Impact of Welfare Reform on Access to Medical Care, Mental Health Services, and Substance Abuse Treatment for CalWORKs Participants with Substance Use Problems

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Final Report

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Executive Summary

Introduction

This report examines the prevalence of drug use among California Work Opportunity and Responsibility to Kids (CalWORKs) participants and the interplay between receipt of CalWORKs benefits and access to and utilization of medical, mental health, and substance abuse treatment services among CalWORKs participants with substance abuse problems.

Findings are based on a study of CalWORKs participants in Los Angeles County. The study had three components: (a) a baseline/prevalence interview of a sample of 511 English- and Spanish-speaking CalWORKs participants (287 applicants who were probably eligible for CalWORKs [referred to as "probably eligible applicants" hereafter] and 224 recipients undergoing an annual re-determination review); (b) a 9-month follow-up interview with 155 respondents who were applicants at the time of the baseline interview; and (c) an analysis of Los Angeles County Department of Public Social Services (DPSS) administrative data on receipt of CalWORKs cash aid and specialized supportive services for 347 respondents who consented to the release of their records data. In addition to the above data, approximately 78% of respondents provided a voluntary urine sample for drug testing at the time of the baseline interview. Respondents were drawn from all 24 CalWORKs district offices and were ethnically representative of the English- and Spanish-speaking CalWORKs population in the county.

Data from the baseline/prevalence interview are used to address the following questions:

- What is the prevalence of current drug use among CalWORKs participants?
- What percentage of CalWORKs participants are engaged in "problematic" substance use, that is, have a level of drug use involvement that makes them appropriate candidates for referral to clinical assessment for drug addiction or dependence and, if necessary, referral to substance abuse treatment?
- What are the characteristics of CalWORKs participants involved in problematic drug use?

Data from the follow-up/cohort interview are used to address the following additional questions:

- What is the impact of problematic substance use on approval for CalWORKs benefits and on the interactions between welfare workers and CalWORKs participants?
- What is the impact of problematic substance use on the receipt of Medi-Cal and on access to and use of medical, mental health, and substance abuse treatment services among respondents who were approved for CalWORKs benefits?

Data from administrative records provide supplementary information on the following questions:

- What percentage of CalWORKs study participants were provided substance abuse assessment, substance abuse treatment, and/or mental health care?
- What are the rates of problematic drug use among the longest-term CalWORKs participants?

Findings

- *Prevalence of drug use and problematic substance use*

The study estimates that at the time of the baseline interview:

- 22.2% of CalWORKs study participants were engaged in recent use of any drugs, and
- 10.6% of respondents were involved in recent use of opiates, cocaine, and/or methamphetamines (opiates/stimulants).

Estimates reflect only previous 3-day use (except for marijuana, which is previous 30 days). Drug use rates measured over a longer time frame (e.g., previous 6 months or previous year) are probably higher. Drug use alone is not a sufficient criterion to indicate substance abuse treatment need. However, because opiates and stimulants are highly addictive, need for treatment is probably greatest among current users of those three drugs.

With respect to problematic substance use, the study estimates that:

- 10.0% of CalWORKs study respondents were highly likely to be involved in problematic use of alcohol and/or other drugs, and
- 14.7% of respondents were moderately likely to be involved in problematic use.

The estimates of current use and problematic use are conservative. Comparisons between self-reported use and urine test results show substantial underreporting of drug use, particularly among users of opiates, cocaine, and amphetamines. However, even after statistically adjusting for underreporting, study findings do not suggest that current or problematic drug use is epidemic in the CalWORKs population.[1] Nevertheless, given the large size of the Los Angeles County CalWORKs caseload, we estimate that the problem affects a significant number of CalWORKs participants.

- *Characteristics of persons at high or moderate risk for problematic drug use*

CalWORKs study respondents who were at elevated risk (i.e., high or moderate risk) for problematic substance use, and hence most in need of clinical assessment for substance dependence, differed in numerous respects from respondents who did not use or were at low risk of drug involvement.[2]

- Latinos whose primary language was Spanish (used here as an indicator of low acculturation) were significantly less likely to be involved in problematic drug use than more culturally assimilated Latinos and than Whites, African-Americans, or those from "Other" ethnic groups.
- Analyses of self-report and records data indicate that there is no significant relationship between a participant's length of time on CalWORKs and the likelihood of problematic drug use. However, the data suggest that those at elevated risk of problematic use are more likely to have had multiple welfare episodes or spells. At baseline, applicants who

[1] Estimates of current drug and of problematic drug use are based on different methods. The similarity between the findings from these two different approaches adds further support to the estimates.
[2] Data are presented in Appendix Table 2A

reported that they had received CalWORKs benefits within the previous 6 months, and, thus, were re-applying for benefits that were lost for some reason, were significantly more likely to be at risk for problematic drug use than other applicants. Analysis of records data found a positive but non-significant relationship between risk of problematic drug use and having two or more welfare spells among long-term recipients.

- Among respondents at elevated risk for problematic use, substance use was likely to be only one among a constellation of serious personal problems. Problematic drug users were more likely than other respondents to have ever been arrested, to have a minor child that was not currently living primarily with him or her, to have ever had a child welfare case opened against him or her, and to have immediate family and/or close friends who have had serious substance abuse problems.
- Respondents who were highly likely to be involved in problematic substance use were significantly more likely to report having emotional problems than respondents at lower risk. Over 75% of those at highest risk for problematic use reported having one or more emotional difficulties compared to 55% of those at low or no risk.

➢ *Impact of problematic drug use on CalWORKs approval rates and client interactions with welfare workers*

Follow-up data on CalWORKs participation from cohort study respondents[3] indicate that:

- Problematic drug use was not associated with greater difficulties negotiating the CalWORKs system. Over 95% of probably eligible applicants who were at elevated risk for problematic drug use were approved for CalWORKs benefits. Respondents who were at elevated risk for drug use were no less likely than those at low or no risk of drug involvement to report that they had been treated fairly. These important, positive study findings suggest that there were few disparities in access to CalWORKs aid based on a respondent's level of drug involvement.
- The majority of respondents reported being informed about the availability of specialized supportive services for substance abuse (65.6%), mental health (57.7%), and domestic violence (66.9%). However, by comparison, information on such services was less widely disseminated than information on Medi-Cal (89% reported being informed about Medi-Cal), an indication that further improvements in dissemination can be achieved. There was no significant relationship between risk of problematic drug use and whether a respondent was informed about Medi-Cal and/or CalWORKs specialized supportive services.
- The percentage of respondents who reported being asked about their emotional health or substance use was low given that CalWORKs policies call for broad-based screening of welfare participants: 48.4% of respondents reported being screened for alcohol and drug use and 34.7% reported being screened for mental health problems. Level of drug use was not associated with the likelihood of being screened.

