.3	70.3	59.8

*Estimate may be unreliable due to the small number of such respondents.

Table 60
 Frequency of Sedative Use by Age Group
 (% of Recent Users)

Frequency of Use	Percent		
	Male	Female	Total
1 to 2	30.5	81.2	53.5
3 to 10	59.9	3.1	34.2
11 or more	9.6	15.6	12.3
Age Group 18-24*			
1 to 2	50.9	37.0	45.5
3 to 10	39.6	1.2	24.6
11 or more	9.4	61.8	29.9
Age Group 25-44*			
1 to 2	51.5	100	84.9
3 to 10	35.4	0	11.0
11 or more	13.1	0	4.1
Age Group 45-64*			
1 to 2	0	0	0
3 to 10	100	0	100
11 or more	0	0	0
Age Group 65 and Older*			
1 to 2	0	0	0
3 to 10	69.9	100	75.6
11 or more	30.1	0	24.4

*Estimate may be unreliable due to the small number of such respondents.

Table 61
 Frequency of Sedative Use by County Type
 (% of Recent Users)

Frequency of Use	Percent		
	Male	Female	Total
Rural*			
1 to 2	0	100	100
3 to 10	0	0	0
11 or more	0	0	0
Mostly Rural*			
1 to 2	60.9	100	71.0
3 to 10	0	0	0
11 or more	39.1	0	29.0
Mostly Urban*			
1 to 2	15.7	40.7	23.4
3 to 10	84.3	9.8	61.4
11 or more	0	49.5	15.2
Urban*			
1 to 2	41.5	100	83.6
3 to 10	53.0	0	14.9
11 or more	5.4	0	1.5

*Estimate may be unreliable due to the small number of such respondents.

Prevalence of Stimulant Use

In this study, stimulant use was assessed using two sets of questions. The first set assessed the use of methamphetamines (e.g., crank, speed). The second set assessed the non-medical use of common over-the-counter (OTC) stimulants such as No Doze, Vivarin, and diet pills as well as illicit use of prescriptions or other stimulants (excluding methamphetamine).

First, we present prevalence information for ever and recent use of any stimulant (i.e., reported use in either set of questions). Following the combined stimulant information are separate analyses for methamphetamines and other stimulants.

Ever Use (any stimulant). Approximately 9% of adult Iowans have used some form of stimulant for non-medical reasons during their lifetime (see Table 62). Men were more likely than women to have used stimulants during their life. Adults between the ages of 25 and 44 were the most likely to have ever used a stimulant. Rates of ever use were highest in urban counties and lowest in rural counties. Regions 4 and 5 had the highest percent (12%) of persons having ever used a stimulant (see Figure 23).

Recent Use (any stimulant). Approximately 3% of adult Iowans have used some form of stimulant for non-medical reasons during the last 18 months (see Table 63). Young adults under the age of 25 had the highest recent prevalence. Recent stimulant use was twice as likely in urban than rural counties. Recent use was most common in Regions 5 and 6 (see Figure 24).

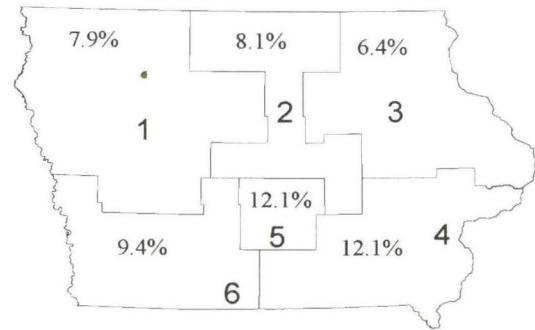


Figure 23. Ever used any form of stimulant in lifetime. Region 1 ($N_w = 28,278$); Region 2 ($N_w = 12,199$); Region 3 ($N_w = 21,836$); Region 4 ($N_w = 55,484$); Region 5 ($N_w = 41,850$); Region 6 ($N_w = 18,699$)

Table 62
Ever Used Stimulant (Any)

	N_w	Percent
Total	197,571	9.3
Gender		
Male	112,086	11.0
Female	85,485	7.7
Age		
18-24	32,316	11.8
25-44	125,027	15.3
45-64	37,875	6.3
65 and Older	2,353	0.5
County Type		
Rural	8,163	5.1
Mostly Rural	29,491	6.3
Mostly Urban	53,643	8.8
Urban	106,274	11.9

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table 63
Recent Stimulant Use (Any)

	N_w	Percent
Total	52,566	2.5
Gender		
Male	28,852	2.8
Female	23,714	2.1
Age		
18-24	21,115	7.7
25-44	23,124	2.8
45-64	8,305	1.4
65 and Older	22	0.0
County Type		
Rural	2,474	1.5
Mostly Rural	8,145	1.7
Mostly Urban	14,683	2.4
Urban	27,264	3.1

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

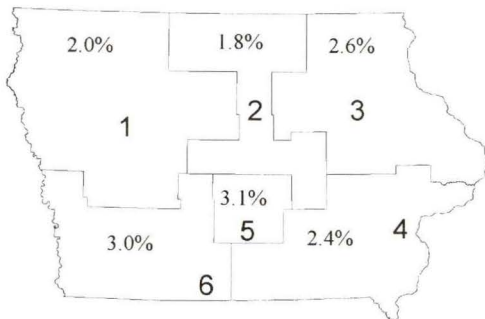


Figure 24. Used any form of stimulant in the last 18 months. Region 1 ($N_w = 7,067$); Region 2 ($N_w = 4,416$); Region 3 ($N_w = 13,435$); Region 4 ($N_w = 11,131$); Region 5 ($N_w = 10,612$); Region 6 ($N_w = 5,904$)

Table 64
Population Estimates of Recent Stimulant (Any) Users: Age Group and County Type by Gender (Number of Respondents in Parentheses)

	Male	Female
Age		
18-24	10,442 (67)	10,673 (51)
25-44	11,593 (18)	11,531 (22)
45-64	6,817 (8)	1,488 (3)
65 and Older	0 (0)	22 (1)
County Type		
Rural	1,937 (7)	536 (4)
Mostly Rural	6,088 (32)	2,057 (18)
Mostly Urban	5,517 (25)	9,166 (30)
Urban	15,310 (29)	11,954 (25)

Nearly half (46%) of recent users had used methamphetamine only once or twice during the last 18 months. Men were more likely than women to have used methamphetamine 11 or more times during the last 18 months (see Table 69).

Table 69
Frequency of Methamphetamine Use by Age Group (% of Recent Users)

Frequency of Use	Percent		
	Male	Female	Total
1 to 2	42.8	52.2	46.1
3 to 10	12.6	17.9	14.5
11 or more	44.7	29.8	39.4
Age Group 18-24			
1 to 2	47.2	49.3	48.0
3 to 10	17.9	45.0	27.8
11 or more	34.9	5.7	24.3
Age Group 25-44*			
1 to 2	11.5	54.1	34.3
3 to 10	12.2	0	5.7
11 or more	76.3	45.9	60.0
Age Group 45-64*			
1 to 2	64.2	0	64.2
3 to 10	6.8	0	6.8
11 or more	29.0	0	29.0
Age Group 65 and Older*			
1 to 2	0	0	0
3 to 10	0	0	0
11 or more	0	0	0

*Estimate may be unreliable due to the small number of such respondents.

Table 70
Frequency of Methamphetamine Use by County Type (% of Recent Users)

Frequency of Use	Percent		
	Male	Female	Total
Rural*			
1 to 2	17.4	0	15.6
3 to 10	0	100.0	10.2
11 or more	82.6	0	74.2
Mostly Rural*			
1 to 2	30.4	79.6	40.4
3 to 10	25.5	0	20.4
11 or more	44.0	20.4	39.3
Mostly Urban*			
1 to 2	97.9	28.8	42.5
3 to 10	0	21.0	16.9
11 or more	2.1	50.2	40.7
Urban			
1 to 2	42.4	70.8	49.7
3 to 10	10.8	17.2	12.4
11 or more	46.8	11.9	37.9

*Estimate may be unreliable due to the small number of such respondents.

Use of other stimulants. Table 71 shows the ever and recent prevalence for use of other stimulants (i.e., non-methamphetamine). This includes illicit use of prescription stimulants as well as abuse of over-the-counter (OTC) stimulants. Approximately, one in twenty adult Iowans have ever used for non-medical reasons some stimulant other than methamphetamine. Less than 2% of adults had used a non-methamphetamine stimulant in the last 18 months. One in twenty adults under the age of 25 have used a stimulant in the last 18 months. Among the youngest adults, 6% of the women and 4% of the men were recent users (see Table A-9 in Appendix A). See Appendix D for rates by planning region.

Table 71
Other Stimulants Ever and Recent Use

	Ever		Recent	
	N _w	%	N _w	%
Total	119,903	5.6	31,633	1.5
Gender				
Male	64,069	6.3	16,966	1.7
Female	55,834	5.0	14,667	1.3
Age				
18-24	21,004	7.7	14,019	5.1
25-44	69,312	8.5	12,457	1.5
45-64	28,041	4.6	5,135	0.8
65 and Older	1,547	0.4	22	0.0
County Type				
Rural	4,107	2.6	1,662	1.0
Mostly Rural	14,455	3.1	5,154	1.1
Mostly Urban	36,311	6.0	10,766	1.8
Urban	65,030	7.3	14,050	1.6

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable

Table 72
Population Estimates of Recent Non-methamphetamine Stimulant Users: Age Group and County Type by Gender (Number of Respondents in Parentheses)

	Male	Female
Age		
18-24	5,646 (43)	8373 (35)
25-44	6,642 (10)	5815 (13)
45-64	4,678 (4)	457 (2)
65 and Older	0 (0)	22 (1)
County Type		
Rural	1,320 (4)	342 (2)
Mostly Rural	3,739 (20)	1415 (12)
Mostly Urban	3,486 (20)	7281 (21)
Urban	8,422 (13)	5628 (16)

One in three recent (other) stimulant users had used within the past 30 days. With respect to the youngest Iowa adults, women were more likely (52%) than men (34%) to have used a stimulant in the past 30 days.

Table 73
Recency of Other Stimulant Use
by Age Group (% of Recent Users)

Recency of Use	Percent		
	Male	Female	Total
Last 30 Days	28.1	39.4	33.7
1-6 Months	25.5	21.1	23.3
6-18 Months	46.5	39.6	43.1
Age Group 18-24			
Last 30 Days	33.7	51.6	44.4
1-6 Months	47.8	16.6	29.2
6-18 Months	18.5	31.8	26.5
Age Group 25-44*			
Last 30 Days	14.0	25.1	19.2
1-6 Months	16.5	29.2	22.4
6-18 Months	69.5	45.8	58.4
Age Group 45-64*			
Last 30 Days	51.6	0	43.9
1-6 Months	0	0	0
6-18 Months	48.4	100.0	56.1
Age Group 65 and Older*			
Last 30 Days	0	0	0
1-6 Months	0	0	0
6-18 Months	0	100.0	100.0

*Estimate may be unreliable due to the small number of such respondents.

Table 74
Recency of Other Stimulant Use
by County Type (% of Recent Users)

Recency of Use	Percent		
	Male	Female	Total
Rural*			
Last 30 Days	0	0	0
1-6 Months	36.0	0	28.6
6-18 Months	64.0	100	71.4
Mostly Rural			
Last 30 Days	38.6	18.4	33.1
1-6 Months	25.6	38.0	29.0
6-18 Months	35.8	43.7	38.0
Mostly Urban			
Last 30 Days	19.6	37.2	31.5
1-6 Months	38.1	25.3	29.4
6-18 Months	42.3	37.5	39.0
Urban*			
Last 30 Days	32.3	49.8	40.5
1-6 Months	16.3	12.6	14.6
6-18 Months	51.4	37.6	44.9

*Estimate may be unreliable due to the small number of such respondents.

Most (58%) of recent users reported having used a non-methamphetamine stimulant for non-medical reasons only once or twice during the last 18 months (Table 75). Recent users in mostly urban counties were the mostly likely to report having used non-methamphetamine stimulants 11 or more times during the past 18 months (Table 76).

Table 75
Frequency of Other Stimulant Use by Age Group (% of Recent Users)

Frequency of Use	Percent		
	Male	Female	Total
1 to 2	58.9	57.6	58.2
3 to 10	30.5	26.9	28.7
11 or more	10.6	15.5	13.1
Age Group 18-24			
1 to 2	58.8	54.6	56.3
3 to 10	26.7	34.5	31.3
11 or more	14.5	10.9	12.4
Age Group 25-44*			
1 to 2	62.3	63.8	63.1
3 to 10	22.9	13.6	17.6
11 or more	14.8	22.6	19.3
Age Group 45-64*			
1 to 2	55.5	0	52.9
3 to 10	44.5	100.0	47.1
11 or more	0	0	0
Age Group 65 and Older*			
1 to 2	0	0	0
3 to 10	0	0	0
11 or more	0	0	0

*Estimate may be unreliable due to the small number of such respondents.

Table 76
Frequency of Other Stimulant Use by County Type (% of Recent Users)

Frequency of Use	Percent		
	Male	Female	Total
Rural*			
1 to 2	90.7	46.8	81.6
3 to 10	9.3	53.2	18.4
11 or more	0	0	0
Mostly Rural			
1 to 2	60.2	37.8	54.9
3 to 10	35.4	47.4	38.2
11 or more	4.4	14.8	6.9
Mostly Urban			
1 to 2	62.8	61.7	62.0
3 to 10	36.5	15.5	21.1
11 or more	0.7	22.8	16.9
Urban*			
1 to 2	49.2	57.0	52.9
3 to 10	29.6	36.1	32.7
11 or more	21.2	6.9	14.4

*Estimate may be unreliable due to the small number of such respondents.

Prevalence of Intravenous Injection

Ever Use. An estimated 1% of adult Iowans ($N_w = 20,735$) reported ever having intravenously injected any drug for non-medical reasons. These nearly 21,000 adults corresponds to an estimated 3.6% of those who reported having used a drug at least once for non-medical reasons. Because only 33 respondents reported ever injecting a substance intravenously for non-medical reasons, data can not reliably be reported for rates of injection for specific drugs.

Recent Use. Only 0.2% of adult Iowans ($N_w = 4,121$) reported intravenously injecting a drug for non-medical reasons during the past 18 months. This estimate is likely to be unreliable, however, as only 6 respondents in the entire sample reported recent intravenous drug use.

Prevalence of Recent Multiple Substance Use

Alcohol, tobacco, and/or drug(s). The majority of adult Iowans (73.8%, $N_w = 1,571,409$) had not used more than one substance in the past 18 months; however, an estimated 94,273 adult Iowans (4.4%) had used alcohol and tobacco as well as at least one other drug during the past 18 months (see Table A-10 in Appendix A).

An additional 19.6% ($N_w = 417,428$) reported recent use of alcohol and tobacco only (i.e., no drug use). An estimated 37,900 adult Iowans (1.8%) did not report using tobacco during the past 18 months but they reported recently having used alcohol and at least one other drug. Only 0.4% ($N_w = 8,173$) of adult Iowans had recently used tobacco and at least one other drug without using alcohol during that time period. Prevalence figures for different demographic groups are presented in Appendix A-10.

Alcohol and drug(s). When excluding tobacco use, approximately 6% of all adults Iowans had used alcohol and at least one drug for non-medical reasons during the past 18 months. Such multiple substance use was most common among the youngest adults, those in urban counties, and persons living in Region 5 (see Table 77).

Table 77
Prevalence for Recent Use of Alcohol and
At Least One Other Substance
(excluding tobacco)

	N _w	Percent
Total	132,172	6.2
Gender		
Male	77,687	7.6
Female	54,485	4.9
Age		
18-24	56,185	20.5
25-44	53,213	6.5
45-64	21,719	3.6
65 and Older	1,055	0.2
County Type		
Rural	4,774	3.0
Mostly Rural	16,544	3.5
Mostly Urban	32,979	5.4
Urban	77,875	8.7
Region		
1	12,944	3.6
2	12,581	5.0
3	34,741	6.7
4	27,700	6.1
5	35,114	10.2
6	9,092	4.6

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Profiles of recent alcohol and/or drug(s) users. As has been noted, most adult Iowans (71.7%, N_w = 1,527,383) have used at least one substance (excluding tobacco) in the last 18 months. Table 78 shows the percent of these recent users who reported using alcohol only (90.2%), alcohol and at least one drug (6.2%), alcohol and two or more drugs (2.4%), and drug(s) only (1.2%). Although the vast majority of recent alcohol users reported that they had not used any drugs within the last 18 months, most recent drug users (88%) had also used alcohol (see Table 78). As shown in Table 78, drug use was reported by 25% of recent substance users (excluding tobacco) between the ages of 18 and 24 and by nearly 13% of those users living in urban counties. Of those who reported recent drug use but not alcohol use, 24.8% (N_w = 4,504) were polydrug users.

Again, these results show that alcohol was by far the most commonly reported substance used by adult Iowans. To some extent this pattern is contrary to recent trends in admissions to Iowa treatment programs that show the primary substance of abuse increasingly is a drug other than alcohol. There are probably several reasons for this difference: telephone surveys have inherent limitations to assess drug use; treatment centers may be more likely to see drug users than alcohol (only) users, and treatment centers may give priority to drug use over alcohol use when designating the primary substance problem.

Table 78
Description of Recent Substance Use
(% of Any Recent Alcohol and/or Drug Users)

	Alcohol Only		Alcohol and One Other Drug		Alcohol and Two Or More Other Drugs		Drug(s) Only	
	N _w	Percent	N _w	Percent	N _w	Percent	N _w	Percent
Total	1,377,054	90.2	95,300	6.2	36,875	2.4	18,156	1.2
Gender								
Male	695,151	88.6	54,974	7.0	22,713	2.9	11,466	1.5
Female	681,903	91.8	40,325	5.4	14,160	1.9	6,690	0.9
Age								
18-24	169,790	74.5	40,438	17.8	15,747	6.9	1,811	0.8
25-44	594,381	90.2	37,881	5.7	15,332	2.3	11,352	1.7
45-64	412,937	94.0	15,925	3.6	5,794	1.3	4,837	1.1
65 and Older	199,947	99.4	1,055	0.5	0	0	156	0.1
County Type								
Rural	102,420	94.6	3,880	3.6	894	0.8	1,082	1.0
Mostly Rural	304,676	94.3	11,654	3.6	4,890	1.5	1,987	0.6
Mostly Urban	391,824	90.5	26,073	6.0	6,905	1.6	8,084	1.9
Urban	578,135	87.2	53,692	8.1	24,184	3.6	7,003	1.1
Region								
1	238,814	93.8	8,137	3.2	4,808	1.9	2,823	1.1
2	162,534	91.7	9,901	5.6	2,681	1.5	2,126	1.2
3	351,826	90.4	23,854	6.1	10,887	2.8	2,453	0.6
4	284,964	90.2	22,557	7.1	5,143	1.6	3,213	1.0
5	217,314	84.2	25,403	9.8	9,712	3.8	5,713	2.2
6	121,602	91.8	5,448	4.1	3,644	2.7	1,828	1.4

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Prevalence of Substance Abuse & Dependency

Although the prevalence data presented in the preceding section of this report described the extent to which Iowans were using both licit and illicit substances, these rates are only part of the information needed to estimate the state's treatment needs. Obviously, not every person who is currently using alcohol or some other substance is an "abuser" or "addict." There are several possible ways to classify individuals as "in need of treatment." Unless otherwise specified, *treatment* refers to substance abuse treatment in a general sense and does not imply any particular program or technique.

