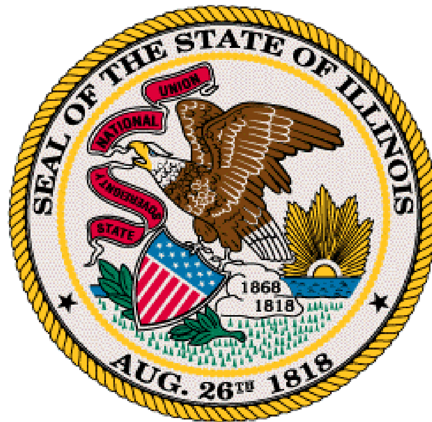
Alcohol, Tobacco, and Other Drug Use by Medicaid Recipients in Illinois: Prevalence and Treatment Need, 1999



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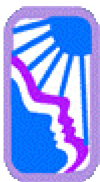

U.S. Center for Substance Abuse Treatment

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Alcohol, Tobacco, and Other Drug Use by Medicaid Recipients in Illinois: Prevalence and Treatment Need, 1999

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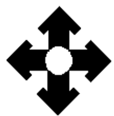

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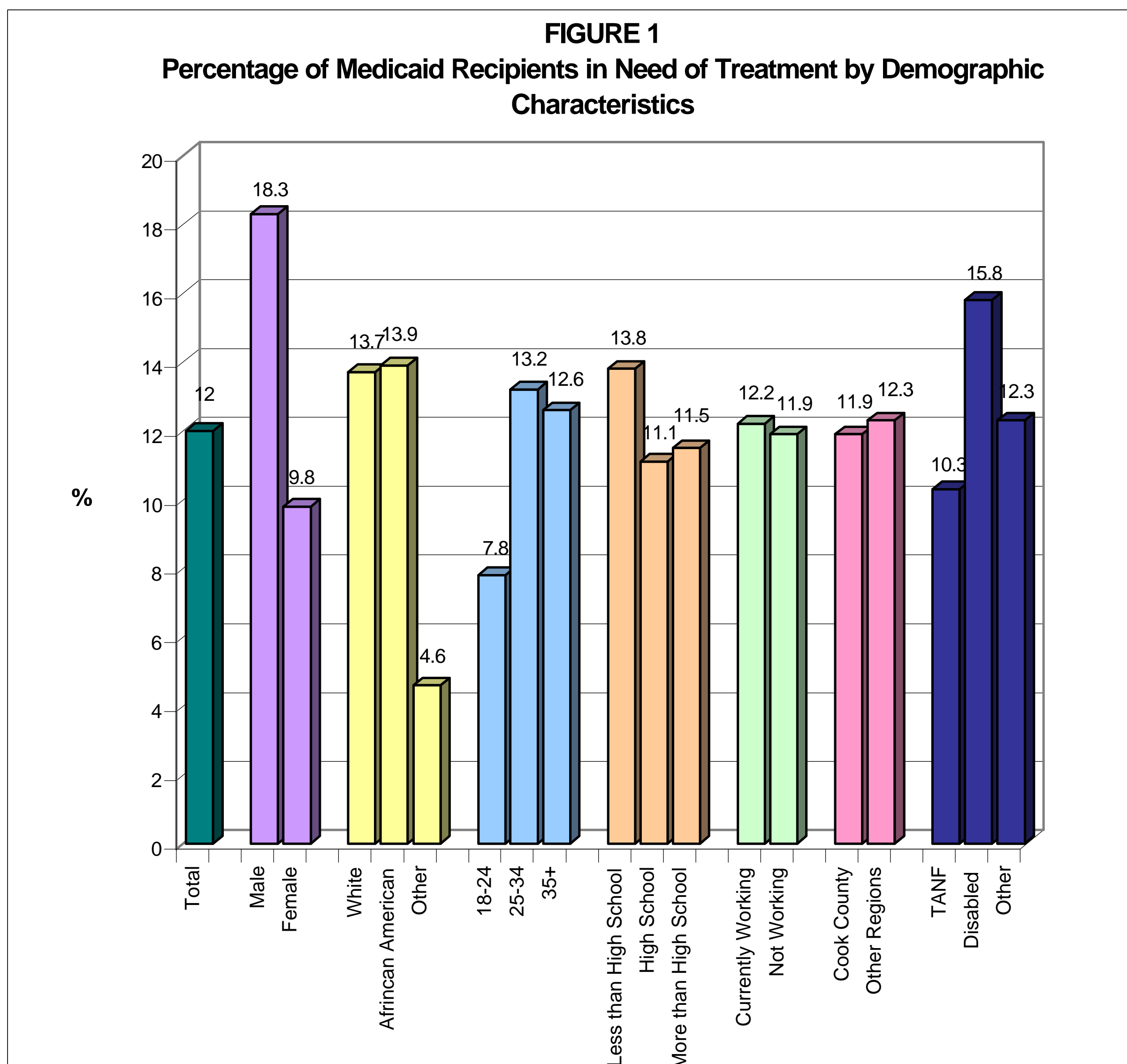
EXECUTIVE SUMMARY

In an effort to more precisely identify patterns of alcohol, tobacco, and other drug (ATOD) use among the Illinois Medicaid population and their associated treatment needs, the Office of Alcoholism and Substance Abuse (OASA) conducted a study of 1,382 Medicaid recipients. This study was part of a larger initiative designed to estimate the need for alcohol and other drug treatment services throughout the state. Both telephone and face-to-face interviews were conducted between January 1998 and June 1999 by staff of the Survey Research Laboratory at the University of Illinois at Chicago.

Need for Alcohol or Drug Abuse Treatment

To estimate the need for alcohol and drug treatment services among the Medicaid population, the diagnostic criteria for substance abuse and dependence from the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III-R) were used. Basic results are presented in **Figure 1**.

- Twelve percent of Medicaid recipients were found to be in need of treatment. This was 3 percent higher than found in a 1994 general household sample in Illinois.
- Over 5 percent of the recipients had alcohol-related problems only (5.5%), and 4.4 percent were found to have drug problems exclusively. Only 2.1 percent were diagnosed as having both alcohol and drug problems.
- Males were about twice as likely to meet the DSM-III-R criteria as were females (18.3% of males and 9.8% of females). “Disabled” Medicaid recipients were more likely to meet the drug and alcohol abuse/dependence category than were TANF (Transitional Assistance to Needy Families) or other recipients.
- Approximately 14 percent of whites and African-Americans met the DSM-III-R criteria. Only 4.6 percent of persons of other races/ethnicities were in need of treatment.
- The most frequently cited problem among Medicaid recipients was that they had used alcohol/drugs in larger amounts or for longer periods than intended (10.8%).
- Of those in need of treatment, 41.3 percent reported having received drug or alcohol treatment at least once previously.