[3] Data are presented in Appendix Table 3A.

- *Relationship between problematic drug use and insurance; health and mental health; and access to and utilization of medical, mental health, and substance abuse treatment services*

  The role of CalWORKs as a link to health, mental health services, and substance abuse services is mixed.[4]

  - Study findings support the effectiveness of CalWORKs cash aid as a pathway to Medi-Cal health insurance for most respondents, regardless of their level of drug use. It is especially effective in providing health coverage for respondents' children; over 95% in both the elevated- and low-risk problem drug use groups reported that their children had health insurance coverage.
  - The impact of current CalWORKs policies on access to and utilization of mental health and substance abuse treatment services appears limited. Among those at elevated risk for problematic drug use, the percentage of respondents who reported having received substance abuse treatment was unchanged between baseline and follow-up--7.3% at both time points. The percentage of problematic users who reported receiving mental health care rose from 12.2% at baseline to 17.1% at follow-up, a small increase relative to the large proportion of those at elevated risk for problematic use who reported emotional problems (75.6%).
  - Analysis of administrative records corroborates the low rate of access to specialized supportive services; of the 357 respondents who consented to release of their administrative data, 12 respondents were referred to clinical assessment for mental health problems and/or substance abuse; 10 respondents participated in mental health treatment; and two respondents participated in both substance abuse and mental health treatment. Reasons for low enrollment may include reluctance by participants to disclose emotional or substance abuse problems to welfare workers, uneven implementation by welfare workers of substance abuse and mental health screening procedures, and participants' exemption or termination from program participation.

  Cohort study data on the health, mental health, and drug use of CalWORKs respondents indicate that the current system does not mitigate substance use, emotional distress, or, to a lesser extent, medical problems among those who are at elevated risk for substance abuse.

  - The percentage of problematic drug users who reported one or more emotional problems increased from baseline to follow-up, whereas the percentage decreased among respondents with limited drug involvement. At follow-up, 75.6% of those at elevated risk for problematic drug use reported emotional difficulties versus 50.0% of those in the no- or low-risk group.
  - Of respondents who provided a urine sample at follow-up (n = 97), among those who were at highest risk for problematic substance use, 66.6% had recently used drugs of abuse.
  - Although problematic drug users were more likely than those who had no or limited drug involvement to report having a medical problem at baseline, the difference between the two groups became even more pronounced at follow-up; 56.1% versus 32.6%

[4] Data are presented in Appendix Table 4A.

respectively. This may be due, in part, to improved knowledge about their health problems as a result of increased access to medical care.

Increased rates of medical and mental health problems among problematic users were accompanied by relatively higher rates of medical outpatient and emergency room utilization.

- The percentage of respondents who reported a medical outpatient visit in the previous 6 months was highest among respondents who were at elevated risk of drug problems and this pattern became even more pronounced over time. At follow-up, 80.5% of problematic users versus 44.2% of those with limited drug use reported one or more outpatient visits in the previous 6 months.
- Respondents at elevated risk for problem drug use were more likely than those at lower risk to report having used an emergency room in the prior 6 months, and this difference also increased over time; at follow-up the percentages were 48.8% for those at elevated drug use risk versus 29.3% for those at lower risk.

Conclusions

- Problematic drug use is a serious problem for a relatively small percentage of CalWORKs participants, but because of the size of the welfare system, the number of participants affected is substantial. For many of those affected, problematic drug use is only one of multiple serious personal problems.
- Current CalWORKs policies are effective in linking persons with drug use problems to health insurance and medical care but have had limited success in improving access to mental health and substance abuse treatment for those who need it. Unmet service needs may be contributing to increased medical and mental health problems and to increased use of outpatient and emergency room services among problematic drug users. These trends have consequent costs for affected individuals, their families, the already overburdened health care system, and state and county governments.
- Screening and assessment for substance abuse should be targeted to those at highest risk for problematic use and substance abuse treatment should be one of multiple interventions to address their diverse personal problems.
- The provision of CalWORKs substance abuse and mental health specialized supportive services is not only a welfare policy issue, but also an integral component of health care policy.

Impact of Welfare Reform on Access to Medical Care, Mental Health Services, and Substance Abuse Treatment for CalWORKs Participants with Substance Use Problems

Introduction

Substance abuse is a significant national health care problem with consequent costs to affected individuals, the economy, and society at large. Problematic alcohol and other drug use is associated with higher rates of medical and psychiatric co-morbidity, and persons with co-occurring substance abuse and mental health disorders are a particularly vulnerable segment of the population.[5] Research has shown that persons with substance abuse problems have higher rates of inpatient hospital utilization and more frequent emergency room visits.[6] Mental health disorders, by contrast, are associated with greater utilization of outpatient care. Discussion of health and health care policy with respect to those who misuse substances should therefore take into account the overlapping and interactive medical, mental health, and substance use treatment needs of this group.

For low-income families, the cash welfare system has historically served as a pathway for linking family members to public health insurance and thereby to health services through the Medicaid program, which is called "Medi-Cal" in California.[7] Welfare reforms enacted during the mid-1990s maintained the close relationship between welfare and Medicaid health insurance benefits for those receiving cash assistance. Moreover, welfare policy reformers sought to increase access to substance abuse treatment and mental health care, so-called "specialized supportive services," for recipients of cash aid who needed treatment. Although inextricably related to health care policy, the rationale for improving access to substance abuse and mental health services reflected the welfare policy context in which it arose.

When Congress enacted the Personal Responsibility and Work Opportunity Reconciliation Act (P.L. 104-193) in1996, it called for major reforms in the nation's welfare system. The law replaced Aid to Families with Dependent Children (AFDC), an entitlement program, with Temporary Assistance to Needy Families (TANF), a federal block grant program that provided funding to the states in their establishment of programs in response to the legislation.