For alcohol and each of the other drugs in the survey, recent users were asked additional questions regarding the nature of their substance use. The primary goal of these questions was to estimate the number of Iowans who currently need or are likely to need treatment in the near future. A second goal of these questions was to provide treatment providers with demographic characteristics of those individuals who could benefit from treatment. A third goal was to allow the calculation of substance abuse using the DSM-IV criteria. The final goal was to calculate dependency using the DSM-III-R and DSM-IV criteria (see Appendix B); these estimates of dependency could then be compared to previous estimates using data from 1992-93 to assess any changes. Confidence intervals for substance abuse and dependency using the 1997-98 data are provided in Appendix C.

Substance Abuse

The American Psychiatric Association's DSM-IV criteria describe substance abuse as a recurrent pattern of maladaptive substance use that has significant negative consequences for the user. In our survey, recent substance users were asked a series of questions that provided information about substance abuse. According to the DSM-IV, a substance abuser manifests maladaptive behavior related to neglect of obligations, risk of physical injury, legal problems, or serious social problems. Importantly, the individual cannot have ever been dependent on the same substance for which abuse is being assessed.

Although there are a multitude of possible behavior patterns that an abuser might exhibit, necessity dictated that only a limited number of questions concerning maladaptive behaviors could be asked of respondents. It was also difficult to determine from a standardized set of questions the extent of the maladaptive behaviors and the severity of negative consequences associated with these substance use related behaviors. Thus, the scoring procedure used to determine substance abuse should be interpreted as only an approximation of the actual DSM-IV clinical criteria (see Appendix B for scoring procedure).

As shown in Table 79, it was estimated that 2.6% of adult Iowans were alcohol abusers. Alcohol abuse was most common among males and adults under 25.

Because less than 1% of adult Iowans were drug abusers, it was not meaningful to provide prevalence estimates of abuse for specific drugs.

Overall, an estimated 3.1% of Iowans were substance abusers of alcohol and/or another drug. Substance abuse was most common among males, adults under the age of 25, and

persons living in urban counties. Region 5 had the highest prevalence of substance abuse (See Table 79).

Table 79
Prevalence of Substance Abuse (Approximation of DSM-IV Criteria)

	Alcohol			Any Drug			Any Substance		
	%	N _w	N	%	N _w	N	%	N _w	N
Total	2.6	56,176	166	0.7	14,304	46	3.1	67,030	201
Gender									
Male	4.2	42,602	114	0.9	9,625	36	5.0	50,803	142
Female	1.2	13,574	52	0.4	4,678	10	1.5	16,227	59
Age									
18-24	7.3	19,919	103	3.4	9,437	39	10.3	28,138	134
25-44	3.1	25,784	47	0.6	4,558	6	3.5	28,420	51
45-64	1.6	9,418	13	0.1	309	1	1.6	9,418	13
65 and Older	0.2	1,054	3	0	0	0	0.2	1,054	3
County Type									
Rural	1.7	2,786	18	0.2	333	1	1.5	3,119	19
Mostly Rural	2.5	11,492	53	0.4	1,682	11	2.8	12,960	61
Mostly Urban	2.3	14,135	48	0.3	1,581	13	2.5	15,524	58
Urban	3.1	27,763	47	1.2	10,707	21	4.0	35,427	63
Region									
1	1.9	6,800	28	0.2	701	4	2.1	7,501	32
2	2.2	5,396	28	0.5	1,360	7	2.6	6,599	34
3	2.5	12,935	31	1.0	5,049	11	3.3	17,173	40
4	1.9	8,507	21	0.2	871	3	2.0	9,378	24
5	4.8	16,609	28	1.3	4,618	10	5.7	19,572	35
6	3.0	5,929	30	0.9	1,703	11	3.4	6,809	36

Note. "N" denotes the actual number of respondents per cell. Estimates where only 30 or fewer survey respondents meet the criteria may not be reliable.

As shown in Table 80, substance abuse was most common among men between the ages of 18 and 25. Approximately 13% of adult males under the age of 25 were substance abusers as compared with 5% of adult females in that same age group.

Table 80
Substance Abuse (Approximation of DSM-IV Criteria) by Gender by Age Group

Age Group	Male	Female
18-24	12.9	5.0
25-44	5.4	1.8
45-64*	1.7	0.2
65 and Older*	0.4	0.1

*Estimate may be unreliable due to the low number of survey respondents in this age group who were abusers.

As the design of the 1992-93 instrument did not allow for calculation of substance abuse, it was not possible to make comparisons between the 1992-93 and 1997-98 reports.

Substance Dependency

Self-identified dependency. One method of determining need is to ask respondents if at any time during the past 18 months they felt that they were in need of treatment. Respondents answering in the affirmative to this style of question are referred to as **self-identified dependents**.

Current tobacco users were asked if they “felt dependent on or addicted” to cigarettes or another tobacco product. Approximately 30% (29.9%) of adult Iowans reported that at sometime they had ever felt addicted to some form of tobacco product.

Individuals who reported ever using alcohol were asked if they “ever had a drinking problem, or been addicted to alcohol.” A self-identified alcohol problem was reported by 5.4% of adult Iowans.

Individuals who had ever used a drug were asked if they “ever had a problem with, felt addicted to, or been hooked on” the drug they reported using (see Table 81 for population estimates).

Table 81
Self-identified Dependency

Substance	N _w	Number of Respondents
Tobacco	637,349	1,642
Alcohol	115,033	238
Marijuana	28,742	59
Hallucinogens	7,187	13
Cocaine	21,441	33
Heroin & other opiates	5,725	7
Sedatives	10,094	13
Methamphetamine	24,424	55
Other Stimulants	6,608	13

Note. Population estimates based on 30 or fewer survey respondents may be unreliable.

In total, 6.9% of adult Iowans (N_w = 146,225) reported that they believed they were dependent on one or more substances (excluding tobacco).

Assessing dependency based on respondents’ self-reported perceptions of their substance use has obvious drawbacks. One important limitation is that respondents may not subjectively define their pattern of

consumption as problematic (e.g., they are in denial) even though they present enough symptoms to be defined as dependent or an abuser by objective clinical standards (i.e., DSM criteria). The reverse is also possible, although less likely.

Objective dependency criteria. In the present study, respondents were classified using criteria from both the American Psychiatric Association's revised third edition (DSM-III-R) and fourth edition (DSM-IV) of the Diagnostic and Statistical Manual. For each substance, excluding tobacco, the DSM criteria were measured by questioning respondents on areas of their substance use such as: the extent and nature of their substance consumption; the amount of time spent using and recovering from consumption; their experience with tolerance and withdrawal; the impact of frequent intoxication in fulfilling role obligations; the extent to which substance use reduced or eliminated other important activities; and their continued substance use despite knowledge that use was causing or exacerbating health, interpersonal, or social problems.

To be classified as DSM-IV recent dependent, the respondent must have reported experiencing three or more of six dependency symptoms within the last 12 months. DSM-III-R dependency requires three or more of nine symptoms (some of which differ from IV symptoms). A complete listing of symptom measurements and a discussion of the scoring criteria for the DSM-III-R and DSM-IV recent dependency are provided in Appendix B.

Throughout this report, unless otherwise specified, the term **dependent** refers to individuals who were DSM-III-R ever dependent on a substance and who had used this substance at least once during the past 18 months. We elected to use this definition of dependency as a basis for determining individuals in need of treatment for several reasons. First, this operationalization of dependency and treatment needs is more inclusive than alternative operationalizations (e.g., DSM - IV recent). Thus, this definition provides a ceiling or maximum estimate of treatment needs, working within the limitations (e.g., respondents under-reporting substance use) inherent in using a self-report telephone interview survey methodology. Second, this operationalization is consistent with the definition used in previous Iowa reports, thus allowing comparisons. Third, persons who evidenced DSM-III-R dependency at some point in their life and continue to use the substance on which they were dependent are clearly at an increased risk of entering the treatment system.

DSM-III-R alcohol dependency. In Iowa, nearly 9% of adults were DSM-III-R *ever* dependent on alcohol and had consumed alcohol within the past 18 months (see Table 82). Men were more likely than women to be dependent on alcohol. Alcohol dependency was most common among adults under the age of 45 and among Iowans in urban counties. Region 5 had the highest rate of dependency and Region 2 the lowest (see Figure 25).

Table 82
DSM-III-R Alcohol Dependency

	N_w	Percent
Total	181,749	8.5
Gender		
Male	144,255	14.2
Female	37,494	3.4
Age		
18-24	29,665	10.8
25-44	101,314	12.4
45-64	41,649	6.9
65 and Older	9,121	2.1
County Type		
Rural	10,831	6.7
Mostly Rural	31,264	6.7
Mostly Urban	45,458	7.5
Urban	94,195	10.6

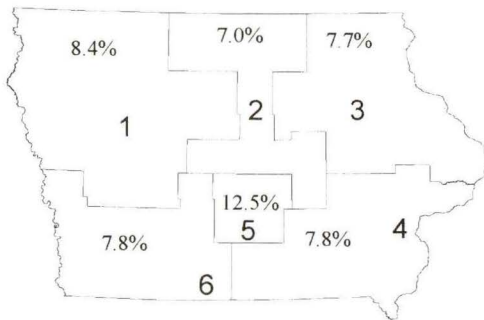


Figure 25. DSM-III-R lifetime alcohol dependency. Region 1 ($N_w = 30,173$); Region 2 ($N_w = 17,611$); Region 3 ($N_w = 39,554$); Region 4 ($N_w = 35,540$); Region 5 ($N_w = 43,291$); Region 6 ($N_w = 15,580$)

DSM-III-R drug dependency. In Iowa, other drug dependency rates were comparatively low. Specifically, 2.1% ($N_w = 45,602$) of adults were DSM-III-R dependent on *any* other drug and had used that substance within the past 18 months. Dependency rates for various categories of drugs are displayed in Table 83. Approximately 1% of adult Iowans were dependent on marijuana, and 1% on methamphetamine. Note that the population estimates in Table 83 do not sum to the population estimate of adults with any drug dependency because some individuals were dependent on multiple drugs. Because of the small number of actual respondents evidencing drug dependency, analyses at the subgroup level are not provided.

Table 83
DSM-III-R Drug Dependency

Substance	%	N_w	Actual N
Marijuana	1.1	23,558	49
Hallucinogens	0.3	6,168	10
Cocaine	0.8	17,732	29
Heroin & other opiates	0.3	5,578	6
Sedatives	0.2	5,047	7
Any Stimulant	1.0	22,147	55
Methamphetamine	1.0	21,115	49
Other Stimulant	0.1	2,342	7

Note. Population estimates based on 30 or fewer survey respondents may be unreliable.

DSM-III-R dependency on any substance.

When considering any substance use (alcohol and/or non-medical use of any drug), a total of 9.4% of adult Iowans had recently used a substance for which they met the criteria for DSM-III-R ever dependency.

Men were more than three times as likely as women to be DSM-III-R ever dependent (see Table 84). The gender disparity was even more pronounced among adults over 44 (see Table 85).

Substance dependency was highest in urban counties. The highest dependency rate was among urban males, and the lowest was among mostly rural females (see Table 85).

In most regions substance dependency was between 8% and 9% with the exception of Region 5 where the dependency rate was 14% (see Figure 26).

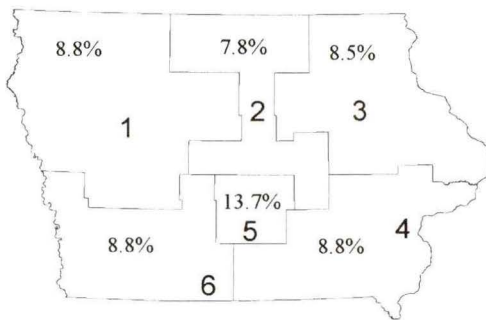


Figure 26. DSM-III-R lifetime dependency for any substance. Region 1 ($N_w = 31,527$); Region 2 ($N_w = 19,445$); Region 3 ($N_w = 44,097$); Region 4 ($N_w = 40,096$); Region 5 ($N_w = 47,316$); Region 6 ($N_w = 17,535$)

Table 84
DSM-III-R Dependency on Any Substance

	N_w	Percent
Total	200,016	9.4
Gender		
Male	148,491	14.6
Female	51,525	4.6
Age		
18-24	33,804	12.3
25-44	114,391	14.0
45-64	42,501	7.0
65 and Older	9,320	2.2
County Type		
Rural	11,164	7.0
Mostly Rural	32,778	7.0
Mostly Urban	52,121	8.5
Urban	103,953	11.7

Table 85
 DSM-III-R Dependency on Any Substance:
 Age Group and County Type by Gender

	Male		Female	
	N _w	%	N _w	%
Age Group				
18-24	25,183	18.2	8,622	6.4
25-44	80,745	19.6	33,645	8.3
45-64	34,388	11.6	8,113	2.6
65 and Older	8,175	4.8	1,146	0.4
County Type				
Rural	7,739	10.2	3,425	4.0
Mostly Rural	26,774	12.0	6,005	2.5
Mostly Urban	36,560	12.5	15,561	4.9
Urban	77,419	18.2	26,535	5.7

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Relationship between self-identified and criteria-based dependency. Eleven percent of adult Iowans (N_w = 233,550) were estimated to be dependent on at least one substance either because they identified themselves as dependent on a substance and/or met the DSM-III-R or DSM-IV criteria for substance dependency (see Figure 27). Only one in ten of these individuals were self-identified dependent but did not meet the clinical criteria according to either the DSM-III-R or DSM-IV.

Approximately 38% of dependent individuals met some clinical criteria for dependency but did not define themselves as being dependent. Over half (52%) recognized that they had a substance use problem and they met some clinical standard of dependency.

In sum, 89.6% (N_w = 209,352) of individuals self-identified as dependent or met either DSM-III-R or DSM-IV criteria for dependency.

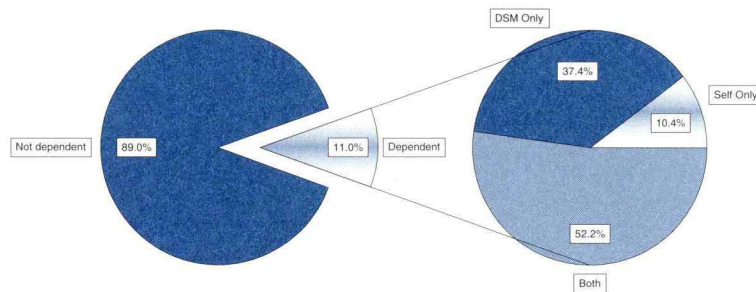


Figure 27. Self-identified and DSM-identified substance dependent Iowans.

Relationship between DSM-III-R and DSM-IV. The pie chart in Figure 28 represents all adult Iowans who met a clinical criteria for dependency for at least one substance. Slightly more than one-half of these individuals ($N_w = 108,938$) met the DSM-III-R criteria for dependency but were not recently manifesting any dependency symptoms. Approximately 43.4% percent ($N_w = 90,619$) were DSM-III-R dependent and recently evidenced at least one symptom of dependency. An estimated 22.7% ($N_w = 47,619$) of diagnosed dependent Iowans met the DSM-IV recent dependency criteria. Figure 28 shows the overlap between the different criteria for determining dependency.

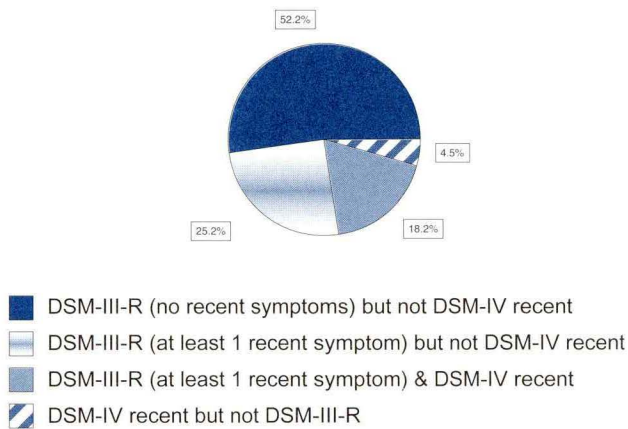


Figure 28. Overlap of DSM-III-R lifetime and DSM-IV recent dependency criteria.

Dependency across time. Another important comparison is between dependency rates for Iowans in 1992-93 versus 1997-98. Dependency rates using both the DSM-III-R ever dependent and DSM-IV recent dependent criteria were stable across time. However, point estimates based on DSM-III-R dependency with at least one recent symptom were less stable across time (see Table 86).

Although this decline could represent a *real* decrease in the population, fluctuations in point estimates across the two data sets may be completely or partially attributed to the following: differences in sample weighting procedures, differences in sample size, sampling error, or actual changes in the population. The stability evidenced in the estimates for the other two dependency classifications decreases the plausibility that this particular difference (i.e., decreased rate from 1992-93 to 1997-98 of DSM-III-R dependency with at least one recent symptom) is a statistical artifact, however such an explanation can not be eliminated. Our best interpretation is that substance dependency rates have remained stable or possibly declined very slightly.

Table 86
Comparison Over Time of DSM-III-R and DSM-IV Dependency Criteria by Type of Substance

Dependency Criteria	1992-93		1997-98	
	%	N _w	%	N _w
DSM-III-R Ever Dependent, with use in the past 18 months				
Alcohol	8.6	176,100	8.5	181,749
Any Other Drug	2.2	45,400	2.1	45,602
Any Substance	9.5	195,500	9.4	200,016
DSM-III-R Ever Dependent, with at least 1 symptom in the past 18 months				
Alcohol	5.8	119,800	3.9	83,553
Any Other Drug	1.0	20,800	0.7	15,346
Any Substance	6.2	126,600	4.3	90,620
DSM-IV Recent (12 Month) Dependency				
Alcohol	2.0	41,400	1.9	41,293
Any Other Drug	0.6	12,300	0.4	9,511
Any Substance	2.5	51,400	2.2	47,775

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Determining treatment needs: A comparison of three objective criteria. As evident from the tables and figures presented in this section of the report, there are several possible conceptualizations using clinically defined dependency criteria for determining which Iowans are in need of treatment. For instance, when considering any substance use (alcohol and/or any other non-medical use of any drug), 9.4% ($N_w = 200,016$) of adult Iowans had recently used a substance for which they met the criteria for DSM-III-R lifetime dependency. However, only 4.3% ($N_w = 90,620$) of adult Iowans had recently used a substance on which they met the criteria for DSM-III-R lifetime dependency and were currently manifesting at least one symptom of dependency. Furthermore, only 2.2% ($N_w = 47,775$) of Iowans met the criteria for DSM-IV recent dependency.

