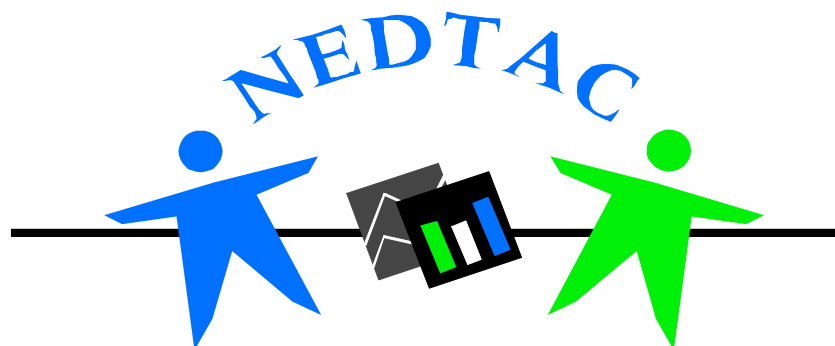


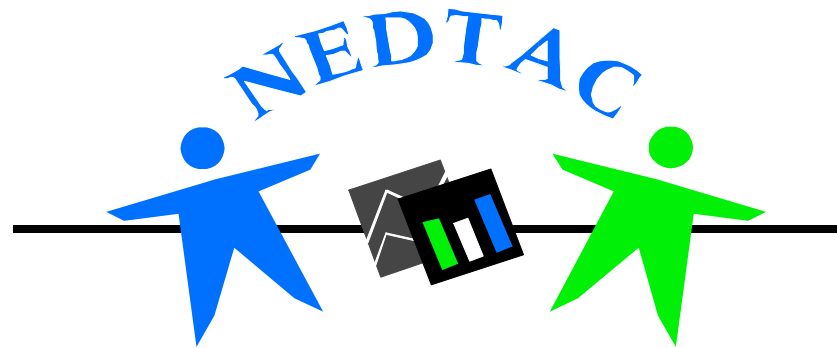
**NATIONAL EVALUATION DATA AND
TECHNICAL ASSISTANCE CENTER**



**DUALLY DIAGNOSED HOMELESS
MULTI-PROJECT ANALYSIS (MPA)**

December 1998

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CSAT
Center for Substance
Abuse Treatment
SAMHSA

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FOREWORD

Individuals with substance abuse problems in conjunction with mental illness (defined as dually diagnosed) present a major challenge to the public treatment system in terms of costs, integration of treatment, and efficacy of treatment. In addition, homelessness appears to be more pervasive among this group. To assess the effectiveness of creating dual diagnosis treatment centers for this population, the Center for Substance Abuse Treatment (CSAT) and the Center for Mental Health Services (CMHS) jointly sponsored a program of treatment centers for the dually diagnosed who are homeless or at-risk for homelessness. Evaluation was conducted at the local level (i.e., each center was evaluated independently of the others). In the absence of a prospective program-level design, a retrospective Multi-Project Analysis (MPA) approach was used to examine the data across treatment centers. Data from six participating projects were pooled and analyzed.

This report is one in a series of three reports prepared by Caliber Associates under CSAT's National Evaluation Data and Technical Assistance Center (NEDTAC) contract. The first report, *Dually Diagnosed Homeless Multi-Project Analysis (MPA): Project Summaries*, contains brief summaries of the local evaluations of the six projects. The third report, *Dually Diagnosed Homeless Multi-Project Analysis: Profile of Veterans in Program*, focuses on veterans who received treatment in the projects.

This report contains the results of the analyses of data pooled across projects and also across their respective demonstration vs. comparison groupings. It presents a profile of the intake characteristics of the dually diagnosed homeless persons in treatment and an overall picture of program benefits for clients remaining 6 months in treatment. It also examines the differences between male and female clients and their responses to treatment.

Sharon Bishop
Project Director
National Data and Technical Assistance Center

ACKNOWLEDGMENTS

This report was developed for CSAT by the National Evaluation Data and Technical Assistance Center (NEDTAC) under the guidance and direction of Ron Smith, Ph.D., Program Evaluation Branch, Office of Evaluation, Scientific Analysis, and Synthesis (OESAS). NEDTAC also wishes to acknowledge the invaluable contributions of the CSAT/CMHS demonstration project directors and local evaluators for providing guidance, explanatory information, and local project and evaluation data. The data gathering and analysis process for this report was greatly assisted by The CDM Group, Inc., particularly Bob O'Brian, Ph.D. and Julie Johnson.

In addition, many people within Caliber contributed to this effort. These staff include Kenneth Burgdorf, Ph.D., Mareena McKinley Wright, Ph.D., Penny Dorsey, Nora Kersten, Lucy Dickson, Walter Bottiny, Kristen Noble, Stephanie Sheldon, Cynthia Gimbel, Ph.D., Wes Wright, and Donna Caudill. Contributions range from data analysis to report development, report editing, and report reproduction and all of these efforts were equally invaluable and greatly appreciated.

I. INTRODUCTION

I. INTRODUCTION

Background and Overview of the Report

This report summarizes results of the Collaborative Demonstration Project for Homeless Individuals, a demonstration grant program funded jointly by CMHS and CSAT. Under this program, six projects received grants for the development and evaluation of treatment centers designed to address the needs of the dually diagnosed homeless—homeless persons with both serious mental illnesses and substance abuse disorders.

In addition to developing and implementing their demonstration treatment projects, grantees in this program were funded to conduct systematic evaluations of their projects aimed at documenting treatment effectiveness. Each evaluation was required to collect client data both at intake and at later follow-up points, both for clients in the demonstration project and for a comparison group of clients who received alternative forms of treatment.

Each project was responsible for designing and conducting its own evaluation. The process resulted in many between-project differences in instruments, schedules, and designs, which limit the extent to which information can usefully be combined across projects. The projects also had many features in common, however—enough to permit a meaningful pooled analysis.

This report is one in a series of three secondary analysis products developed from the Collaborative Demonstration Project for Homeless Individuals by CSAT's National Evaluation Data and Technical Assistance Center (NEDTAC). Other reports in this series address the following topics:

- A comparison of findings for veteran vs. non-veteran clients
- Brief summaries of the six individual demonstration projects and their evaluation designs and findings.

The current report pools and analyzes data from the six local projects, combining information across sites and across (demonstration vs. comparison) treatment conditions within sites, to answer four questions:

1. What are the characteristics of dually diagnosed homeless clients who enter treatment?
2. How successful are treatment programs in retaining such clients in treatment for at least six months?
3. What changes (short-term outcomes) are seen over the first six months of treatment among clients who remain in treatment?
4. How do female clients from this population compare to male clients, at intake and in their later responses to treatment?

Overview of the Demonstration Projects and their Evaluation Data

The treatment approaches used by the six demonstration projects are summarized below.

- The Bonita House, Berkeley, CA: Integrated residential psychological and substance abuse treatment beginning with a two-week intensive engagement period. Clinicians provide simultaneous treatment for both disorders for up to nine months before placing clients elsewhere in Bonita House or another residential treatment program.
- Greater Bridgeport Community Mental Health Center (CMHC), Bridgeport, CT: Assertive Community Treatment including three years of intensive case management, outpatient services and outreach combined with integrated alcohol abuse, substance abuse, and mental health treatment.
- Arapahoe House, Denver, CO: Dyadic case management with flexible treatment length. Twenty-eight day intensive residential treatment program and intensive case management, then continuation of dyadic case management from 6 months to a year on average.
- Institute for Community Living, New York, NY: Modified one year therapeutic community (TC) program in a community residence setting (stages 1 through 3) and TC-supported housing (Stage Four). The stratified structured program based on self-help groups, community meetings and psycho-educational seminars.

- Mental Health Services West, Portland, OR: Structured full-day treatment program in which mental health and substance abuse disorders are treated simultaneously. Services include alcohol and drug assessment, case management, treatment groups, relapse prevention, acupuncture, drug screens, client monitoring and follow-up in other agency services.
- Vietnam Veterans of San Diego, San Diego, CA: Residential rehabilitation program (6-12 months in length) designed to reintegrate clients into the San Diego community. Serves homeless dually diagnosed veteran men and women from all military eras, combining a social model approach (creating a veteran peer support community) with case management services, counseling, and supportive services.

Preliminary analyses also examined differences between the overall group of demonstration project clients and the overall group of comparison group clients. Essentially no differences were found, either at intake or at the 6 month follow-up. For example, a comparison group at some projects were the same as a treatment group at other projects. This analysis focuses on the pooled group of clients who received treatment of any kind. The grantees' project evaluation designs are summarized in the following table. Additional details about the six projects, their evaluation designs, and their findings are presented in a separate project summaries report.

GRANTEE EVALUATION DESIGNS

| GRANTEE | TREATMENT GROUP CHARACTERISTICS | COMPARISON GROUP CHARACTERISTICS | EVALUATION DESIGN | DATA COLLECTION SCHEDULE |
|---|---|---|--|--|
| Bonita House, Berkeley, CA | 26 clients discharged to Bonita House from inpatient facility | 76 clients discharged from inpatient facility to other residential settings including board and care homes, other residential settings, family homes, or respondent's own home | Quasi-experimental design | Intake, 2 weeks, 3 months, and 6 months post-discharge |
| Greater Bridgeport Community Mental Health Center, Bridgeport, CT | 50 dually diagnosed agency clients receiving assertive community treatment (ACT) case management services | 38 dually diagnosed agency clients receiving standard case management services from the agency | Random assignment to ACT team or to standard case management program within the agency | Intake, then every 6 months for 3 years |
| Arapahoe House, Denver, CO | 82 dually diagnosed clients receiving dyadic case management services | 81 dually diagnosed clients receiving standard case management from a community mental health agency | Quasi-experimental non-random assignment comparison | Intake and 6 months |
| Institute for Community Living, New York, NY | 278 clients in modified therapeutic community (TC) residential treatment moving into modified TC-oriented supported housing | 66 clients assigned to the treatment-as-usual (TAU) group. This covers a variety of treatment and non-treatment options including other residential programs for mentally ill chemical abusers (MICAs); other supported housing program with or without day treatment; discharge to family member with or without follow-up; intensive case management or little follow-up; or continued treatment at the referral site | TC residential programs move into parallel supported housing | |
| Mental Health Services West, Portland, OR | 127 clients in the Dual Diagnosis program | 114 clients receiving services in the agency, but not in the Dual Diagnosis program | Quasi-experimental | Intake, 3, 6, 9, and 12 months |
| Vietnam Veterans of San Diego, San Diego, CA | 152 male and female dually diagnosed veterans | 152 veterans treated in other residential facilities | Quasi-experimental | Intake, 2, 6, 12, and 15 months |

Data Considerations

The pooled database includes intake data from all six demonstration projects. NEDTAC received client intake data for a total of 1,014 cases, including both demonstration and comparison groups. Cases that lacked an indicator for demonstration vs. comparison group were removed, reducing the usable number of intake cases to 941.

Most projects collected follow-up client data at multiple points. Since all six projects planned to conduct follow-up client interviews at 6 months following intake, this interval was selected for use in the pooled analysis. Data from two of the projects did not contain sufficient information to identify 6-month follow-up interviews, and a third project did not collect follow-up data for its comparison group clients. The final pooled database includes 6-month follow-up data for a total of 378 cases. Four projects are represented in these data.

Most of the projects did not collect follow-up data for treatment drop-outs, which significantly limits the scope of the analysis.

Although the six projects collected intake and follow-up information on generally similar topics, they did not always use the same measures. This pooled-data analysis is limited to measures that were collected by multiple projects using response categories that were the same or that could be recoded into a common set of categories. The resulting Ns vary considerably from measure to measure, depending on which combination of projects is represented. If there were no missing items, the pooled database Ns would be 941 cases for intake measures and 378 for 6-month follow-up measures. As a guide to interpretation, the actual Ns are shown routinely in the presentation of findings.

II. CLIENT CHARACTERISTICS AT INTAKE

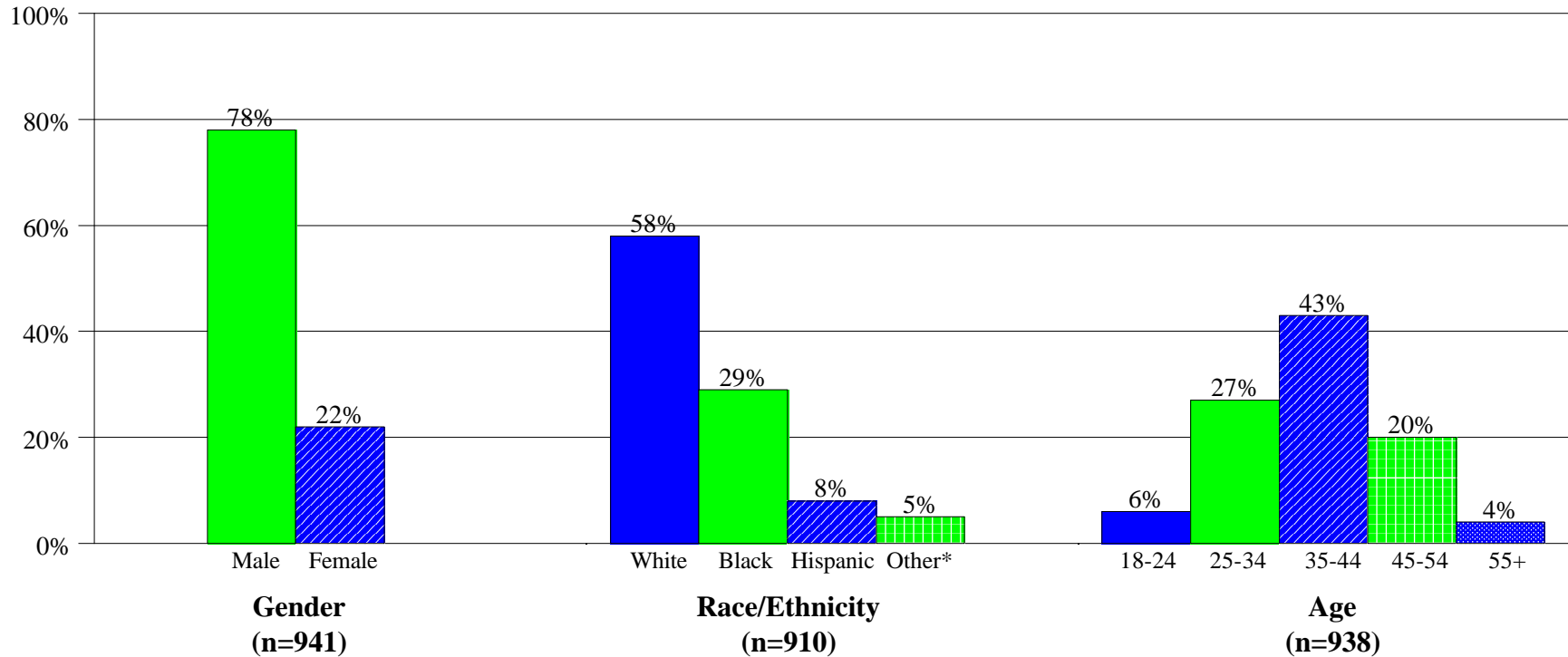
II. CLIENT CHARACTERISTICS AT INTAKE

This section summarizes the characteristics at intake of the 941 dually diagnosed homeless clients in the pooled database. This overall group of clients entered treatment in one of the six demonstration project cities, either in the CMHS-CSAT funded demonstration treatment project or in an alternative treatment program.

Information about client characteristics is presented with respect to the following topics:

- Demographic and related measures
- Income sources
- Homelessness history
- Satisfaction with current life and living situation
- Criminal justice system history
- Psychiatric treatment history and symptoms
- Substance use and history.

DEMOGRAPHICS

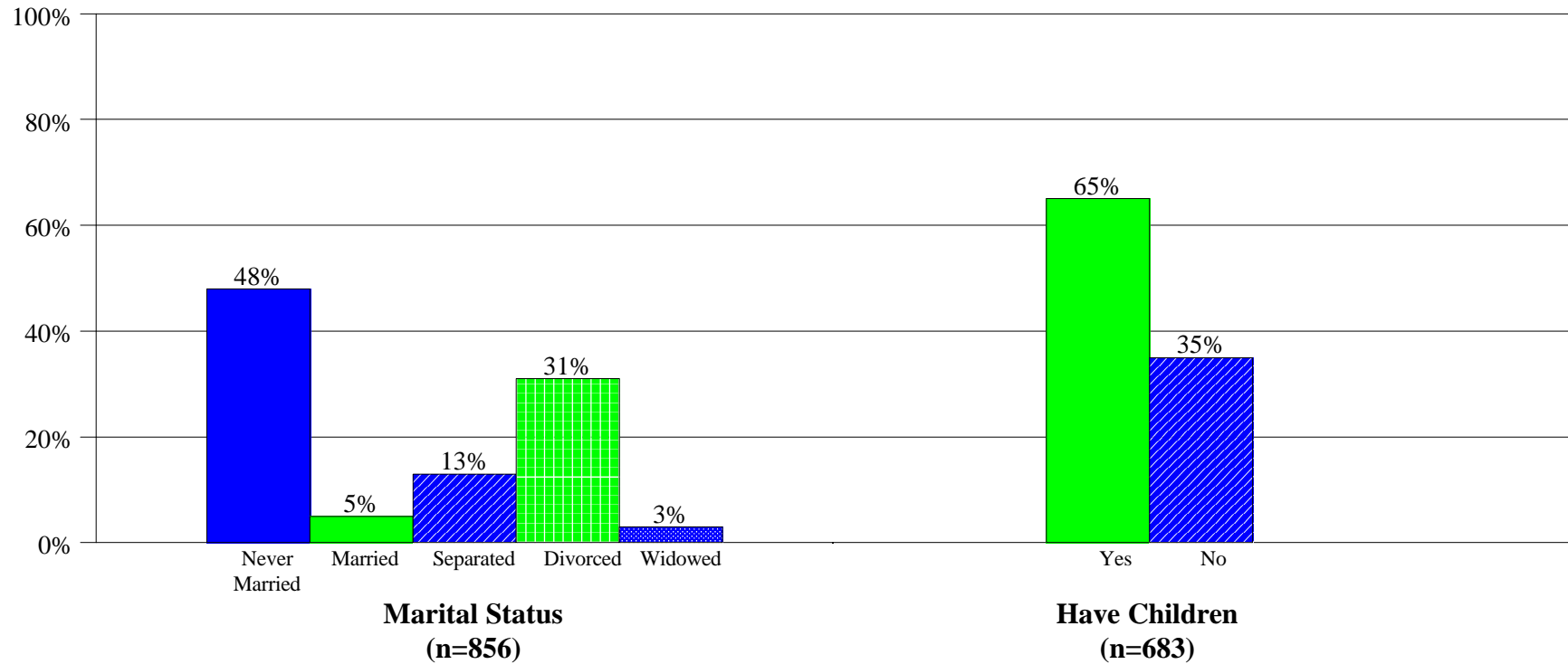


- The dually diagnosed homeless clients were predominately male (78%).
- Whites represented the largest racial/ethnic group (58%), followed by blacks (29%), and Hispanics (8%). Other ethnicities represent the remaining 5 percent of the clients.
- More clients were between the ages of 35 and 44 years of age (43%).