At the same time, the law sought to transform welfare from an open-ended to a time-limited benefit, the objective of which was to impel welfare recipients to make the transition from

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[5] Mertens, J.R., Yun, W.L., Parthasarathy, S., Morroe, C. & Wiensner.C.M. (2003). Medical and psychiatric conditions of alcohol and drug treatment patients in an HMO. *Archives of Internal Medicine*, 163: 2511-2517; Grant,B.F., Dawson, D.A.. (1999). Alcohol and drug use, abuse, and dependence: Classification, prevalence, and co-morbidity. In McCrady B.S., Epstein E.E., eds. *Addictions: A Comprehensive Guidebook*. New York: Oxford University Press.

[6] Ford, J.D., Trestman, R.L., Steinberg, K., Tennen, H., and Allen, S. (2004). Prospective association of anxiety, depressive, and addictive disorders with high utilization of primary, specialty and emergency medical care. *Social Science and Medicine*, 58: 2145-2148; French, M.T., McGreary, K.A., Chitwood, D.D., McCoy, C.B. (2000). Chronic illicit drug use, health services utilization, and the cost of medical care. *Social Science and Medicine*, 50: 1703-1713; Cherpital, C.J. (1999). Emergency room and primary care services utilization and associated alcohol and drug use in the United States general population. *Alcohol and Alcoholism*, 34(4): 581-589.

[7] Weil A, and Holahan, J. (2001). *Health insurance, welfare, and work*. Policy Brief No.11. Washington, DC: The Brookings Institution.

welfare to work and financial independence. State welfare programs were permitted to sanction recipients who failed to participate in work-related activities by reducing or terminating their cash assistance. Federal reforms also imposed a 5-year lifetime limit on TANF aid for adults. In California, the federal reforms were implemented by the Welfare to Work Act of 1997 (AB 1542), which created the California Work Opportunity and Responsibility to Kids (CalWORKs) program, the state's TANF block grant plan.

Given the heightened emphasis on work participation and the planned temporary nature of welfare benefits, the issue of substance abuse and mental health as barriers to employment among TANF/CalWORKs recipients assumed policy significance.[8] Concern that there were high rates of substance abuse among CalWORKs recipients and a belief that substance abuse contributed to long-term or recurrent welfare dependency led state legislators to require county welfare agencies to provide professional assessment, and, if appropriate, substance abuse treatment to CalWORKs recipients for whom substance abuse was a barrier to employment. Funding was also provided for professional mental health assessment and treatment services. Provision of supportive services was seen as an effective and efficient way to improve these recipients' chances of obtaining and retaining work and to mitigate the potentially adverse impact of welfare reform on this population if substance abuse was to remain untreated.

The purpose of this report is to contribute to a better understanding of how health policy measures enacted as part of CalWORKs welfare reform affect access to and utilization of medical, mental health, and substance abuse treatment services, particularly with respect to persons with substance abuse problems. The report is based on findings from a study of English- and Spanish-speaking CalWORKs participants in Los Angeles, the state's largest county. The report addresses multiple perspectives of this complex problem thus providing a range of data for informing policy-making in this area.

First, we address the question of the prevalence of substance use within the welfare population. Research on this issue is not consistent and there continues to be divergence of opinion on the prevalence of drug abuse among welfare recipients.[9] By using triangulation techniques, including self-reports, objective measures (urinalysis), and arrest records, we provide more precise estimates of drug use and treatment need than that afforded by self-report methods alone. Such

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[8] Policymakers were concerned about multiple barriers to employment: substance abuse, mental health, domestic violence, need for childcare, transportation resources, and others. Because this report focuses on substance abuse, we address access to mental health and other services only from the perspective of persons with drug problems.

[9] Center on Addiction and Substance Abuse, 1994, Substance abuse and women on welfare, NY: Author; California Institute for Mental Health, 2000, CalWORKs prevalence report, downloaded from: http://www.cimh.org; Jayakody, et al, 2000, Welfare reform, substance use and mental health. *Journal of Health Policy, Politics, and Law* 25 (4):623-51; Kline, A. et al., 2000, *1998 New Jersey Substance Abuse Needs Assessment Survey of Recipients of TANF*. Trenton: Department of Health and Senior Services; Olson & Pavetti, 1996, Personal and family challenges to the successful transition from welfare to work. *Final Report. Prepared for the Office of the Assistant Secretary for Planning and Evaluation and for the Administration for Children and Families*; Pollack, et al., 2002, Drug testing welfare recipients—False positives, false negatives, unanticipated opportunities. *Women's Health Issues* 12 (1):23-31; Schmidt, Weisner, & Wiley, 1998, Substance abuse and the course of welfare dependency. *American Journal of Public Health, 88*(11), 1616-1622). As late as October 2002, dueling editorials in *The Washington Post* reflected opposing views over the extent of substance abuse in the welfare population. See Califano, J., To reform welfare, treat drug abuse (September 18, 2002) and Pollack, H. and Reuter P., Myths about drugs and welfare (October 1, 2002).

information is valuable both as a basis to evaluate the effectiveness of ongoing welfare-based treatment programs and to inform state and county budgeting decisions regarding the level and need for supportive services at a time of increased economic constraint.

Second, we address various questions related to health services access and utilization, with a particular emphasis on the differences between CalWORKs participants at high risk of problematic substance use and other CalWORKs participants. Comparative analysis not only allows us to shed light on similarities and differences between persons with and without alcohol and other drug use problems, but also enables us to differentiate between access and utilization problems that are specific to persons based on drug use and those that are more general in nature. We also discuss the characteristics of problem drug users and the relationship between problematic use and the ability of clients to negotiate the welfare bureaucracy. All are relevant considerations for designing cost-effective interventions to meet the substance abuse treatment and other health care needs of affected individuals.

Finally, we examine CalWORKs administrative records data, which provide supplementary information on the interaction between drug use, welfare, and welfare-based access to health care. Of particular interest are records on supportive services received by study participants.

Each of these perspectives contributes insight on the interconnections and overlap between welfare policy and health care policy as they relate to substance-abusing CalWORKs recipients. The empirical data also provide a basis to inform alternative policy approaches to address the complex and costly social problems resulting from substance abuse. We now turn to a discussion of the study research methodology.

Research Methods

Research Design, Data Sources, and Data Collection Procedures

The research presented is based on a study of the Los Angeles County CalWORKs program, which had three components: a baseline/prevalence interview of a cross-section of Los Angeles County CalWORKs welfare participants, a 9-month follow-up interview with a cohort of respondents who were just entering the CalWORKs program at baseline, and analysis of Department of Public Social Services (DPSS) administrative records data on benefit status and supportive services receipt. In this section we describe the methodology for each of these three components.