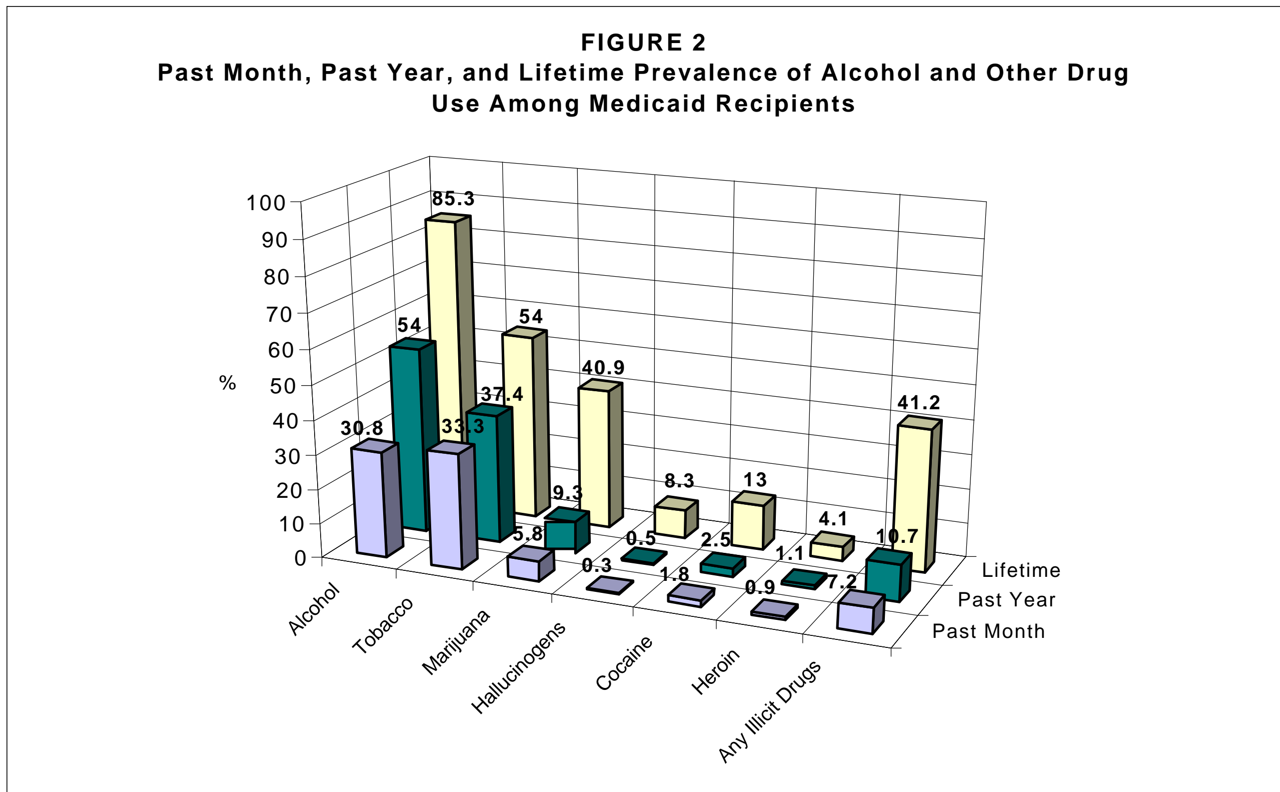
Prevalence of Alcohol and Other Drug Use

Prevalence of alcohol, tobacco, and other drugs also were estimated for respondents' lifetimes, the past year, and the past month. **Figure 2** summarizes the findings.

- A majority of the sample (85.3%) reported lifetime use of alcohol. More than half of the Medicaid recipients (55.9%) reported that they have smoked tobacco (i.e., cigarettes, cigars, or a tobacco pipe) regularly at some point in their lifetimes.
- Fifty-four percent of the sample said that they had used alcohol in the 18 months before the interview, and about 31 percent reported drinking in the previous 30 days. About one-third of the sample reported having smoked in the past year and in the past month.
- Approximately 41 percent of the sample reported having used at least one illicit drug (i.e., marijuana, hallucinogens, heroin, or cocaine) in their lifetimes. By far the most common drug was marijuana, which almost all illicit drug users reported having ever used, followed by cocaine (13%).

- Of the total sample of Medicaid recipients, 10.7 percent reported having used at least one illicit drug during the previous 12 months. The illicit drugs most commonly used in the preceding year were marijuana (9.3%) and cocaine (2.5%).
- About 7 percent of recipients reported having used one or more illicit drugs in the month before their interviews. Again, marijuana was most likely to have been used (5.8%). Very few of the recipients mentioned using other drugs, including cocaine, in the preceding 30 days.
- Men were more likely to be users of each substance than were females.

FIGURE 2
Past Month, Past Year, and Lifetime Prevalence of Alcohol and Other Drug Use Among Medicaid Recipients



I. Introduction

In recent years, the issue of Medicaid reform has generated considerable public debate. An important element of this debate is insuring that Medicaid recipients receive the services necessary to lead productive lives. Yet little is actually known about the social and health service needs of this population. Some information suggests that substance abuse treatment services may be an important need of Medicaid recipients. For example, one national study concluded that "at least one of every five dollars Medicaid spends on hospital care was attributable to substance abuse, including alcohol, legal and illegal drugs and tobacco" (1). The same researchers estimated that substance abuse treatment might have accounted for as much as $8 billion in Medicaid expenditures in 1994 (2).

Other information regarding the substance use patterns and treatment needs of the Medicaid population comes from a recent nationwide study that suggests that the prevalence of alcohol and other drug use and abuse among Medicaid recipients is very similar to that of the general population (3). State-level information is currently available only for New Jersey, which recently completed a needs assessment of its TANF (Transitional Assistance for Needy Families) population (4). This study found that approximately 20 percent of all respondents who were interviewed and who provided a hair sample (which was used for drug testing) were classified as being in need of treatment, primarily for drug abuse. The New Jersey study is significant for several reasons. First, it suggests that there may be important state-to-state variability in the treatment needs of Medicaid recipients, given the lower estimates provided in the national study (3) mentioned earlier. Second, because it examined TANF program participants only, it raises the question of the degree to which findings from subgroups of Medicaid enrollees may be generalized to the total population of program recipients. Third, it suggests that additional state- and substate-level research is necessary to address these and related questions.