The next section of the report focuses on determining the level of care most appropriate for clinically diagnosable dependent adult Iowans. Estimated levels of care are provided using each of the three definitions of dependency described above.

Levels of Care

Matching clients with appropriate treatment programs is a challenge that treatment providers confront on a daily basis. When deciding which treatment program to place a client, treatment professionals have numerous sources of information to consider. The American Society of Addiction Medicine (ASAM) describes six criterion dimensions in its Patient Placement Criteria (PPC-2). In the subsequent paragraphs, factors related to these six dimensions are discussed in general terms.

Dimensions of Care Determinations

One dimension is the *severity of substance use* by the client and, in some cases, current level of intoxication. Related to the severity of substance usage is the client's withdrawal potential. One assessment tool in determining withdrawal potential is the Clinical Institute Withdrawal Assessment (CIWA). In other cases, treatment professionals may need to rely on professional judgment based on their interactions with the client and the presence of any observable withdrawal symptoms (e.g., shakes).

A second dimension treatment professionals may consider is the client's *physical health*. It is important to know whether the client suffers from any biomedical conditions (e.g., liver disease) or complications (e.g., high blood pressure) that could be aggravated by continued substance use.

A third consideration is the client's *emotional and psychological condition*. These considerations may include the likelihood that the client is a danger to one's self (e.g., suicidal thoughts) or others (e.g., homicide or behavior that endangers the safety of others). An additional consideration may be whether the client experiences abnormal psychological function (e.g., feelings of paranoia) as a result of substance use.

Another consideration is the client's *potential to relapse*. This potential may be established based on the client's past responses to treatment program(s). In addition to the client's history, relapse potential may be estimated by examining factors related to the client's level of understanding regarding the consequences of continued substance use.

An additional consideration when selecting an appropriate treatment program is the *social environment* in which the client will live during treatment. If the client will be living and working with other substance users, this could be detrimental to the treatment's success. Furthermore, living or having serious personal involvement with an individual who is emotionally, physically, or sexually abusive to the client will not enhance the treatment program's ability to alter the client's substance use patterns.

Finally, the level of care and the length of treatment program can be influenced by the nature of the client's *motivation for seeking treatment*. If treatment is court ordered or assigned through family intervention, the patient probably has little or no input to the manner of treatment. In contrast, the wishes of clients voluntarily seeking treatment must be considered in assigning a level of care that can accommodate their desires and lifestyle demands (e.g., family obligations). For instance, clients may elect to take part in an out-patient treatment program rather than an in-patient treatment program for reasons such as child-care, inadequate insurance, or work obligations.

The Assessment Process

Thus far, the levels of care discussion has centered around the American Society of Addiction Medicine's Patient Placement Criteria for the Treatment of Substance-Related Disorders (ASAM PPC-2; American Society for Addiction Medicine, 1998) because it provides a broad conceptual framework for understanding the various factors related to level of care determinations. However, the PPC-2 is not the only form or

set of criteria treatment providers can use when making levels of care determinations.

In some organizations, the assessment forms are completed by the client before meeting with a treatment counselor. After the client has answered the questions, the counselor discusses the form with the client to ensure that the client was able to read and understand it. This process also allows the counselor to determine whether the clients have realistic or unrealistic perspectives on their current substance use. As one counselor explained to the authors during an interview, the clients sometimes underestimate the severity of their condition.

In addition to completing written forms that provide information about the client. The counselor's decision on level of care is partially based on personal observations while in the physical presence of the client. According to counselors we interviewed, the client's physical condition (e.g., glassy eyes) and/or behavior (e.g., slurred speech, shaking, passing out) can necessitate sending the client to the hospital for detoxification. After returning from the hospital, the counselor continues the assessment process with respect to treatment program placement.

Selecting Placement Criteria

Implementing patient placement criteria on a statewide or system-wide basis raises a number of issues. Although Iowa has mandated the use of the PPC-2, there are still considerations to address. For instance, what modifications should be made to the criteria to take into account local resources and special populations in the area? Obviously, it is beyond the scope of the present study to

address these types of issues, but the question of how placement criteria are to be actually used is certainly germane to this report.

Levels of Care in the Present Study

One goal of this report is to provide an estimate of the possible demands or needs of Iowans at various levels of care. In our attempts to provide these estimates, several challenges were faced.

First, established measures (e.g., PPC-2) designed to assist treatment professionals in determining a client's level of care require a vast amount of information from the client and rely on the experience of treatment professionals. Although the data in this report were collected by trained interviewers, these interviewers lacked experience in assessing specific treatment needs of substance users. Also, the interviews were conducted via telephone which does not allow for physical observation of the respondent. Regardless, the survey was not intended to accomplish detailed assessment of care levels for individual respondents.

The second challenge concerned the timing of the level of care determination. Due to the nature of this household survey, the last 12-18 months was the most feasible time frame for which data were reported. Because levels of care are typically based on the treatment provider's assessment of the client at the time the placement decision is made, using the client's behavior and situation during the past year or so in establishing levels of care may not be an accurate representation of actual clinical diagnosis that would have been reached at a particular point in time.

Determining levels of care using an existing protocol (e.g., PPC-2) would require an extensive module of questions (or an entire survey itself). Thus, it was not possible to use such an assessment criteria during data collection for the present survey. Instead, we created a classification system for determining levels of care based on themes derived from existing patient placement protocols.

In the present analysis, three levels of care were established. The highest level of care (**medically supervised**) was reserved for those users who would likely require medical supervision during their treatment. The second level of care (**residential**) contained clients for whom outpatient treatment may be problematic given their living or work situation or their social support system. The lowest level of care (**outpatient**) was used for those who did not require medical attention and reported having a relatively supportive home and work environment.

Because alcohol is the primary substance on which Iowans are dependent, in this report level of care estimates are provided only for alcohol dependents.

Medically supervised. This level of care was based on the premise that certain clients would most benefit from a treatment program that provided medical supervision. The client might require medical supervision because of physical health or mental health conditions.

To be placed in this level of care, the dependent respondent must have reported one of the following: (1) consumed alcohol during the last 12 months even though alcohol use worsened an alcohol-related illness or medical condition; (2) consumed alcohol during the

last 12 months even though alcohol caused an emotional (e.g., depression) or psychological problem (e.g., paranoia); (3) used alcohol and this use resulted in admission to the hospital for an alcohol-induced emotional or psychological problem within the past 12 months; (4) consumed alcohol while undergoing treatment during the past year; or (5) reported being pregnant during the time when the client would have sought treatment in the past year.

Residential services. This level of care was based on the premise that certain clients would find outpatient treatment particularly difficult due to their social environment or a relapse would endanger the safety of others. Specifically, to be placed in this level of care, the dependent respondent must have reported alcohol use and at least one of the following: (1) the respondent perceived a barrier to treatment related to (a) unsupportive friends or coworkers, (b) unsupportive family, (c) living with an alcohol user; (d) working with alcohol user; (e) living with a physical, sexual, or emotional abuser; (2) the respondent was physically abused by someone he or she was dating, lived with, or was married to during the last 12 months; (3) the respondent was sexually abused by someone he or she was dating, lived with, or was married to during the last 12 months; or (4) the respondent believed that due to his or her occupation a relapse would endanger the health or safety of others.

Outpatient. Dependent respondents not likely in need of physical or mental health supervision by a physician and reported living in an environment that was not detrimental to treatment objectives were considered candidates for outpatient treatment.

Levels of care estimates. Using three different alcohol dependency criteria, population estimates of the number of adult Iowans who were appropriate for each level of care are shown in Table 87. Regardless of the definition of dependency, approximately 1% of adult Iowans (i.e., 22,000 people) were estimated to need medically supervised treatment because of a physical or psychological condition. When dependency was defined as DSM-III-R (ever) with continued alcohol use, over 70,000 adult Iowans were estimated to need residential treatment services and nearly 90,000 outpatient treatment services. However, using a more restrictive definition where dependency is defined as DSM-III-R (ever) with at least one manifested symptom in the last 18 months, it was estimated that nearly 33,000 adult Iowans could need of residential treatment services and nearly 29,000 could need outpatient treatment services. The estimated numbers of adult Iowans needing residential and outpatient treatment services were even lower when dependency was defined using the DSM-IV (recent) criteria (see Table 87).

Table 87
 Estimated Levels of Care: Statewide
 Prevalence Rates Using Alternative Alcohol
 Dependency Criteria

Level of Care	% All Adults	% within criteria	N _w
DSM-III-R			
Medically Supervised	1.0	12.3	22,268
Residential	3.3	38.8	70,474
Outpatient	4.2	49.0	89,007
DSM-III-R with 1 recent symptom			
Medically Supervised	1.0	26.4	22,038
Residential	1.5	39.2	32,744
Outpatient	1.4	34.4	28,771
DSM- IV Recent			
Medically Supervised	1.0	49.7	20,505
Residential	0.5	28.0	11,564
Outpatient	0.4	23.3	9,223

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

As shown in Table 88, it was estimated that men were more likely than women to need medically supervised treatment. Adults under the age of 25 were the most likely to be in need of a medically supervised treatment program, while adults between the ages of 25 and 44 were the most likely to be candidates for an outpatient program. Region 3 had the highest percentage of residents estimated to be in need of medically supervised treatment, and Region 5 had the highest percent of residents estimated to be in need of less intensive treatment programs.

Table 88
 Level of Care Prevalence by Demographic
 Group (DSM-III-R with Substance Use as
 Dependency Criteria)
 (% of Total Adult Iowa Population)

Level of Care	One (MS)	Two (Res)	Three (Out)
Gender			
Male	1.5	5.2	7.4
Female	0.6	1.5	1.2
Age Group			
18-24	3.1	4.3	3.5
25-44	1.5	4.9	6.0
45-64	0.3	2.7	3.9
65 and Older	0.1	0.5	1.6
County Type			
Rural	0.4	2.1	4.3
Mostly Rural	0.8	2.1	3.8
Mostly Urban	1.1	2.1	4.2
Urban	1.3	5.0	4.3
Region			
1	1.0	2.5	4.9
2	1.2	2.7	3.1
3	1.7	3.2	2.7
4	0.7	3.7	3.4
5	0.3	4.9	7.4
6	1.3	2.3	4.2

Note. MS = medically supervised, Res = residential treatment services, Out = Outpatient treatment service. Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Figure 29 shows the percentage of Iowans who would be estimated to be placed in each of the three levels of care for each of the three definitions of dependency. Each pie chart corresponds to one of three different definitions of dependency. When dependency was defined as DSM-III-R (ever) with continued alcohol use, nearly half of alcohol dependent persons would be placed in an outpatient program. However, when dependency was defined as DSM-III-R (ever) with at least one recent symptom, slightly more than one-third of adult Iowans who are

dependent on alcohol would be placed in an outpatient program. And when dependency was defined as DSM-IV recent, less than one-fourth of adult Iowans dependent on alcohol would be placed in an outpatient program. These findings suggest that the more restrictive definition of dependency (i.e., DSM-IV recent) targets those individuals with the most serious treatment needs.

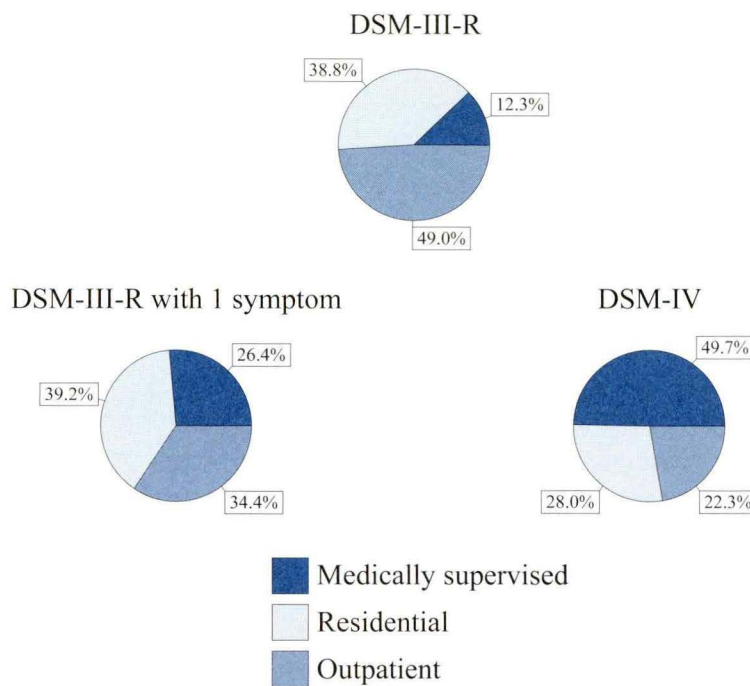


Figure 29. Estimated Levels of Care by Definition of Dependency.

Validity of the level of care placement criteria. Note that in the analyses presented in this section the level of care determination was not directly tied to the severity of one's alcohol consumption or dependency. Instead, we have provided separate estimates for respondents meeting different standards of dependency. Also, we have no data available regarding the validity of the classification system used in this study. That is, we have no information regarding the relationship between level of care determinations using our classification criteria and determinations that a trained professional would have made for the respondent based on an in-person assessment of the respondent in conjunction with a standard placement criteria (e.g., PPC-2).

Because we recognize that our levels of care placement criteria are imperfect indicators of the respondent's *actual* level of care requirements, the preceding findings should be interpreted only as an *approximation* of the appropriate level of care for potential clients who may be entering the treatment system.

Treatment Experiences

An Overview

Approximately one in twenty (5.2%, $N_w = 109,811$) adult Iowans had received help, counseling, or treatment for alcohol or other drug use during their lifetime. Of those who had received treatment during their lifetime, 65.3% were treated only for alcohol use, 11.6% only for drug use, and 23.1% both for alcohol and drug use. While most (61.7%) of those who had been in treatment reported only receiving help once, 38.3% had received help more than once.

The different types of treatment services these Iowans used are shown in Figure 30. The percentages in Figure 30 do not sum to 100 because respondents could report multiple types of treatment. Self-help groups and outpatient rehabilitation were the most common types of treatment that adult Iowans reported receiving.

Approximately, 17.1% ($N_w = 34,151$) of dependent individuals reported receiving treatment in the last 12 months. Importantly however, only 40.2% ($N_w = 80,368$) of those who were estimated to be DSM-III-R lifetime dependent on alcohol and/or any other drug (excluding tobacco) reported having ever received treatment during their life.

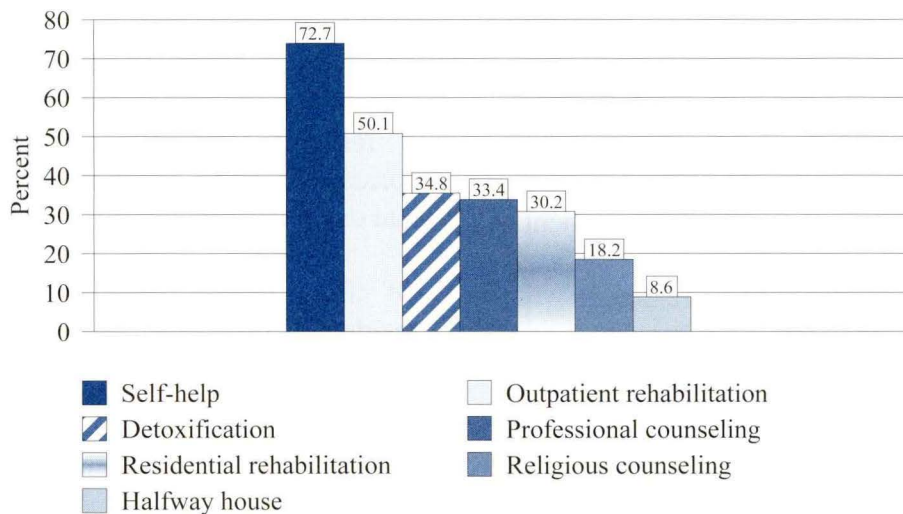


Figure 30. Utilization of treatment services by adult Iowans who have ever received treatment for substance use. Percent of those in the treatment system receiving each type of program.

Treatment Experiences -- Lifetime

This section of the report discusses the types of treatments that Iowans report having ever received for their drug and alcohol use.

Self-help treatment. Approximately 3.7% of adult Iowans had attended a self-help group (e.g., Alcoholics Anonymous) at least once because of their substance use. This corresponds to 72.7% ($N_w = 79,823$) of those Iowans who had ever received any treatment for drug or alcohol use.

Outpatient treatment. An estimated 2.6% ($N_w = 54,980$) of adult Iowans had received some form of outpatient substance use treatment during their life. This corresponds to 50.1% of all adult Iowans who had ever received treatment for drug or alcohol use.

Of those Iowans receiving outpatient treatment, 58.0% ($N_w = 31,884$) received intensive outpatient treatment where intensive outpatient treatment was defined as lasting two or more hours per day for at least three days per week. Of those Iowans receiving outpatient treatment, 59.6% ($N_w = 32,775$) received less intensive outpatient treatment. Less intensive outpatient treatment was defined as a program where treatment was provided for less than two hours per session or only once or twice per week. An estimated 11,584 adult Iowans received both types of outpatient treatment.

Detox. Slightly less than two percent (1.8%, $N_w = 38,226$) of adult Iowans reported receiving detoxification at least once. In other words, 34.8% of those Iowans who had ever received treatment for drug or alcohol use had received detoxification treatment either by

itself or as part of a larger treatment program. Most (84.1%, $N_w = 32,154$) received detoxification treatment in a hospital. However, 13.8% ($N_w = 5,290$) and 13.3% ($N_w = 5,112$) received detoxification treatment in a nonhospital residential facility or as an outpatient, respectively. The percentages sum to over 100 because some respondents had received detoxification treatment more than once.

Professional counseling. One common form of treatment relies on therapy or counseling from a professional (i.e., psychiatrist, psychologist, social worker, or counselor) outside of a formal treatment program. An estimated 1.7% ($N_w = 36,654$) of adult Iowans had received this type of treatment for their substance use. Of those Iowans who had ever received any treatment for their substance use, 33.4% reported receiving professional therapy or counseling.

Residential Rehabilitation. Approximately, 1.6% ($N_w = 33,139$) of adult Iowans reported receiving treatment for their substance use at a residential rehabilitation center. This corresponds to 30.2% of all adult Iowans who had ever received any form of treatment.

Of those Iowans who had ever received residential treatment, 69.6% ($N_w = 23,056$) reported receiving treatment at a hospital, 39.5% ($N_w = 13,100$) in a short-term program that lasted 30 or fewer days at a residential care facility, and 44.1% ($N_w = 14,627$) in a long-term treatment program lasting more than 30 days at a residential care facility.