Prevalence/Baseline Interview

Data for the baseline/prevalence interview were collected between November 2000 and June 2001 at all 24 CalWORKs district offices in Los Angeles County. The number of interviews conducted at each office was proportional to its relative caseload size. To be eligible for inclusion in the study, an individual had to be at least 18 years of age, speak Spanish or English, and be either a probably eligible CalWORKs applicant or a CalWORKs recipient undergoing an

annual redetermination review.[10] Self-report interview data were supplemented by Breathalyzer and urine tests, DPSS administrative records data, and arrest records from the California Department of Justice.

A sample of 511 respondents, 287 probably eligible CalWORKs applicants and 224 CalWORKs recipients who were undergoing recertification, participated in the survey. Interviews were conducted in English (62%) and Spanish (38%). Interviews covered demographics, physical and mental health, family status, education and employment, alcohol and other drug use, and criminal involvement. Approximately 78% of respondents provided a voluntary urine sample and 95.9% volunteered to take an optional Breathalyzer test. In addition, 68.2% of respondents authorized release of their CalWORKs administrative data.

Subjects were 95.6% female and had a mean age of 32.1 years. The ethnic composition of the sample was 26.9% African-American, 61.3% Latino, 9.2% White and 2.6% "Other" ethnic groups. Based on the welfare department's January 2001 caseload characteristics report, the ethnic and language distribution of the research sample was similar to that of the Los Angeles County CalWORKs caseload, adjusting for persons whose primary language was English or Spanish. (See Table 1.) We divide Latinos into two groups based on their primary language in order to reflect differences in cultural assimilation within the Latino group.

Table 1

Ethnicity of CalWORKs Caseload (Total Cases and English- and Spanish-Speaking Cases) and Ethnicity of Study Participants

Ethnicity	**Total CalWORKs Cases 2/2001** (n = 209,807)	**CalWORKs English/Spanish Cases 2/2001** (n = 191,593)	**Study Participants** (n = 509)
White	11.3%	7.8%[a]	9.2%
African-American	26.5%	29.1%	26.8%
Total Latino	55.4%	60.7%	61.2%
Latino-Spanish		*38.7%*[b]	*37.5%*[c]
Latino-English		*22.0%*[d]	*23.7%*
Other ethnic groups	6.7%	2.4%[e]	2.6%

[a] DPSS White caseload minus persons whose primary language was Armenian, Farsi, or Russian.
[b] DPSS caseload whose primary language was Spanish; percentage is percent of total English/Spanish cases.
[c] Subject preferred to be interviewed in Spanish; percentage is percent of total study participants.
[d] DPSS Latino caseload minus persons whose primary language was Spanish, percentage is percent of total English/Spanish cases.
[e] DPSS Asian and "Other" ethnic caseload minus persons whose primary language was Cambodian, Chinese, Korean, Vietnamese or "other" language.

The data are subject to several limitations. First, because the sample was not randomly selected and because contemporaneous DPSS caseload data were not generally available for comparative purposes (see discussion of records data below), it is difficult to estimate non-response bias. Second, although we sought to triangulate study data by using measures from multiple sources—

[10]Study recruitment was based on a flyer system. Welfare workers distributed study recruitment flyers to probably eligible CalWORKs applicants and to CalWORKs participants undergoing an annual redetermination review; individuals who received flyers were then recruited to the study by the UCLA research team.

self-reported interview data, biological specimens, and records data—each type of data has limitations. The reliability of retrospective interview data is dependent on a respondent's recall as well as his or her willingness to discuss sensitive information. Urine testing detects only recent drug use and does not necessarily distinguish between inappropriate and prescribed use of prescription drugs. Test results may, thus, include false negatives as well as false positives, although use of confirmatory testing in this study (discussed below) lessens the likelihood of a false positive report. Records data may be incomplete and contain errors leading to underreporting. Finally, 12% of respondents had missing urine test data, although, as discussed below, we adjust for missing data by use of statistical procedures. The most likely effects of these limitations are conservative or low estimates of drug use prevalence. They also limit generalizability of study findings.

Follow-up Cohort Interview

Participation in the follow-up study was limited to respondents who were probably eligible CalWORKs applicants at the time of the baseline survey. To control costs and to ensure that persons at elevated risk for problematic substance use were well represented in the follow-up sample, a random sub-sample of 30 subjects presumed to be at low risk of alcohol or drug abuse based on their baseline self-report and urine test data were excluded from the follow-up. Three additional subjects were excluded because they were out of the country, incarcerated, or refused at baseline to participate in the follow-up. Thus, the number of participants eligible to participate in the follow-up was 254. Data were collected between October 2001 and May 2002.

Follow-up interviews were conducted with 155 (of 254) subjects, yielding a response rate of 61.0%.[11] Of those not interviewed, 21 were located but refused participation and 78 subjects were not located. A comparison between those interviewed and missing cases based on baseline data showed no significant differences by gender; race/ethnicity; place of birth; mean age; reported lifetime use of cigarettes, alcohol or cocaine; mental health status; or self-reported or record of criminal justice involvement. However, missing cases were more likely to have reported lifetime marijuana use (51.5% vs. 37.9%), less likely to have provided a urine specimen at baseline (65.7% vs. 75.8%), and more likely to have self-reported recent use and/or tested positive for use if they provided a urine sample (33.3% vs. 19.3%). (See Appendix Table 1A for a comparison between those interviewed and those lost to follow-up.) Although similar in many respects, some respondents who were involved in drug use may have self-selected out of the follow-up study.

Follow-up interviews were conducted by the UCLA research team in person (73.2%) and by telephone (26.8%). As at baseline, interviews were conducted in English (65.0%) and Spanish (34.0%). The average interval between baseline and follow-up interviews was 10 months. The follow-up interview covered similar domains to those covered at baseline, as well as information about the respondent's experience with the CalWORKs system. Follow-up participants were 93.5% female and 28.8% African-American, 12.4% White, 56.2% Latino, and 2.6% "Other" ethnic group. Of respondents who were interviewed in person (n = 112), 87.5% provided a

[11] Data from 2 of the 155 study participants were subsequently excluded from all baseline and follow-up analyses because their data cast doubt on their purported CalWORKs status.

voluntary urine specimen to be tested for substances of abuse. Breathalyzer tests were not conducted at follow-up because they proved of limited value with this population of primarily single mothers. Indeed, only one subject tested above zero at baseline.