The absence of more detailed information regarding the substance use and treatment needs of Medicaid recipients is an important concern in States that have large numbers of Medicaid recipients, such as Illinois. In December of 1999, about 1.3 million persons in Illinois were receiving Medicaid benefits. Of this number, 588,410 were adults, and 703,917 were children under the age of 18. In an effort to more precisely identify patterns of alcohol, tobacco, and other drug (ATOD) use in the Illinois Medicaid population and the associated treatment needs, the Office of Alcoholism and Substance Abuse (OASA) conducted a study of 1,382 Medicaid recipients. This study was part of a larger initiative designed to estimate the need for alcohol and other drug treatment services throughout Illinois. This report presents basic findings and estimates of treatment needs for the Medicaid population.

As way of introduction, Medicaid is a program designed to pay for the medical care of needy persons that is funded jointly by the federal and state governments. The primary services covered by Medicaid include physician, hospital, and long-term care. Additional medical services covered include drugs, medical equipment and transportation, family planning, laboratory testing, and x-rays. Persons in medical need who are covered by this program are those who qualify for TANF; persons who are aged, blind, or disabled; and those whose income does not exceed 133 percent of the TANF payment level for a family of the same size (5). The TANF program replaced AFDC (Aid to Families with Dependent Children) on July 1, 1997. TANF focuses on transitional services and requires that most recipients work or participate in work-related activities. It also limits the amount of time that recipients can receive benefits, usually to a lifetime total of 60 months. This includes benefits received in other states (6).

II. Results

This section includes the following results: demographic characteristics of the sample, ATOD prevalence rates, and estimated treatment needs. In conducting these analyses, statistical tests of significance were applied to all demographic comparisons of ATOD prevalence and treatment need measures. All statistically significant differences are identified in **Tables 3–13**, and all estimates are based on weighted data. (See the Technical Appendix for a description of the survey methodology.)

Table 1
Demographics of Medicaid Recipients Survey Sample

	N	%
Total	1382	100.0
Gender		
Male	371	26.6
Female	1011	73.4
Race		
White	590	39.7
African American	549	40.1
Other	241	20.2
Age		
18–24	246	18.6
25–34	376	27.3
35 and older	756	54.1
Education		
Less than High School	418	30.8
High School	505	36.1
More than High School	455	33.1
Employment Status		
Currently Working	630	45.5
Not Working	749	54.5
Region		
Cook County	731	59.2
Other Counties	651	40.8
Assistance Category		
TANF	850	61.9
Disabled	357	25.9
Other	175	12.2

A. Demographic Characteristics

Table 1 presents general demographic characteristics of the survey sample. Over 70 percent were female, and 40 percent were African American. The average age of the Medicaid recipients was 40. In terms of education, about 70 percent had completed high school or GED. Less than half were currently working either full or part-time, and most (59.2%) lived in Cook County.

A majority of Medicaid recipients (61.9%) were categorized under Transitional Assistance for Needy Families (TANF), and a quarter of the recipients were classified as "disabled." The remaining recipients, combined for purposes of this report in an "other" category, included those classified as aged, blind, or in need of general assistance.

B. Overall Prevalence of Alcohol, Tobacco, and Other Drug Use

Prevalence rates are defined as the percentage of people who report any use of a given substance during a specified time period, e.g., lifetime, past year, or past month. **Lifetime prevalence**, for example, refers to the percentage of the sample that has used a substance at least once in their lifetimes. Likewise, **past year prevalence** measures the percentage of people who have used a substance at any point in the last 12 months, and **past month prevalence** refers to the percentage of recipients who used a substance in the 30 days prior to the interview.

As shown in **Table 2**, a majority of the sample reported lifetime use of alcohol. Eighty-five percent said that they have drunk alcohol at least once in their lifetimes. More than half of the Medicaid recipients (54%) reported that they have smoked tobacco (i.e., cigarettes, cigars, or a tobacco pipe) regularly at some point in their lifetimes.

Table 2
Lifetime, Past Year, and Past Month ATOD Use Among Medicaid Recipients (N=1382)

Substance	Lifetime	Past Year	Past Month
Alcohol	85.3	54.0	30.8
Tobacco	54.0	37.4	33.3
Marijuana	40.9	9.3	5.8
Hallucinogens	8.3	0.5	0.3
Cocaine	13.0	2.5	1.8
Heroin	4.1	1.1	0.9
Any Illicit Drugs	41.2	10.7	7.2

Overall, a little over 40 percent of the sample reported having used at least one drug in their lifetimes. The drug most likely to have ever been tried was marijuana (40.9%), followed by cocaine (13%). Hallucinogens and heroin were the two drugs least likely to be tried by the survey respondents.

Fifty-four percent of the sample said that they have used alcohol in the last 18 months, and about 31 percent reported drinking in the 30 days before the interview. More than one-third of those interviewed reported having smoked in the past year, and 33 percent did so in the past month.

Of the total sample, 10.7 percent reported having used at least one illicit drug during the previous 12 months, with the most commonly used drugs being marijuana (9.3%) and cocaine (2.5%). About 7 percent of respondents reported having used one or more illicit drugs in the preceding 30 days; again, marijuana was most likely to have been used (5.8%). Very few of the recipients mentioned using other drugs such as hallucinogens, cocaine, and heroin during that time. Past month prevalence rates of these drugs were all less than 2%.

Compared to the 1994 Illinois household survey (7), the lifetime prevalence rates among Medicaid recipients were higher in all substance use categories except alcohol use.[1] It also is noteworthy that all lifetime, past year, and past month illicit drug use prevalence rates were higher for Medicaid recipients than for the general household sample: the rates for the Medicaid sample were 41.2 percent (vs. 33.1% for the general household sample), 10.7 percent (vs. 5.4%), and 7.2 percent (vs. 2.1%), respectively.

C. Need for Alcohol and Drug Treatment

Estimating Treatment Need

Treatment need was estimated based on diagnosis criteria for substance abuse and dependence from the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III-R) (8). During the interview, Medicaid recipients were asked if they experienced any problems/symptoms associated with the use of each substance (alcohol, marijuana, hallucinogens, cocaine, and heroin) and were asked about the duration of such symptoms or problems. The DSM-III-R symptoms include:

- Alcohol/drugs taken in larger amounts or for a longer period than intended.
- Persistent desire or unsuccessful efforts to control drinking/drug use.
- Spending a lot of time getting or using alcohol/drugs or recovering from alcohol/drug use.
- Alcohol/drug use frequently interferes with fulfilling important obligations (e.g., missing work because of a hangover) or places one in physically hazardous situations (e.g., driving a car or boat while under the influence).

[1] The exception with regard to alcohol use is primarily due to the fact that females, who were generally less likely to drink, represent a larger proportion of the Medicaid sample.