Religious counseling. Another form of treatment relies on talking with a religious leader such as priest, minister, and rabbi. This type of treatment was reported by less than one percent of adult Iowans (0.9%, $N_w = 19,976$). In other words, of those Iowans who had ever received any form of treatment for drug or alcohol use, 18.2% had talked with a religious leader about their substance use.

Halfway house. Treatment at a halfway house was reported by only 0.4% ($N_w = 9,417$) of adult Iowans. Thus, only 8.6% of adult Iowans who had ever received any treatment for drug or alcohol use reported spending time in a halfway or recovery house.

Table 89
Ever Treatment Experiences: Population Estimates and Number of Respondents

Treatment	N_w	Number of Respondents*
Self-help	79,823	174
Less Intensive Outpatient	32,775	89
Intensive Outpatient	31,884	60
Detox in Hospital	32,154	63
Detox Nonhospital	5,290	12
Detox outpatient	5,112	8
Professional Counseling	36,654	84
Rehabilitation in Hospital	23,056	56
Residential Rehabilitation (short-term)	13,100	26
Residential Rehabilitation (long-term)	14,627	33
Religious Counseling	19,976	48
Halfway House	9,417	20

*Estimates based on 30 or fewer respondents may not be reliable.

Treatment Experiences – Recent

Table 90 shows the population estimates of the number of adult Iowans receiving each of several different treatments in the last 12 months. The table also shows the actual number of respondents in the sample on which these population estimates were based. Population estimates based on a small number of actual respondents are unreliable.

Table 90
Treatment Experiences in the
Past 12 Months: Population Estimates and
Number of Respondents

Treatment	N _w	Number of Respondents*
Self-help	28,489	65
Less Intensive Outpatient	3,646	19
Intensive Outpatient	2,475	13
Detox in Hospital	3,397	6
Detox nonhospital	316	2
Detox outpatient	0	0
Professional Counseling	12,407	22
Rehabilitation in hospital	3,764	8
Residential Rehabilitation (short-term)	1,100	3
Residential Rehabilitation (long-term)	3,245	5
Religious Counseling	3,019	5
Halfway House	1,551	6

*Estimates based on 30 or fewer respondents may not be reliable.

As suggested in Table 90, self-help groups was the most commonly reported type of treatment that adult Iowans utilized during the past year. Estimates for all other types of treatment are unreliable due to small number of actual respondents reporting these treatment experience.

Respondents who reported receiving a specific type of treatment during the past year also provided their assessment of the effectiveness of each of their treatment experiences. Because of the limited number of respondents who had received specific types of treatment within the past 12 months, effectiveness ratings are only shown for self-help treatment.

Self-help treatment. Of those who had ever attended a self-help group, 35.7% (N_w = 28,489) had attended a meeting within the past 12 months. Most attended either only one (41.5%, N_w = 11,296) or two (20.0%, N_w = 5,437) groups, but we do not have data on how many individual meetings adult Iowans report attending. Figure 31 shows the effectiveness rating associated with the most recent treatment. Those (N_w = 1,316) who reported they did not know or were unsure of the treatment outcome were excluded from the pie chart. The category of mixed results was included to capture those Iowans with multiple experiences with self-help groups who were unable to enumerate their past treatment experiences and achieved inconsistent results from attending different groups. Nearly 60% reportedly had permanently stopped their substance use.

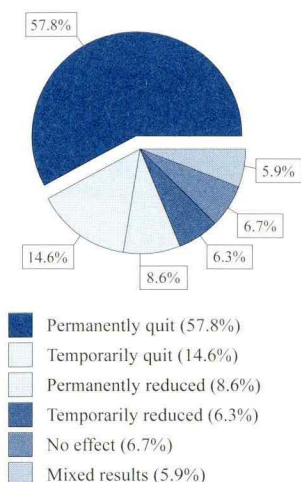


Figure 31. Self-reported treatment outcomes by those attending a self-help group in the last 12 months.

Additional treatment needs of Iowans who received treatment within the past 12 months. Of those receiving some form of treatment during the last 12 months, only 7.4% ($N_w = 2,925$) reported that they would have sought additional treatment services if they were available. The specific types of treatment needs of these individuals included all of those already being used. Because of the small number of these respondents no reliable population estimates can be calculated.

Treatment Needs of Iowans Not Recently in the Treatment System

A mere 0.3% of all adult Iowans who did not receive treatment for their substance use during the past year reportedly wanted or felt that they needed treatment. Nearly two-thirds (63.8%) of these Iowans reported that they would have sought treatment if treatment was readily available. However, fewer than one in three (30.6%) of these Iowans took any steps to obtain any form of treatment. Table 91 shows the population estimates for treatment

needs of those not in the system, however, the estimates in the table may be unreliable due to the small number of respondents wanting treatment (who did not receive it). Furthermore, population estimates of demand for specific types of treatment services can not be reliably calculated.

Table 91
Treatment Demand: Population Estimates and Number of Respondents

Treatment	N_w	Number of Respondents*
Wanted or felt needed treatment	6,566	20
Would have sought if available	4,187	11
Took step to obtain treatment	1,281	8

*Estimates based on 30 or fewer respondents are not reliable.

Treatment Barriers

There are numerous environmental and personal factors that may prevent Iowans from receiving treatment for their substance use. In this study, perceptions of many different factors were examined. For ease of presentation, these factors have been grouped into five categories: facilities, beliefs about services, personal factors, social group factors, and social support. Tables 92 to 96 show the percentage of different groups of Iowans who reported that each factor was or would be a barrier to their treatment. Additional tables reporting findings separately for gender, age group, county type, and planning region are provided in Appendix E.

One source of information on treatment barriers was obtained by asking a set of hypothetical questions. Respondents were asked to imagine what barriers would be present if they had wanted to use an alcohol or drug treatment service in the previous year. Of particular concern to treatment providers are the perceived barriers of Iowans who are DSM-III-R dependent on at least one substance and have used the substance in the past 18 months. These individuals are at higher risk than the general population of needing or utilizing treatment programs in the near future. In Tables 92-96, these people are represented in the first column (*“need Tx”*).

A second source of information on barriers to treatment was obtained by asking those Iowans who said they might have wanted treatment in the last 12 months (but did not receive it) about possible treatment barriers. In Tables 92- 96, these people are represented in the second column (*“might want Tx”*). Estimates in this column are unreliable due to the small number of respondents reporting that they might have sought treatment if it were available.

A third source of information on treatment barriers was obtained by asking those Iowans who had actual treatment experiences which factors negatively impacted their treatment. In Tables 92-96, these people are represented in the last column (*“past Tx”*).

Facilities. As shown in Table 92, about 29% of Iowans who were in need of treatment believed that the hours of treatment facilities are inconvenient.

Table 92
Barriers Related to the Facilities (%)

Barrier	Need Tx	Might want Tx*	Past Tx
Inconvenient hours	28.7	9.7	16.8
Don't know who to contact	18.1	6.6	12.4
Too far away	11.7	13.1	13.3
No Transportation	9.9	2.3	19.0

*Estimates based on 30 or fewer respondents may be unreliable.

Beliefs about services. Another important type of barrier to receiving treatment can be found in the individual's beliefs about the treatment experience. As shown in Table 93, the cost associated with treatment was perceived as a barrier by 29% of those in need of treatment. Nearly one in four Iowans who need treatment fear that the programs lacked confidentiality. Interestingly, only 22% of Iowans who are DSM-III-R ever dependent on a substance (need treatment) said that their belief that treatment was unsuccessful would likely prevent them from seeking treatment.

Table 93
Barriers Related to Treatment Beliefs (%)

Barrier	Need Tx	Might want Tx*	Past Tx
Too expensive	29.1	71.5	21.8
Lack of confidentiality	24.1	27.1	20.7
Treatment unsuccessful	22.4	16.8	31.0
Special service unavailable	12.8	3.7	6.4
All facilities full	10.9	4.8	9.4
Wait periods too long	10.5	0.9	6.1
Preferred treatment unavailable	8.5	0.3	7.7

*Estimates based on 30 or fewer respondents may be unreliable.

Personal factors. As shown in Table 94, many of those in need of treatment recognized that “convincing yourself that you need help” (i.e., denial of the problem) may prevent them from entering a treatment program. Another important factor was that people felt that their lifestyle was too busy to allow them to receive treatment for their substance use.

Table 94
Barriers Related to Personal Factors (%)

Barrier	Need Tx	Might want Tx*	Past Tx
Denial	30.4	63.9	36.7
Too busy	21.5	74.7	10.6
Health Problems	4.5	0.0	1.9
Handicap	2.5	0.0	1.8

*Estimates based on 30 or fewer respondents are not reliable.

Social group factors. Of those in need of treatment a small percentage reported that issues related to their social group memberships were barriers to receiving treatment (see Table 95). See Appendix E for detailed information for specific demographic groups.

While overall 12% cited a need for gender-specific treatment, women were much more likely to cite this need than men (20% vs. 10%, respectively). Similarly, 4% overall cited a need for same gender counselors – 7% of women and 3% of men named this barrier.

Inappropriate age orientation was named by 7% of those needing treatment, but much more so for young adults under 25 (11%) than for older adults.

Table 95
Barriers Related to Social Group Factors (%)

Barrier	Need Tx	Might want Tx*	Past Tx
Tx not meet gender needs	11.9	0.0	6.1
Tx not age appropriate	7.1	9.3	4.4
Lack counselors of respondents gender	3.7	0.0	6.2
Ethnicity	2.3	3.7	7.7
Language barriers	1.9	3.7	2.6

*Estimates based on 30 or fewer respondents are not reliable.

Social support. The behavior and perceived attitudes of the members in an individual’s social support system can either facilitate or inhibit the individual’s willingness to seek treatment. As shown in Table 96, having coworkers who are alcohol users was named

as a major inhibiting factor in seeking treatment. Interestingly, of Iowans in need of treatment, 25% felt that working with alcohol users was a barrier in receiving treatment, whereas only 14% felt that living with an alcohol user was a barrier.

Table 96
Barriers Related to Social Support (%)

Barrier	Need Tx	Might want Tx*	Past Tx
Work with alcohol users	25.1	62.5	50.3
Employer unsupportive	16.3	45.1	7.6
Live with alcohol users	14.0	15.2	32.7
Family unsupportive	7.8	17.6	10.8
Friends unsupportive	7.7	14.5	24.6
Work with drug users	4.2	8.9	25.6
Live with abuser†	1.7	7.5	17.5
Live with drug users	0.6	0.0	13.6

*Estimates based on 30 or fewer respondents are not reliable.
† physical, emotional, or sexual

Summary. In sum, personal denial of the problem, costs associated with treatment, inconvenient treatment hours, working with alcohol users, and concerns over the confidentiality of treatment programs were the five most frequently reported barriers that prevented those Iowans needing or at risk of needing treatment from seeking treatment.

Schedule conflicts (i.e., too busy), cost associated with treatment, personal denial of problem, working with alcohol users, and unsupportive employers were the five most frequently reported barriers for those Iowans who felt they might have wanted treatment in the past 12 months if it was readily available. The reader is cautioned that estimates for this group are unreliable due to the small number of respondents who reported that they wanted, but did not receive, treatment during the past 12 months.

Working with alcohol users, personal denial of the problem, living with alcohol user(s), beliefs that the treatments are usually unsuccessful, and working with drug users were the most frequently reported factors that people cited as impediments during their past treatment experiences.

Potential Public Clients

Iowans who were DSM-III-R dependent on at least one substance and had used the substance in the past 18 months were either in need or at higher risk than the general population of needing treatment services in the near future. However, not all of these people were likely to be publicly funded clients if they were to receive treatment. The amount of public funding for treatment depends on a client's ability to pay with public funds being used as the last resort. For those considered to be substance dependent, four indicators were examined to estimate how many adults were potentially publicly funded clients (see Table 98).

Annual Income. More than one in five (21.5%, $N_w = 43,025$), of these individuals had an annual income of less than \$20,000.

More specifically, about 8% ($N_w = 15,247$) earned less than \$10,000 per year, and approximately 7% ($N_w = 13,001$) earned more than \$10,000 but less than \$15,000 per year. Thus, nearly 22% were likely public patients due to low income (see Table 97).

Several thousand Iowans who are DSM-III-R dependent on at least one substance and have used the substance in the past 18 months received some portion of their past 12 months income from pensions or subsidized funds. Specifically, 9.5% ($N_w = 18,933$) received a portion of their household income from disability pension or insurance, 8.7% ($N_w = 17,318$) from public assistance, 5.9% ($N_w = 11,811$) from unemployment benefits, and 3.7% ($N_w = 7,444$) from workers compensation. In total, 24.7% ($N_w = 49,341$) received some form of dependent income, thereby making them potential public clients.

Table 97
Income Levels for Dependent Iowans

Income Level	N_w	%
Less than \$10,000	15,247	7.6
\$10,000 to 14,999	13,001	6.5
\$15,000 to \$19,999	14,777	7.4
\$20,000 to \$25,999	21,661	10.8
\$26,000 to \$29,999	19,920	10.0
\$30,000 to \$39,999	31,415	15.7
\$40,000 to \$49,999	22,016	11.0
\$50,000 to \$69,999	31,024	15.5
\$70,000 or more	22,120	11.0

Note. 4.4% ($N_w = 8,834$) refused to report their income.

Health Insurance. One in ten (10.1%, $N_w = 20,189$) of these higher risk Iowans had no health insurance coverage. For another one in ten, medicare (6.1%, $N_w = 12,205$) or medicaid (4.1%, $N_w = 8,134$) paid for most health care expenses. Approximately, one percent (1.4%, $N_w = 2,704$) were covered by military insurance or the veterans administration (VA). In total, 21.8% ($N_w = 43,568$) were potential public clients for health insurance reasons.

Special Services. Of those Iowans who were at higher risk of needing treatment services, 9.0% reported that they would need special services to receive treatment, and they believed these services were unavailable. Of those at higher risk for utilizing treatment services, 3.7% ($N_w = 7,453$) reported that they would need family counseling, 3.3% ($N_w = 6,614$) mental health care, 3.2% ($N_w = 6,478$) child care, 2.6% ($N_w = 5,197$) medical care, and 2.1% ($N_w = 4,178$) employment counseling in order to enter treatment. Also, 2.3% ($N_w = 4,551$) reported that it would not be possible to obtain assistance with matters such as housing, food stamps, and legal help which they would need in order to enter treatment. In total, 9.0% ($N_w = 18,084$) were potential public clients because of their need for special services.

Summary. In total, an estimated 44.7% ($N_w = 89,336$) of adult Iowans who were DSM-III-R ever dependent on at least one substance and had used the substance in the past 18 months were potential public clients. Table 98 shows the population estimates for the four indicators of becoming a public client. As evident from the total in this table, there was considerable overlap among the potential indicators.

Table 98
Summary of Indicators of Public Clients
(% of DSM-III-R Dependent
with Recent Substance Use)

Indicator	N _w	%
Low Income	43,025	21.5
Dependent Income	49,341	24.7
Insurance Status	43,568	21.8
Special Services	18,084	9.0
Any Reason	89,336	44.7

This estimate of the number of potential public clients should be considered to be a “maximum estimate”. Total treatment need was estimated using the DSM-III-R criteria and estimated the number of public clients who meet any one of four criteria. Both factors could overstate their respective population parameters as compared to other estimating methods. To determine a more conservative estimate the same criteria for being potential public clients can be applied to the more restrictive DSM-IV recent criteria. By this computation an estimated 23,807 (49.8%) dependent adult Iowans were potential public clients. The true value likely is between these two estimates.

Treatment Gap. The estimates of treatment need and potential public clients can be used to estimate the “adult public treatment gap” (see Table 99). In this context, this gap is the difference between the number of adults in need of treatment who were potential public clients (N_w) and the number of publicly funded adults actually receiving treatment who were non-institutionalized (N_c) in the same time period.

Table 99
Estimated Adult Public Treatment Gap

Indicator	N
Treatment Need (N_w)	
DSM-III-R (ever dependent, recently using)	200,016
Potential Public Clients	89,336
DSM-IV (recent)	47,775
Potential Public Clients	23,807
SARS Clients (1997) (N_c)	
All Adults	33,662
Non-Institutionalized*	31,646
IDPH Primary Pay	14,907
Other Public Primary Pay	8,259
Private Primary Pay	8,480
Treatment Gap (N_w - N_c)	
DSM-III-R - IDPH Primary Pay	74,429
DSM-III-R - IDPH & Other Public Primary Pay	66,170
DSM-IV - IDPH Primary Pay	8,900
DSM-IV - IDPH & Other Public Primary Pay	641

* Partially duplicated counts (based on number of unique primary pay sources for each client, not number of clients).

In FY 1997 Iowa’s client reporting system (SARS) screened and/or admitted 36,561 unduplicated clients, of which 33,662 were adults. Of duplicated adult counts approximately 6% or more did not originate from private residences (i.e., prison, jail, halfway house, homeless) and therefore would not have been eligible for inclusion in the 1997-98 household survey. Also of duplicated counts, 47% of adult SARS clients had their

treatment paid primarily with IDPH funds and another 26% were paid primarily with other public funds (Medicaid, Medicare, worker's compensation, county or federal government).

Data were not available to determine either the total number of clients whose treatment was paid by public funds to any extent nor the proportion of all treatment costs that were paid by public funds.

Within the limitations of the available information, approximately three-fourths of all 1997 adult SARS clients were supported by public funds (one-half by IDPH and one-fourth by other public sources). Using available figures, the unmet adult public treatment need ("gap") can be estimated to be as high as 66,170 (using the maximum estimate based on DSM-III-R) or as low as 641 (using the minimum estimate based on DSM-IV). The gap estimates differ so greatly because DSM-III-R lifetime and DSM-IV recent criteria yield such different estimates of substance dependency. Obviously, estimating the treatment gap is an inexact science. The reader is reminded of two points. First, it is unlikely all those thought to be clinically substance dependent would ever appear for treatment, and so public funding should not be aimed to respond to the total number "needing treatment" as defined here. Second, the total public treatment gap would add juveniles to the estimates, however, this population segment is beyond the scope of the present study.

Other Factors Associated with Substance Dependency

Overview of Physical and Sexual Abuse History

Persons with a substance dependency (i.e., DSM-III-R lifetime with recent substance use) were more likely than other Iowans to have been physically and/or sexually abused (see Figure 32). Nearly 60% of adult Iowans with a substance dependency reported being the victim of physical abuse as compared to approximately 25% of other Iowans.

Similarly, persons with a substance dependency were over twice as likely as other Iowans (37% vs. 16%, respectively) to have ever been sexually abused.

The disparity between dependent Iowans and other Iowans was most dramatic for comparisons between individuals who have been both physically and sexually abused. This difference approached a four-to-one ratio (30% vs. 8%, respectively).