* Other includes individuals identified as American Native/Alaskan Native, Asian/Pacific Islander, and other.

Note: N's vary due to the exclusion of missing and unknown data.

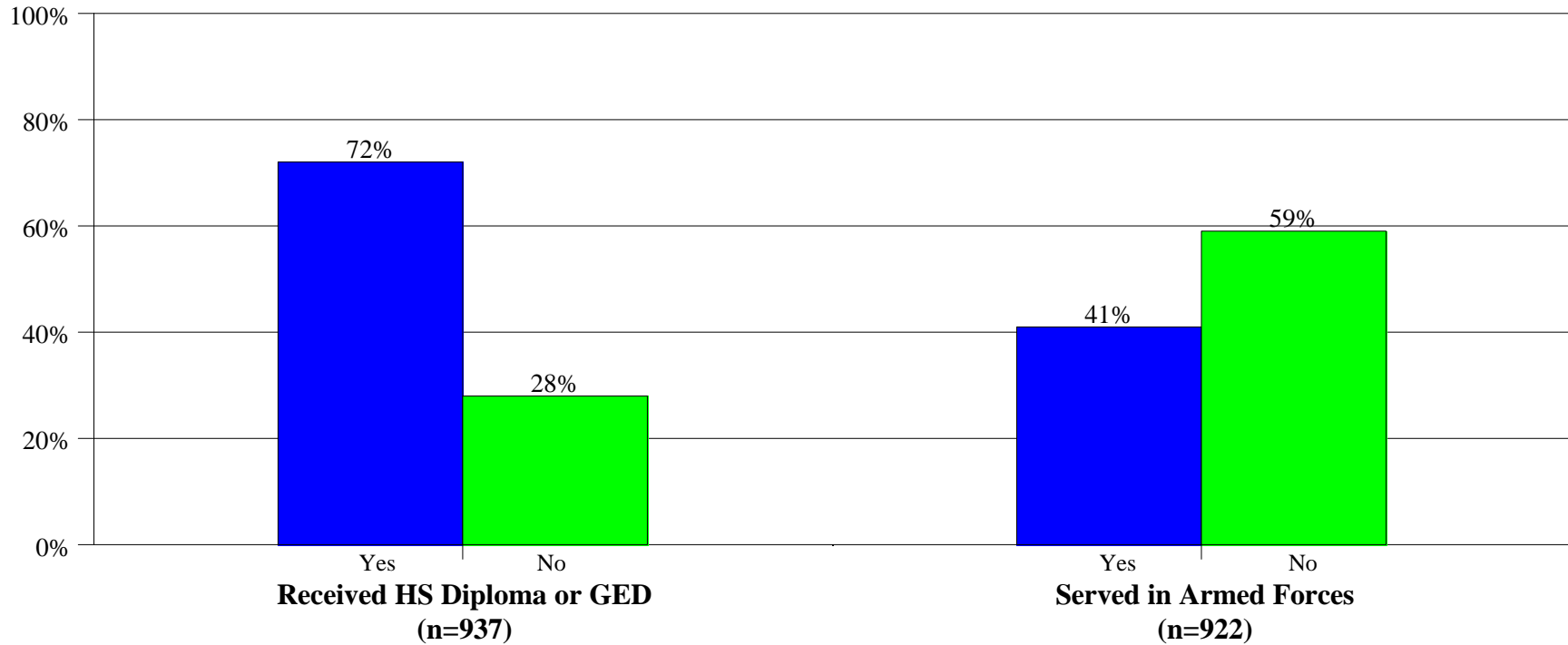
FAMILY STATUS



- Nearly one-half of the clients had never married (48%). Three out of ten clients (31%) were divorced, and 13 percent of the clients were separated.
- Two-thirds of the clients (65%) reported being a parent.

Note: N's vary due to the exclusion of missing and unknown data.

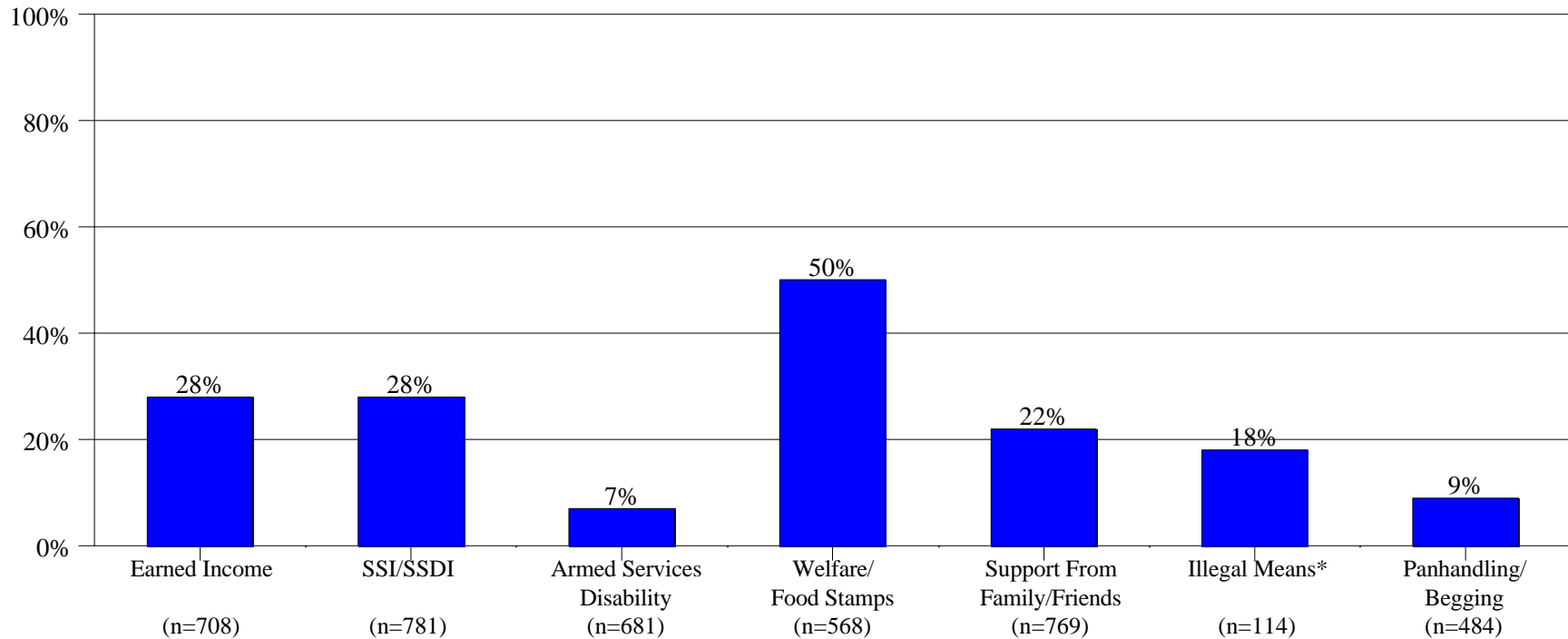
EDUCATION/VETERAN STATUS



- Nearly three-fourths of the clients (72%) had received their high school diploma or equivalent (GED).
- Four out of ten clients (41%) had served in the armed forces.

Note: N's vary due to the exclusion of missing and unknown data.

SOURCES OF INCOME IN PAST MONTH



Percentage of Clients Reporting Receiving Income From Each Source

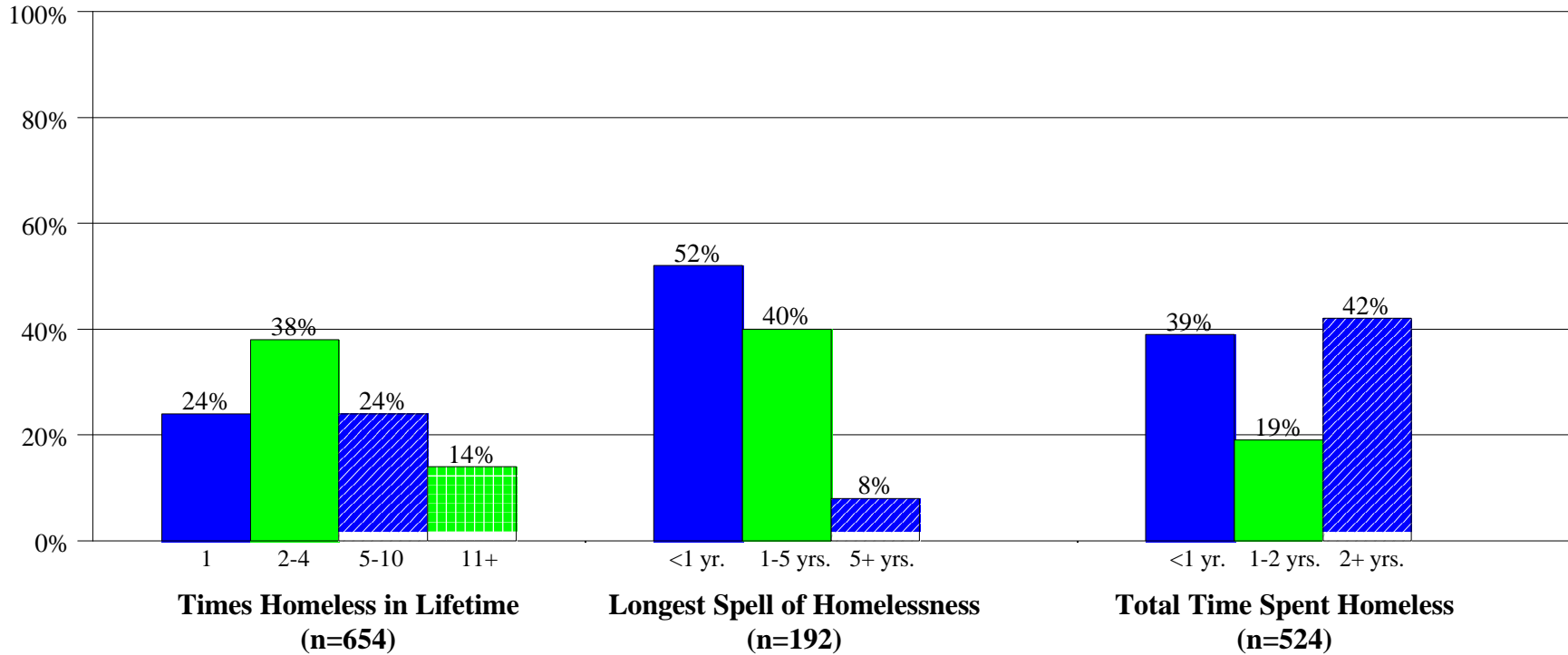
- One-half of the clients (50%) reported receiving welfare/food stamps.
- Just over one-quarter of the clients receive earned income (28%).

* "Illegal Means" include selling drugs, prostitution, and gambling.

Note: A client may report multiple sources of income, therefore, the percentages do not sum to 100 percent.

Note: N's vary due to the exclusion of missing and unknown data.

HOMELESS ISSUES

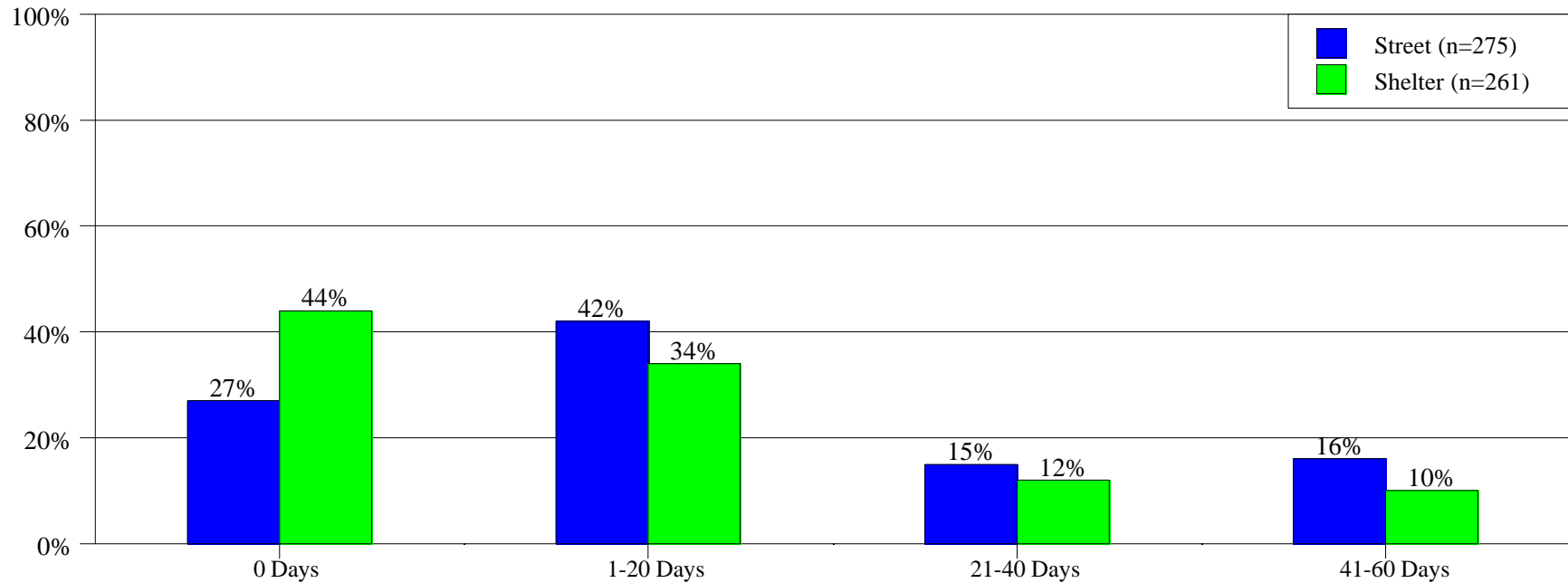


- Nearly two of five clients (38%) had been homeless two to four times in their lives.
- Over one-half (52%) of the clients spent less than a year as their longest spell of homelessness.
- Counting all of the times that a client had ever spent homeless, over two-fifths (42%) had spent more than two years homeless.

Note: All n's are based on those clients who indicated that they had been homeless (n=743).

Note: N's vary due to the exclusion of missing and unknown data.

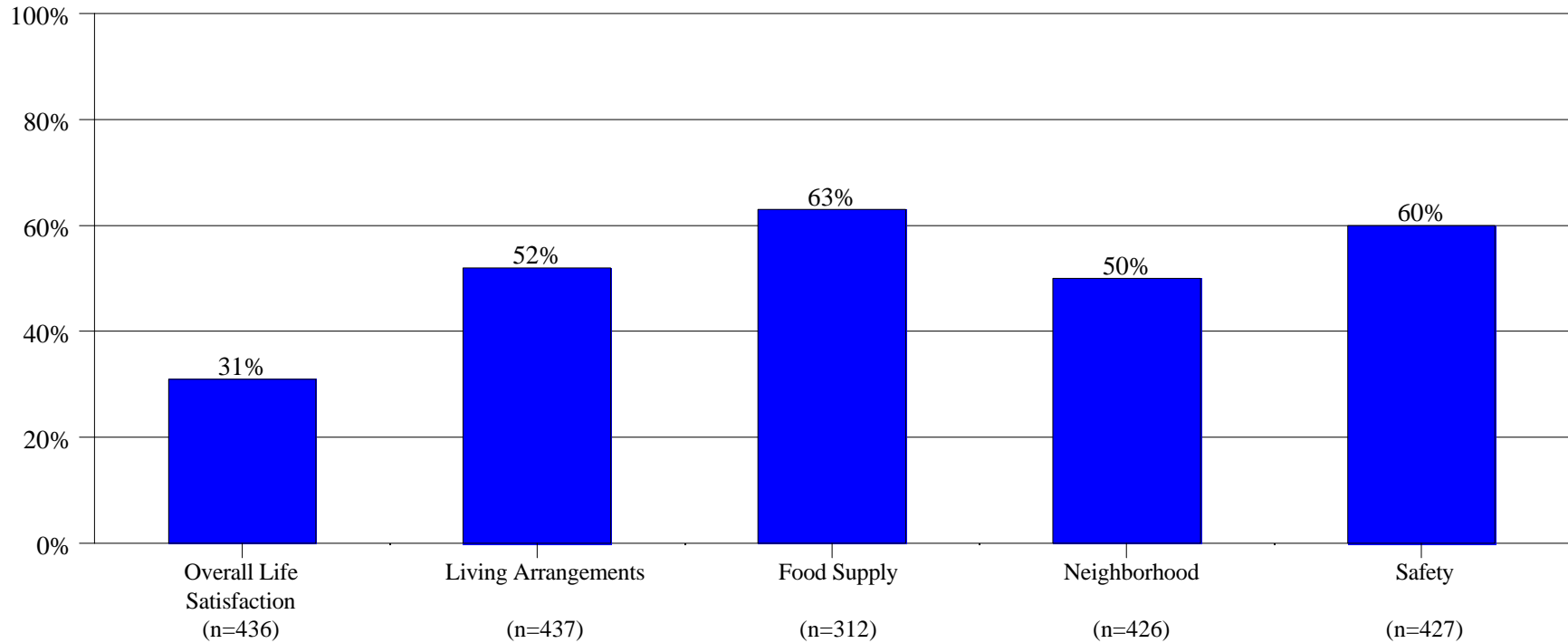
DAYS SPENT ON THE STREET OR IN SHELTERS IN THE PAST 2 MONTHS



- In the 2 months before entering treatment, 73 percent of the clients spent some time living on the streets; 56 percent spent some time living in shelters.
- Relatively few clients spent the entire 2-month period in these settings, however.