- Avoiding or giving up important activities (e.g., sports, work, or association with friends or relatives).
- Continuing use of alcohol/other drugs despite knowledge of persistent problem caused or exacerbated by them.
- Increased tolerance to alcohol/other drugs.
- Presence of withdrawal symptoms.
- Using alcohol or other drugs to relieve withdrawal symptoms.

Respondents experiencing three or more of the problems listed above, along with evidence of persistence (i.e., a repeated occurrence of the symptoms over a longer period of time), were diagnosed as alcohol/drug dependent. Persons with at least two of these persisting symptoms were diagnosed as alcohol/drug abusers.[2] For purposes of this report, both alcohol/drug dependents and alcohol/drug abusers were defined as being in need of treatment.

Need for Treatment Among Medicaid Recipients

As **Table 3** indicates, 12 percent of Medicaid recipients were found to be in need of treatment, which was 3 percent higher than was found in the general household sample in 1994. More than 5 percent had alcohol-related problems only (5.5%), and 4.4 percent were found to have drug problems exclusively. Only 2.1 percent were diagnosed as having both alcohol and drug problems.

Of the total sample, 3.7 percent were diagnosed as having treatment needs for marijuana abuse, 3.4 percent for cocaine, 1.9 percent for heroin, and less than 1 percent for hallucinogens. (This information is not presented in **Table 3**.)

In terms of gender differences in treatment need, males were significantly more likely to meet the DSM-III-R criteria than females. Approximately 18 percent of the male Medicaid recipients were in need of treatment, about twice that of females. About 9 percent of males and 4.3 percent of females were diagnosed as having an alcohol problem only. Although the percentages were small, males were also twice as likely to have a combined alcohol and drug abuse treatment need (3.5% vs. 1.7% of females).

Across racial/ethnic groups, whites and African Americans did not significantly differ in treatment need. Age, education, employment status, and area of residence also did not appear to be significantly associated with treatment need.

Among those age 18–24, no recipients were diagnosed with combined alcohol and drug use problems; more than 2 percent of those age 25 and older were found to have both problems.

Finally, Medicaid recipients in the “disabled” assistance category were more likely to have treatment needs than were TANF or other recipients (15.8%, 10.3% and 12.3%, respectively). Also, they were more likely to be diagnosed as having combined alcohol and drug problems.

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[2] For diagnosis of alcohol dependence or abuse, questions were addressed only to those who drank in the last 18 months. For other drugs, respondents were diagnosed for lifetime experience.

Table 3
Percentage of Medicaid Recipients Meeting DSM-III-R Criteria for Substance Dependence/Abuse

	Alcohol or Drug Problem	Alcohol Problem Only	Drug Problem Only	Alcohol & Drug Problem
Total	12.0	5.5	4.4	2.1
Gender	***	**		*
Male	18.3	8.9	5.9	3.5
Female	9.8	4.3	3.8	1.7
Race	***		**	
White	13.7	6.9	4.3	2.7
African American	13.9	5.7	6.1	2.3
Other	4.6	2.8	1.4	0.7
Age				**
18–24	7.8	4.2	3.5	0.0
25–34	13.2	5.0	5.3	2.9
35+	12.6	6.1	4.0	2.5
Education				
Less than High School	13.8	5.8	4.9	3.0
High School	11.1	5.2	4.2	1.8
More than High School	11.5	5.7	4.1	1.7
Employment Status				
Working	12.2	5.7	4.7	1.9
Not Working	11.9	5.6	4.1	2.4
Region				
Cook County	11.9	5.0	5.2	1.7
Other Counties	12.3	6.2	3.3	2.8
Assistance Category	*	*		**
TANF	10.3	4.3	4.9	1.3
Disabled	15.8	6.9	4.2	4.7
Other	12.3	8.8	2.9	1.2

* $p<0.05$; ** $p<0.01$; *** $p<0.001$ (Chi-Square Test).

Specific Problems Associated with Alcohol and Other Drug Use

Table 4 presents the percentage of Medicaid recipients that experienced each of the nine specific symptoms determining substance abuse/dependence. Overall, 14.3 percent of the sample of recipients reported having experienced at least one symptom.

The most frequently reported symptom among interviewees was using alcohol or drugs in larger amounts or for a longer period than intended (10.8% of total sample). This symptom was reported by 73.1 percent of those who were in need of treatment and by 2.3 percent of those without a DSM-III-R diagnosis.

The second most frequently cited problem was alcohol or drug use interfering with the fulfillment of important obligations. Just below 10 percent of the total sample

reported this problem. Among those in need of drug treatment, approximately 68 percent claimed to have this problem. Only about 2 percent of those who were not in need of alcohol/drug use treatment cited this problem.

A majority of people who were in need of alcohol or drug use treatment reported experiencing each of the DSM-III-R symptoms except one: avoiding or giving up important activities (44%).

Table 4
Percentage of Medicaid Recipients Who Experienced Substance-Related DSM-III-R Symptoms

DSM-III-R Symptoms	With Diagnosis	Without Diagnosis	Total
• Using alcohol/drugs in larger amounts/longer than intended	73.1	2.3	10.8
• Alcohol/drug use interferes with fulfilling important obligations	68.3	1.9	9.8
• Continuing to use alcohol/other drugs while knowing it causes problems	72.0	1.1	9.7
• Increased physical tolerance to alcohol/drugs	68.5	0.6	8.7
• Having tried unsuccessfully to control drinking/drug use	62.5	1.4	8.7
• Spending a lot of time getting or using alcohol/drug or recovering from alcohol/drug use	59.5	0.9	7.9
• Using other drugs to relieve withdrawal symptoms	55.4	0.7	7.2
• Presence of withdrawal symptoms	54.5	0.2	6.7
• Avoiding or giving up important activities	44.0	0.5	5.7

Lifetime Treatment Experience

Interviewers asked recipients who had used any substance in their lifetimes if they had ever been treated for alcohol or drug abuse. Overall, 9.2 percent of the Medicaid recipients indicated that they had been treated at least once.

Approximately two-fifths of the Medicaid recipients who met DSM-III-R criteria reported having ever been treated (41.3%).

As presented in **Table 5**, males with a DSM-III-R diagnosis were more likely than their female counterparts to have experienced treatment at least once in their lifetimes. Recipients age 35 and over with a DSM-III-R diagnosis were also more likely to have ever received treatment. In contrast, those with a diagnosis who were currently working were less likely to report a treatment experience than were not currently employed recipients.

In terms of type of assistance, “disabled” Medicaid recipients with a DSM-III-R diagnosis were more likely to report a lifetime treatment experience (63.2%) than those in other assistance categories. Just over one-quarter of all recipients who were in the category of Temporary Assistance for Needy Families (TANF) reported a lifetime treatment experience.