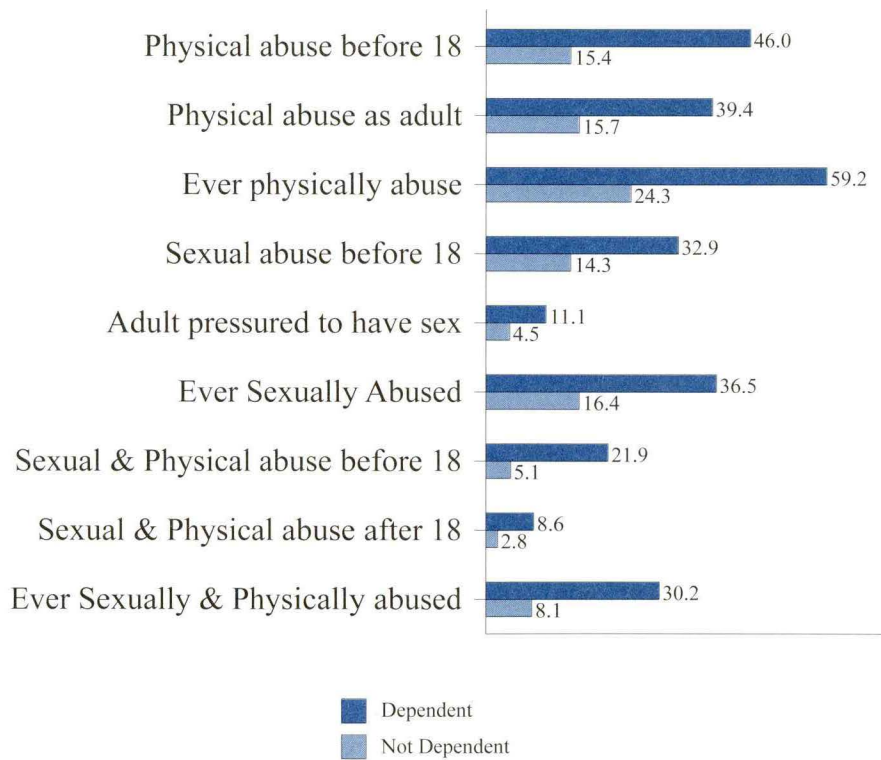


Figure 32. Percent of Dependent and Other Iowans Reporting Physical and Sexual Abuse.

Physical Abuse

Physical abuse was defined as “physically attacked by someone in a way you took seriously, such as someone hitting you with a fist or an object, kicking or biting you, beating you up, using a weapon such as a knife or gun on you, or threatening to harm you.” This inclusive definition of physical abuse does not restrict abuse to physical attacks from family, relatives, or significant others.

Before 18. As shown in Figure 32, an estimated 46.0% ($N_w = 91,996$) of adult Iowans with a substance dependency reported they were physically abused as a child, in comparison to 15.4% of other Iowans. Among persons with a substance dependency, the reported rates of physical abuse as a child were similar for men and women (see Table 100); however, for other Iowans, men were twice as likely to have been physically abused as a child (21.3% vs. 10.5%, respectively). Dependent adults under the age of 25 reported the highest rate physical abuse as a child (see Table 101).

As an adult. An estimated 39.4% ($N_w = 78,526$) of dependent Iowans were physically abused as an adult. In contrast, 15.7% of other Iowans were abused (see Figure 32). Among dependent individuals, women were more likely than men to report being physically attacked (see Table 100). Adult physical attacks were less common among the youngest and oldest adults (see Table 101).

Ever abused. Of dependent adult Iowans, 59.2% ($N_w = 117,933$) reported being the victim of physical abuse at least once. Dependent women and persons between the ages of 45 and 64 were the most likely to have been physically abused during their lifetime (see Tables 100 & 101).

Sexual Abuse

Different definitions of sexual abuse were used depending on the age of the respondent when the abuse occurred. Persons were considered victims of sexual abuse (before 18) if any of the following: (a) someone at least 5 years older than the respondent exposed their sexual organs or had the respondent watch as they performed sexually explicit actions or if the respondent was forced to watch; (b) someone at least 5 years older than the respondent “touched or fondled your body to try to arouse you sexually” or tried to “have you arouse them by touching their body in a sexual way” or if the respondent was forced to be touched or to touch; or (c) someone at least 5 years older than the respondent had sexual intercourse with the respondent or if the respondent was forced to have intercourse. Persons were considered victims of sexual abuse (as an adult) if since they were 18 someone had or attempted sexual intercourse or other sexual acts with them by using threats, unreasonable pressure, or force.

Before 18. Dependent Iowans were more than twice as likely as other Iowans to report having been sexually abused as a child (32.9% vs. 14.3%, respectively). An estimated 65,777 adult Iowans who were DSM-III-R dependent and had recent substance use were sexually abused as minors (see Figure 32). Dependent women were twice as likely as men to have been sexually abused before the age of 18. (51.7% vs. 26.4%, respectively). Among those with a substance dependency, the youngest adults had the highest rate of sexual abuse as a child (see Table 101).

As an adult. Of adult Iowans with a substance dependency, an estimated 22,082 reportedly were pressured (e.g., physical force, threat) into having sexual intercourse (see Figure 32). This type of sexual abuse was primarily reported by women and was most common among adults between the ages of 25 and 44 (see Tables 100 & 101).

Ever abused. Dependent Iowans were more than twice as likely as other Iowans to ever have been the victim of sexual abuse or assault (36.5% vs. 16.4%, respectively).

Physical and Sexual Abuse

Before 18. More than one in five dependent adult Iowans (21.9%, $N_w = 43,704$) reported being both physically and sexually abused as a child. This is four times the rate reported by other Iowans (see Figure 32).

As an adult. Dependent Iowans (8.6%, $N_w = 17,301$) were three times as likely as other Iowans to have reported being both physically and sexually assaulted as an adult (see Figure 32).

Ever abused. Approximately 8.1% of non-substance dependent Iowans reported being physically and sexually abused at least once. In comparison, 30.2% ($N_w = 60,138$) of dependent Iowans reported such victimization. Consistent with the patterns of sexual abuse, women were more likely than men to have ever been physically and sexually abused (54% vs. 22%, respectively). This combination of abuse was most common among dependent Iowans between the ages of 45 and 64 (see Table 101).

Table 100
Physical and Sexual Abuse by Substance Dependency by Gender (%)

Life Experience	Not Dependent		Dependent	
	Gender		Gender	
	Male	Female	Male	Female
Physical abuse before 18	21.3	10.5	46.1	45.8
Physical abuse as adult	16.9	14.7	35.5	50.6
Ever physically abused	29.1	20.4	55.9	68.4
Sexual abuse before 18	8.4	19.1	26.4	51.7
Adult pressured to have sex	0.5	7.8	3.4	33.8
Ever sexually abused	8.7	22.8	26.5	65.1
Sexual & Physically abuse before 18	3.8	6.2	17.8	33.5
Sexual & Physically abuse after 18	0.3	4.9	2.8	25.6
Ever Sexually & Physically abused	4.6	11.0	21.8	54.2

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table 101
Physical and Sexual Abuse by Substance Dependency by Age Group (%)

Life Experience	Not Dependent				Dependent			
	Age Group				Age Group			
	18-24	25-44	45-64	65+	18-24	25-44	45-64	*65+
Physical abuse before 18	20.7	22.1	13.4	3.8	50.7	47.4	46.5	9.3
Physical abuse as adult	10.6	22.3	16.8	5.9	23.9	41.2	49.5	26.0
Ever physically abused	25.4	33.6	24.1	8.4	55.8	60.2	65.2	28.6
Sexual abuse before 18	16.3	18.0	13.3	8.2	40.1	30.4	34.9	27.9
Adult pressured to have sex	3.3	5.9	5.3	1.6	8.0	12.8	10.2	5.5
Ever sexually abused	17.8	20.3	16.5	9.1	40.6	34.2	40.0	33.3
Sexual & Physically abuse before 18	6.8	7.9	4.0	0.9	27.6	20.0	27.0	0
Sexual & Physically abuse after 18	1.5	4.4	3.3	0.4	2.5	10.8	8.3	5.5
Ever Sexually & Physically abused	9.2	11.7	7.7	1.8	29.9	28.5	38.5	12.1

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

*Estimates in this column are unreliable due to the small number of survey respondents in this group.

Pregnancy

Two hundred and twenty-three respondents or 3.6% of the sample reported being pregnant during some portion of the 12 months preceding the telephone interview. This corresponds to a population estimate of 73,497 persons.

The findings in this section do not necessarily reflect substance use during pregnancy, but rather only pregnancy and substance use during some portion of the last 12 months.

Twenty-two percent ($N_w = 16,166$) of women who reported being pregnant in the last 12 months also reported using tobacco in the last 12 months. An estimated 69.5% ($N_w = 51,090$) of Iowa women who were pregnant in the last 12 months also reported using alcohol during those same last 12 months.

Table 102 shows the prevalence of alcohol abuse and dependency for those women who were pregnant and reported alcohol use during the last year.

Table 102
Alcohol Abuse and Dependency
(% of Women Pregnant and with Alcohol
Use in the Past 12 Months)

Criteria	%	N_w	Number of Respondents*
DSM-IV (abuse)	2.6	1,315	5
DSM-III-R	4.0	2,068	12
DSM-III-R (at least 1 recent symptom)	3.7	1,865	9
DSM-IV (recent)	2.0	1,010	5

*All estimates in table may be unreliable due to small number of survey respondents of this type.

Because of the small number of respondents with recent drug use who were pregnant within the last year, population estimates for illicit drug use, abuse, and dependency were not calculated.

Gambling

Half of adult Iowans (50.7%, $N_w = 101,347$) with a substance dependency reported gambling during the last 12 months. In contrast, only one-third (32.3%, $N_w = 620,580$) of other Iowans gambled during the past year.

Criminal Justice System

Adult Iowans who were DSM-III-R dependent with recent substance use were more likely than other Iowans to have entered the criminal justice system. An estimated 4.8% ($N_w = 9,584$) of adults Iowans dependent on any substance reported having been arrested and booked in the last 12 months as compared to 0.8% of other Iowans. Of those dependent Iowans who were arrested in the past year, 43.8% ($N_w = 4,199$) reportedly were arrested on alcohol or drug-related charges. Over half of these Iowans (55.5%, $N_w = 2,328$) reported being arrested for driving under the influence. However, these estimates may be unreliable due to the small number of respondents who reported entering the criminal justice system.

Part 5: Summary & Conclusions

This study, based on telephone interviews with a random sample of 6,163 adult Iowans in 1997-98, provides basic epidemiological information about substance use, abuse and dependency among Iowa's adult population. The most important findings and conclusions are recapped here.

Before summarizing the major findings, a brief explanation of terminology is in order. Substance use prevalence information is provided for ever use (i.e., at least once during life), recent use (i.e., during the past 18 months), and current use (i.e., during the past 30 days). In many analyses, information was calculated at for the state and planning region level (see page 4 for an explanation of the six planning regions) as well as for several demographic groups. Specifically, rates of substance use and dependency were calculated separately for the age groups of 18-24, 25-44, 45-64, and 65 or older and for four different county types – rural, mostly rural, mostly urban, and urban (definitions of the county types are provided on page 4). Unless otherwise specified, dependency was defined as DSM-III-R lifetime with recent substance use.

- ▶ About 92% of adult Iowans had ever used alcohol in their lifetimes, and 71% had used alcohol in the last 18 months; both rates were above the national rates as well as the rates for the North Central Region of the United States.
- ▶ **About 27% of adult Iowans currently use tobacco, and 54% currently use alcohol.**
- ▶ Recent use of *most* illegal drugs was relatively low in Iowa (less than 3%). However, compared to the North Central Region (US) and the nation as a whole, a relatively high percentage of Iowans reported using stimulants such as diet pills and methamphetamine.
- ▶ ***Substance use rates in Iowa were largely unchanged from five years ago.***
- ▶ Of *all adults*, 6.2% had recently used alcohol and one other drug.
- ▶ ***Of recent users of any substance other than tobacco, 90.2% used only alcohol, 6.2% used alcohol and one other drug, 2.4% used alcohol and two or more other drugs, and 1.2% used drug(s) only.***
- ▶ Of recent users of any substance other than tobacco, 88% of those using a drug also used alcohol.
- ▶ Of all adults, 4.4% had recently used alcohol, tobacco, and at least one other drug.
- ▶ About 3.1% (67,030) of adults were classified as substance abusers (but not dependent) -- 2.6% abused alcohol and 0.7% abused a drug.
- ▶ ***An estimated 200,016 people (9.4%), or one out of eleven adult Iowans, were classified as dependent on alcohol and/or some other drug.***

- ▶ An estimated 181,749 people (8.5%), or one out of twelve adult Iowans, were dependent on alcohol.
- ▶ The Iowa dependency rates were nearly the same or have declined slightly from five years ago.
- ▶ In general, the highest rates of substance use, abuse and dependency were found among men, younger adults, those in Region 5, and those in urban counties.
- ▶ ***Approximately 45% (89,336 persons) of the substance dependent Iowans who might receive treatment were potential public clients.***
- ▶ The adult public treatment gap was 66,170 Iowans in 1997 by DSM-III-R criteria (as a maximum estimate).
- ▶ ***Most adult Iowans who were dependent on alcohol saw themselves as having a drinking problem.***
- ▶ Only 40% of adult Iowans classified as DSM-III-R ever dependent on alcohol or another drug (excluding tobacco) and were recently using had received some form of treatment at least once.
- ▶ 63.8% of those who reported they needed treatment did not seek treatment because they felt it was not readily available. However, this estimate may be unreliable due to the small number of such respondents.
- ▶ ***Adults with a substance dependency had higher than normal rates of victimization, both physical and sexual.***

The findings provide a comprehensive characterization of substance use and dependency for adult Iowans. The description is largely unchanged from Iowa's first needs assessment five years ago. The treatment needs are greatest for alcohol use, males, and adults 18 to 24. However, treatment needs exist in all social and geographic parts of the population.

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Appendix A: Prevalence of Substance Use for Age Group, County Type, and Region by Gender

Table A-1
Tobacco Use

	Ever Use		Recent Use		Current Use	
	% Males	% Females	% Males	% Females	% Males	% Females
Age						
18-24	42.4	38.7	40.6	35.8	36.4	31.5
25-44	53.3	44.1	41.3	31.1	38.5	28.7
45-64	68.5	45.3	35.1	21.5	31.9	19.4
65 and Older	67.4	32.3	17.2	9.6	15.6	8.4
County Type						
Rural	54.0	34.8	30.9	21.5	29.1	19.9
Mostly Rural	60.0	37.6	34.7	20.8	33.0	18.7
Mostly Urban	59.4	40.4	34.7	24.9	30.6	23.2
Urban	58.2	44.3	37.0	25.4	34.1	22.6
Region						
1	60.0	37.8	36.4	23.2	34.3	21.5
2	56.1	34.7	33.1	19.6	26.9	17.7
3	61.7	38.3	39.6	19.8	37.5	17.5
4	58.9	43.0	32.8	26.6	30.3	23.5
5	54.4	49.1	34.6	29.3	31.7	28.1
6	57.7	43.4	32.9	26.1	29.7	22.8

Table A-2
Alcohol Use

	Ever Used		Recent Use		Current Use	
	% Males	% Females	% Males	% Females	% Males	% Females
Age						
18-24	89.8	91.0	82.4	82.6	68.5	60.8
25-44	97.8	96.7	82.1	76.1	69.0	54.1
45-64	94.6	91.3	75.5	68.3	62.7	46.9
65 and Older	90.5	77.4	57.4	39.8	42.4	25.9
County Type						
Rural	91.6	85.4	72.8	61.5	58.4	42.2
Mostly Rural	93.5	87.4	75.2	63.0	61.1	43.0
Mostly Urban	95.0	89.7	70.9	68.5	58.1	43.8
Urban	95.4	92.4	80.7	67.2	67.3	50.5
Region						
1	93.2	88.6	74.7	66.3	62.3	47.8
2	92.8	87.0	75.5	64.5	59.7	44.0
3	97.6	90.4	83.2	67.0	70.6	50.0
4	93.0	91.1	72.0	64.9	61.0	43.8
5	96.6	93.9	74.6	71.7	58.8	50.3
6	91.6	85.7	72.4	59.8	56.4	35.8

Table A-3
Marijuana Use

	Ever Used		Recent Use		Current Use	
	% Males	% Females	% Males	% Females	% Males	% Females
Age						
18-24	31.3	26.5	19.0	14.4	10.2	5.3
25-44	48.0	37.2	6.8	4.2	0.9	1.1
45-64	24.1	9.5	4.6	1.7	1.7	0.1
65 and Older	0.5	0.3	0	0.1	0.0	0
County Type						
Rural	21.8	11.5	3.8	1.1	1.2	0.7
Mostly Rural	21.6	12.4	4.1	1.5	1.8	0.3
Mostly Urban	26.2	18.8	5.6	3.8	0.7	1.0
Urban	40.4	25.3	9.3	5.5	3.8	1.6
Region						
1	25.2	16.1	4.4	2.7	1.3	0.7
2	25.7	14.7	4.9	2.7	0.7	0.8
3	30.7	17.8	8.2	3.6	4.8	1.1
4	32.6	25.3	5.7	4.3	0.9	0.4
5	40.9	24.2	10.0	6.5	1.9	2.7
6	25.7	15.2	5.8	1.8	3.0	0.3

Note. Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table A-4
Hallucinogen Use

	Ever Use		Recent Use		Current Use	
	% Male	% Female	% Male	% Female	% Male	% Female
Age						
18-24	8.3	2.6	3.9	0.7	0.6	0.3
25-44	14.6	7.2	0.8	0.4	0	0
45-64	6.9	1.5	0.1	0.7	0	0
65 and Older	0	0	0	0	0	0
County Type						
Rural	7.5	1.0	0.6	0.2	0.4	0
Mostly Rural	6.0	1.4	0.6	0.1	0	0
Mostly Urban	5.6	3.0	0.5	0.1	0	0
Urban	13.3	5.0	1.3	0.9	0.1	0
Region						
1	6.8	2.1	0.7	0.4	0.2	0
2	7.9	2.3	0.7	0	0	0
3	6.3	2.0	0.5	0.2	0	0.1
4	10.3	4.2	0.1	0.6	0	0
5	13.6	6.8	2.0	1.1	0	0
6	11.2	2.5	2.1	0.2	0.6	0

Note. Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table A-5
Cocaine and Crack Use