CalWORKs Administrative Records Data

Administrative records data on respondents' CalWORKs participation consisted of information on receipt of CalWORKs specialized supportive services (i.e., assessment for mental health and problem substance use, mental health treatment, substance abuse treatment, and counseling for domestic violence) and on the receipt of CalWORKs cash aid, Medi-Cal insurance, and other benefits. Data on supportive services utilization were drawn from the DPSS computer system called "GEARS." Data on CalWORKs receipt and Medi-Cal insurance were drawn from the DPSS computer system called "LEADER." Database records were matched by researchers at the Department of Public of Services based on identifying information provided by study participants on their release form. Criteria for matching included the participant's name, age, social security number, and CalWORKs case number.

Because the DPSS computerized record systems have undergone extensive changes over the last several years, LEADER data on CalWORKs, Medi-Cal, and other benefits were not available for the time period of the study (November 2000 through May 2002). We were able, however, to obtain LEADER data for an 18-month period extending from October 2002 to March 2004. GEARS data on supportive services utilization were available for a period contemporaneous with the conduct of study baseline and follow-up interviews.

Of the 347 releases submitted to DPSS, 76.7% (n = 266) were matched with DPSS records on at least one data element. Given that LEADER data were not coterminous with the dates of the study and given that the GEARS system only contains data on CalWORKs participants who receive services (persons who do not receive services are not listed in the system), this percentage is quite high. Lack of a match may reflect the fact that a client did not receive benefits over the period covered or may be due to a client providing erroneous information.

Measures and Analysis

We employ multiple measures and types of analysis to address the research questions in this report. Each approach provides an additional perspective for understanding the relationship among drug use, welfare participation, and health, and access to and utilization of health care.

Prevalence of Drug Use

To estimate the prevalence of illegal drug use, we used both self-report and urine test results. Both types of measures have limitations, but together they provide a more accurate range of use estimate. We focused on two measures of drug use. One was recent use of any of six drugs (marijuana, cocaine, heroin and other opiates, amphetamine/methamphetamine, barbiturates, or

sedatives), which we call "any use." The second was recent use of heroin and other opiates, cocaine, or amphetamine/methamphetamine, which we call "opiate/stimulant use." Self-reports were based on previous 3-day use for all drugs except marijuana, which was based on self-reported use in the previous 30 days. We used a longer time frame for marijuana because it is detectable in urine for a longer period than are the other drugs. Urine specimens were screened using the enzyme-multiplied immunoassay technique (EMIT) and positive screens were confirmed using gas chromatography/mass spectrometry (GC/MS). Multiple methods of estimation were used to account for possible underestimation due to missing data.

We computed three different estimates of drug use--a low (conservative), intermediate, and high (liberal) estimate. Each adopts a different method to address the problem of missing urine test data among those who denied use. The first method, the low (conservative) estimate, is the percentage of respondents who reported substance use. This approach relies exclusively on self-reports and does not take urine test data into account.

The other two methods, the intermediate and high (liberal) estimate, take both urine test results and self-reported use into account. In these two approaches, a respondent is considered positive for drug use if either (a) he or she self-reported drug use or (b) he or she denied drug use but tested positive. These two methods differ, however, in the assumptions that they make about drug use by persons who said they did not use drugs but did not provide a urine sample.

The intermediate estimate uses data from those who denied use and provided a urine test to predict the likelihood of drug use among those who denied use and only provided a self-report. The analysis involved three stages. In the first stage, we developed a logistic regression model of the characteristics associated with respondents who reported no use and tested positive.[12] In the second stage, we applied the model to persons who denied use and did not provide a specimen to predict their likelihood of drug use. Finally, based on the model parameters (e.g., sensitivity and specificity) we set cut-off points to sort the group with missing urine data into users and non-users based on their predicted scores. These predicted values were then included in the intermediate prevalence estimate. The high estimate assumes that anyone who reported no use and who did not volunteer to be tested was positive.

Prevalence of Problematic Drug Use and Substance Abuse Treatment Need

To estimate need for clinical assessment for substance dependence and, if warranted, referral to appropriate treatment, we applied a set of criteria to divide respondents into categories based on their likelihood of problematic drug use. We developed four risk categories: high, moderate, low, and presumed low. The criteria used to classify respondents into these categories incorporate data from self-report, urine test, and criminal justice records and are listed in Table 2 below. Persons at high or moderate risk for problematic use are most in need of clinical assessment.

[12] Predictor variables were: ethnicity/language; age; CalWORKs status; self-reported lifetime arrests; smoke cigarettes daily; self-reported emotional problems; and whether the respondent had minor children who were not living primarily with her or him. Logistic regressions for "any use" and opiate/stimulant use were significant ($p < .0001$) with the statistic $c = 0.822$ and 0.862 , respectively.

Table 2

Criteria for Assigning Level of Risk for Problematic Alcohol or Other Drug Use	
Risk Level	*Criteria*
High risk	Any of the following: -Tested positive for opiate/stimulant use -Reported using opiates/stimulants in the previous 30 days -Reported using marijuana 10 days or more in the previous 30 days -Reported drinking to intoxication 7 or more times in the prior 30 days -Reported an alcohol or drug problem in the previous 30 days -Reported substance abuse treatment within the previous 6 months
Moderate risk	Did not meet any of the criteria for assignment to the high risk and met one or more of the following: -Tested positive for barbiturates, sedatives, or marijuana -Reported drug use (other than opiates or stimulants) in the last 30 days (if marijuana, used less than 10 days out of the prior 30) -Reported alcohol or drug abuse treatment more than 6 months ago -Reported lifetime arrest for driving under the influence (DUI) -Record of ever being arrested for an alcohol- or drug-related offense
Low risk	Did not meet any of the criteria for assignment to the high or moderate risk categories and provided a urine test and tested negative for all drugs tested
Presumed low risk	Did not meet any of the criteria for assignment to the high or moderate risk categories and did not provide a urine test to corroborate self-reported non-use of substances

We examined the bivariate associations between drug use risk and various respondent baseline measures. Data on the relationship between drug use risk and the key characteristics and health status variables are presented in Table 2A in the Appendix.

Follow-up Cohort Interview

To examine the relationship between problematic drug use and the processing of CalWORKs clients and the interrelationships between drug use, welfare, and health and health care we used baseline and follow-up interview data from probably eligible applicants who participated in both the baseline and follow-up studies. Baseline measures reflect the status of participants as they were entering the CalWORKs system. Subsequent measures reflect their welfare, health, and health services outcomes over the intervening period. We examined trends in health, and health care by comparing baseline and follow-responses to questionnaire items. To examine differences in outcomes by drug use involvement, we divided respondents into groups using the drug use risk classification categories described above. Data on key variables with respect to participants' welfare and health-related outcomes are presented in Table 3A and Table 4A in the Appendix.