Table 5
Percentage of Medicaid Recipients Meeting DSM-III-R Criteria for Substance Dependence/Abuse Who Reported Ever Receiving Treatment by Demographic Characteristics

Category	Percent
Total	41.3
Gender	*
Male	52.9
Female	33.3
Race	
White	42.1
African American	46.2
Other	14.3
Age	*
18–24	25.0
25–34	32.0
35+	50.5
Education	
Less than High School	39.7
High School	42.9
More than High School	41.5
Employment Status	**
Working	28.6
Not Working	52.2
Region	
Cook County	42.9
Other Counties	40.0
Assistance Category	***
TANF	29.2
Disabled	63.2
Other	36.4

* $p<0.05$; ** $p<0.01$; *** $p<0.001$ (Chi-Square Test).

III. Prevalence of Alcohol, Tobacco, and Other Drug Use by Demographic Background

In order to study relationships between demographic variables and prevalence of substance use, lifetime, past year, and past month use of each substance were examined by gender, race/ethnicity, age, education, employment status, region of residence, and welfare assistance category.

A. Alcohol

A large majority of the Medicaid sample reported having consumed alcohol at some point in their lifetimes. Males were more likely than females to report **lifetime use** of alcoholic beverages. Among the racial/ethnic groups, whites were more likely to report lifetime alcohol use: over 90 percent reported they had drank alcohol at some point. In addition, 87 percent of persons age 25 to 34 and 80 percent of the youngest group (age 18–24) have used alcohol. Education had a positive relationship with lifetime prevalence of alcohol: the higher the level of education, the more lifetime drinking reported. These findings confirm a general pattern found in many other studies with national samples (9, 10). Further, recipients who were currently working were more likely than non-working persons to report lifetime use of alcohol. There was about a six percentage point difference between workers and non-workers in their lifetime prevalence of alcohol use. In regard to region of residence, recipients in Cook County (81.9%) were less likely than those in other counties to have ever consumed alcohol (90.4%). Also, recipients in the "disabled" assistance category reported a slightly higher rate of lifetime alcohol use than did those classified in TANF and other Medicaid categories.

In the **18 months** prior to the interview, just over half of the Medicaid recipients drank alcoholic beverages. Alcohol was most likely to be consumed by males, whites, younger respondents, those with higher levels of education (more than high school), and those currently employed. Persons in the TANF assistance category also showed a significantly higher rate of alcohol use than did those in the "disabled" and "other" categories. No significant difference was found across geographic regions.

During the **30 days** prior to being interviewed, about 31 percent of all Medicaid recipients consumed alcoholic beverages. Again, alcohol use was more common among men than among women. Forty-three percent of the men reported having consumed alcohol during the last 30 days, while 27 percent of women did so.

Younger Medicaid recipients (age 18 to 24) had a higher prevalence rate of recent drinking than did older recipients. As observed with lifetime and past year alcohol use, recipients who were working at the time of the interview were more likely to have consumed alcohol than those who were not working. Thirty-seven percent of working Medicaid recipients reported drinking in the last 30 days. There was no difference in past month alcohol use between Cook County and the rest of the state. Finally, as with past year prevalence, TANF recipients were more likely to report past month use of alcohol than were either disabled or other recipients.

In general, significant differences in the prevalence rates of alcohol use were observed by gender, age, employment status, and assistance category for each time period examined.

Table 6
Lifetime, Past Year, and Past Month Prevalence of Alcohol Use Among Medicaid Recipients by Demographic Characteristics

	Lifetime Use	Past Year Use+	Past Month Use
Total	85.3	53.9	30.8
Gender	***	***	***
Male	93.0	62.9	42.7
Female	82.5	50.7	26.5
Race	***	*	
White	91.7	58.2	32.1
African American	84.8	51.7	30.8
Other	74.1	50.2	28.7
Age	*	***	***
18–24	80.2	66.5	38.4
25–34	87.4	62.3	36.1
35 and older	85.9	45.3	25.5
Education	**	***	
Less than High School	81.2	44.7	27.0
High School	86.2	54.8	31.7
More than High School	88.5	61.7	33.3
Employment Status	**	***	***
Working	88.4	64.3	37.0
Not Working	82.9	45.5	25.7
Region	***		
Cook County	81.9	52.8	31.7
Other Counties	90.4	55.6	29.6
Assistance Category	*	***	**
TANF	85.8	61.5	34.5
Disabled	87.3	42.4	25.2
Other	78.4	40.6	24.1

+ Past 18 months; * $p<0.05$; ** $p<0.01$; *** $p<0.001$ (Chi-Square Test).

Heavy Drinking

Respondents also were asked about the average number of drinks consumed per day on those days when they did drink during the last 18 months. Medicaid recipients consumed an average of 1.47 drinks per day. For purposes of this report, an average of five or more drinks for males and four or more drinks for females were considered “heavy drinking.” Of the total sample, 9.6 percent were found to be heavy drinkers. As shown in **Table 7**, male recipients were more likely to drink heavily than females. Approximately 14 percent of male recipients reported having consumed five or more drinks per day. In contrast, 8.1 percent of female recipients reported drinking four or more drinks. Those

with less than a high school education were more likely to be heavy drinkers. Heavy drinkers were also more likely to be found among whites than African Americans, those age 25–34, employed persons, recipients living in counties other than Cook County, and among disabled recipients. However, these differences were statistically negligible.

Table 7
Percentage of Medicaid Recipients Defined as Heavy Drinkers During the Past Year by Demographic Characteristics

	Percent
Total	9.6
Gender	**
Male	13.7
Female	8.1
Race	
White	11.5
African American	7.6
Other	9.6
Age	
18–24	12.1
25–34	11.3
35 and older	8.0
Education	
Less than High School	11.9
High School	8.7
More than High School	8.5
Employment Status	
Currently Working	9.9
Not Working	9.4
Region	
Cook County	8.8
Other Counties	10.8
Assistance Category	
TANF	9.7
Disabled	9.9
Other	8.8

** $p<0.01$; (Chi-Square Test).

B. Tobacco

Lifetime prevalence of tobacco use (smoking cigarettes, cigars, or a tobacco pipe) among Medicaid recipients was 55.9 percent. As shown in **Table 6**, males were more likely than females to report regular tobacco use sometime during their lifetimes, and whites were more likely than African Americans and those of other racial/ethnic groups. Older recipients (age 35 and above) were also more likely to use tobacco. Unlike alcohol use, education was found to have a negative relationship with lifetime prevalence: the higher the level of education, the less likely the respondent was to report smoking. Compared to those who were not working, currently employed recipients were more likely to have ever smoked. There was also a significant difference between Cook County and other regions of the State regarding lifetime prevalence of tobacco use. Cook County had a lower prevalence of tobacco use (48.4%) than did other counties in Illinois (62.1%). "Disabled" recipients also were more likely to report lifetime use of tobacco compared to those in other assistance categories. About two-thirds of "disabled" and about half of TANF recipients were lifetime tobacco users. Over half of those in the "other" category were lifetime users.