	Ever Use		Recent Use		Current Use	
	% Males	% Females	% Males	% Females	% Males	% Females
Age						
18-24	6.4	2.1	2.3	0.9	0.3	0.2
25-44	14.7	10.2	1.5	1.5	0	0.1
45-64	6.5	1.0	0.2	0.3	0.1	0
65 and Older	0	0	0	0	0	0
County Type						
Rural	4.7	1.4	0.4	0.2	0	0
Mostly Rural	4.7	1.9	0.7	0.3	0.3	0.0
Mostly Urban	5.3	3.8	0.1	1.1	0	0.2
Urban	13.8	6.4	1.9	0.9	0.0	0
Region						
1	7.2	2.4	0.8	1.3	0.2	0.3
2	6.1	4.8	0.2	0.6	0	0.2
3	6.3	1.5	1.5	0.5	0	0
4	11.9	5.3	0.4	1.0	0	0
5	10.2	9.2	1.3	0.6	0	0
6	10.8	3.5	2.1	0.5	0.4	0

Note. Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table A-6
Heroin and Other Opiate Use

	Ever Used		Recent Use		Current Use	
	% Males	% Females	% Males	% Females	% Males	% Females
Age						
18-24	1.9	1.1	0.7	0.3	0.1	0
25-44	4.4	1.9	0.5	0.8	0	0.1
45-64	3.4	0.4	0.4	0	0	0
65 and Older	0.2	0.1	0	0	0	0
County Type						
Rural	3.7	0.2	0	0	0	0
Mostly Rural	1.0	0.5	0	0	0	0
Mostly Urban	1.8	0.8	0.1	0.5	0	0.1
Urban	4.9	1.5	1.0	0.4	0.0	0
Region						
1	2.5	1.3	0.1	0.2	0.1	0.2
2	1.7	0.4	0	0	0	0
3	1.3	0.3	0.1	0.1	0	0
4	3.9	0.7	0	0.5	0	0
5	6.6	2.4	2.4	0.9	0	0
6	2.3	0.9	0	0.1	0	0

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table A-7
Sedative Use

	Ever Use		Recent Use		Current Use	
	% Male	% Female	% Male	% Female	% Male	% Female
Age						
18-24	4.6	2.1	1.9	1.0	0.8	0.9
25-44	5.0	3.7	0.4	1.3	0.2	0.0
45-64	4.6	1.7	0.7	0.3	0	0
65 and Older	0.8	0.4	0.4	0.1	0.1	0
County Type						
Rural	3.5	0.4	0	0.1	0	0
Mostly Rural	2.0	1.2	0.7	0.2	0.4	0.0
Mostly Urban	3.9	1.8	1.4	0.6	0.2	0.4
Urban	5.5	3.2	0.4	1.2	0.1	0
Region						
1	4.5	1.2	0.7	0.1	0.2	0
2	4.3	1.3	1.4	0.6	0.9	0.2
3	2.2	0.7	0.7	0.3	0.2	0.3
4	3.1	2.8	0.1	0.6	0	0
5	8.8	5.8	1.3	2.4	0.0	0.0
6	2.6	1.3	0.2	0.0	0.2	0.0

Note. Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table A-8
Methamphetamine Use

	Ever Use		Recent Use		Current Use	
	% Male	% Female	% Male	% Female	% Male	% Female
Age						
18-24	6.6	4.4	3.7	2.3	1.2	0.5
25-44	12.9	9.1	1.9	1.7	0.1	0.1
45-64	7.0	1.0	1.5	0.3	0.6	0
65 and Older	0.4	0.2	0	0	0	0
County Type						
Rural	6.4	0.7	0.8	0.2	0.4	0
Mostly Rural	6.1	2.4	1.1	0.3	0.2	0.1
Mostly Urban	5.4	5.1	0.7	1.1	0.2	0.2
Urban	11.6	5.2	2.9	1.4	0.6	0.1
Region						
1	9.0	3.0	1.4	1.0	0.4	0.2
2	6.4	4.1	0.6	0.3	0.4	0.2
3	7.0	1.5	2.9	0.2	0.2	0.1
4	8.6	6.3	0.2	1.8	0	0
5	9.2	6.2	2.4	1.8	0.8	0
6	9.5	5.3	2.8	0.6	1.3	0.1

Note. Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table A-9
Other Stimulant Use

	Ever Use		Recent Use		Current Use	
	% Males	% Females	% Males	% Females	% Males	% Females
Age						
18-24	7.3	8.1	4.1	6.2	1.4	3.2
25-44	7.7	9.2	1.6	1.4	0.2	0.4
45-64	7.3	2.0	1.6	0.1	0.5	0
65 and Older	0.2	0.4	0	0.0	0	0
County Type						
Rural	3.6	1.6	1.7	0.4	0	0
Mostly Rural	3.2	3.0	1.7	0.6	0.6	0.1
Mostly Urban	5.9	6.0	1.2	2.3	0.2	0.9
Urban	8.7	6.0	2.0	1.2	0.5	0.6
Region						
1	5.0	2.6	0.8	0.9	0.1	0.3
2	5.6	4.2	1.6	1.2	0.7	0.5
3	4.0	4.4	2.7	1.6	0.5	0.7
4	10.1	6.8	1.6	1.7	0.6	0.6
5	7.3	7.8	0.7	1.2	0.4	0.6
6	5.2	3.1	2.5	1.0	0.1	0.2

Note. Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table A-10
Multiple Substance Use Including Tobacco

	Recent Alcohol, Tobacco, & Drug		Recent Alcohol & Tobacco (No Drug)		Recent Tobacco & Drug (No Alcohol)		Recent Alcohol & Drug (No Tobacco)	
	N _w	Percent	N _w	Percent	N _w	Percent	N _w	Percent
Total	94,273	4.4	417,428	19.6	8,173	0.4	37,900	1.8
Gender								
Male	59,774	5.9	246,451	24.2	4,789	0.5	17,914	1.8
Female	34,499	3.1	170,977	15.4	3,384	0.3	19,986	1.8
Age								
18-24	40,968	15.0	57,879	21.1	611	0.2	15,217	5.6
25-44	39,338	4.8	208,031	25.4	6,026	0.7	13,875	1.7
45-64	12,933	2.1	121,294	20.0	1,536	0.3	8,786	1.4
65 and Older	1,034	0.2	30,224	7.0	0	0	22	0
County Type								
Rural	2,716	1.7	31,867	19.8	0	0	2,059	1.3
Mostly Rural	12,132	2.6	95,560	20.5	1,276	0.3	4,412	0.9
Mostly Urban	24,358	4.0	116,071	19.0	2,380	0.4	8,621	1.4
Urban	55,067	6.2	173,930	19.5	4,517	0.5	22,809	2.6
Region								
1	9,586	2.7	73,828	20.6	2,183	0.6	3,359	0.9
2	8,637	3.4	44,434	17.7	205	0.1	3,945	1.6
3	27,178	5.3	103,562	20.0	1,394	0.3	7,563	1.5
4	14,874	3.2	86,550	18.9	2,020	0.4	12,826	2.8
5	27,479	8.0	68,382	16.4	2,027	0.6	7,635	2.2
6	6,520	3.3	40,673	9.7	344	0.2	2,572	1.3

Note. Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Appendix B: DSM-III-R and DSM-IV Diagnosis of Substance Abuse and Dependence Scoring

Respondents who reported one or more of the four alcohol criteria items (or refused to answer the item) shown in Table B-1 were administered the DSM-III-R and DSM-IV alcohol dependence and abuse questionnaire items shown in Tables B-2, B-4, and B-5.

Table B-1
Alcohol Qualifying Items

Items
<ul style="list-style-type: none"> • Reported ever having a drinking problem • Reported an alcohol-related hospitalization • Reported neglecting responsibilities due to binge drinking in the last 18 months • Reported drinking 1-3 days a month <u>and</u> reported having 2 or more drinks in a day

Alcohol Dependent (DSM-III-R) — Respondents were diagnosed as DSM-III-R alcohol dependent if **three or more of the nine criteria** shown in Table B-2 were met. In addition, at least two of the symptoms must have occurred most days for at least one month, or the symptom occurred repeatedly over a longer period of time.

Table B-2
DSM-III-R Alcohol Dependence Questionnaire Items

Criteria	Symptom Question
Taken substance in larger amounts or for a longer period.	<ul style="list-style-type: none"> • Have you often drunk more than you intended to? • Have you often drunk for a longer period of time than you intended to?
Persistent desire or unsuccessful efforts to control.	<ul style="list-style-type: none"> • Have you ever tried to quit or cut down on drinking? • Have you often wanted to quit or cut down on your drinking? • Were you ever unable to quit or cut down on your drinking? • Some people try to control their drinking by making rules like not drinking alone or not before 5 o'clock. Have you ever made any rules because you were having trouble limiting the amount you were drinking?
Much time getting, taking or recovering.	<ul style="list-style-type: none"> • Has there ever been a period when you spent a great deal of time drinking alcohol or getting over its effects?

Table B-2 (continued.)

Criteria	Symptom Question
<p>Frequent intoxication or withdrawal symptoms when fulfilling role obligations at work, school, or home, or when use is physically hazardous.</p>	<ul style="list-style-type: none"> • Have you ever accidentally injured yourself when you had been drinking, for example, had a bad fall or cut yourself badly? • Have you often been high from drinking in a situation where it increased your chances of getting hurt—for instance, when driving a car or boat, using knives, machinery, or guns, crossing against traffic, climbing or swimming? • Did your drinking or being hung over frequently keep you from household chores or taking care of children? • Did your drinking or being hung over cause you to miss work frequently, lose a raise or promotion, or get fired? • Did your drinking or being hung over cause you to miss school, be suspended from school, or do poorly on school work? • Have you ever gone on binges where you kept drinking for a couple of days or more without sobering up?
<p>Activities given up or reduced.</p>	<ul style="list-style-type: none"> • Have you ever given up or greatly reduced important activities in order to drink—like sports, work, or associating with friends or relatives?
<p>Continued use despite knowledge of persistent problem caused or exacerbated by it.</p>	<ul style="list-style-type: none"> • Were there ever objections about your drinking from: <ul style="list-style-type: none"> • Your family (spouse, child, other relative)? • Friends • Your boss or people at work or school? • Did your doctor or clergyman ever try to persuade you to stop drinking? • Have the police stopped or arrested you or taken you to a treatment center because of your drinking? • Have you ever had a traffic accident because of drinking? [If “yes,” [to any one of the above] did you continue to drink after you realized drinking caused you any of these problems?] • There are several health problems that can result from drinking. Did drinking ever cause you to have liver disease, or yellow jaundice, give you stomach disease, or make you vomit blood, cause your feet to tingle or feel numb, give you memory problems even when you weren’t drinking, or given you pancreatitis? • Have you continued to drink when you knew you had any (other) serious physical illness that might be made worse by drinking? • Has alcohol ever caused you emotional or psychological problems, such as feeling uninterested in things, depressed, suspicious of others or paranoid, or caused you to have strange ideas? [If “yes,” did you continue to drink (more than once) after you knew that drinking caused you psychological or emotional problems?]

Criteria	Symptom Question
Marked tolerance.	<ul style="list-style-type: none"> • Have you ever found that you had to drink more than you used to get the same effect? • Did you ever find that the same amount of alcohol had less effect on you than before?
Withdrawal symptoms.	<ul style="list-style-type: none"> • People who cut down or stop drinking after drinking for a considerable time often have withdrawal symptoms. Common ones are the “shakes” (hands tremble), being unable to sleep, feeling anxious or depressed, sweating, heart beating fast or the DTs, or seeing or hearing things that aren't really there. Have you had any problem like that when you stopped or cut down on drinking?
Use to relieve or avoid withdrawal symptoms.	<ul style="list-style-type: none"> • Have you ever taken a drink to keep from having a hangover, the shakes, or any withdrawal symptoms, or taken a drink to make them go away?

Drug Dependent (DSM-III-R) — Respondents were administered the DSM questionnaire items if they reported (a) using marijuana more than 5 times during the past 18 months, (b) any use of any drug (other than marijuana) during the past 18 months, (c) a drug-related hospitalization, (d) the injection of any of any drug for non-medical purposes, and/or (e) refused to answer any of these qualifying questions. If **three or more of the criteria** (shown in Table B-3) **were met and** at least two of the symptoms occurred most days for at least one month, or the symptom occurred repeatedly over a longer period of time, the respondent was diagnosed as dependent.

Table B-3
DSM-III-R Drug Dependence Questionnaire Items

Criteria	Symptom Questions
Taken substance in larger amounts or for a longer period.	<ul style="list-style-type: none"> Have you often used [drug] in larger amounts or used it for a longer period than you intended to?
Persistent desire or unsuccessful efforts to control.	<ul style="list-style-type: none"> Have you often wanted to cut down on any of these drugs, or have you ever tried to cut down but couldn't?
Much time getting, taking or recovering.	<ul style="list-style-type: none"> Has there <u>ever</u> been a period when you spent a great deal of time using these drugs, getting them, or getting over their effects?
Frequent intoxication or withdrawal symptoms when fulfilling role obligations at work, school, or home, or when use is physically hazardous.	<ul style="list-style-type: none"> Have you often been high on any of these drugs or suffering their after-effects while at work, school, or taking care of children? Have you often been high on [drug] in a situation where it increased your chances of getting hurt?
Activities given up or reduced.	<ul style="list-style-type: none"> Have you ever given up or greatly reduced important activities in order to get or use [drug]—activities like sports, school, or associating with friends or relatives?
Continued use despite knowledge of persistent problem caused or exacerbated by it.	<ul style="list-style-type: none"> Did [drug] cause you considerable problems with your family, friends, on the job, at school, or with the police? [If "yes," did you continue to use [drug] after you realized it was causing you any of those problems?] Did you have any physical health problems like an accidental overdose, a persistent cough, a seizure (fit), an infection, a cut, sprain, burn, or other injury as a result of taking [drug]? [If "yes," did you continue to use [drug] after you knew it caused you these problems?] Did you have any emotional or psychological problems from using [drug]—such as feeling uninterested in things, depressed, suspicious of people, paranoid, or having strange ideas? "if "yes," did you continue to use [drug] after you knew it caused you those problems?]
Marked tolerance.	<ul style="list-style-type: none"> Did you ever find you needed a lot more [drug] to get the same effect or find that the same amount had much less effect than before?

Criteria	Symptom Questions
Withdrawal symptoms.	<ul style="list-style-type: none"> • Did quitting or cutting down on [drug] make you sick or give you withdrawal symptoms, such as being depressed, being anxious, have trouble concentrating, being tired, having trouble sleeping, trembling, sweating, being nauseated, having diarrhea, affecting your appetite, seeing or hearing things, having runny eyes, having seizures, having muscle pains, or having a fast heart rate?
Use to relieve or avoid withdrawal symptoms.	<ul style="list-style-type: none"> • Have you ever used [drug] to make withdrawal symptoms go away or to keep from having them?

Alcohol Dependent (DSM-IV) -- Respondents were considered dependent if they meet **any three (3) of the following criteria AND** all/any three of those **experiences occurred within the same 12 month period**. DSM-IV Recent refers to respondents for which these criteria occurred within the past 12 months.

Table B-4
DSM-IV Alcohol Dependency Questionnaire Items

Criteria	Symptom Questions
Tolerance	<ul style="list-style-type: none"> • Have you ever found that you had to drink more than you used to in order to get the same effect? • Did you ever find that the same amount of alcohol had less effect on you than before?
Withdrawal	<ul style="list-style-type: none"> • People who cut down or stop drinking after drinking for a considerable time often have withdrawal symptoms. Common ones are the ‘shakes’ (hands trembling), being unable to sleep, feeling anxious or depressed, sweating, heart beating fast, the DTs or seeing or hearing things that aren’t really there. Have you had any problems like that when you stopped or cut down on drinking? • Have you ever taken a drink to keep from having a hangover, the shakes, or any withdrawal symptoms, or taken a drink to make them go away?
Substance use in larger amount or for longer periods than intended	<ul style="list-style-type: none"> • Have you often drunk more than you intended to or for a longer period than you intended to?
Persistent desire or unsuccessful efforts to quit or cut down on drinking	<ul style="list-style-type: none"> • Have you often wanted to quit or cut down on your drinking? • Were you ever unable to quit or cut down? • Have you ever made any rules because you were having trouble limiting the amount you were drinking?
Great deal of time spent acquiring, using or recovering from use of the substance	<ul style="list-style-type: none"> • Has there ever been a period when you spent a great deal of time drinking alcohol or getting over its effects?
Important activities are given up or reduced because of substance use	<ul style="list-style-type: none"> • Have you ever given up or greatly reduced important activities in order to drink – like sports, work, or associating with friends or relatives?
Continued use despite knowledge of physical or psychological problems that substance use caused or exacerbated	<ul style="list-style-type: none"> • Did you continue to drink more than once knowing that drinking caused you to have a health problem? • Have you continued to drink when you knew you had any other serious physical illness that might be made worse by drinking? • Did you continue to drink more than once after you knew that drinking caused you emotional or psychological problems?

Drug Dependent (DSM-IV) – Respondents were considered dependent if they meet **any three (3) of the following criteria** AND all/any three of those **experiences occurred within the same 12 month period**. DSM-IV Recent refers to respondents for which these criteria occurred within the past 12 months.

Table B-5
DSM-IV Drug Dependency Questionnaire Items

Criteria	Symptom Questions
Tolerance	<ul style="list-style-type: none"> • Did you ever find that you had to use a lot more of [drug] than you used to, in order to get the same effect or the same amount of [drug] had less effect than before?
Withdrawal	<ul style="list-style-type: none"> • Did quitting or cutting down on [drug] make you sick or give you withdrawal symptoms? (Such as depression, weakness, sweating, a runny nose, had trouble sleeping, felt anxious, or anything like that) • Have you ever used [drug] to make withdrawal symptoms go away, or to keep from having them?
Substance use in larger amount or for longer periods than intended	<ul style="list-style-type: none"> • Have you often used [drug] in larger amounts or used (it/them) for a longer period of time than you intended to?
Persistent desire or unsuccessful efforts to quit or cut down on drinking	<ul style="list-style-type: none"> • Have you often wanted to quit or cut down on [drug] or ever tried to cut down but couldn't?
Great deal of time spent acquiring, using or recovering from use of the substance	<ul style="list-style-type: none"> • Have you ever spent a great deal of time getting, using, or getting over the effects of [drug]?
Important activities are given up or reduced because of substance use	<ul style="list-style-type: none"> • Did you give up or greatly reduce important activities in order to get or use [drug] (like sports, work, or associating with friends or relatives)?
Continued use despite knowledge of physical or psychological problems that substance use caused or exacerbated	<ul style="list-style-type: none"> • Did you continue to use [drug] after you knew it caused you those (physical) problems? • Did you continue to use [drug] after you knew it caused you those (psychological) problems?

Substance Abuse (DSM-IV) – Respondents were diagnosed as substance abusers if one or more of the criteria shown in Table B-6 were met and the respondent was not DSM-IV dependent on the substance.