CalWORKs Administrative Records Data

Analysis of DPSS administrative records data was limited by the timeframe and structure of available data. With respect to GEARS supportive services data, we describe the nature and extent of the services provided. We assumed that the respondents who were not matched to the GEARS database did not receive services through the CalWORKs system. This is a reasonable assumption given the high percentage of cases matched on the other database (LEADER) that was searched.

We used available LEADER system data on CalWORKs cash aid and other benefits to examine the relationship between drug use and patterns of welfare receipt for that segment of the sample who were long-term CalWORKs recipients. We defined long-term respondents as those who were undergoing an annual redetermination interview at baseline and, hence, had already received CalWORKs for at least 1 year. We classified these recipients into three groups depending on whether they had received CalWORKs aid during the 18-month window between October 2002 and March 2004[13] and, if they had, the approval date of their most recent CalWORKs spell. The three groups were: (a) respondents who had received benefits continuously since the baseline interview, (b) respondents who received benefits during the 18-month window but who had cycled on and off CalWORKs at least once since the baseline interview, and (c) respondents who did not receive any cash aid between October 2002 and March 2004. (See Figure 1A in the Appendix.) For purposes of this analysis we assumed that cases that were not matched did not receive CalWORKs benefits during the covered time period. Because failure to match a case may also be due to errors in the case identifiers provided by the respondent, the number of respondents presumed to have not received aid may be overstated. We examined the bivariate association between problematic drug use and the pattern of CalWORKs receipt.

Research Findings

We begin our discussion of research findings by presenting study results with respect to current drug use prevalence estimates.

Baseline /Prevalence Interview

Current Drug Use

As noted above, whereas a large majority of study participants provided an optional urine specimen for testing, 22.0% did not. The lack of corroborating urine test data for all study subjects complicates the estimation of substance use rates because, despite assurances of confidentiality, some participants may have denied recent use out of concern that study data might jeopardize their welfare status or have other adverse effects. To account for underreporting, we employ three different analytical approaches to estimate the current prevalence of drug use among CalWORKs participants: low (conservative), intermediate, and

[13] As noted earlier, this is the 18-month time frame is the period for which LEADER data were available.

high (liberal). Each approach makes a different assumption about drug use by persons who denied use, but did not provide a urine sample to corroborate their self-report data.

Our intermediate and probably best estimate of the prevalence of recent use of any drugs by CalWORKs participants is 22.2%. Our intermediate estimate of the prevalence of opiate/stimulant use is 10.6%. These estimates were derived, as described above, by statistically estimating rates of use among those who denied use but did not provide a urine sample.

By contrast, if we rely on self-report data alone, our estimate of any current use would be only 9.8% and our estimate of opiate/stimulant use 0.6%. Given the likelihood of denial of use, we consider these estimates as a significant underreporting of actual use. If we assume that all respondents who denied use and did not volunteer to provide a urine sample would have tested positive for use, drug use prevalence rates could be as high as 36.0% for any use and 28.0% for opiate/stimulant use. This assumption, often used in treatment outcome studies, is likely to overestimate the rate of drug use, but we apply it here to indicate an upper limit of the prevalence rate. Prevalence estimates for any use and opiate/stimulant use are presented in Table 3.

Table 3

Prevalence of Current Drug Use --Any Use* and Opiate/Stimulant Use Based on Alternative Measures**

	Any Use	**Opiate/Stimulant Use**
	(n = 508)	(n = 509)
Self –reported use: Low (conservative) estimate[1]	9.8%	0.6%
Reported use, tested positive, or predicted positive: Intermediate (projected) estimate[2]	22.2%	10.6%
Reported use, tested positive, or did not test: High (liberal) estimate[3]	36.0%	28.1%

Note: Ns differ slightly due to missing data.

* Any recent use of six drugs: cocaine, opiates, marijuana, amphetamines, barbiturates, or sedatives.

** Any use of heroin or other opiates (excluding methadone), cocaine, or amphetamines.

[1] Self-reported use in the previous 3 days for all drugs except marijuana, which is previous 30 days.

[2] Self-reported use or positive urine test result. The intermediate approach uses data from persons who reported no use and provided a urine test to project the likelihood of use by persons who denied use but did not provide a sample.

[3] Self-reported use in the previous 3 days (30 days for marijuana), positive urine test result, or reported no use but did not provide a urine specimen to be tested.

Our projected estimates of drug use prevalence are conservative. Urine tests detect only recent use (previous 3 days; approximately 2 weeks for marijuana). Rates of use over the previous week or previous month are likely to be higher. At the same time, drug use does not necessarily imply drug addiction or dependence, which is an indicator of treatment need. Given the highly

addictive nature of opiates and stimulants, however, it is likely that treatment need is greatest among this group. Moreover, underreporting of opiate and stimulant use is high--approximately 92% of those who tested positive for opiate/stimulant use denied having used them—which complicates estimation of both prevalence and chronic use. Thus, while our point prevalence estimate is an indicator of current drug use, it is an imperfect indicator of long-term use or of drug use severity.

Problematic Substance Use and Treatment Need

Given the limitations of point prevalence estimates to assess problematic drug use and substance abuse treatment need, we constructed a second indicator of prevalence that focuses on the risk of problematic substance use. The measure combines urine drug test results with other variables: substance use frequency, history of substance abuse problems, and record of substance use-related arrest. We include a historical component because alcoholism and drug addiction are often chronic, relapsing conditions. Hence, any substance use by persons with a history of addiction or dependence is problematic as relapse frequently occurs. Unlike our intermediate estimate of current drug use, this approach does not adjust for missing urine test data. Because underreporting is possible for all of the items used, these estimates are also conservative.

The number of respondents at each level of risk for problematic substance use is presented in Table 4 below. Based on this measure of alcohol and other drug use, 10.0% of CalWORKs study participants are at high risk for problematic use and 14.7% are at moderate risk. Together, these two groups constitute about one-quarter of CalWORKs respondents and represent the type of clients who would be appropriate candidates for professional assessment for possible alcohol or drug dependence and, if appropriate, referral to substance abuse treatment.