Note: N's vary due to the exclusion of missing and unknown data.

SUBJECTIVE LIFE SATISFACTION

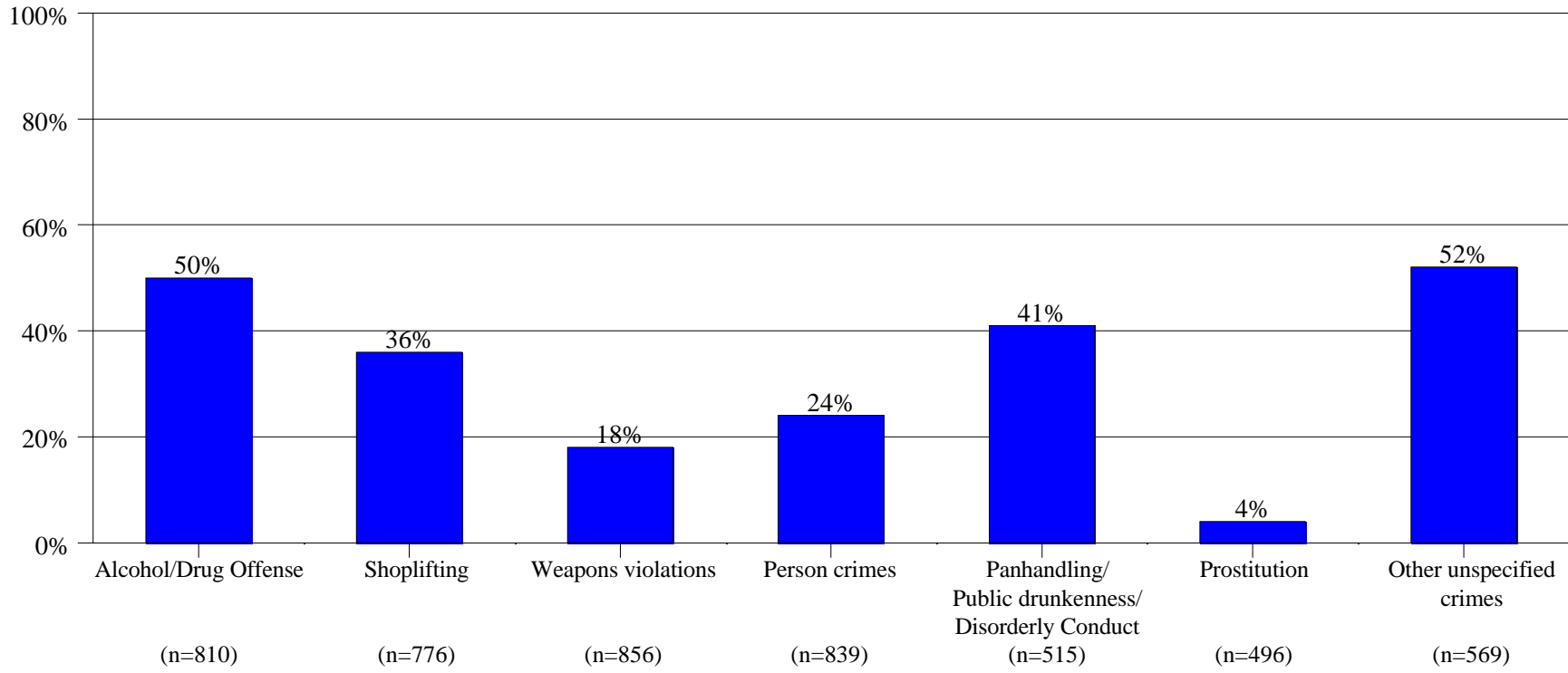


Percentage of Clients Satisfied with Living Situation

- Clients reported being most satisfied with their current food supply (63%) and safety (60%).
- The overall client satisfaction was much lower; only 31 percent of clients reported overall satisfaction with their lives.

Note: N's vary due to the exclusion of missing and unknown data.

ARRESTS/CHARGES



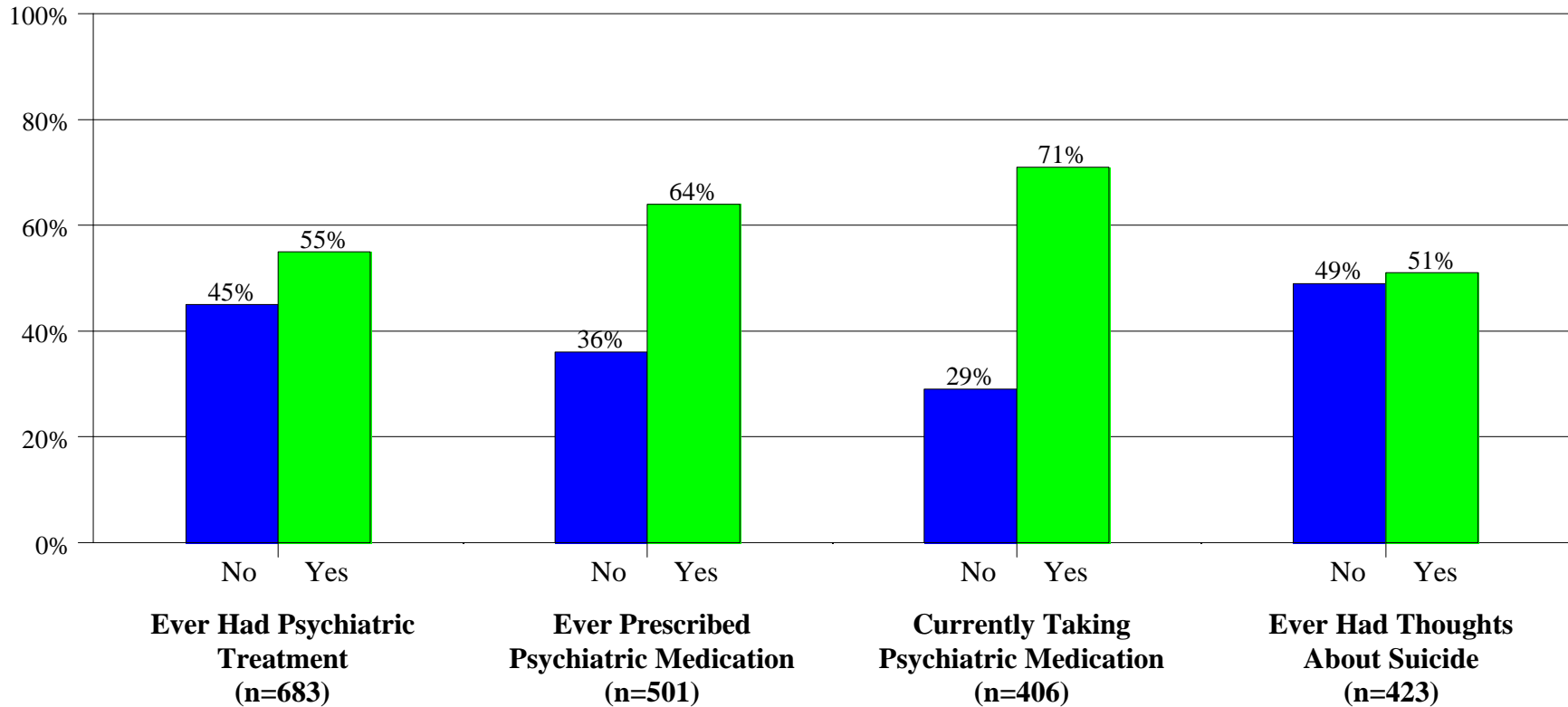
Percentage of Clients Ever Arrested/Charged with Offenses

- One-half of the clients (50%) had been charged with an alcohol/drug offense in their lifetime.
- Over two-fifths of the clients (41%) had been charged with panhandling, public drunkenness, and/or disorderly conduct.
- Over half of the clients (52%) also reported being arrested/charged with an other unspecified crime.

Note: A client may have reported multiple charges; therefore, the percentages do not sum to 100 percent.

Note: N's vary due to the exclusion of missing and unknown data.

PSYCHIATRIC TREATMENT HISTORY



- More than half (55%) of the clients reported that they had received previous psychiatric treatment.
- Nearly two-thirds (64%) of the clients indicated that they had been prescribed psychiatric medication in their lifetime.
- Nearly three-fourths (71%) of the clients reported that they were currently taking psychiatric medication at the time of their intake interview.
- Half of the clients (49%) reported having had suicidal thoughts in the past.

Note: N's vary due to the exclusion of missing and unknown data. It appears that local studies that asked the most probing questions about psychiatric treatment histories had clients with the most widespread problems in this area.

PSYCHIATRIC SYMPTOMS AT INTAKE

| DIMENSION | DESCRIPTION OF DIMENSION ¹ | VALID N | MEAN BSI SCORE |
|---------------------------|--|---------|---------------------|
| Somatization | Reflects distress arising from perceptions of bodily dysfunction | 592 | 1.04 ⁺ |
| Obsessive-Compulsive | Reflects symptoms that are identified with the standard clinical syndrome of the same name | 590 | 1.48 ⁺⁺ |
| Interpersonal Sensitivity | Centers on feelings of personal inadequacy and inferiority, particularly comparison with others | 491 | 1.45 ⁺⁺ |
| Depression | Reflect a representative range of the indications of clinical depression | 592 | 1.64 ⁺⁺ |
| Anxiety | Comprised of a set of symptoms and signs that are associated clinically with high levels of manifest anxiety | 591 | 1.50 ⁺⁺ |
| Hostility | Indicates thoughts, feelings, or actions that are characteristics of the negative affect stage of anger | 591 | .96 ⁺ |
| Phobic Anxiety | Defined as a persistent fear response to a specific person, place, object, or situation which is characterized as being irrational and disproportionate to the stimulus, and which leads to avoidance or escape behavior | 530 | 1.12 ⁺⁺⁺ |
| Paranoid Ideation | Represents paranoid behavior fundamentally as a disordered mode of thinking | 591 | 1.37 ⁺⁺⁺ |
| Psychoticism | Developed in a fashion representative of the construct as a continuous dimension of human experience | 590 | 1.32 ⁺⁺⁺ |

⁺ High score >1 standard deviation above norm (mean) for non-patient adults.

⁺⁺ Very high score >2 standard deviations above norm (mean) for non-patient adults.

⁺⁺⁺ Very high score >2 standard deviations above non-patient norm, and also > norm for psychiatric inpatients.

¹ Definitions obtained from the BSI Administration, Scoring and Procedures Manual II by Leonard R. Derogatis, Ph.D.

Note: N's vary due to the exclusion of missing and unknown data.

PSYCHIATRIC SYMPTOMS AT INTAKE (CONTINUED)

- The Brief Symptom Inventory (BSI) is a widely used measure of current, point-in-time, psychological symptoms status. At treatment intake, dually diagnosed homeless clients, as a group, had average scores on all 9 BSI dimensions that were at least one standard deviation above the norm (mean) for non-patient adults.
- The client group had especially high average scores on three scales, phobic anxiety, paranoid ideation, and psychoticism, where their average scores were more than two standard deviations above the general population norm and also above the averages for psychiatric inpatients.

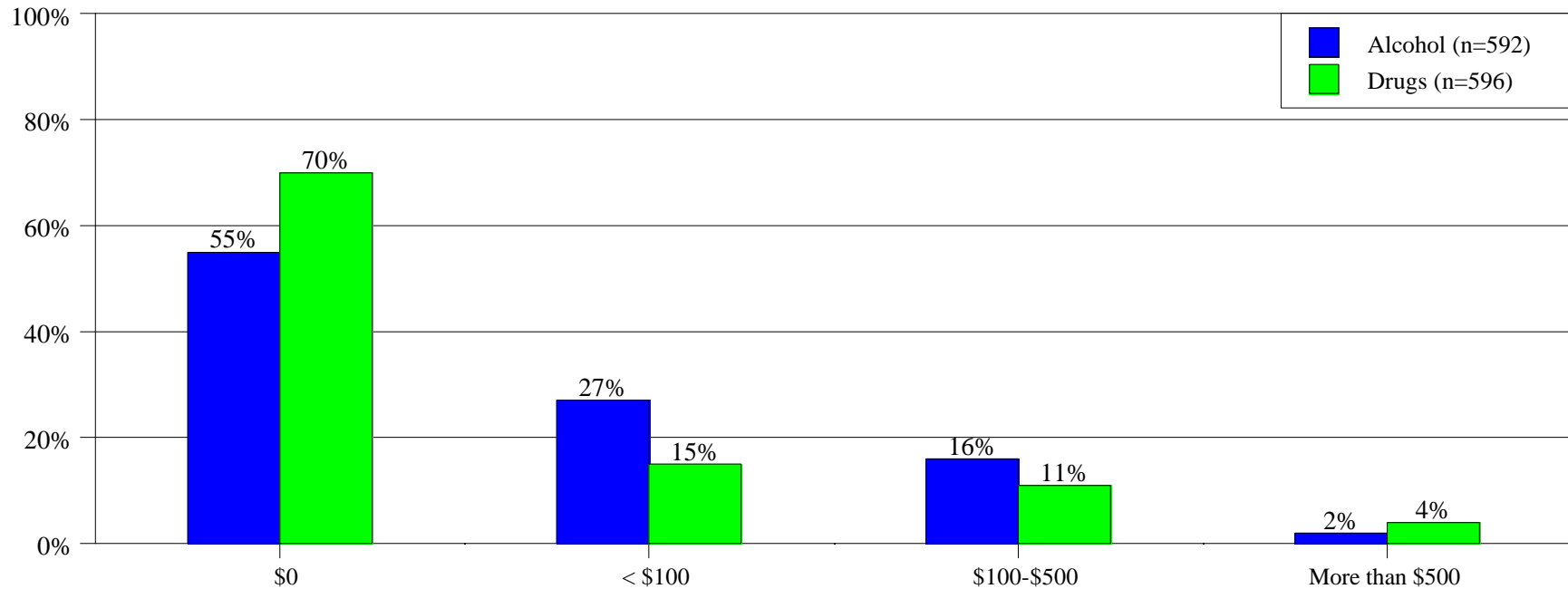
SUBSTANCE USE AT INTAKE

| SUBSTANCE | EVER USED | | USED IN LAST 30 DAYS | |
|--|-----------|-----|----------------------|-----|
| | % | N | % | N |
| Alcohol | 92% | 601 | 69% | 605 |
| Heroin | 45% | 389 | 15% | 300 |
| Methadone | 68% | 298 | 5% | 275 |
| Other opiates | 62% | 423 | 4% | 362 |
| Barbiturates | 63% | 425 | 8% | 357 |
| Other sedatives; hypnotics | 75% | 391 | 22% | 290 |
| Cocaine/crack | 78% | 522 | 47% | 367 |
| Amphetamines | 79% | 451 | 22% | 298 |
| Cannabis/marijuana | 86% | 558 | 41% | 497 |
| Hallucinogens | 46% | 467 | 3% | 376 |
| Inhalants | 21% | 385 | 3% | 347 |
| Multiple substance (during 24 hour period) | 82% | 553 | 62% | 553 |

- Nine of ten clients (92%) had used alcohol in their lifetime; and nearly nine of ten clients (86%) had used marijuana in their lifetime.
- Eight of ten clients (82%) had used more than one substance in a day.
- Nearly three-quarters of the clients (69%) had used alcohol in the thirty days prior to intake.
- In the 30 days prior to intake, nearly two-thirds (62%) of the clients had used more than one substance in a day.

Note: N's vary due to the exclusion of missing and unknown data.

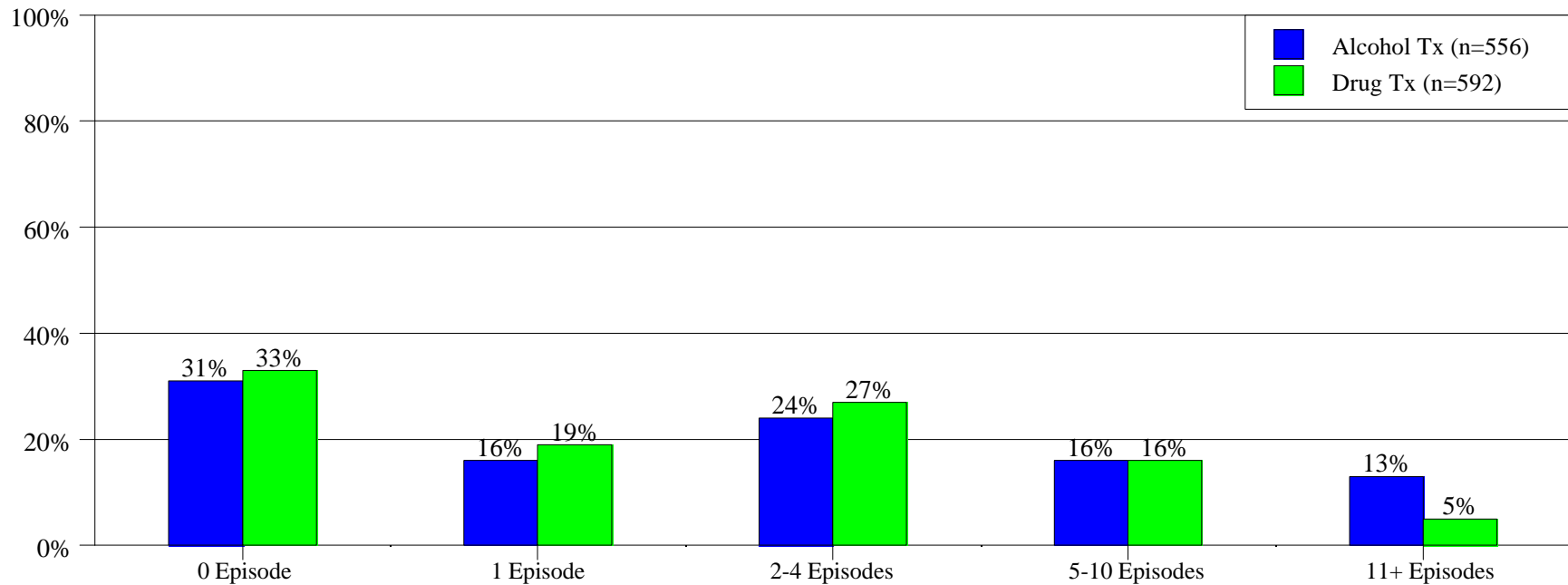
AMOUNT SPENT ON ALCOHOL/DRUGS IN THE 30 DAYS PRIOR TO INTAKE



- For both alcohol and drugs, the largest percentage of clients report spending no money for substances during the 30 days prior to treatment intake.
- As the dollar amount increased, the percentage of clients reporting spending a particular amount for both alcohol and drugs decreased.