Table 8
Lifetime, Past Year, and Past Month Prevalence of Tobacco Use Among Medicaid Recipients by Demographic Characteristics

	Lifetime Use	Past Year Use	Past Month Use
Total	53.9	37.4	33.3
Gender	***	**	**
Male	66.6	43.9	39.4
Female	49.4	35.0	31.1
Race	***	***	***
White	64.7	47.3	42.6
African American	54.1	36.6	32.4
Other	32.4	19.5	16.3
Age	***	**	***
18–24	38.5	30.4	24.5
25–34	45.3	35.9	30.9
35 and older	63.6	40.7	37.5
Education	***	*	*
Less than High School	60.5	41.1	36.9
High School	56.3	39.2	34.7
More than High School	45.6	32.2	28.5
Employment Status	***		*
Working	47.6	35.1	30.4
Not Working	59.4	39.5	35.7
Region	***	***	***
Cook County	48.4	32.6	29.6
Other Counties	62.1	44.3	38.7
Assistance Category	***	**	*
TANF	49.0	36.1	30.9
Disabled	66.6	43.9	40.2
Other	52.6	30.4	30.4

* $p<0.05$; ** $p<0.01$; *** $p<0.001$ (Chi-Square Test).

The effect of gender, race/ethnicity, education, and region remained significant when examining **past year prevalence** of tobacco use. Approximately 44 percent of males smoked in the past year, while 35 percent of females did so. Among racial groups, whites again were most likely to use tobacco (47.3% vs. 36.6% of African Americans and 19.5% of members of other racial/ethnic groups). Also, those with less than a high school education and those who resided outside Cook County were more likely to report tobacco use. Compared to those under TANF or other assistance categories, "disabled" recipients again showed the highest rate of past year tobacco use.

During the **past 30 days** prior to the interview, about one-third of the sample claimed to have used tobacco. Males, whites, the oldest age group (age 35 and over), and the "disabled" group were significantly more likely to smoke.

In general, across all three measures of tobacco use, significant differences were found between men and women, among different racial/ethnic groups, among different age groups, among groups with different levels of education, between residential regions, and between those in the TANF, "other," and "disabled" assistance categories.

C. Marijuana

As shown in **Table 9**, **lifetime prevalence** of marijuana use for Medicaid recipients in Illinois was 40.9 percent. Males were significantly more likely to have ever used marijuana than females, with more than half of the male and 36 percent of female recipients reporting they had used marijuana at least once. Among racial groups, whites were more likely than others to report having ever used marijuana. In terms of age, lifetime prevalence was highest among interviewees age 25 to 34. As with alcohol use, education was positively associated with lifetime prevalence of marijuana: 44 percent of those with more than a high school education used marijuana, and 35 percent of those with less than high school education did so. The difference in lifetime prevalence between working and non-working recipients also was found to be significant. Approximately 45 percent of currently working recipients and 37.5 percent of those not working reported having used marijuana at some time in their lives.

Table 9
Lifetime, Past Year, and Past Month Prevalence of Marijuana Use Among Medicaid Recipients by Demographic Characteristics

	Lifetime Use	Past Year Use	Past Month Use
Total	40.9	9.3	5.8
Gender	***	***	***
Male	54.3	15.4	10.0
Female	36.1	7.1	4.3
Race	***	*	**
White	45.7	7.7	4.1
African American	44.1	11.8	8.4
Other	25.2	7.4	3.6
Age	***	***	***
18–24	45.3	21.9	13.6
25–34	48.6	7.6	4.7
35 and older	35.5	5.6	3.3
Education	*		*
Less than High School	35.0	10.2	7.4
High School	42.8	9.6	6.2
More than High School	44.4	8.5	3.7
Employment Status	**		
Working	45.2	8.9	4.6
Not Working	37.5	9.7	6.7
Region			
Cook County	38.9	10.0	6.7
Other Counties	43.9	8.4	4.6
Assistance Category	**		
TANF	43.7	10.1	6.0
Disabled	39.9	8.9	5.8
Other	28.7	5.8	4.1

* $p<0.05$; ** $p<0.01$; *** $p<0.001$ (Chi-Square Test).

Recipients receiving assistance under the TANF category were found to have higher lifetime marijuana use prevalence. The rate for this group was 43.7 percent, which is about 3 percentage points higher than that for the “disabled” and 15 percentage points higher than for those in the “other” category. Persons in Cook County had a higher lifetime prevalence rate of marijuana than those of other regions, but the difference was not significant.

Overall, the **past year prevalence** of marijuana use was just above 9 percent. Males were twice as likely as females to report using marijuana during the last 12 months. African Americans were more likely to have used marijuana than whites and members of other racial groups, and compared to other age groups, a higher proportion of the youngest recipients (age 18 to 24) used marijuana in the preceding year. No differences in past year marijuana use were found by education, employment status, area of residence, and welfare assistance category.

A smaller proportion of Medicaid recipients indicated they had used marijuana in the **past month** (6%). As with past year use, males, African Americans, and those age 18 to 24 were most likely to report recent marijuana use.

D. Cocaine

Thirteen percent of the Medicaid recipients included in this survey claimed to have used cocaine at some time in their lives. As in the case of other substances, males had a substantially higher prevalence rate than did females. **Lifetime prevalence** for males was 21.1 percent, more than twice that of females (10.0%). Prevalence for whites was approximately 15 percent, which was similar to the rate for African Americans, but more than twice that for other racial/ethnic groups (6.0%). Differences also were found between age groups. Close to fifteen percent of recipients age 25 and over reported using cocaine some time in their life, but only 3.5 percent of those age 18 to 24 did so. Recipients classified in the "disabled" category of assistance had a higher rate of lifetime prevalence than did the persons in the TANF and "other" categories of assistance.