Table B-6
DSM-IV Substance Abuse Questionnaire Items

Criteria	Symptom Questions
<ul style="list-style-type: none"> • Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home. • Recurrent substance use in situation in which it is physically hazardous. 	<p style="text-align: center;">Alcohol Abuse</p> <ul style="list-style-type: none"> • Did your drinking or being hung over frequently keep you from household chores or taking care of the children and did this occur in the last 12 months? • Did your drinking or being hung over cause you to miss work frequently, loss a raise or promotion, or get fired and did this occur in the last 12 months? • Have you often been high from drinking in a situation where it increased your chances of getting hurt-for instance, when driving a car or boat, using knives, machinery, or guns, crossing against traffic, climbing or swimming and did this occur in the last 12 months? • Have you been arrested for driving under the influence in the last 12 months? • Have the police ever stopped or arrested you or taken you to treatment center because of your drinking? (Respondent qualified if occurred more than two times.)
<ul style="list-style-type: none"> • Recurrent substance-related legal problems. • Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance. 	<p style="text-align: center;">Drug Abuse</p> <ul style="list-style-type: none"> • Did [drug] cause you considerable problems with your family, friends, on the job, at school or with the police and did this occur in the last 12 months? • Have you often been high or suffering the after-effects of [drug] while working, at school, or taking care of children and did this occur in the last 12 months? • Did [drug] often keep you from doing household chores or taking care of children? <u>OR</u> Did [drug] use ever cause you to miss work frequently, lose a raise or promotion, or get fired? <u>AND</u> did this occur in the last 12 months? • Have you ever accidentally injured yourself when you had been drinking, for example, had a bad fall or cut yourself badly and did this occur in the last 12 months? <u>AND</u> Have you ever had a traffic accident because of drinking and did this occur in the last 12 months? • Have you often been high on [drug] and in a situation which increased your chances of getting hurt and did this occur in the last 12 months? (For instance, you were high or feeling (its/their) after effects in a situation while driving a car or boat, using knives, guns or machinery, or were crossing against traffic, climbing or swimming?)

Table C-1
Prevalence Estimates for Tobacco, Alcohol, and Marijuana Use

Substance & Region	Ever Use			Recent (Last 18 Months)			Current (Last 30 Days)		
	%	95% Confidence Intervals		%	95% Confidence Intervals		%	95% Confidence Intervals	
Tobacco (State)	49.4	48.2	50.6	29.4	28.3	30.5	26.9	25.8	28.0
Region 1	48.3	45.2	51.4	29.4	26.6	32.2	27.5	24.8	30.2
Region 2	45.1	42.0	48.2	26.1	23.4	28.8	22.2	19.6	24.8
Region 3	49.5	46.4	52.6	29.3	26.5	32.1	27.1	24.4	29.8
Region 4	50.7	47.7	53.7	29.6	26.9	32.3	26.8	24.1	29.4
Region 5	51.6	48.5	54.7	31.8	28.9	34.7	29.8	27.0	32.6
Region 6	50.1	47.0	53.2	29.3	26.5	32.1	26.1	23.4	28.8
Alcohol (State)	92.2	91.5	92.9	70.9	69.8	72.0	54.1	52.9	55.3
Region 1	90.8	89.0	92.6	70.3	67.5	73.1	54.6	51.5	57.7
Region 2	89.8	87.9	91.7	69.9	67.1	72.7	51.6	48.5	54.7
Region 3	93.9	92.4	95.4	74.8	72.1	77.5	59.9	56.9	62.9
Region 4	92.0	90.4	93.6	68.3	65.5	71.1	52.1	49.1	55.1
Region 5	95.2	93.9	96.5	73.1	70.4	75.8	54.4	51.3	57.4
Region 6	88.5	86.5	90.5	65.8	62.9	68.7	45.6	42.5	48.7
Marijuana (State)	24.9	23.8	25.9	5.2	4.6	5.8	1.6	1.3	1.9
Region 1	20.4	17.9	22.9	3.5	2.4	4.6	1.0	0.4	1.6
Region 2	20.1	17.6	22.6	3.8	2.6	5.0	0.7	0.2	1.2
Region 3	24.0	21.4	26.6	5.8	4.4	7.2	2.9	1.9	3.9
Region 4	28.8	26.1	31.5	5.0	3.7	6.3	0.7	0.2	1.2
Region 5	32.1	29.2	35.0	8.1	6.4	9.8	2.3	1.4	3.2
Region 6	20.2	17.7	22.7	3.7	2.5	4.9	1.6	0.8	2.4

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable

Table C-2
Prevalence Estimates for All Other Drugs

Substance and Demographic Characteristics	Ever Use			Recent (Last 18 Months)		
	%	95% Confidence Intervals		%	95% Confidence Intervals	
Hallucinogens	6.1	5.5	6.7	0.6	0.4	0.8
Cocaine and Crack	6.4	5.8	7.0	0.9	0.7	1.1
Heroin and Opiates	2.0	1.7	2.3	0.4	0.2	0.6
Sedatives	3.1	2.7	3.5	0.7	0.5	0.9
All Stimulants	9.3	8.6	10.0	2.5	2.1	2.9
Methamphetamine	6.1	5.5	6.7	1.3	1.0	1.6
Other Stimulants	5.6	5.0	6.2	1.5	1.2	1.8

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable

Table C-3
Abuse and Dependency

Criteria	Alcohol			Any Drug			Any Substance		
	%	95% Confidence Intervals		%	95% Confidence Intervals		%	95% Confidence Intervals	
DSM-IV Abuse	2.6	2.2	3.0	0.7	0.5	0.9	3.1	2.7	3.5
DSM-III-R Dependent	8.5	7.8	8.2	2.1	1.7	2.5	9.4	8.7	10.1
DSM-III-R Dependent (with at least one recent symptom)	3.9	2.9	4.9	0.7	0.5	0.9	4.3	3.8	4.8
DSM-IV Dependent (Recent)	1.9	1.6	2.2	0.4	0.2	0.6	2.2	1.8	2.6

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable

Appendix D: Substance Use by Region

This appendix contains regional analyses of –

- ▶ prevalence estimates for tobacco, alcohol, and other substances.
- ▶ prevalence rates for DSM-III-R dependency (with recent substance use) for alcohol, any drug, and any substance for gender, age group, and regional totals.
- ▶ confidence intervals surrounding DSM-IV abuse, DSM-III-R dependency, and DSM-IV recent dependency for alcohol, any drug, and any substance.

Because of the small number of actual respondents reporting drug use, estimates with low or near zero population estimates may be unreliable. Cells with a 0 indicate that there were no survey respondents in that demographic group who reported use, but this obviously does not imply that there are no such users in the planning region.

Region I (Northwest)

Counties: Audubon, Buena Vista, Calhoun, Carroll, Cherokee, Clay, Crawford, Dickinson, Emmet, Green, Guthrie, Hamilton, Humboldt, Ida, Lyon, Monona, O'Brien, Osceola, Palo Alto, Plymouth, Pocahontas, Sac, Shelby, Sioux, Webster, Woodbury, and Wright.

Table D-1
Substance Use Prevalence by Gender (Region 1)

Substance and Demographic Characteristics	Ever Use		Recent (Last 18 Months)		Current (Last 30 Days)	
	Percent	N _w	Percent	N _w	Percent	N _w
Tobacco	48.3	172,825	29.4	105,348	27.5	98,560
Male	60.0	101,450	36.4	61,493	34.3	57,973
Female	37.8	71,375	23.2	43,855	21.5	40,587
Alcohol	90.8	325,423	70.3	251,759	54.6	195,601
Male	93.2	157,298	74.7	125,847	62.3	104,931
Female	88.6	168,125	66.3	125,912	47.8	90,670
Marijuana and Hashish	20.4	73,215	3.5	12,539	1.0	3,481
Male	25.2	42,649	4.4	7,506	1.3	2,131
Female	16.1	30,566	2.7	5,033	0.7	1,350
Hallucinogens	4.3	15,372	0.5	1,867	0.1	291
Male	6.8	11,426	0.7	1,155	0.2	291
Female	2.1	3,946	0.4	712	0	0
Cocaine and Crack	4.7	16,782	1.0	3,765	0.3	909
Male	7.2	12,165	0.8	1,300	0.2	410
Female	2.4	4,617	1.3	2,465	0.3	499
Heroin and Opiates	1.9	6,654	0.2	550	0.2	550
Male	2.5	4,184	0.1	145	0.1	145
Female	1.3	2,470	0.2	405	0.2	405
Sedatives	2.8	9,880	0.4	1,384	0.1	410
Male	4.5	7,574	0.7	1,195	0.2	410
Female	1.2	2,306	0.1	189	0	0
Methamphetamine	5.8	20,880	1.2	4,138	0.3	1,049
Male	9.0	15,245	1.4	2,327	0.4	644
Female	3.0	5,635	1.0	1,811	0.2	405
Other Stimulants	3.7	13,312	0.8	3,039	0.2	583
Male	5.0	8,414	0.8	1,400	0.1	105
Female	2.6	4,898	0.9	1,639	0.3	478

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table D-2
Percent and Population Estimates of Adults DSM-III-R Dependent (Region 1)

	Alcohol		Any Drug		Any Substance	
	%	N _w	%	N _w	%	N _w
Total	8.4	30,173	1.5	5,276	8.8	31,527
Gender						
Male	12.7	21,406	1.6	2,786	12.7	21,551
Female	4.6	8,767	1.3	2,490	5.3	9,976
Age						
18-24	10.8	4,061	1.8	686	11.4	4,295
25-44	12.8	16,264	2.9	3,701	13.7	17,383
45-64	6.8	7,189	.8	889	6.8	7,189
65 & Older	3.0	2,659	0	0	3.0	2,659

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table D-3
Abuse and Dependency: 95% Confidence Intervals (Region 1)

Criteria	Alcohol			Any Drug			Any Substance		
	%	Confidence Intervals		%	Confidence Intervals		%	Confidence Intervals	
DSM III-R Dependent	8.4	6.6	10.1	1.5	0.8	2.2	8.8	7.1	10.5
DSM III-R Dependent (with at least one recent symptom)	3.6	2.5	4.7	0.5	0.1	0.9	3.9	2.7	5.1
DSM IV Dependent	1.4	0.7	2.1	0.4	0	0.8	1.8	1.0	2.6
DSM IV Recent abuse	1.9	1.1	2.7	0.2	0.1	0.5	2.1	1.2	3.0

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Region II (North Central)

Counties: Boone, Cerro Gordo, Floyd, Franklin, Hancock, Hardin, Kossuth, Marshall, Mitchell, Poweshiek, Story, Tama, Winnebago, and Worth.

Table D-4
Substance Use Prevalence by Gender (Region 2)

Substance and Demographic Characteristics	Ever Use		Recent (Last 18 Months)		Current (Last 30 Days)	
	Percent	N _w	Percent	N _w	Percent	N _w
Tobacco	45.1	113,053	26.1	65,563	22.2	55,633
Male	92.8	112,940	75.5	91,964	59.7	72,698
Female	87.0	112,221	64.5	83,152	44.0	56,692
Alcohol	89.8	225,161	69.9	175,116	51.6	129,390
Male	92.8	112,940	75.5	91,964	59.7	72,698
Female	87.0	112,221	64.5	83,152	44.0	56,692
Marijuana and Hashish	20.1	50,201	3.8	9,428	0.7	1,856
Male	25.7	31,183	4.9	5,886	0.7	865
Female	14.7	19,018	2.7	3,542	0.8	991
Hallucinogens	5.0	12,541	0.4	895	0	0
Male	7.9	9,632	0.7	895	0	0
Female	2.3	2,909	0	0	0	0
Cocaine and Crack	5.4	13,572	0.4	1,025	0.1	243
Male	6.1	7,441	0.2	290	0	0
Female	4.8	6,131	0.6	735	0.2	243
Heroin and Opiates	1.0	2,506	0	0	0	0
Male	1.7	2,012	0	0	0	0
Female	0.4	494	0	0	0	0
Sedatives	2.7	6,853	1.0	2,494	0.5	1,285
Male	4.3	5,177	1.4	1,667	0.9	1,042
Female	1.3	1,676	0.6	827	0.2	243
Methamphetamine	5.2	13,112	0.5	1,204	0.3	727
Male	6.4	7,782	0.6	754	0.4	484
Female	4.1	5,330	0.3	450	0.2	243
Other Stimulants	4.9	12,199	1.4	3,455	0.6	1,482
Male	5.6	6,773	1.6	1,926	0.7	882
Female	4.2	5,426	1.2	1,529	0.5	600

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table D-5
Percent and Population Estimates of Adults DSM-III-R Dependent (Region 2)

	Alcohol		Any Drug		Any Substance	
	%	N _w	%	N _w	%	N _w
Total	7.0	17,611	1.7	4,154	7.8	19,445
Gender						
Male	11.5	14,021	1.5	1,848	12.1	14,730
Female	2.8	3,590	1.8	2,306	3.7	4,715
Age						
18-24	13.4	5,133	3.0	1,141	14.0	5,380
25-44	8.1	7,297	3.1	2,813	9.7	684
45-64	5.8	4,018	0	0	5.8	4,018
65 and Older	2.2	1,163	0.4	199	2.6	1,363

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table D-6
Abuse and Dependency: 95% Confidence Intervals (Region 2)

Criteria	Alcohol			Any Drug			Any Substance		
	%	Confidence Intervals		%	Confidence Intervals		%	Confidence Intervals	
DSM III-R Dependent	7.0	6.5	7.5	1.7	0.9	2.5	7.8	6.1	9.5
DSM III-R Dependent plus one symptom	2.6	1.6	3.6	0.3	0	0.6	2.8	1.8	3.8
DSM IV Dependent	1.8	1.0	2.6	0.4	0	0.8	2.0	1.1	2.9
DSM IV Recent abuse	2.2	1.3	3.1	0.5	0.1	0.9	2.6	1.6	3.6

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Region III (Northeast)

Counties: Allamakee, Benton, Black Hawk, Bremer, Buchanan, Butler, Chickasaw, Clayton, Clinton, Delaware, Dubuque, Fayette, Grundy, Howard, Jackson, Jones, Linn, and Winneshiek.

Table D-7
Substance Use Prevalence by Gender (Region 3)

Substance and Demographic Characteristics	Ever Use		Recent (Last 18 Months)		Current (Last 30 Days)	
	Percent	N _w	Percent	N _w	Percent	N _w
Tobacco	49.5	255,575	29.3	151,095	27.1	139,744
Male	61.7	153,109	39.6	98,082	37.5	92,883
Female	38.3	102,466	19.8	53,013	17.5	46,861
Alcohol	93.9	485,224	74.8	386,567	59.9	309,555
Male	97.6	242,035	83.2	206,330	70.6	175,185
Female	90.4	243,189	67.0	180,237	50.0	134,370
Marijuana and Hashish	24.0	123,526	5.8	29,872	2.9	14,856
Male	30.7	75,751	8.2	20,297	4.8	11,778
Female	17.8	47,775	3.6	9,575	1.1	3,078
Hallucinogens	4.1	21,008	0.3	1,693	0.1	358
Male	6.3	15,598	0.5	1,264	0	0
Female	2.0	5,410	0.2	429	0.1	358
Cocaine and Crack	3.8	19,629	1.0	5,035	0	0
Male	6.3	15,695	1.5	3,657	0	0
Female	1.5	3,934	0.5	1,378	0	0
Heroin and Opiates	0.8	3,935	0.1	554	0	0
Male	1.3	3,215	0.1	196	0	0
Female	0.3	720	0.1	358	0	0
Sedatives	1.4	7,357	0.5	2,576	0.3	1,398
Male	2.2	5,485	0.7	1,706	0.2	528
Female	0.7	1,872	0.3	870	0.3	870
Methamphetamine	4.2	21,506	1.5	7,708	0.2	811
Male	7.0	17,426	2.9	7,219	0.2	453
Female	1.5	4,080	0.2	489	0.1	358
Other Stimulants	4.2	21,836	2.1	10,880	0.6	2,998
Male	4.0	9,920	2.7	6,632	0.5	1,125
Female	4.4	11,916	1.6	4,248	0.7	1,873

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table D-8
Percent and Population Estimates of Adults DSM-III-R Dependent (Region 3)

	Alcohol		Any Drug		Any Substance	
	%	N _w	%	N _w	%	N _w
Total	7.7	39,554	1.6	8,125	8.5	44,096
Gender						
Male	14.2	35,130	1.6	3,984	14.6	36,248
Female	1.6	4,424	1.5	4,141	2.9	7,848
Age						
18-24	10.5	6,789	5.1	3,292	13.7	8,837
25-44	10.8	21,580	1.9	3,757	12.1	24,075
45-64	6.0	9,039	0.7	1,075	6.0	9,039
65 and Older	2.1	2,146	0	0	2.1	2,146

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table D-9
Abuse and Dependency: 95% Confidence Intervals (Region 3)

Criteria	Alcohol			Any Drug			Any Substance		
	%	Confidence Intervals		%	Confidence Intervals		%	Confidence Intervals	
DSM III-R Dependent	7.7	6.1	9.3	1.6	0.8	2.4	8.5	6.8	10.2
DSM III-R Dependent plus one symptom	5.0	3.7	6.3	0.7	0.2	1.2	5.5	4.1	6.9
DSM IV Dependent	2.8	1.8	3.8	0.8	0.3	1.3	3.5	2.4	4.6
DSM IV Recent abuse	2.5	1.6	3.4	1.0	0.4	1.6	3.3	2.2	4.4

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Region IV (Southeast)

Counties: Appanoose, Cedar, Davis, Des Moines, Henry, Iowa, Jefferson, Johnson, Keokuk, Kee, Louisa, Lucas, Mahaska, Monroe, Muscatine, Scott, Van Buren, Wapello, Washington, and Wayne.