Table 4

Level of Risk for Problematic Drug Use		
Risk Level	**Number of cases**	**Percent of total cases (n = 509)**
High risk [a]	51	10.0%
Moderate risk [b]	75	14.7%
Presumed low risk [c]	93	18.3%
Low risk [d]	290	57.0%

[a] Tested positive for opiate/stimulant use; self reported opiate/stimulant use previous 30 days; smoked marijuana 10 or more times previous 30 days; intoxicated 7 or more times previous 30 days; alcohol or drug problem previous 30 days; substance abuse treatment in previous 6 months

[b] Not high risk; tested positive or reported use of barbiturates, sedatives, or marijuana (<10 days of previous 30, if marijuana); alcohol or drug abuse treatment more than 6 months ago; ever arrested for driving under the influence; any record of arrest for alcohol- or drug-related offense

[c] Not high or moderate risk, but did not provide a urine test to validate self-reported use

[d] Not high or moderate risk, tested negative for drug use at baseline

Our measure of risk of problematic use has both strengths and limitations. By combining self-reports with data from official records and urinalysis results, it partially corrects for underreporting of recent alcohol and other drug use and takes past problematic use into account. It also captures use of both alcohol and other drugs. However, it probably underestimates the extent of problem drinking because our measures of alcohol consumption were not extremely detailed. At the same time, of the approximately 96% of respondents who volunteered to take an optional Breathalyzer test at baseline, only one person had a reading greater than zero. Taken together these findings clearly indicate that reliance on self-reported data alone greatly underestimates the extent of substance use among CalWORKs participants.[14]

We now turn to an exploration of similarities and differences between respondents with high- and low-risk of drug involvement with respect to demographics, social problems, and health- and mental-health-related variables. Data for the key variables are presented by drug use risk level in Table 2A in the Appendix. In our discussion, we contrast the data from those at elevated risk (the high and moderate risk groups) to that from those at low risk (the low and presumed low risk groups). We pair the groups in this way because review of study data overall indicate that those at moderate risk are generally more similar to the high-risk group than to those with limited drug involvement.

Similarities and Differences between Problematic Drug Users and Other Participants

Demographics

Those at moderate and high risk of problematic drug use were more likely than those at low risk to be born in the United States (89.7% vs. 39.2%, $p < .0001$) and to have English as their primary language, (93.7% vs. 51.4%, $p < .0001$). Using language as a measure of acculturation, Latinos whose primary language were Spanish were significantly less likely than Whites, African-Americans, more culturally assimilated Latinos, and "Other" ethnic groups to be at elevated risk for problem substance use (4.2% vs. 37.1%, $p < .0001$).[15] There were no statistically significant differences between risk groups in terms of age, gender, whether or not respondents were

[14] Several other studies have sought to estimate rates of drug use and dependence in CalWORKs populations in other California counties. These include: Reardon, E., Demartini, C., Klerman, J., 2004, *Results from the First California Health and Social Services Survey*, Prepared for the California Department of Social Services, TR-121-CDSS, RAND, Santa Monica, CA; Chandler, D. and Meisel, J., 2002, *Alcohol and Other Drugs, Mental Health, and Domestic Violence Issues: Need, Incidence, and Services*. California Institute for Mental Health. Sacramento, CA; Norris, J., Dasinger, L., Miller, R., and Speiglman, R., 2002, *Changes Over One Year (2000-2001) in Economic, Work, Welfare, and Barrier Status, San Joaquin County CalWORKs Needs Assessment and Outcomes Study*, Report #2, Public Health Institute, Berkeley, CA; Green, R., Fujiwara L., Norris, J., Kappagoda, S., Driscoll, A., and Speiglman, R., 2000, *Barriers to Working and Summaries of Baseline Status, Alameda County CalWORKs Needs Assessment*, Report #2, Public Health Institute, Berkeley, CA; Weisner C.M. and Schmidt, L.A, 1993, Alcohol and drug problems among diverse health and social service populations. *American Journal of Public Health,* 83:824-829. Differences in methodology make it difficult to compare rates of use and abuse across studies. These and additional reports on CalWORKs research by RAND, the California Institute for Mental Health (CIMH), and the Public Health Institute (PHI) can be found on their respective websites.

[15] This finding is consistent with that of other research in the substance abuse literature. See, for example, Vega, WA, Alderete, E, Kolody, B, &Aguilar-Gaxiola, 1998, Illicit drug use among Mexicans and Mexican Americans in California: the effects of gender and acculturation. *Addiction*, 93(12):1839-1850.

married, or the number of children receiving aid. Neither was there a significant association between risk of problematic drug use and whether the respondent was a new entrant or a longer term recipient in the CalWORKs system. However, a small subgroup of CalWORKs applicants (n = 49) who reported that they had received CalWORKs benefits within the previous 6 months and, hence, were reapplying for benefits lost for some reason, were significantly more likely than other respondents to be at elevated risk for drug use (44.9% vs. 22.6%, $p < .005$).

Social problems

Those at elevated risk for problematic drug use were more likely than those at lower risk to have multiple types of social problems. They were more likely to have ever been arrested (58.7% vs. 13.6%, $p < .0001$); to have minor children living outside the home (23.8% vs. 9.1%, $p < .0001$); to have ever had a child welfare case brought against them (26.2% vs. 7.3%, $p < .0001$); and to have an immediate family member who has or has had a serious alcohol or drug abuse problem that adversely affected their lives (50.8% vs. 29.0%, $p < .0001$). They also are more likely than those at lower risk of abuse to have close friends who have or have had a history of serious alcohol or other drug problems (52.4% vs. 22.2%, $p < .0001$). With respect to each of these five social problems, respondents at highest risk for problematic drug use are most likely to have experienced the problem; those at moderate risk the next most likely; and those in the confirmed low-risk group the least likely. Rates in the presumed low-risk group, which combines both low risk respondents and some who underreport use, generally fall between those in the moderate and low risk groups. (See Table 2A in the Appendix.)

Health and medical care

Our cross-sectional baseline data, which includes both new entrants and longer-term CalWORKs participants, suggest that there were health status differences between persons based on substance use risk status. With respect to physical health, those at elevated risk of problematic drug use were more likely than those at lower risk to have ever been hospitalized (70.6% vs. 40.7%, $p < .0001$). They also tended to be more likely to report that they had a medical problem in the previous 30 days (33.3% vs. 25.9%), but the relationship was not significant. In terms of medical health care utilization, those at higher risk were more likely to report they had been to an emergency room in the previous 6 months (23.8% vs. 15.1%, $p < .05$) and to report not being able to see a doctor or nurse when needed during the same period (24.0% vs. 13.3%, $p < .005$). The inability to obtain access to care when needed was most pronounced among those just entering the CalWORKs system, who were therefore the least likely to have health insurance, but it was also present among longer-term CalWORKs recipients. Analysis of data from the follow-up interview discussed below sheds additional light on the relationship between welfare, insurance, and access to care for benefit recipients. The data do not permit us to examine to what extent medical problems are a cause or consequence of substance use.