Note: N's vary due to the exclusion of missing and unknown data.

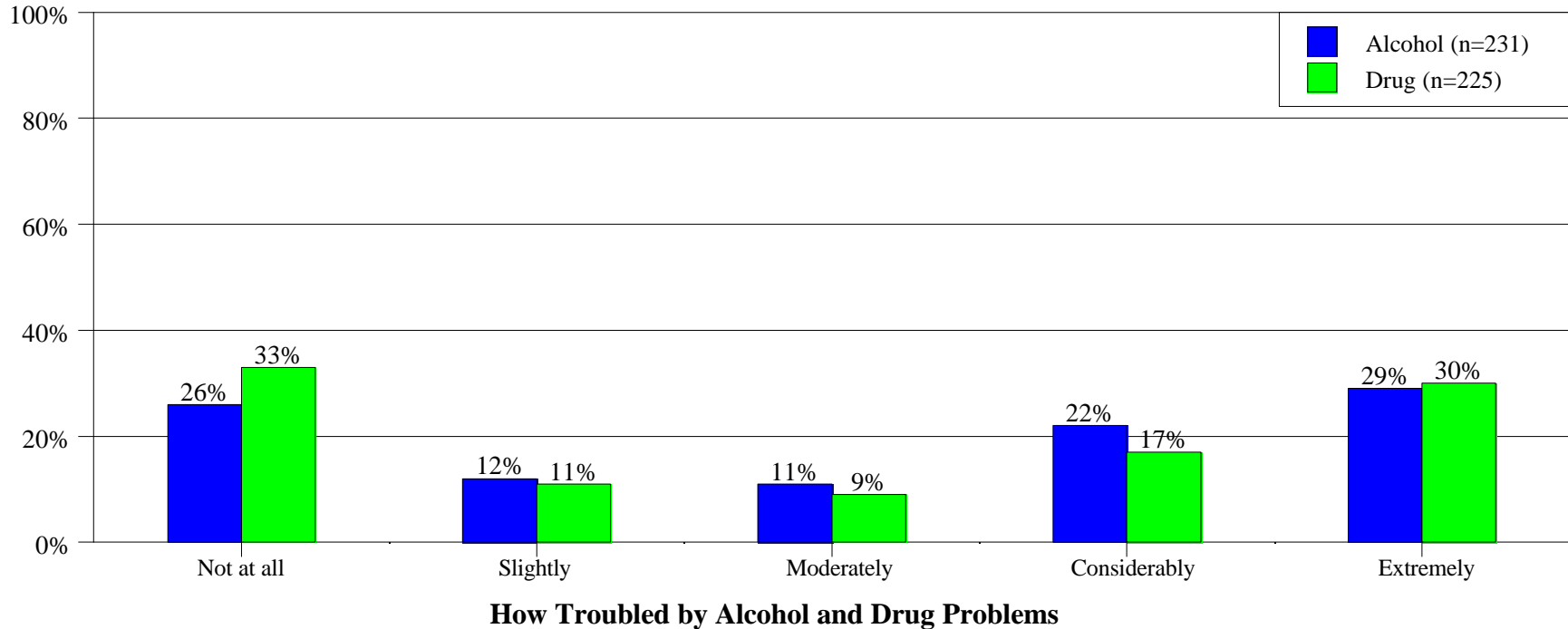
PREVIOUS SUBSTANCE ABUSE TREATMENT EPISODES



- For both males and females, approximately 3 of 10 clients reported never having had a prior substance abuse treatment episode (31% for males and 33% for females).
- A larger percentage of males than females had five or more previous substance abuse treatment episodes (29% for males and 21% for females).

Note: N's vary due to the exclusion of missing and unknown data.

EMOTIONAL IMPACT OF SUBSTANCE USE



- Overall, clients seemed to be equally concerned about their alcohol and drug problems.
- More clients reported being moderately, considerably, or extremely concerned about their alcohol problems than about their drug problems (62% versus 56%).

Note: N's vary due to the exclusion of missing and unknown data.

III. RETENTION

III. RETENTION

Retention is always a major challenge and is often a major problem for substance abuse treatment programs. By conventional standards in this field, 6 months is a very long time for clients to remain in treatment. For example, in CSAT's recently-completed National Treatment Improvement Evaluation Study (NTIES), only 11 percent of the clients who entered long term residential treatment programs remained in treatment for 6 months or more. Similarly, in a recent examination of residential programs for homeless persons with substance abuse problems, Orwin, et. al. (1995)* found 3-12 month retention rates ranging from 10 percent to 33 percent.

Insofar as dually diagnosed homeless persons tend to be more suspicious and unstable than other substance abusing groups, it might not be surprising to find even lower 6-month retention rates for this treatment population. As shown in the following table, however, treatment retention rates for this population were consistently very high, both for the six demonstration projects and for their respective alternative-treatment comparisons. The overall 6-month retention rate was 70 percent, with remarkably little project-to-project or city-to-city variation.

* Orwin, R., Garrison-Morgan, R., Jacobs, M., & Sunnefeld, L. (1995). Cross-site synthesis of retention analysis from the NIAAA cooperative agreement program for homeless persons with alcohol and other drug problems. Presented at: American Psychological Association Annual Conference.

SIX-MONTH CLIENT RETENTION DATA, BY PROJECT*

| PROJECT | TOTAL | | | PROJECT TREATMENT | | | COMPARISON TREATMENT | | |
|-----------------|--------|-----------|------------|-------------------|-----------|------------|----------------------|-----------|------------|
| | INTAKE | 6 MO. F/U | RETEN-TION | INTAKE | 6 MO. F/U | RETEN-TION | INTAKE | 6 MO. F/U | RETEN-TION |
| | N | N | % | N | N | % | N | N | % |
| 1. Berkeley | 102 | 65 | 64% | 26 | 18 | 69% | 76 | 47 | 62% |
| 2. Bridgeport* | 101 | 69 | 68% | 50 | 40 | 80% | 51 | 29 | 57% |
| 3. Denver | 163 | 124 | 76% | 82 | 61 | 74% | 81 | 63 | 78% |
| 4. New York | 344 | 257 | 75% | 278 | 206 | 74% | 66 | 51 | 77% |
| 5. Portland** | 241 | 185 | 77% | 127 | 101 | 80% | 114 | 84 | 74% |
| 6. San Diego*** | 152 | 76 | 50% | 152 | 76 | 50% | (106) | 0 | -- |
| Total | 1,103 | 776 | 70% | 715 | 502 | 70% | 388 | 274 | 71% |

- The six demonstration projects had an average 6-month client retention rate of 70 percent, with little project-to-project variation.
- The comparison programs also had consistently high retention rates, at the same level as seen for the CMHS-CSAT support demonstration projects.

* Counts for Project 2 were derived from pooled database. All other figures are taken from local evaluation reports.

** Follow-up counts are from a 12-month follow-up effort. The 6-month retention figures would likely be higher.

*** Since the project did not collect follow-up data for the comparison group, total retention rates are calculated based only on the project treatment group.

Note: N's vary due to the exclusion of missing and unknown data.

IV. OUTCOMES

IV. OUTCOMES

This section examines client changes over the first 6 months of treatment. The data are limited to measures that were obtained in comparable format both at intake and at the 6-month follow-up, at multiple sites. For any given measure, findings are further limited to clients who remained in treatment for at least 6 months and for whom both intake and follow-up data are available.

Findings are presented regarding changes in:

- Living arrangements
- Satisfaction with current life and living situation
- Income sources
- Psychiatric symptoms
- Self-ratings of physical and mental health
- Substance use and use-related problems.

**CHANGE IN LIVING ARRANGEMENTS IN PAST TWO MONTHS:
INTAKE VS. SIX-MONTH FOLLOW-UP**

| INDEX | N | INTAKE | 6 MO. F/U | INDEX | N | INTAKE | 6 MO. F/U |
|--------------------------|-----|--------|-----------|------------|-----|--------|-----------|
| | | % | % | | | % | % |
| Total N | 378 | | | | | | |
| In residential/community | 237 | | | In shelter | 126 | | |
| 0 days | | 10% | 11% | 0 days | | 73% | 80% |
| 1-30 days | | 46% | 13% | 1-30 days | | 21% | 14% |
| 31-59 days | | 33% | 21% | 31-59 days | | 6% | 4% |
| 60 days | | 12% | 56% | 60 days | | 0% | 2% |
| In institution | 142 | | | On street | 126 | | |
| 0 days | | 24% | 45% | 0 days | | 49% | 80% |
| 1-30 days | | 54% | 32% | 1-30 days | | 40% | 16% |
| 31-59 days | | 13% | 13% | 31-59 days | | 11% | 2% |
| 60 days | | 9% | 11% | 60 days | | 0% | 2% |

- As would be expected, clients who remained in treatment for 6 months showed marked reductions in the percent spending time living on the streets or in shelters, comparing the 2 months before treatment to the 2 months before follow-up.
- Perhaps more importantly, over half (56%) of clients who remained in treatment for 6 months had transitioned from institutional settings into living full-time for at least 2 months in “residential/community” settings such as halfway houses, relative’s homes, own apartments, etc.

Note: N’s vary due to the exclusion of missing and unknown data.

CHANGE IN PERCENT OF CLIENTS WITH POSITIVE FEELINGS* ABOUT THEIR LIFE AND LIVING ARRANGEMENTS: INTAKE VS. SIX-MONTH FOLLOW-UP

| INDEX | STAYERS | | |
|-----------------------------|---------|-----|-----|
| | INTAKE | | F/U |
| | N | % | % |
| Total N | 378 | | |
| General life satisfaction | 163 | 26% | 64% |
| Current living arrangements | 239 | 52% | 73% |
| Current food supply | 205 | 65% | 84% |
| Current neighborhood | 227 | 55% | 74% |
| Current safety | 227 | 60% | 81% |

- Within 6 months after entering treatment, the percentage of clients assessing their “general life satisfaction” on the positive side of the ledger nearly trebled, from 26 percent at intake to 64 percent at the 6-month follow-up.
- The percentages of clients expressing positive feelings about their living situations also increased appreciably, in all categories.

* Positive feelings = assessment of mostly satisfied, pleased, or delighted.

Note: N's vary due to the exclusion of missing and unknown data.

INCOME SOURCES IN PAST MONTH: INTAKE VS. SIX-MONTH FOLLOW-UP

| INCOME SOURCE | N | INTAKE | 6 MO. F/U |
|---------------------------------------|-----|--------|-----------|
| | | % | % |
| Total N | 378 | | |
| Earned income | 307 | 39% | 42% |
| SSI/SSDI | 268 | 37% | 39% |
| Armed Services Disability | 238 | 10% | 3% |
| Other welfare, Food Stamps | 319 | 46% | 49% |
| Vocational training program | 238 | 1% | 4% |
| Unemployment compensation | 403 | 4% | 3% |
| Retirement, investment, savings, etc. | 237 | 3% | 3% |
| Alimony or child support | 100 | 1% | 0% |
| Family, friends, mate, spouse support | 264 | 36% | 36% |
| Panhandling, begging | 207 | 14% | 5% |
| Other | 208 | 44% | 51% |

Except for declines in the percentages of clients reporting income from panhandling/begging and from Armed Forces Disability, clients' income sources were essentially the same in the month before the 6-month follow-up interview as they were in the month before entering treatment.

Note: N's vary due to the exclusion of missing and unknown data.

CHANGE IN PSYCHIATRIC SYMPTOMS*: INTAKE VS. SIX-MONTH FOLLOW-UP

| BSI DIMENSION | N | INTAKE MEAN | 6 MO. F/U MEAN | DIRECTION OF CHANGE | | |
|---------------------------|-----|---------------------|---------------------|---------------------|--------------|----------|
| | | | | IMPROVED | NO CHANGE | DECLINED |
| | | | | % | % | % |
| Total N | 378 | | | | | |
| Somatization | 258 | 1.20 ⁺⁺⁺ | 0.95 ⁺ | 53% | 20% | 27% |
| Obsessive-Compulsive | 257 | 1.58 ⁺⁺ | 1.23 ⁺ | 53% | 21% | 26% |
| Interpersonal Sensitivity | 196 | 1.60 ⁺⁺⁺ | 1.17 ⁺ | 58% | 11% | 31% |
| Depression | 259 | 1.82 ⁺⁺ | 1.33 ⁺⁺ | 55% | 17% | 28% |
| Anxiety | 258 | 1.66 ⁺⁺ | 1.21 ⁺ | 57% | 17% | 26% |
| Hostility | 257 | 1.07 ⁺⁺ | 0.80 | 53% | 22% | 25% |
| Phobic Anxiety | 117 | 1.39 ⁺⁺⁺ | 1.10 ⁺⁺⁺ | 55% | 15% | 30% |
| Paranoid Ideation | 255 | 1.49 ⁺⁺⁺ | 1.09 ⁺ | 59% | 15% | 26% |
| Psychoticism | 258 | 1.46 ⁺⁺⁺ | 1.11 ⁺⁺ | 52% | 20% | 28% |

* From the Brief Symptom Inventory (BSI), 1992 edition.

⁺ High score >1 standard deviation above norm (mean) for non-patient adults.

⁺⁺ Very high score >2 standard deviations above norm (mean) for non-patient adults.

⁺⁺⁺ Very high score >2 standard deviations above non-patient norm, and also > norm for psychiatric inpatients.

Note: N's vary due to the exclusion of missing and unknown data.

CHANGE IN PSYCHIATRIC SYMPTOMS*: INTAKE VS. SIX-MONTH FOLLOW-UP (CONTINUED)

- On all 9 scales of the Brief Symptom Inventory (BSI), clients evidenced very high levels of psychiatric symptomatology (over 2 standard deviations above the average for non-patient adults) at treatment intake; on 6 of the scales, the average scores for these clients were above the norm for psychiatric inpatients.
- On all 9 scales, clients showed marked reductions in symptoms 6 months after entering treatment, as compared to their average scores at treatment entry. On 6 of the scales, the means at follow-up fell to less than 2 standard deviations above the general population norm and were well below the norm for psychiatric inpatients.
- Consistently across scales, over half of the clients showed improvement (reduced symptoms) from intake to follow-up, around 20 percent showed no change, and 25-30 percent showed some decline (increased symptoms).

**CHANGE IN PHYSICAL AND MENTAL HEALTH RATINGS:
INTAKE VS. SIX-MONTH FOLLOW-UP**

| RATING | N | INTAKE | 6 MO. F/U |
|--|-----|--------|-----------|
| | | % | % |
| Total N | 378 | | |
| Rating of general health: Good - Excellent | 223 | 81% | 83% |
| Health problems limit vigorous activities: Yes, a little or a lot | 306 | 64% | 54% |
| Health problems limit moderate activities: Yes, a little or a lot | 306 | 35% | 29% |
| During past month, had problems with work or daily activities because of emotional problems: Yes | 311 | 83% | 75% |

- Most clients reported that they were in good physical health at treatment entry, and this percentage increased slightly by the time of the 6-month follow-up (from 81% to 83%).
- Most clients reported at intake that emotional problems were impairing their work or daily activities, and this percentage declined slightly by the time of the 6-month follow-up (from 83% to 75%).

Note: N's vary due to the exclusion of missing and unknown data.

**CHANGE IN SUBSTANCE USE, PAST 30 DAYS:
INTAKE VS. SIX-MONTH FOLLOW-UP**

| SUBSTANCE | N | INTAKE | 6 MO. F/U |
|---|-----|--------|-----------|
| | | % | % |
| Total N | 378 | | |
| Alcohol | 341 | 54% | 48% |
| Alcohol - to intoxication | 324 | 43% | 36% |
| Heroin | 196 | 6% | 4% |
| Other opiates/analgesics | 269 | 2% | <1% |
| Barbiturates | 271 | 6% | 1% |
| Other sedatives, hypnotics, tranquilizers | 93 | 20% | 11% |
| Cocaine/crack | 95 | 33% | 27% |
| Amphetamines | 185 | 12% | <1% |
| Marijuana | 317 | 26% | 19% |
| Hallucinogen | 291 | 2% | <1% |
| Inhalants | 265 | 2% | 1% |
| More than one a day | 261 | 35% | 22% |

- Among clients who remained in treatment for 6 months (and for whom data are available), only modest use percentage reductions (of 11% to 18%) were seen for the two most widely abused substances in this population: alcohol and cocaine/crack.
- Larger percentage reductions were seen for most other drugs (e.g., barbiturates, amphetamines) and for polydrug use.

Note: N's vary due to the exclusion of missing and unknown data.

**CHANGE IN SUBSTANCE USE, PAST 30 DAYS:
INTAKE VS. SIX-MONTH FOLLOW-UP (CONTINUED)**

| SUBSTANCE | N | INTAKE | 6 MO. F/U |
|--------------------------|-----|--------|-----------|
| | | % | % |
| Total N | 378 | | |
| Primary substance abused | 324 | | |
| None | | 13% | 25% |
| Alcohol | | 40% | 38% |
| Crack/cocaine | | 23% | 16% |
| Marijuana | | 6% | 5% |
| Other | | 18% | 16% |

- From intake to the 6-month follow-up, the percentage of clients reporting no substance abuse in the previous 30 days increased from 13 percent to 25 percent.
- The substance category showing the greatest decline in percent of clients reporting it as their primary substance of abuse was crack/cocaine.
- Alcohol, the primary substance of abuse for 40 percent of the clients at treatment intake, was still the primary substance of abuse for 38 percent at the 6-month follow-up.

Note: N's vary due to the exclusion of missing and unknown data.