Table 10
Lifetime, Past Year, and Past Month Prevalence of Cocaine Use Among Medicaid Recipients by Demographic Characteristics

	Lifetime Use	Past Year Use	Past Month Use
Total	13.0	2.6	1.7
Gender	***	***	*
Male	21.1	5.4	3.2
Female	10.0	1.6	1.2
Race	***	**	**
White	15.1	1.6	0.9
African American	14.4	4.3	3.2
Other	6.0	1.1	0.7
Age	***		
18–24	3.5	0.8	--
25–34	14.9	3.4	2.6
35 and older	15.4	2.7	1.9
Education			
Less than High School	11.4	3.0	2.3
High School	12.0	2.8	1.4
More than High School	15.7	1.7	1.7
Employment Status		**	
Working	13.1	1.1	1.1
Not Working	12.9	3.7	2.4
Region			
Cook County	13.1	2.9	2.2
Other Counties	12.8	2.1	1.1
Assistance Category	*		
TANF	11.4	2.0	1.5
Disabled	17.2	4.2	2.5
Other	12.9	1.8	1.8

* $p<0.05$; ** $p<0.01$; *** $p<0.001$ (Chi-Square Test); -- percentage was too small to report (less than .5).

Differences in the lifetime prevalence of cocaine were not found by education, employment status, or area of residence.

Overall, **past year prevalence** of cocaine was 2.6 percent. More than 5 percent of males claimed to have used cocaine in the past year compared to only 1.6 percent of females. Among the racial groups, African Americans had the highest percentage of past year use, and non-working recipients were more likely to have used cocaine than were those employed. Recipients' age, level of education, region of residence, and assistance category were not associated with past year cocaine use.

Less than 2 percent of all recipients reported use of cocaine during the preceding 30 days. Significant differences in **past month prevalence** of cocaine were found only between men and women and across racial groups. Again, males were more likely than females to report past month cocaine use, and African Americans had a higher prevalence rate than did whites and other racial/ethnic groups.

E. Heroin

Table 11 presents information on the reported lifetime use of heroin by Medicaid recipients.

Of the total sample, 4.2 percent reported having used heroin at least once in their lifetimes. About 6 percent of males and 3.5 percent of females indicated heroin use, and compared to other racial/ethnic groups, African Americans were somewhat more likely to have ever tried heroin. Recipients age 25 to 34 were found to have a higher prevalence rate of heroin use compared to other recipients. Compared to those who were working, currently unemployed respondents were more likely to have ever used heroin. Persons living in Cook County had a higher rate of lifetime use. Other demographic variables such as education and type of Medicaid eligibility were not associated with lifetime prevalence of heroin use.

Past year and past month prevalence were less than 1 percent each.

Table 11
Lifetime Prevalence of Heroin Use Among Medicaid Recipients by Demographic Characteristics

	Percent
Total	4.2
Gender	*
Male	5.9
Female	3.5
Race	***
White	4.0
African American	6.1
Other	0.7
Age	*
18–24	1.9
25–34	5.8
35 and older	4.0
Education	
Less than High School	5.1
High School	3.2
More than High School	4.3
Employment Status	*
Working	3.0
Not Working	5.1
Region	*
Cook County	5.2
Other Counties	2.6
Assistance Category	
TANF	3.9
Disabled	5.3
Other	2.9

* $p<0.05$; ** $p<0.01$; *** $p<0.001$
(Chi-Square Test).

F. Hallucinogens

Lifetime prevalence of hallucinogen use is presented in **Table 12**. More than 8 percent of all respondents reported using hallucinogens at some time in their lives. Lifetime prevalence was substantially higher for men: prevalence for male recipients was approximately 16 percent, almost three times that for females. Whites also were found to have a much higher prevalence rate than African Americans and members of other ethnic groups, and hallucinogens were more likely to be used by those with higher levels of education. More than eleven percent of the recipients with a greater than a high school education reported lifetime use of hallucinogens, compared to 6.0 percent of those not having completed high school. Persons in Cook County were less likely to use hallucinogens than were those recipients in other Illinois counties. Lifetime prevalence was 6.2 percent in Cook County and 11.4 percent elsewhere in the state.

Recipients' age, employment status, and assistance eligibility category were not associated with lifetime hallucinogen use.

Table 12
Lifetime Prevalence of Hallucinogen Use Among Medicaid Recipients by Demographic Characteristics

	Percent
Total	8.3
Gender	***
Male	15.7
Female	5.7
Race	***
White	13.2
African American	5.2
Other	4.6
Age	
18–24	5.5
25–34	8.9
35 and older	8.8
Education	*
Less than High School	6.0
High School	7.6
More than High School	11.3
Employment Status	
Working	9.2
Not Working	7.7
Region	**
Cook County	6.2
Other Counties	11.4
Assistance Category	*
TANF	7.2
Disabled	11.4
Other	7.0

* $p<0.05$; ** $p<0.01$; *** $p<0.001$ (Chi-Square Test).

G. Any Illicit Drugs

Table 13 presents the lifetime, past year, and past month prevalence of use of any illicit drug, including marijuana, cocaine, heroin, and hallucinogens.

Overall, **lifetime prevalence** of illicit drug use was 41.2 percent. Lifetime illicit drug use was more likely to be reported by males, whites and African Americans, persons age 25 to 34, those with more than a high school education, those currently working, and those who met the eligibility category of Temporary Assistance for Needy Families (TANF).

More than 10 percent of recipients reported having used one or more illicit drugs during the **past year**. Males were more than twice as likely than females to have used illicit drugs (17.3% vs. 8.3%, respectively). About 14 percent of African Americans and 9 percent of whites reported past year use of illicit drugs. Persons in the youngest age group (18–24) were also more likely to have used illicit drugs during the past year.

Table 13
Lifetime, Past Year, and Past Month Prevalence of Any Illicit Drug Use Among Recipients of Medicaid by Demographic Characteristics

	Lifetime Use	Past Year Use	Past Month Use
Total	41.2	10.7	7.2
Gender	***	***	**
Male	54.6	17.3	11.1
Female	36.4	8.3	5.8
Race	***	**	***
White	45.7	8.6	4.5
African American	44.7	14.2	11.1
Other	25.6	7.8	4.6
Age	***	***	***
18–24	45.3	22.6	14.4
25–34	49.2	9.2	6.5
35 and older	35.6	7.2	4.7
Education	*		
Less than High School	35.5	12.3	9.5
High School	42.9	10.6	6.8
More than High School	45.0	9.4	5.4
Employment Status	**		**
Working	45.6	9.8	4.9
Not Working	37.8	11.5	9.1
Region			**
Cook County	39.4	11.7	8.7
Other Counties	43.9	9.3	5.1
Assistance Category	**		
TANF	44.0	11.0	7.3
Disabled	40.6	11.6	7.7
Other	28.7	7.0	5.3

* $p<0.05$; ** $p<0.01$; *** $p<0.001$ (Chi-Square Test).