Table D-10
Substance Use Prevalence by Gender (Region 4)

Substance and Demographic Characteristics	Ever Use		Recent (Last 18 Months)		Current (Last 30 Days)	
	Percent	N _w	Percent	N _w	Percent	N _w
Tobacco	50.7	231,236	29.6	135,131	26.8	122,151
Male	58.9	129,836	32.8	72,269	30.3	66,751
Female	43.0	100,400	26.6	62,862	23.5	55,400
Alcohol	92.0	421,251	68.3	312,664	52.1	238,307
Male	93.0	204,863	72.0	158,500	61.0	134,193
Female	91.1	216,388	64.9	154,164	43.8	104,114
Marijuana and Hashish	28.8	131,895	5.0	22,781	0.7	3,128
Male	32.6	71,897	5.7	12,498	0.9	2,088
Female	25.3	59,998	4.3	10,283	0.4	1,040
Hallucinogens	7.1	32,641	0.4	1,695	0	0
Male	10.3	22,638	0.1	261	0	0
Female	4.2	10,003	0.6	1,434	0	0
Cocaine and Crack	8.5	38,887	0.7	3,208	0	0
Male	11.9	26,238	0.4	801	0	0
Female	5.3	12,649	1.0	2,407	0	0
Heroin and Opiates	2.2	10,190	0.3	1,216	0	0
Male	3.9	8,510	0	0	0	0
Female	0.7	1,680	0.5	1,216	0	0
Sedatives	2.9	13,402	0.4	1,841	0	0
Male	3.1	6,868	0.1	325	0	0
Female	2.8	6,535	0.6	1,516	0	0
Methamphetamine	7.4	33,893	1.1	4,877	0	0
Male	8.6	18,982	0.2	529	0	0
Female	6.3	14,911	1.8	4,348	0	0
Other Stimulants	8.4	38,395	1.6	7,471	0.6	2,769
Male	10.1	22,201	1.6	3,466	0.6	1,347
Female	6.8	16,194	1.7	4,005	0.6	1,422

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table D-11
Percent and Population Estimates of Adults DSM-III-R Dependent (Region 4)

	Alcohol		Any Drug		Any Substance	
	%	N _w	%	N _w	%	N _w
Total	7.8	35,541	1.9	8,869	8.8	40,096
Gender						
Male	11.9	26,108	1.5	3,281	11.9	26,291
Female	26,108	9,433	2.4	5,588	5.8	13,805
Age						
18-24	8.6	5,866	0.6	421	9.0	6,136
25-44	12.1	21,900	4.2	7,596	14.0	25,334
45-64	4.3	5,255	0.7	852	5.0	6,108
65 and Older	2.9	2,519	0	0	2.9	2,519

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table D-12
Abuse and Dependency: 95% Confidence Intervals (Region 4)

Criteria	Alcohol			Any Drug			Any Substance		
	%	Confidence Intervals		%	Confidence Intervals		%	Confidence Intervals	
DSM III-R Dependent	7.8	6.2	9.4	1.9	1.1	2.7	8.8	7.1	10.5
DSM III-R Dependent plus one symptom	2.8	1.8	3.8	0.3	0	0.6	2.8	1.8	3.8
DSM IV Dependent	1.9	1.1	2.7	0.5	0	0.9	2.0	1.2	2.8
DSM IV Recent abuse	1.9	1.1	2.7	0.2	0	0.5	2.0	1.2	2.8

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Region V (Central)

Counties: Jasper, Marion, Polk, and Warren.

Table D-13
Substance Use Prevalence by Gender (Region 5)

Substance and Demographic Characteristics	Ever Use		Recent (Last 18 Months)		Current (Last 30 Days)	
	Percent	N _w	Percent	N _w	Percent	N _w
Tobacco	51.6	178,200	31.8	109,852	29.8	103,001
Male	54.4	88,902	34.6	56,560	31.7	51,819
Female	49.1	89,298	29.3	53,292	28.1	51,182
Alcohol	95.2	328,782	73.1	252,429	54.4	187,729
Male	96.6	157,886	74.6	121,962	58.8	96,143
Female	93.9	170,899	71.7	130,467	50.3	91,586
Marijuana and Hashish	32.1	110,959	8.1	28,132	2.3	8,101
Male	40.9	66,927	10.0	16,326	1.9	3,103
Female	24.2	44,032	6.5	11,806	2.7	4,998
Hallucinogens	10.0	34,621	1.6	5,387	0	0
Male	13.6	22,249	2.0	3,308	0	0
Female	6.8	12,372	1.1	2,079	0	0
Cocaine and Crack	9.7	33,378	0.9	3,200	0	0
Male	10.2	16,724	1.3	2,108	0	0
Female	9.2	16,654	0.6	1,092	0	0
Heroin and Opiates	4.4	15,200	1.6	5,581	0	0
Male	6.6	10,806	2.4	3,941	0	0
Female	2.4	4,394	0.9	1,640	0	0
Sedatives	7.2	24,830	1.9	6,401	0.0	61
Male	8.8	14,348	1.3	2,064	0.0	17
Female	5.8	10,482	2.4	4,337	0.0	44
Methamphetamine	7.7	26,435	2.1	7,257	0.4	1,326
Male	9.2	15,111	2.4	3,988	0.8	1,309
Female	6.2	11,324	1.8	3,269	0.0	17
Other Stimulants	7.6	26,086	1.0	3,372	0.5	1,798
Male	7.3	11,895	0.7	1,220	0.4	653
Female	7.8	14,191	1.2	2,152	0.6	1,145

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table D-14
Percent and Population Estimates of Adults DSM-III-R Dependent (Region 5)

	Alcohol		Any Drug		Any Substance	
	%	N _w	%	N _w	%	N _w
Total	12.5	43,291	4.3	15,006	13.7	47,316
Gender						
Male	22.0	36,035	6.1	9,933	22.4	36,688
Female	4.0	7,256	2.8	5,073	5.8	10,628
Age						
18-24	11.5	5,191	3.1	1,391	13.0	5,878
25-44	17.4	25,900	7.4	10,996	19.7	29,238
45-64	12.3	12,200	2.6	2,618	12.3	12,200
65 and Older	0	0	0	0	0	0

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table D-15
Abuse and Dependency: 95% Confidence Intervals (Region 5)

Criteria	Alcohol			Any Drug			Any Substance		
	%	Confidence Intervals		%	Confidence Intervals		%	Confidence Intervals	
DSM III-R Dependent	12.5	10.5	14.5	4.3	3.1	5.5	13.7	11.6	15.8
DSM III-R Dependent plus one symptom	5.0	3.7	6.3	1.8	1.0	2.6	5.6	4.2	7.0
DSM IV Dependent	1.4	0.7	2.1	0.0	--	--	1.5	0.8	2.2
DSM IV Recent abuse	4.8	3.5	6.1	1.3	0.6	2.0	5.7	4.3	7.1

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Region VI (Southwest)

Counties: Adair, Adams, Cass, Clarke, Dallas, Decatur, Fremont, Harrison, Madison, Mills, Montgomery, Page, Pottawatomie, Ringgold, Taylor, and Union.

Table D-16
Substance Use Prevalence by Gender (Region 6)

Substance and Demographic Characteristics	Ever Use		Recent (Last 18 Months)		Current (Last 30 Days)	
	Percent	N _w	Percent	N _w	Percent	N _w
Tobacco	50.1	99,869	29.3	58,421	26.1	51,897
Male	57.7	54,468	32.9	31,046	29.7	28,018
Female	43	45,401	26.1	27,375	22.8	23,879
Alcohol	88.5	176,063	65.8	130,693	45.6	90,611
Male	91.6	86,279	72.4	68,237	56.4	53,159
Female	85.7	89,784	59.8	62,456	35.8	37,452
Marijuana and Hashish	20.2	40,186	3.7	7,432	1.6	3,171
Male	25.7	24,272	5.8	5,521	3.0	2,839
Female	15.2	15,914	1.8	1,911	0.3	332
Hallucinogens	6.6	13,231	1.1	2,184	0.3	540
Male	11.2	10,578	2.1	1,954	0.6	540
Female	2.5	2,653	0.2	230	0	0
Cocaine and Crack	7.0	13,888	1.2	2,442	0.2	367
Male	10.8	10,213	2.1	1,937	0.4	367
Female	3.5	3,675	0.5	505	0	0
Heroin and Opiates	1.5	3,089	0.0	57	0	0
Male	2.3	2,170	0	0	0	0
Female	.9	919	0.1	57	0	0
Sedatives	1.9	3,834	0.1	251	0.1	251
Male	2.6	2,452	0.2	207	0.2	207
Female	1.3	1,382	0	44	0.0	44
Methamphetamine	7.3	14,546	1.7	3,344	0.7	1,340
Male	9.5	8,935	2.8	2,663	1.3	1,192
Female	5.3	5,611	0.6	681	0.1	148
Other Stimulants	4.0	8,074	1.7	3,416	0.2	325
Male	5.2	4,866	2.5	2,322	0.1	69
Female	3.1	3,208	1.0	1,094	0.2	256

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table D-17
Percent and Population Estimates of Adults DSM-III-R Dependent (Region 6)

	Alcohol		Any Drug		Any Substance	
	%	N _w	%	N _w	%	N _w
Total	7.8	15,580	2.1	4,174	8.8	17,535
Gender						
Male	12.2	11,555	3.3	3,072	13.7	12,982
Female	3.8	4,025	1.1	1,102	4.3	4,553
Age						
18-24	13.1	2,626	4.2	847	16.3	3,278
25-44	11.4	8,373	3.7	2,719	13.2	9,676
45-64	6.7	3,947	1.0	607	6.7	3,947
65 and Older	1.4	634	0	0	1.4	634

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table D-18
Abuse and Dependency: 95% Confidence Intervals (Region 6)

Criteria	Alcohol			Any Drug			Any Substance		
	%	Confidence Intervals		%	Confidence Intervals		%	Confidence Intervals	
DSM III-R Dependent	7.8	6.2	9.4	2.1	1.2	3.0	8.8	7.1	10.5
DSM III-R Dependent plus one symptom	3.9	2.7	5.1	0.8	0.3	1.3	4.5	3.2	5.8
DSM IV Dependent	1.7	0.9	2.5	0.6	0.1	1.1	1.9	1.1	2.7
DSM IV Recent abuse	3.0	2.0	4.0	0.9	0.3	1.5	3.4	2.3	4.5

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Appendix E: Treatment Barriers (Additional Analyses)

Table E-1

Barriers to Treatment by Gender and Age
(% of DSM-III-R Dependent on Any Substance and Recently Using)

	Male	Female	18-24	25-44	45-64	65+ *
Facilities						
No Transportation	11.3	5.7	5.3	6.7	22.3	6.0
Too far away	10.7	14.8	19.2	9.4	11.6	10.8
Inconvenient hours	27.7	32.1	39.9	33.3	15.8	1.6
Too expensive	24.4	44.0	35.4	29.7	23.3	25.6
Don't know who to contact	16.6	22.7	26.3	15.2	20.8	7.5
Beliefs About Services						
All facilities full	7.8	20.7	10.9	8.9	17.3	0
Wait periods too long	5.1	26.2	8.5	8.8	18.0	0
Preferred treatment unavailable	7.3	12.2	13.1	6.0	12.4	0
Lack of confidentiality	19.8	36.8	24.2	20.7	32.7	24.6
Treatment unsuccessful	20.4	28.5	26.1	18.1	31.3	15.1
Special service unavailable	7.6	28.1	12.7	11.9	14.6	15.5
Personal Factors						
Health Problems	5.4	1.9	1.2	4.9	3.2	17.7
Handicap	2.3	3.1	1.7	2.8	2.5	2.4
Too busy	19.0	29.3	39.8	21.0	12.7	2.7
Denial	30.7	29.4	26.2	31.8	27.7	42.7
Social Group Factors						
Ethnicity	2.0	3.4	2.3	2.9	1.5	0
Language barriers	1.7	2.5	3.1	0.9	0.8	13.6
Treatment can't meet needs of my gender	9.7	19.6	8.1	8.3	22.7	20.5
Lack counselors of my gender	2.8	6.9	1.1	2.2	8.2	8.8
Treatment not age appropriate	4.4	15.3	10.9	5.7	8.8	1.8
Social Support						
Employer unsupportive	16.3	16.4	18.4	16.7	16.1	6.4
Family unsupportive	6.5	12.0	13.4	6.9	7.4	0
Friends or coworkers unsupportive	6.4	11.5	7.9	7.4	10.0	0
Live with alcohol users	12.3	19.3	23.4	9.9	17.2	9.6
Live with drug users	0.7	0.2	2.1	0.4	0	0
Work with alcohol users	27.6	17.2	27.4	28.8	19.3	4.7
Work with drug users	4.0	4.6	10.7	3.4	1.8	0
Live with physical, emotional or sexual abuser	0.3	5.8	1.3	1.8	1.8	1.0

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

*Estimates unreliable due to small number of respondents in this category.

Table E-2
 Barriers to Treatment by County Type
 (% of DSM-III-R Dependent on Any Substance and Recently Using)

	Rural	Mostly Rural	Mostly Urban	Urban
Facilities				
No Transportation	27.4	2.1	10.0	10.8
Too far away	7.3	20.5	16.4	6.7
Inconvenient hours	9.3	24.2	30.1	31.4
Too expensive	52.0	26.3	31.3	27.2
Don't know who to contact	39.2	21.2	17.2	15.1
Beliefs About Services				
All facilities full	17.2	4.0	15.7	9.8
Wait periods too long	17.0	1.0	13.6	11.7
Preferred treatment unavailable	5.0	4.1	14.0	7.3
Lack of confidentiality	18.5	15.2	23.6	28.1
Treatment unsuccessful	18.7	22.4	22.8	22.6
Special service unavailable	4.1	5.6	15.7	14.8
Personal Factors				
Health Problems	4.2	1.0	2.6	6.9
Handicap	0.9	2.1	3.1	2.6
Too busy	14.0	19.6	17.7	25.1
Denial	13.5	26.3	32.2	32.8
Social Group Factors				
Ethnicity	0.7	1.8	7.5	0
Language barriers	0.7	0.5	2.5	2.2
Treatment can't meet needs of my gender	2.8	5.0	19.1	11.5
Lack counselors of my gender	4.9	5.3	1.8	4.1
Treatment not age appropriate	1.6	1.5	6.6	10.0
Social Support				
Employer unsupportive	4.3	13.2	14.5	19.6
Family unsupportive	2.4	2.4	4.1	12.4
Friends or coworkers unsupportive	0	3.2	7.9	9.9
Live with alcohol users	16.0	10.4	15.3	14.4
Live with drug users	2.7	1.7	0.4	0
Work with alcohol users	23.2	19.2	20.2	30.3
Work with drug users	3.5	4.3	4.3	4.1
Live with physical, emotional or sexual abuser	3.7	1.0	1.7	1.6

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Table E-3
 Barriers to Treatment by Region
 (% of DSM-III-R Dependent on Any Substance and Recently Using)

	1	2	3	4	5	6
Facilities						
No Transportation	14.4	3.7	13.9	2.0	14.8	3.5
Too far away	14.0	16.3	12.2	7.1	9.6	18.0
Inconvenient hours	16.9	24.6	28.8	26.7	41.1	23.4
Too expensive	30.4	31.1	23.2	24.5	32.2	39.7
Don't know who to contact	21.5	26.4	16.3	6.6	21.6	23.0
Beliefs About Services						
All facilities full	15.2	16.8	11.3	2.0	14.1	7.1
Wait periods too long	8.6	12.6	13.4	0.7	18.0	2.3
Preferred treatment unavailable	7.9	17.8	11.4	4.0	6.6	8.7
Lack of confidentiality	24.4	26.1	23.9	16.6	30.6	21.2
Treatment unsuccessful	29.4	18.6	13.4	19.2	29.5	19.7
Special service unavailable	6.4	14.5	14.3	4.5	22.3	10.9
Personal Factors						
Health Problems	2.4	3.3	3.9	1.1	10.1	3.0
Handicap	3.6	3.9	0.0	1.1	5.4	0.8
Too busy	14.8	23.4	18.1	20.4	30.8	17.5
Denial	20.7	28.4	34.0	24.0	43.6	23.9
Social Group Factors						
Ethnicity	0.3	7.5	1.0	3.9	1.9	1.1
Language barriers	0.3	3.0	3.3	1.5	2.0	1.1
Treatment can't meet needs of my gender	6.1	15.6	8.3	4.8	25.8	6.9
Lack counselors of my gender	0.0	4.9	5.7	1.0	3.1	11.7
Treatment not age appropriate	2.7	14.2	1.5	2.3	18.0	2.6
Social Support						
Employer unsupportive	14.7	19.7	20.0	11.9	18.8	10.0
Family unsupportive	6.0	1.2	16.9	4.0	6.2	10.1
Friends or coworkers unsupportive	3.6	7.0	17.7	1.8	6.4	7.5
Live with alcohol users	15.5	12.3	16.8	20.7	7.2	10.5
Live with drug users	1.6	0.7	0.0	0.8	0.2	0.5
Work with alcohol users	23.6	23.3	27.2	30.9	20.8	23.5
Work with drug users	8.6	5.4	3.6	4.6	0.3	5.5
Live with physical, emotional or sexual abuser	1.2	2.6	3.7	1.7	0.1	0.5

Note: Estimates of infrequent events (i.e., 1% or less) may be unreliable.

Appendix F: Physical and Sexual Abuse (Further Analyses)

Table F-1
Physical and Sexual Abuse by Substance Dependency
(DSM-III-R with Recent Substance Use) by County Type (%)

Life Experience	Not Dependent				Dependent			
	County type				County type			
	Rural	Mostly Rural	Mostly Urban	Urban	Rural	Mostly Rural	Mostly Urban	Urban
Physical abuse before 18	9.5	12.8	14.0	18.9	46.2	44.1	48.3	45.4
Physical abuse as adult	10.1	11.4	13.9	20.3	41.7	35.7	38.0	41.0
Ever physically abused	16.2	19.7	22.4	29.8	57.4	53.2	59.3	61.2
Sexual abuse before 18	11.6	14.8	13.5	15.1	40.2	23.6	31.4	35.8
Adult pressured to have sex	3.0	3.5	3.4	6.1	6.6	9.2	6.1	14.8
Ever sexually abused	13.3	16.3	15.0	18.1	45.8	26.6	32.5	40.6
Sexual & physically abuse before 18	3.1	4.9	4.3	6.2	22.2	20.1	20.6	23.0
Sexual & physically abuse after 18	2.4	1.7	2.2	3.9	6.6	7.8	2.3	12.3
Ever sexually & physically abused	6.1	7.0	6.7	10.1	29.6	23.8	24.3	35.2

Table F-2
Physical and Sexual Abuse by Substance Dependency
(DSM-III-R with Recent Substance Use) by Region (%)

Life Experience	Not Dependent						Dependent					
	Region						Region					
	1	2	3	4	5	6	1	2	3	4	5	6
Physically abuse before 18	12.7	15.0	13.6	17.5	19.3	13.9	43.9	51.9	42.2	41.1	47.6	59.7
Physically abused as an adult	11.6	15.0	15.8	16.3	20.4	14.3	32.9	43.3	33.3	34.6	46.8	52.3
Ever physically abused	20.3	23.1	23.5	25.7	30.1	22.5	55.4	64.6	57.0	52.6	61.8	72.8
Sexual abuse before 18	11.4	12.4	14.3	17.8	13.3	15.4	28.1	31.7	30.7	25.1	44.1	35.6
Adult pressured to have sex	2.8	4.8	5.5	3.0	7.0	3.8	12.9	3.3	14.8	5.9	13.8	12.1
Ever sexually abused	12.5	14.9	16.4	19.1	17.9	17.2	34.2	32.2	33.6	26.8	49.8	38.7
Sexually & physically abused before 18	5.2	4.4	4.4	5.8	6.3	4.2	18.6	19.4	25.2	13.0	25.9	31.2
Sexually & physically abused after 18	1.5	3.2	2.9	2.2	4.9	2.4	10.3	3.3	8.5	5.9	12.3	8.4
Sexually & physically abused ever	7.0	7.5	7.0	8.4	11.0	8.3	25.2	23.6	28.3	21.1	43.3	35.9

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