**CHANGE IN SUBSTANCE SPENDING AND PROBLEMS:
INTAKE VS. SIX-MONTH FOLLOW-UP**

| INDEX | N | INTAKE | 6 MO. F/U |
|--|-----|--------|-----------|
| | | % | % |
| Total N | 378 | | |
| Amount spent on alcohol, past 30 days | 237 | | |
| \$0 | | 49% | 55% |
| \$1-\$50 | | 24% | 29% |
| \$51-\$150 | | 10% | 6% |
| \$151+ | | 16% | 10% |
| Amount spent on drugs, past 30 days | 240 | | |
| \$0 | | 72% | 73% |
| \$1-\$50 | | 14% | 18% |
| \$51-\$150 | | 4% | 3% |
| \$151+ | | 10% | 5% |
| How troubled by alcohol problems, past 30 days | 240 | | |
| Not at all | | 43% | 52% |
| Slightly-Moderately | | 19% | 26% |
| Considerably-Severely | | 38% | 22% |

- Among clients who remained in treatment for 6 months, modest reductions were seen in the percentages reporting spending over \$50/month for alcohol (from 26% to 16%) or for drugs (from 14% to 8%).
- A larger decline was seen in the percentage of clients reporting being seriously (“considerably” or “severely”) troubled by problems with alcohol (from 38% to 22%).

Note: N’s vary due to the exclusion of missing and unknown data.

**CHANGE IN SUBSTANCE SPENDING AND PROBLEMS:
INTAKE VS. SIX-MONTH FOLLOW-UP (CONTINUED)**

| INDEX | N | INTAKE | 6 MO. F/U |
|--|-----|--------|-----------|
| | | % | % |
| How troubled by drug problems, past 30 days | 217 | | |
| Not at all | | 51% | 58% |
| Slightly-Moderately | | 18% | 28% |
| Considerably-Severely | | 31% | 14% |
| Importance of treatment for alcohol problems | 240 | | |
| Not at all | | 32% | 43% |
| Slightly-Moderately | | 19% | 22% |
| Considerably-Severely | | 49% | 35% |
| Importance of treatment for drug problems | 218 | | |
| Not at all | | 43% | 51% |
| Slightly-Moderately | | 15% | 17% |
| Considerably-Severely | | 42% | 31% |

- The percentage of clients troubled considerably or severely about problems with drugs declined (from 31% to 14%) from intake to the 6-month follow-up, a change of about the same magnitude as noted above for alcohol.
- After 6 months of treatment, clients' perceived needs for alcohol and drug treatment abated somewhat.

Note: N's vary due to the exclusion of missing and unknown data.

**CHANGE IN SUBSTANCE SPENDING AND PROBLEMS:
INTAKE VS. SIX-MONTH FOLLOW-UP (CONTINUED)**

| INDEX | N | INTAKE | 6 MO. F/U |
|--|-----|--------|-----------|
| | | % | % |
| Days in past 30 days with alcohol problems | 255 | | |
| 0 | | 56% | 60% |
| 1-15 | | 17% | 24% |
| 16-29 | | 3% | 2% |
| 30 | | 24% | 14% |
| Days in past 30 days with drug problems | 255 | | |
| 0 | | 61% | 69% |
| 1-15 | | 18% | 22% |
| 16-29 | | 4% | 1% |
| 30 | | 17% | 9% |

The percentage of clients reporting daily problems with alcohol and with drugs declined by 8-10 percent from intake to the 6-month follow-up.

Note: N's vary due to the exclusion of missing and unknown data.

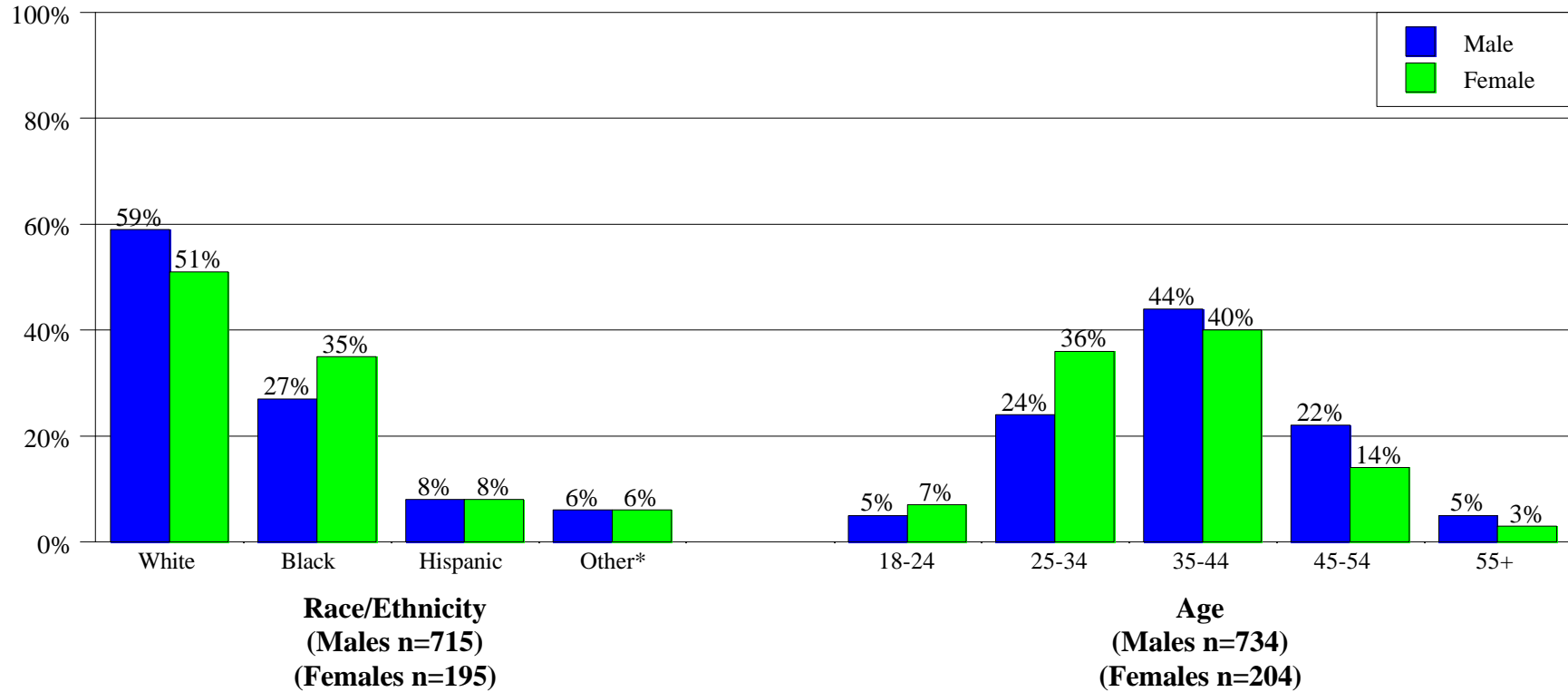
V. GENDER DIFFERENCES

V. GENDER DIFFERENCES

This section examines differences between male and female dually diagnosed homeless clients on intake and outcome measures. Sample sizes are problematic for many of these comparisons. Of the base sample of 941 clients, 78 percent (N=734) are male. Only 207 of the clients are female, and for many variables, the N is considerably smaller.

Gender differences on 6-month outcome/change measures are especially problematic because of the small numbers of females represented in the database. These Ns are consistently below 100, and often are in the 20-30 range. Because of concerns about the reliability and representativeness of these data, we do not offer any interpretations or draw any conclusions about treatment outcomes for women. On the other hand, given the paucity of available information about outcomes for this sub-population (dually diagnosed homeless women in treatment), the study findings in this area are of interest, even with the above limitations. Accordingly, after presenting and highlighting gender comparisons on intake variables, we present without comment several additional sets of data for gender differences on outcome measures.

DEMOGRAPHICS: COMPARISON OF MALES AND FEMALES

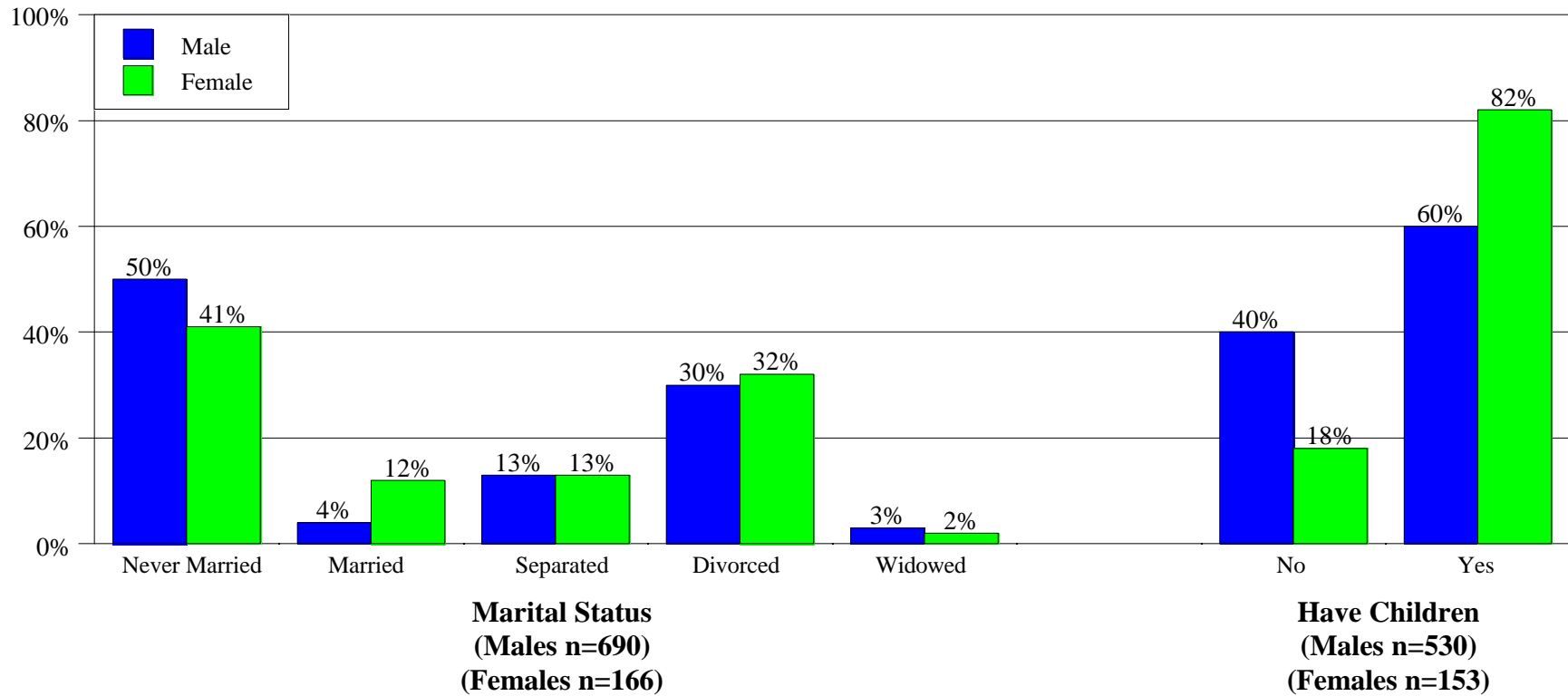


- Both males and females were more likely to be white.
- The largest percentage of both males and females were between the ages of 35-44 (44% and 40%, respectively).

* "Other" includes American Native/Alaskan Native, Asian/Pacific Islanders, and those clients identified as other.

Note: N's vary due to the exclusion of missing and unknown data.

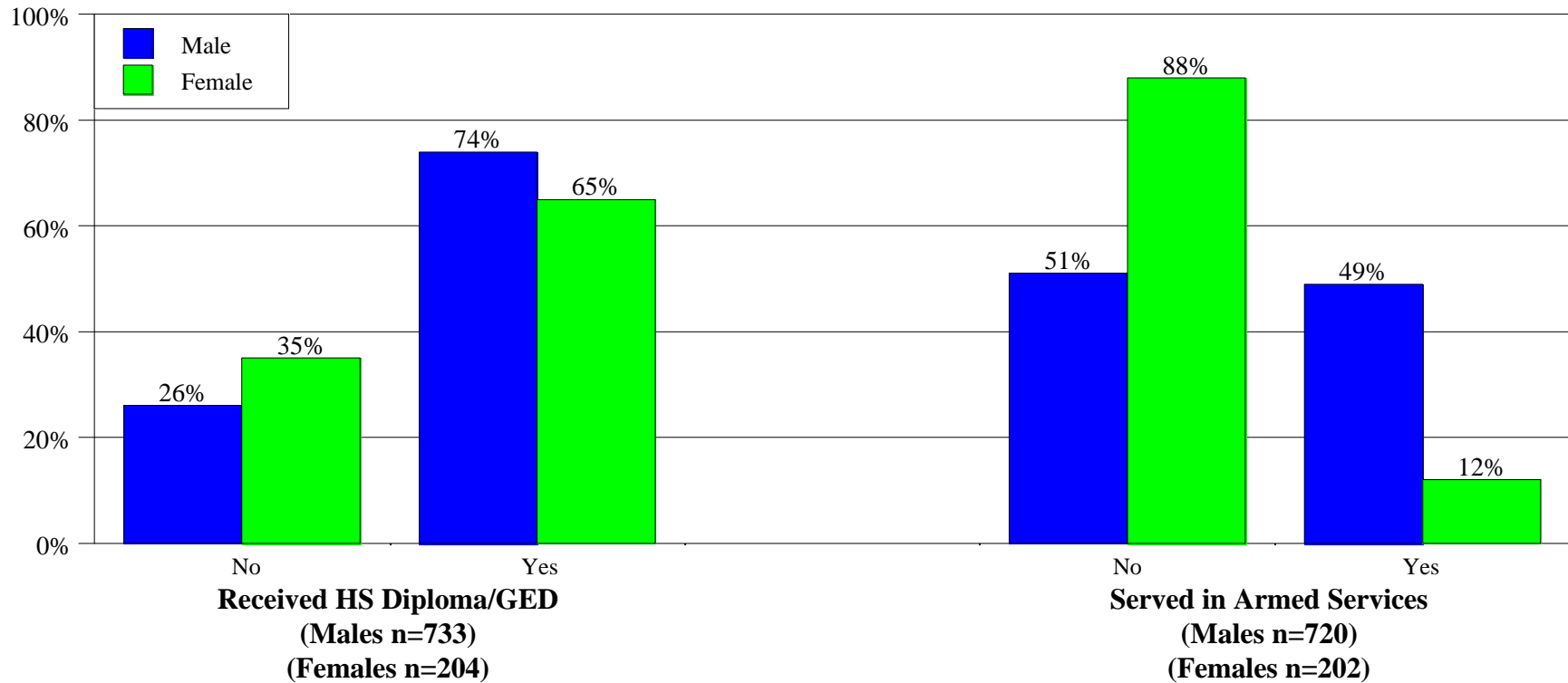
FAMILY STATUS: COMPARISON OF MALES AND FEMALES



- Both males and females were more likely to have never married (50% and 41%, respectively).
- Females were more likely to report having children (82% for females versus 60% for males).

Note: N's vary due to the exclusion of missing and unknown data.

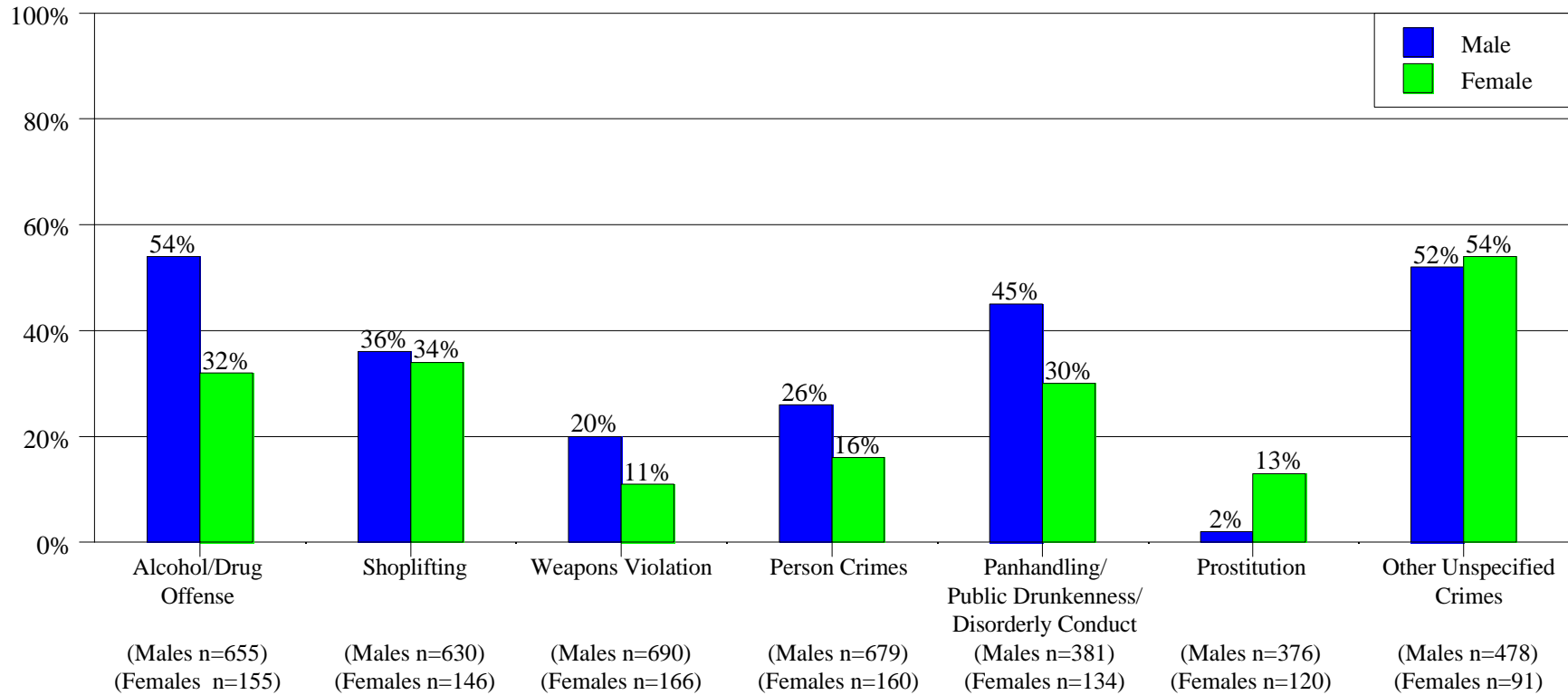
EDUCATION/VETERAN STATUS: COMPARISON OF MALES AND FEMALES



- Males were more likely to have received their high school diploma or GED (74% for males versus 65% for females).
- Males were more likely to have served in the armed services (49% for males versus 12% for females).