Approximately 7 percent of all Medicaid recipients reported **past month** use of illicit drugs. About 11 percent of male recipients used illicit drugs in the past 30 days, compared to 5.8 percent of females. African Americans were also more likely than whites to have used illicit drugs recently (11.1% vs. 4.5% of whites and 4.6% of other racial/ethnic groups). Also, there were considerable differences in the past month drug use between different age groups. Prevalence for the youngest group (age 18 to 24) was 14.4 percent, which was more than twice that of recipients in the 25 to 34 age group and three times that of the oldest age group (6.5% and 4.8%, respectively). Unemployed persons had higher prevalence rates than did those who were employed, and, finally, persons living in Cook County were more likely than those in other counties to have used one or more illicit drug during the 30 days preceding the interview.

IV. Discussion

The use of and addiction to alcohol and other drugs have long been understood to impair individuals' ability to participate fully in their communities, their families' lives, and in their work environments. While Medicaid recipients have been studied along with other populations as to the prevalence of addictions disorders, issues of treatment need have not previously been fully explored.

In Illinois, adult Medicaid recipients who also receive cash assistance are now expected to transition to employment within a specific time allotment, usually within two years. This public policy change particularly affects those receiving Transitional Assistance to Needy Families (TANF), formerly known as Aid to Families with Dependent Children (AFDC). Non-successful transition carries with it negative consequences to the adult, the family, and the state itself.

Medicaid recipients with active alcohol or other substance abuse or addictions disorders can be expected to often have difficulties with employment. In recognition of this challenge, Illinois has made a commitment to assist their recipients in successfully finding employment. An element of this commitment has been the identification and provision of addiction services to those individuals in need of such services. The findings from this study will support these efforts by allowing enhanced planning and targeting of the resources that will be required to assure successful outcomes.

As with all empirical research, there are several limitations to this study which need to be acknowledged. Most important of these is the problem of measurement error when interviewing persons regarding sensitive and/or illegal behaviors. Substance use, in particular, is known to be underreported by many survey respondents (11, 12). Telephone interviews, which were primarily employed in this study, are also thought to produce lower estimates of substance use behavior than are face-to-face and self-administered modes of data collection (13, 14). Consequently, the prevalence and treatment needs estimates presented in this report are most likely conservative projections.

An additional limitation is the relatively low response rate for the study (23.4%, see Technical Appendix). This low rate is due primarily to the fact that many of the Medicaid recipients initially sampled from the Department of Public Aid's case files could not be located. Among those who were eventually contacted, however, most (75.0%) were willing to be interviewed. Also, it should be recognized that the large number of statistical comparisons presented in this study makes it likely that the analysis has capitalized on chance associations. That is, some of the differences reported as being "statistically significant" may in fact be a consequence of sampling errors rather than true group differences.

These limitations notwithstanding, this study of adult Medicaid recipients was conducted with considerable rigor. It is one of the few available surveys of substance use among Medicaid recipients that is based on a strict random sampling plan. Standardized measurement and data collection procedures were utilized, and all survey data were collected by professional survey interviewers. Strict quality control measures were implemented throughout the data collection process.

This study provides an important overview of a population that is highly vulnerable and the focus of ongoing federal policy reforms.

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VI. Technical Appendix

Study Design

The questionnaire for this study was designed by the National Technical Center for Substance Abuse Needs Assessment of the Harvard Medical School, and the data were collected by the Survey Research Laboratory (SRL) at the University of Illinois from January 1998 to June 1999.

A representative statewide sample was provided by the Illinois Department of Public Aid. This sample was stratified by six geographic regions representative of the state. All 6,832 cases had addresses, and approximately 4,900 cases had telephone numbers. Consulting with Directory Assistance for cases with no telephone numbers increased the number of cases to approximately 5,350. A mixed-mode method was used to maximize the number of respondents that could be located. Advance letters asking recipients to call SRL at a toll-free number were sent to all sampled individuals. Telephone interviews were conducted statewide. In Cook County, these were supplemented by face-to-face interviews at respondents' homes.

A $5 incentive for completing a telephone interview and a $20 for completing a face-to-face interview were offered. For the phone interviews, incentives were sent to the respondents' home. Depending upon the respondents' primary language, interviews were conducted either in English or Spanish.

Of the total sample of 6,832, 5,896 cases were eligible. Among those cases, 1,382 completed the survey either by phone (1,263) or by person-to-person interview (119), resulting in a response rate of 23.5 percent. This low rate was mainly due to the many **cases that could not be located** (3,668). Cases could not be located primarily because the sample list was drawn from Medicaid records, which become outdated very quickly due to the mobility of the population. Of those who were finally contacted (1,851 cases), 75 percent completed the interviews. Only 8 percent of the total eligible cases refused to participate in either screening or interview. These high cooperation rate and low refusal rate suggest that the sample is representative of the Medicaid population who could be located. The final dispositions of **all** sampled cases are presented in **Table A-1**.

Table A-1
Response, Cooperation, and Refusal Rates of Medicaid Sample

	N	%
Total Sample	**6,832**	**100.0**
Unable to Locate	3,668	53.7
Refusal to Screener	7	0.1
Refusal to Interview	469	6.8
Eligible/Not Available	426	6.2
Ineligible/Unable to Contact	880	12.9
Interview Completed	1,382	20.2
Eligible Cases (Estimated)	5,896	100.0
Final Eligible	2,277	38.6
Interview Attempted	**1,851**	**100.0**
Interview Completed	**1,382**	**75.0**
Response Rate		**23.4**
Cooperation Rate		**75.0**
Refusal Rate		**8.0**

Using standard procedures recommended by the American Association for Public Opinion Research (AAPOR) (17), response, cooperation, and refusal rates were calculated as follows:

- **Response rate:** proportion of the estimated eligible respondents who completed the interview (1,382/5,896*100=23.4%).
- **Cooperation rate:** proportion of the respondents who were finally contacted by interviewer and completed the interview (1,382/1,851*100=75.0%).

- **Refusal rate[3]:** proportion of the total eligible sample that refused screening or interview.
  (475/5,896*100=8.0%).

Final sample weights were computed to adjust for differential probability of selection across the regional strata using Department of Public Aid counts of the numbers and geographic distribution of adults currently receiving Medicaid benefits in Illinois. All analyses presented in this report are based on weighted data. Missing data for a small number of variables were imputed using a multiple imputation procedure (18, 19).

Finally, high standards of ethical conduct were observed throughout all phases of this study. All survey respondents were asked to provide informed consent to participate. In addition, the research protocol was reviewed and approved by the University of Illinois at Chicago Institutional Review Board (IRB# H-99-1182).

[3] The total number of refusals is equal to the number of refusals to the screener (7) multiplied by the eligibility rate (.863) of the sample plus the number of refusals to the interview (469).