Note: N's vary due to the exclusion of missing and unknown data.

ARRESTS/CHARGES: COMPARISON OF MALES AND FEMALES

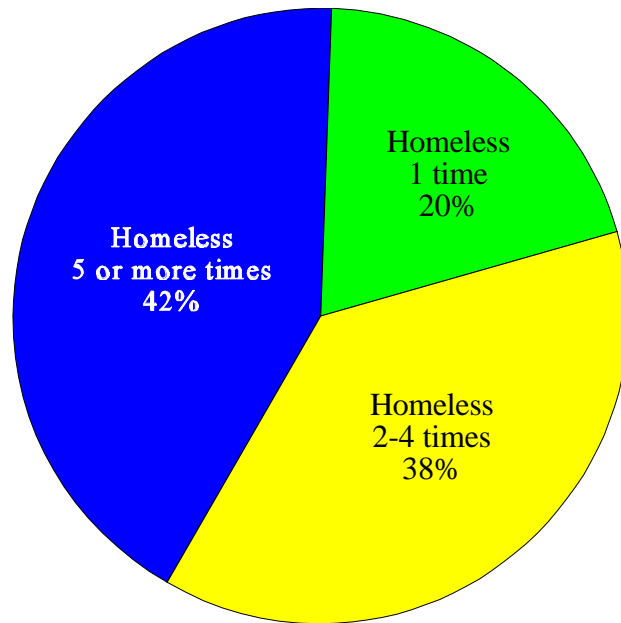


Percentage of Clients Ever Arrested/Charged with Offenses

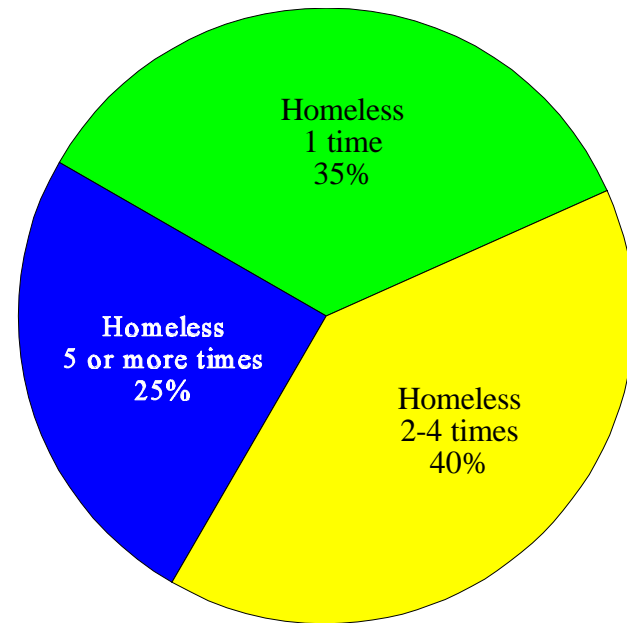
- Excluding prostitution of the specified crimes, females were less likely to have been arrested/charged than males.
- The highest percentage of males reported being arrested/charged for alcohol/drug offenses (54%), while the highest number of females reported being arrested/charged for unspecified crimes (54%).

Note: N's vary due to the exclusion of missing and unknown data.

LIFETIME HOMELESS EPISODES: COMPARISON OF MALES AND FEMALES



Males
(n=505)

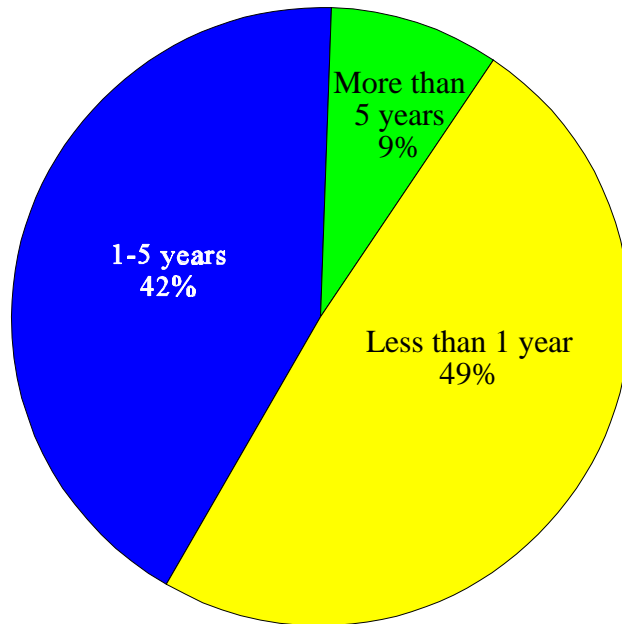


Females
(n=149)

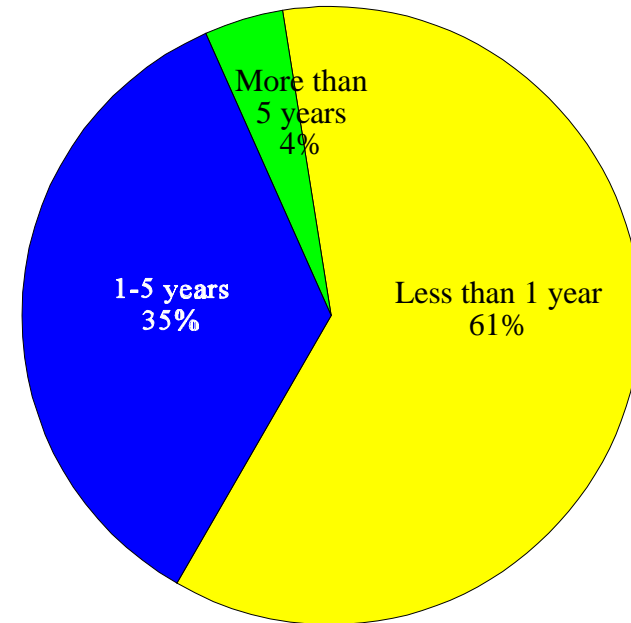
- A higher percentage of males were homeless 5 or more times.
- Females had experienced fewer homeless episodes.

Note: N's vary due to the exclusion of missing and unknown data.

LONGEST HOMELESS SPELL: COMPARISON OF MALES AND FEMALES



Males
(n=138)

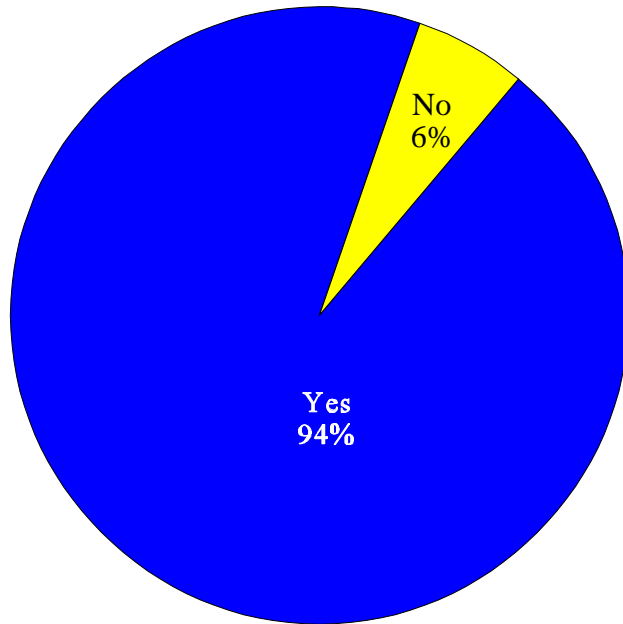


Females
(n=54)

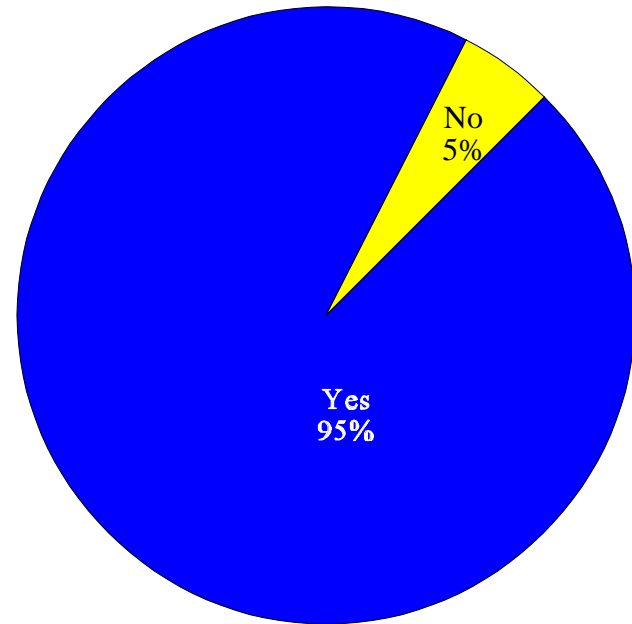
- Both males and females reported their longest spell of homelessness as less than one year (49% for males and 61% for females).
- Very few males or females had experienced a homeless spell greater than 5 years (9% for males and 4% for females).

Note: N's vary due to the exclusion of missing and unknown data.

EVER HOMELESS: COMPARISON OF MALES AND FEMALES



Males
(n=666)

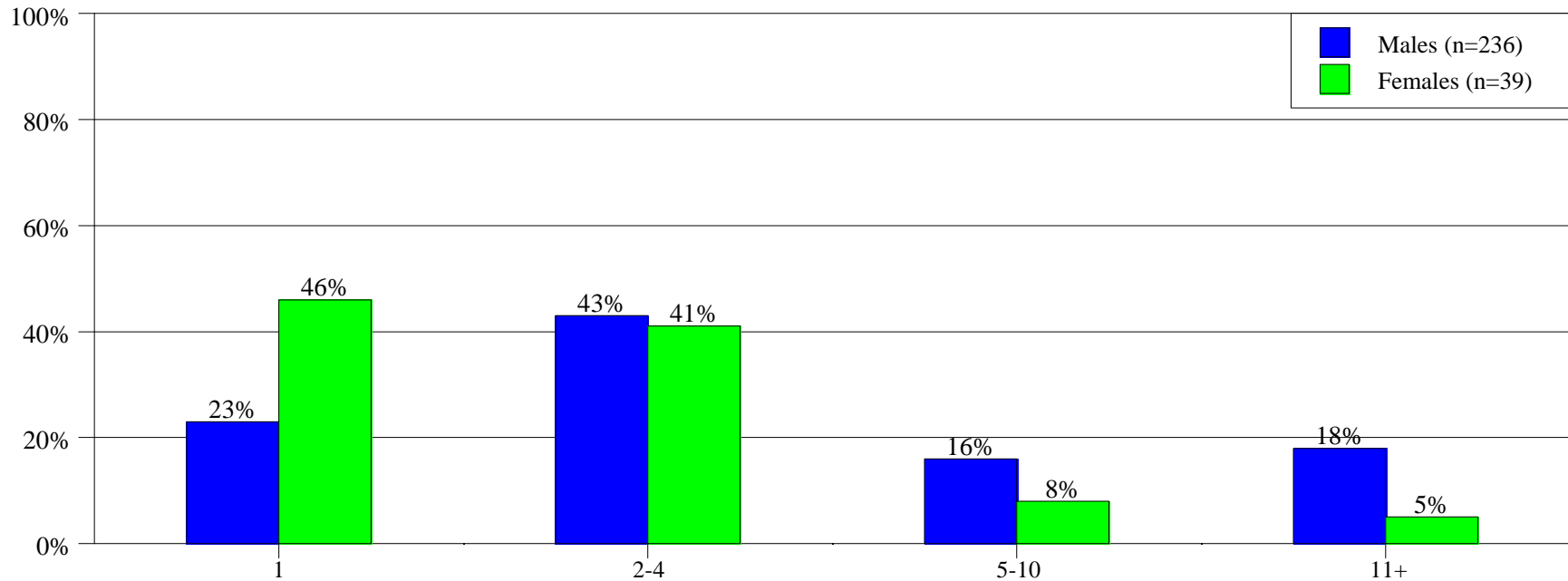


Females
(n=179)

- Both males and females reported being homeless at some time in their lifetime.

Note: N's vary due to the exclusion of missing and unknown data.

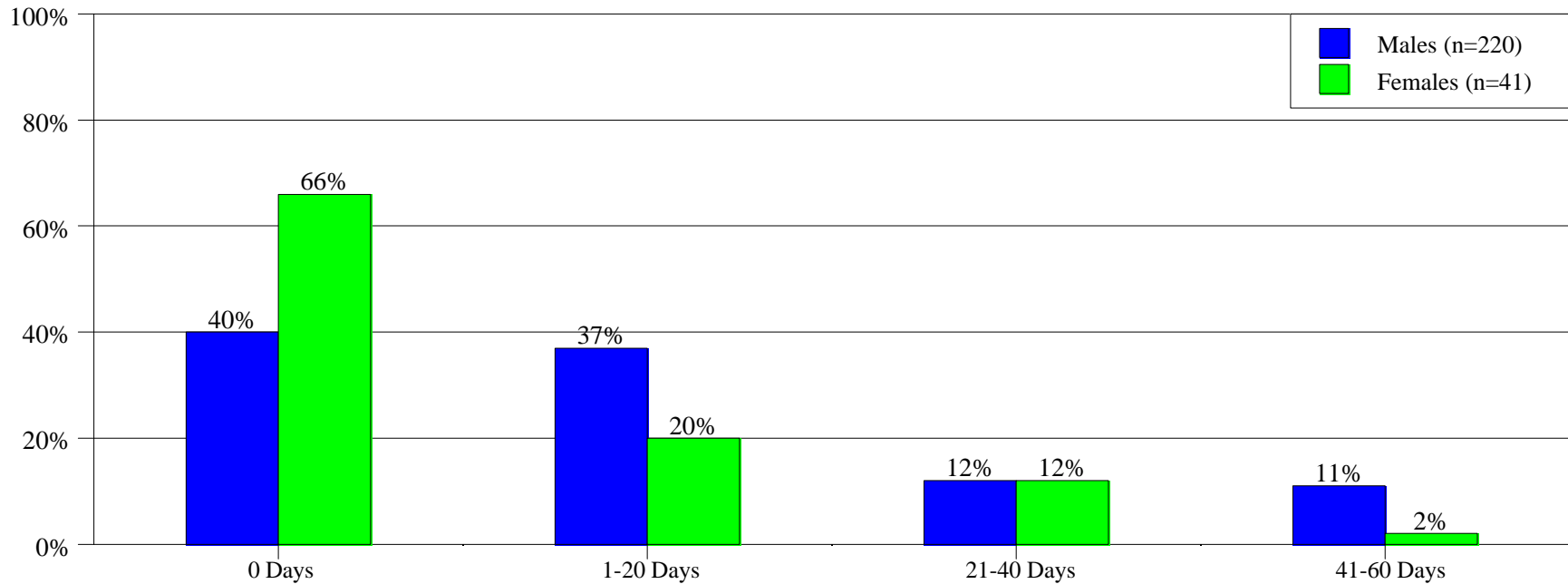
DAYS SPENT ON THE STREET IN THE PAST 2 MONTHS: COMPARISON OF MALES AND FEMALES



- A higher percentage of females than males spent 20 days or less on the street in the 2 months before intake (87% for females versus 66% for males).

Note: N's vary due to the exclusion of missing and unknown data.

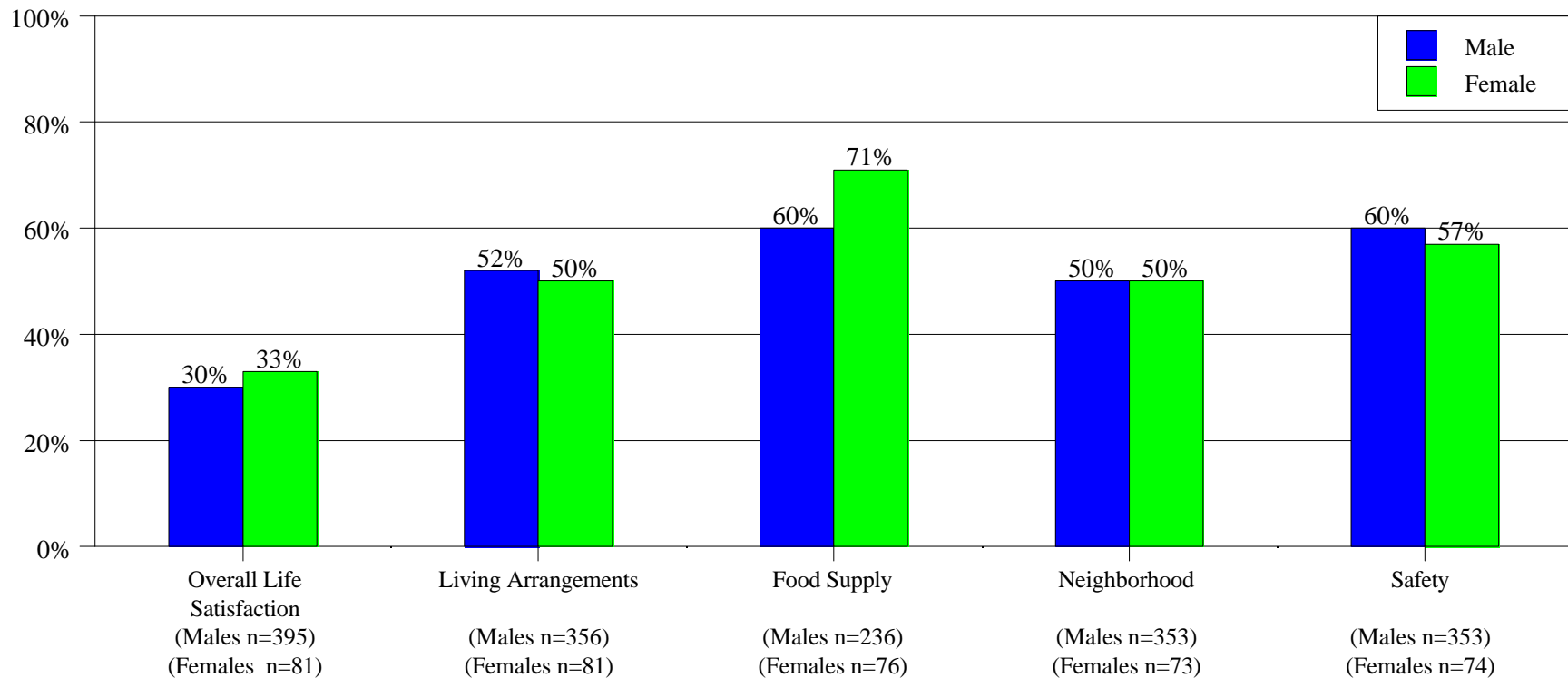
DAYS SPENT ON SHELTERS IN THE PAST 2 MONTHS: COMPARISON OF MALES AND FEMALES



- Nearly two-thirds (66%) of the females and 40 percent of the males reported spending 0 days in shelters during the 2 months prior to intake.

Note: N's vary due to the exclusion of missing and unknown data.

SUBJECTIVE LIFE SATISFACTION: COMPARISON OF MALES AND FEMALES

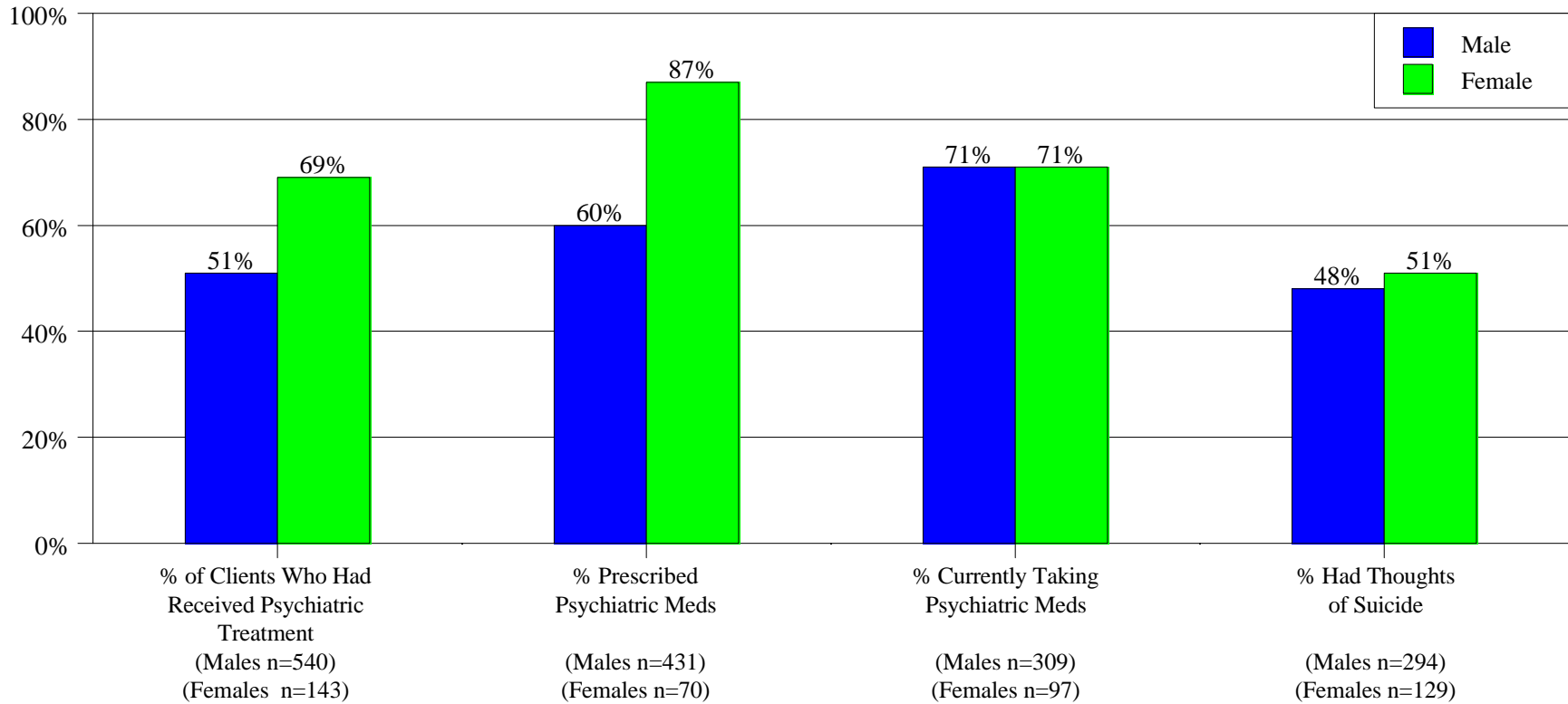


Percentage of Clients Subjective Life Satisfaction

- Overall, both males and females appeared to be equally satisfied with their lives.
- Females were most satisfied with their current food supply (71%), while males were equally satisfied with their safety and food supply (60% for each).

Note: N's vary due to the exclusion of missing and unknown data.

PSYCHIATRIC TREATMENT HISTORY: COMPARISON OF MALES AND FEMALES



- A larger percentage of females reported that they had received psychiatric treatment (69% for females versus 51% for males) and had been prescribed psychiatric medication (87% for females versus 60% for males).
- An equal percentage of males and females reported that they were currently taking psychiatric medication (71% for each).

Note: N's vary due to the exclusion of missing and unknown data.

**PSYCHIATRIC SYMPTOMS AT INTAKE:
COMPARISON OF MALES AND FEMALES**

| BSI DIMENSION | MALES | | FEMALES | |
|---------------------------|-------|-----------|---------|-----------|
| | N | \bar{x} | N | \bar{x} |
| Somatization | 422 | 1.00 | 170 | 1.14 |
| Obsessive-Compulsive | 420 | 1.49 | 170 | 1.46 |
| Interpersonal Sensitivity | 355 | 1.47 | 136 | 1.52 |
| Depression | 422 | 1.65 | 170 | 1.61 |
| Anxiety | 421 | 1.47 | 170 | 1.61 |
| Hostility | 422 | .94 | 169 | 1.02 |
| Phobic Anxiety | 311 | 1.11 | 100 | 1.16 |
| Paranoid Ideation | 422 | 1.36 | 169 | 1.42 |
| Psychoticism | 421 | 1.33 | 169 | 1.32 |

- For both males and females, the greatest mean score was for depression (1.65 for males and 1.61 for females).
- For both males and females, the lowest mean score was for hostility (.94 for males and 1.02 for females).

Note: N's vary due to the exclusion of missing and unknown data.

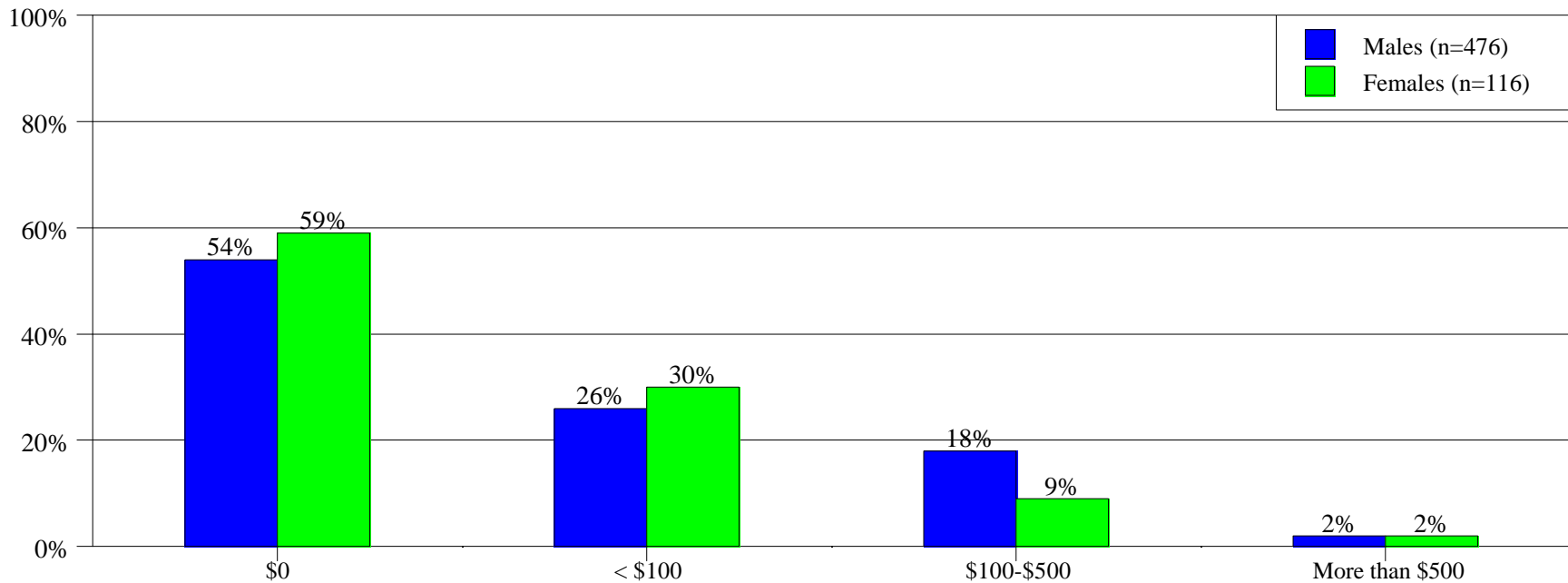
**SUBSTANCE USE AT INTAKE:
COMPARISON OF MALES AND FEMALES**

| SUBSTANCE | EVER USED | | | | USED IN PAST 30 DAYS | | | |
|---|-----------|-----|---------|-----|----------------------|-----|---------|-----|
| | MALES | | FEMALES | | MALES | | FEMALES | |
| | N | % | N | % | N | % | N | % |
| Alcohol | 488 | 95% | 113 | 81% | 460 | 71% | 145 | 61% |
| Heroin | 306 | 50% | 83 | 25% | 222 | 17% | 78 | 9% |
| Methadone | 221 | 72% | 77 | 58% | 198 | 6% | 77 | 3% |
| Other opiates | 330 | 66% | 93 | 48% | 265 | 4% | 97 | 5% |
| Barbiturates | 330 | 68% | 95 | 44% | 261 | 9% | 96 | 5% |
| Other sedatives; hypnotics | 307 | 79% | 84 | 62% | 212 | 25% | 78 | 17% |
| Cocaine/crack | 422 | 80% | 100 | 71% | 269 | 49% | 98 | 42% |
| Amphetamines | 369 | 84% | 82 | 56% | 222 | 22% | 76 | 24% |
| Cannabis/marijuana | 452 | 90% | 106 | 73% | 369 | 44% | 128 | 31% |
| Hallucinogens | 364 | 51% | 103 | 26% | 276 | 3% | 100 | 4% |
| Inhalants | 295 | 24% | 90 | 10% | 255 | 4% | 92 | 1% |
| Multiple substances (during 24 hour period) | 454 | 84% | 99 | 73% | 453 | 65% | 100 | 47% |

- For both males and females, the highest percentage of clients reported using alcohol. Ninety-five percent of the males reported that they had used alcohol in the past, and 71 percent of the males reported having used alcohol in the past 30 days. Eighty-one percent of the females had used alcohol in the past, and 61 percent of the females had used alcohol in the past 30 days.
- For the last 30 days, the second largest percentage of both males and females reported that they had used more than one substance in a 24-hour period (65% of males versus 47% of females).

Note: N's vary due to the exclusion of missing and unknown data.

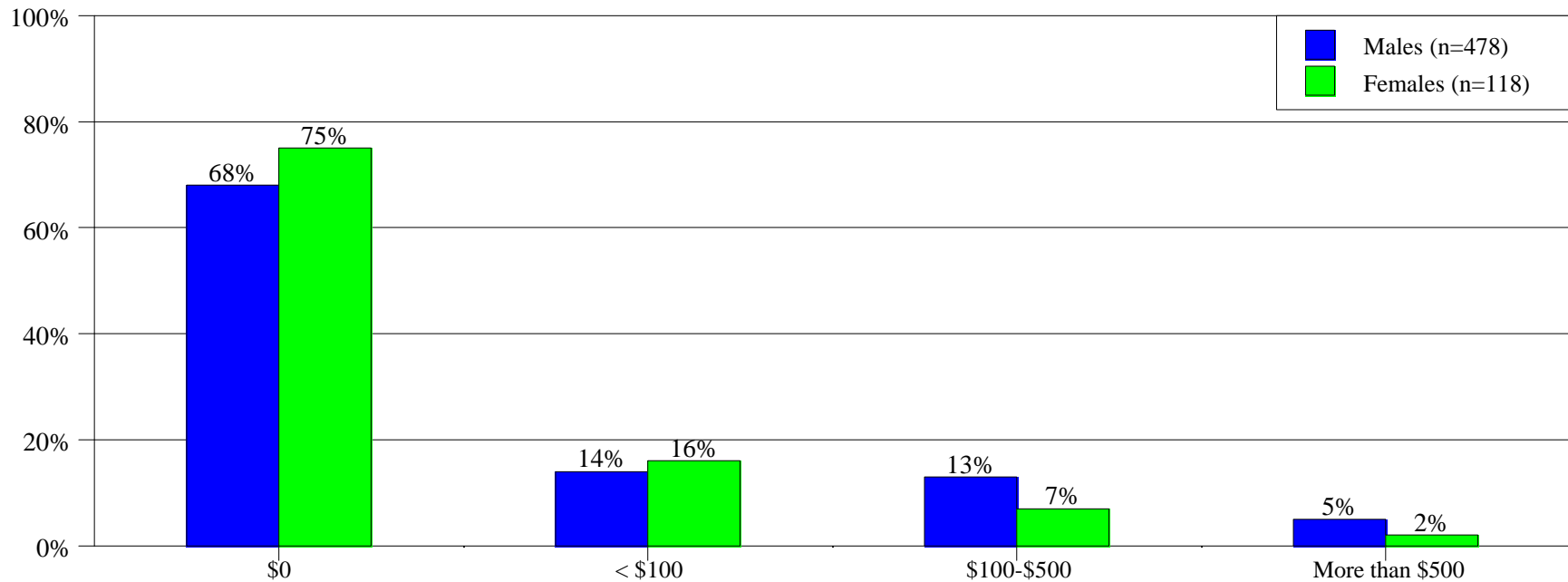
AMOUNT SPENT ON ALCOHOL IN THE 30 DAYS PRIOR TO INTAKE: COMPARISON OF MALES AND FEMALES



- For both males and females, over one-half of the clients reported that they had spent no money on alcohol in the 30 days prior to intake.
- Males spent more on alcohol during the 30 days prior to intake: 20 percent of the males reported that they had spent \$100 or more to 11 percent of the females.

Note: N's vary due to the exclusion of missing and unknown data.

AMOUNT SPENT ON DRUGS IN THE 30 DAYS PRIOR TO INTAKE: COMPARISON OF MALES AND FEMALES



- The largest percentages for both males and females were for those clients reporting spending no money on drugs in the 30 days prior to intake.
- A higher percentage of males than females reported that they had spent at least \$100 on drugs in the 30 days prior to intake (18% for males versus 9% for females).

Note: N's vary due to the exclusion of missing and unknown data.

INCOME SOURCE IN PAST MONTH: COMPARISON OF MALES AND FEMALES

| SOURCE OF INCOME | MALES | | FEMALES | |
|---------------------------------------|-------|-----|---------|-----|
| | N | % | N | % |
| Earned income | 568 | 31% | 140 | 18% |
| SSI/SSDI | 623 | 25% | 158 | 41% |
| Armed Services Disability | 537 | 8% | 144 | 5% |
| Other welfare, Food Stamps | 469 | 47% | 99 | 63% |
| Vocational training program | 352 | 3% | 84 | 1% |
| Unemployment compensation | 725 | 2% | 201 | 2% |
| Retirement, investment, savings, etc. | 353 | 2% | 84 | 6% |
| Alimony or child support | 248 | 1% | 12 | 0% |
| Family, friends, mate, spouse support | 617 | 19% | 152 | 47% |
| Illegal sources | 75 | 19% | 39 | 18% |
| Panhandling, begging | 348 | 10% | 136 | 6% |
| Other | 570 | 34% | 153 | 36% |

- Males were more likely to report sources of earned income than were females (31% for males versus 18% for females).
- Females were more likely to report receiving welfare and/or Food Stamps than were males (63% for females versus 47% for males).

Note: A client may report multiple sources of income, therefore, the percentages do not sum to 100 percent.

Note: N's vary due to the exclusion of missing and unknown data.

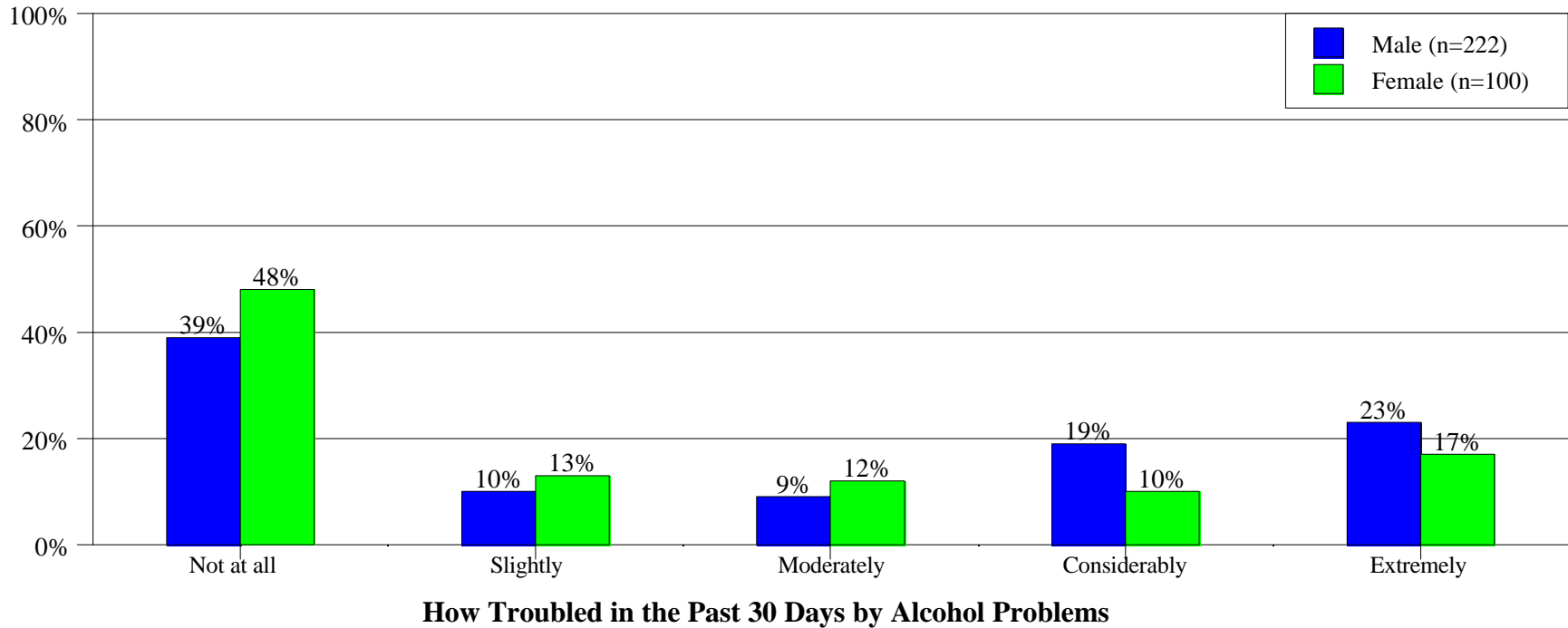
**PREVIOUS SUBSTANCE ABUSE TREATMENT EPISODES:
COMPARISON OF MALES AND FEMALES**

| PREVIOUS TREATMENT | MALES | | FEMALES | |
|---------------------|-------|-----|---------|-----|
| | N | % | N | % |
| Alcohol treatment | 452 | | 104 | |
| 0 episodes | | 28% | | 44% |
| 1 episode | | 17% | | 11% |
| 2-4 episodes | | 24% | | 25% |
| 5-10 episodes | | 17% | | 12% |
| 11 or more episodes | | 14% | | 8% |
| Drug treatment | 471 | | 121 | |
| 0 episodes | | 32% | | 36% |
| 1 episode | | 20% | | 16% |
| 2-4 episodes | | 27% | | 27% |
| 5-10 episodes | | 16% | | 16% |
| 11 or more episodes | | 5% | | 5% |

- A larger percentage of males than females reported that they had received five or more alcohol treatment episodes (31% of males versus 20% of females).
- An equal percentage of males and females reported that they had received more than one drug treatment episode (48% for each).

Note: N's vary due to the exclusion of missing and unknown data.

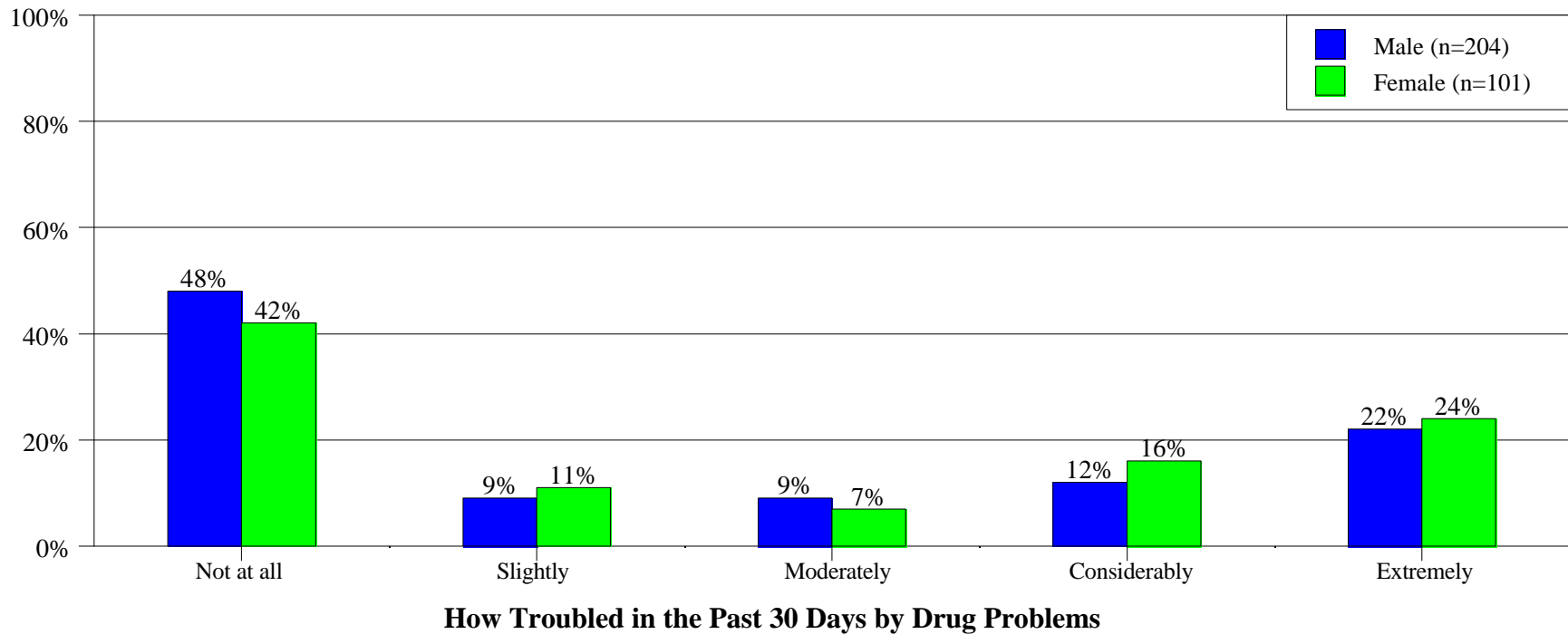
EMOTIONAL IMPACT OF ALCOHOL ABUSE: COMPARISON OF MALES AND FEMALES



- A larger percentage of females reported no concern about their alcohol abuse (48% for females versus 39% for males).
- A higher percentage of males than females reported that they were considerably or extremely concerned about their alcohol abuse (42% for males versus 27% for females).

Note: N's vary due to the exclusion of missing and unknown data.

EMOTIONAL IMPACT OF DRUG ABUSE: COMPARISON OF MALES AND FEMALES



- The highest percentage for both males and females indicated that they were not concerned about their drug problems (48% for males and 42% for females).
- A slightly higher percentage of females than males reported that they were considerably or extremely concerned about their drug problems (40% for females versus 34% for males).

Note: N's vary due to the exclusion of missing and unknown data.

CHANGES IN INCOME SOURCE: COMPARISON OF MALES AND FEMALES

| SOURCES OF INCOME | MALES | | | FEMALES | | |
|---|-------|--------|-----------|---------|--------|-----------|
| | N | INTAKE | 6 MO. F/U | N | INTAKE | 6 MO. F/U |
| | | % | % | | % | % |
| Earned income | 229 | 44% | 44% | 78 | 27% | 35% |
| SSI/SSDI | 206 | 30% | 34% | 62 | 63% | 57% |
| Armed Services Disability | 175 | 10% | 4% | 63 | 9% | 2% |
| Other welfare, Food Stamps | 255 | 44% | 49% | 64 | 55% | 52% |
| Vocational training program | 175 | 1% | 6% | 63 | 2% | 0% |
| Unemployment compensation | 298 | 3% | 4% | 105 | 4% | 1% |
| Retirement, investment, savings, trust fund | 174 | 2% | 2% | 63 | 6% | 5% |
| Family, friends, mate, spouse support | 206 | 32% | 30% | 58 | 50% | 53% |
| Illegal means | 40 | 8% | 8% | 16 | 0% | 0% |
| Panhandling, begging | 137 | 17% | 7% | 70 | 7% | 1% |
| Other sources | 169 | 47% | 53% | 39 | 33% | 46% |

- A larger percentage of males reported receiving income from vocational training programs at the 6-month follow-up (6% at follow-up versus 1% at intake). Also, a smaller percentage of males reported income from panhandling or begging at follow-up (7% at follow-up versus 17% at intake).
- A larger percentage of females reported earned income at the 6-month follow-up (35% at follow-up versus 27% at intake).

Note: Gender differences for this and other change tables are suggestive only because of the small number of females for whom change data are available.

Note: N's vary due to the exclusion of missing and unknown data.

CHANGE IN PSYCHIATRIC SYMPTOMS: COMPARISON OF MALES AND FEMALES

| BSI DIMENSION | MALES | | | FEMALES | | |
|---------------------------|-------|-----------|-----------|---------|-----------|-----------|
| | N | INTAKE | 6 MO. F/U | N | INTAKE | 6 MO. F/U |
| | | \bar{x} | \bar{x} | | \bar{x} | \bar{x} |
| Somatization | 174 | 1.17 | .89 | 84 | 1.28 | 1.07 |
| Obsessive-Compulsive | 174 | 1.58 | 1.18 | 83 | 1.55 | 1.31 |
| Interpersonal Sensitivity | 129 | 1.54 | 1.13 | 67 | 1.71 | 1.22 |
| Depression | 175 | 1.83 | 1.29 | 84 | 1.76 | 1.40 |
| Anxiety | 174 | 1.63 | 1.16 | 84 | 1.72 | 1.30 |
| Hostility | 173 | 1.05 | .78 | 84 | 1.11 | .84 |
| Phobic Anxiety | 86 | 1.34 | .95 | 31 | 1.51 | 1.51 |
| Paranoid Ideation | 172 | 1.47 | 1.03 | 83 | 1.54 | 1.21 |
| Psychoticism | 174 | 1.43 | 1.03 | 84 | 1.50 | 1.25 |

- For males, the mean score for each BSI dimension decreased at the 6-month follow-up.
- For females, the mean score for all BSI dimensions decreased at the 6-month follow-up, except for phobic anxiety dimension, in which the mean score remained the same.

Note: Gender differences for this and other change tables are suggestive only because of the small number of females for whom change data are available.

Note: N's vary due to the exclusion of missing and unknown data.

**CHANGES IN SUBJECTIVE WELL-BEING:
COMPARISON OF MALES AND FEMALES**

| SATISFIED WITH: | MALES | | | FEMALES | | |
|---------------------|-------|--------|-----------|---------|--------|-----------|
| | N | INTAKE | 6 MO. F/U | N | INTAKE | 6 MO. F/U |
| | | % | % | | % | % |
| Overall life | 138 | 28% | 66% | 25 | 16% | 52% |
| Living arrangements | 179 | 52% | 75% | 60 | 50% | 67% |
| Food supply | 148 | 64% | 87% | 57 | 70% | 77% |
| Neighborhood | 174 | 55% | 74% | 53 | 57% | 74% |
| Safety | 174 | 60% | 83% | 53 | 59% | 74% |

For both males and females, the percentage of clients who reported satisfaction increased at follow-up for each subjective well-being category.

Note: Gender differences for this and other change tables are suggestive only because of the small number of females for whom change data are available.

Note: N's vary due to the exclusion of missing and unknown data.

**CHANGE IN SUBSTANCE USE IN LAST 30 DAYS:
COMPARISON OF MALES AND FEMALES**

| SUBSTANCE USE IN LAST 30 DAYS | MALES | | | FEMALES | | |
|---|-------|--------|-----------|---------|--------|-----------|
| | N | INTAKE | 6 MO. F/U | N | INTAKE | 6 MO. F/U |
| | | % | % | | % | % |
| Alcohol | 246 | 56% | 47% | 95 | 52% | 50% |
| Heroin | 146 | 7% | 4% | 50 | 2% | 4% |
| Other opiates | 202 | 1% | .5% | 67 | 3% | 0% |
| Barbiturates | 202 | 6% | 1% | 69 | 6% | 0% |
| Sedatives; hypnotics | 67 | 21% | 9% | 26 | 19% | 15% |
| Cocaine/crack | 69 | 29% | 25% | 26 | 42% | 30% |
| Amphetamines | 138 | 9% | 0% | 47 | 21% | 2% |
| Cannabis/marijuana | 230 | 27% | 19% | 87 | 24% | 19% |
| Hallucinogens | 217 | 1% | 0% | 74 | 3% | 1% |
| Inhalants | 198 | 3% | 1% | 67 | 0% | 0% |
| Poly substances (> 1 in 24 hour period) | 195 | 33% | 19% | 66 | 41% | 30% |

- For males, reported substance use decreased from intake to follow-up for all substances.
- For females, reported substance use decreased from intake to follow-up for all substances except heroin, for which there was a two percent increase.

Note: Gender differences for this and other change tables are suggestive only because of the small number of females for whom change data are available.

Note: N's vary due to the exclusion of missing and unknown data.

VI. SUMMARY AND CONCLUSION

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Summary

This multi-project analysis pooled data from six studies of the effectiveness of treatment programs for dually diagnosed homeless clients. Each study collected data both for clients in a CMIHS-CSAT funded demonstration treatment project and from a “treatment-as-usual” comparison program or programs in the same city. In earlier exploratory analyses of the pooled data, the demonstration projects as a group were found not to differ appreciably from the aggregation of the various comparison groups. Consequently, in the present analysis, data were further pooled across demonstration vs. comparison categories—as well as across sites—to develop an overall picture of client characteristics and treatment outcomes for dually diagnosed homeless persons who receive treatment for this distinctive constellation of problems. The pooled database contains intake information for 941 such patients and six-month follow-up data for 378 of them.

As briefly noted here, many difficulties were encountered in recoding data from the six local studies into common categories and formats for cross-site analysis. These efforts were only partly successful. As a result, many important variables that were used in the individual evaluations are not represented in the pooled database, and most variables in the pooled database have a nontrivial amount of missing data.

Despite these problems, the pooled database proved sufficient for generating wide-ranging, stable, and consistent information about the intake characteristics, retention, and short-term treatment outcomes of clients who receive treatment for a combination of problems that includes severe mental illness, serious substance abuse, and homelessness. Major findings with respect to the four questions that guided the analysis are summarized below.

What are the characteristics of dually diagnosed homeless clients who enter treatment? Demographically, at intake, this client population was predominantly male (78%), Caucasian (58%), mid-30s to mid-40s in age, not currently married (95%), with a high school diploma or better (72%). Few of these clients had earned-incomes in the month before entering treatment (28%). Most had had multiple episodes of homelessness (76%), often totaling more than a year in cumulative duration (61%). Many reported histories of arrests for various offenses, most commonly alcohol/drug-related offenses (50%) or public drunkenness/disorderly

conduct/panhandling (41%). Over half had prior histories of psychiatric treatment (55%). Most reported histories of prior alcohol treatment (69%), and most had histories of prior drug treatment (67%). As a group, their average scores at intake on several BSI measures of psychiatric symptoms (i.e., psychoticism, paranoid ideation, phobic anxiety) were above the norm for psychiatric inpatients. In the 30 days before entering treatment, the most widely abused substances in this population were alcohol (69%) and cocaine/crack (47%). Poly-substance use was also common (62%).

How successful are treatment programs in retaining such clients for at least six months? Long term residential treatment programs for substance-abusing adults often have six-month retention rates in the 10-30 percent range averaging 20 percent (based on NIDA data mentioned at PETS expert panel meeting (7/23) by Dr. Barry Brown. Against this standard, the projects represented in this study were extraordinarily successful at keeping clients in treatment long enough to give the intervention a chance to produce lasting impacts. The six-month retention rate with this group of clients was 70 percent, overall, with little city-to-city variation. The demonstration projects and their various treatment-as-usual comparison programs were equally successful in this important area.

What changes are seen over the first six months of treatment? Changes in a positive direction were seen on all major indicators among clients who remained in treatment for at least six months:

- **Homelessness.** Most clients had spent some time living on the streets shortly before entering treatment, which was initially in an inpatient facility in many cases. By the time of the six-month follow-up, over half (56%) had become transitioned into stable non-institutional settings such as halfway houses, relatives' homes, own apartments, etc.
- **Mental illness.** Appreciable reductions in psychiatric symptoms were seen on all indicators, and many clients' emotional outlooks had become more positive. For example, 64 percent of the clients reported on the follow-up interview that they were mostly satisfied (or better) with their general life situations, up from 26 percent at the intake interview.
- **Substance abuse.** In the first six months of treatment, only modest improvements were seen in the percentages of clients who became completely abstinent from alcohol or from cocaine/crack, the two principal substances of abuse for this population. There were indications of reduced levels and frequencies of abuse of these substances, however, and use reductions of substantial magnitude were seen for several substances (e.g., barbiturates, amphetamines) and for poly-substance use.

How do female clients from this population compare to male clients? At intake, male and female clients were similar on many demographic measures, such as age, ethnicity, and education. The principal differences were that, as compared to men, women clients were more likely to be currently married, to have children, and to be supported by SSI/SSDI or welfare/food stamp payments. Men more often reported having earned-income support. Men and women appeared to present somewhat different constellations of problems at intake, with psychiatric histories/problems being more prominent among women and men tending to have more extensive histories/problems with homelessness and substance abuse. The picture concerning gender differences in response to treatment is unclear due to the small number of women for whom change data are available in this database.

Conclusions

The patients studied here represent a difficult-to-treat population: they were homeless; they had severe mental illnesses; and they had serious substance abuse problems. Conventional wisdom suggests that patients who present such a daunting array of problems would be unlikely to attain and sustain abstinence with a single treatment episode.

The findings from this multi-project analysis of data for a large number of dually diagnosed homeless persons in a variety of treatment programs in six different cities suggest that dually diagnosed homeless clients in this sample were receptive and responsive to treatment. The six-month treatment retention rate for this population, 70 percent, was very high, and clear improvement was seen in all three problem areas within 6 months of treatment entry.

These findings are encouraging regarding the prospects for improving the levels of functioning and decreasing the substance use of the dually diagnosed homeless. The quality and completeness of information in the pooled database were not as good as one would wish, outcome data for clients who did not remain in treatment was entirely missing, and the change data involved a comparatively short time period. These are significant limitations that need to be addressed in future evaluations.

The perspective offered in this document is solely that of the author(s) and does not reflect the policies or views of the Federal government, or any of its Departments or Agencies.