Mental health

Although over half of respondents in the study reported having an emotional problem in the previous 6 months, those at elevated risk of problematic substance use are significantly more likely than those at lower risk to report such problems (68.3% vs. 54.8%, $p < .01$). Among respondents in the high-risk group, over 75% reported one or more emotional difficulties. Of six mental health problems that respondents were asked if they had experienced, those most frequently mentioned, regardless of drug risk status, were anxiety, 81.4%; depression, 72.1%;

and trouble concentrating, 48.8%. Less frequently mentioned were: trouble controlling violent behavior, 25.6%; thoughts of suicide, 10.5%; and hallucinations, 7.0%. The data are self-reported and provide no indication whether the emotional problems are a product of drug use or reflect an underlying mental health condition. With respect to that subset of subjects who reported having emotional problems (n = 296), those at elevated risk for problematic drug use were significantly more likely than those at lower risk to report having experienced trouble concentrating (48.8% vs. 34.8%, $p < .05$) and difficulty controlling violent behavior (25.6% vs. 11.0%, $p < .005$). The two groups did not significantly differ with respect to the other emotional problem areas.

The findings presented above were drawn from study baseline data, which represent a broad cross-section of English- and Spanish-speaking CalWORKs participants, including long-term participants and those newly entering the system. Although useful for estimating the prevalence of substance use and abuse in the county welfare population overall, it is less useful for examining health differences between those at elevated and low risk of problematic use. Because length of time on welfare may be associated with Medi-Cal receipt, access to and utilization of supportive services, and other health-related outcomes, the heterogeneity of the baseline sample may serve to obscure important differences and similarities in the welfare experience between groups at elevated and low risk for drug abuse.

Follow-up/Cohort Interview

To better examine the relationship between drug use and welfare, health and mental health, and health and mental health care, we examine data from a cohort of respondents who came into the CalWORKs system at the time of the baseline interview. Although less representative of the broader county CalWORKs population, it allows us to examine aspects of the welfare experience in more detail. The distribution of drug use risk in our follow-up sample is similar to that of probably eligible applicants who participated in the baseline interview. Of the 153 persons who took part in the study at follow-up, 9.8% versus 10.5% in the baseline sample were at high risk for problematic use; 19.0% versus 16.8% were at moderate risk; and 71.2% versus 72.7% were in the lower risk categories (low-risk and presumed low-risk). Of these 153 respondents, 83.0%, (n = 127) were approved for CalWORKs benefits. We now turn to findings from the follow-up component of the study.

Problematic Drug Use and Participants' CalWORKs Experience

An important concern from a policy perspective is whether those at elevated risk for problematic drug use are more likely to find it more difficult to negotiate the bureaucratic welfare system. Data from our follow-up study suggest that problematic drug use was not generally an important factor in shaping a participant's CalWORKs experience. Those at elevated risk were not less likely than those at lower risk to be approved for CalWORKs benefits; indeed, 95.3% of those at elevated risk of problematic drug use obtained CalWORKs benefits compared to 78.9% of those

in the lower risk categories.[16] Also, of those approved for benefits, those at elevated risk were about as likely as those at lower risk to be still receiving aid at the time of the follow-up interview (80.5% vs. 77.7%, respectively). Although there was a slight trend for those at elevated risk to be more likely to report that they had benefits reduced for failure to follow program rules (39.0% vs. 32.6% for the low risk groups), this difference was not statistically significant.

Study findings also indicate that among those who qualified for benefits, the quality of the professional relationship between welfare workers and CalWORKs participants was not significantly poorer based on a participant's drug use involvement. A majority of respondents receiving benefits generally reported that their experiences with welfare staff were positive: 76.4% agreed with the statement that their worker treated them fairly and 70.1% agreed that their worker took time to explain the rules. However, when presented a statement that was negatively phrased, only 46.8% disagreed that his or her "worker only cared about getting the forms filled out." Although there were slight differences in response patterns by drug use risk for each of the three items (see Table 3A in the Appendix), in no case were those at elevated risk significantly more likely than those at lower risk to report less satisfactory relationships with welfare workers.[17]

In addition, respondent's drug use risk level was not significantly associated with their likelihood of being informed about ancillary CalWORKs services (e.g., Medi-Cal and supportive services) or their likelihood of being screened for emotional or substance abuse problems. With respect to health insurance, 90.7% of those at lower risk were told about Medi-Cal by their caseworker compared to 85.4% of those at elevated risk. With respect to mental health and substance abuse services, 53.0% of lower risk participants versus 67.5% of those at elevated risk reported being told about the availability of emotional counseling, and 63.1% of lower risk participants versus 70.7% of those at elevated risk for problematic drug use were told about substance abuse treatment. None of these differences was statistically significant.[18] Respondents were also similarly likely to be informed about the availability of programs for domestic violence.

The data indicate that while some headway has been made in implementing screening for substance abuse and mental health problems among CalWORKs participants, the percentage of respondents who reported that they were screened was generally low, paradoxically so, especially given the intensive resources expended to implement a broad-based CalWORKs mental health and substance abuse screening system.[19] Among respondents approved for

[16] The difference was statistically significant, $p < .05$. Over half of those who did not obtain benefits reported that the primary reasons were because they got a job or did not meet eligibility requirements.

[17] The only item on which those at elevated risk were slightly (but not significantly) more likely to be critical than those at lower risk was with respect to the statement that their worker took time to explain the rules, 65.9% versus 72.1% respectively, agreed.

[18] The slightly lower rates reported by those at lower risk for problem use is probably attributable to the fact that a higher percentage of child-only CalWORKs cases are in the low risk category. Although the data show that many respondents who had applied for benefits on behalf of their children reported receiving services information, the rates were lower than among those cases that were family unit cases.

[19] DPSS policies require that participants be screened at various points in the CalWORKs program including at application for CalWORKs benefits, at transition to the welfare-to-work program (called Greater Avenues to Independence [GAIN]), and at vocational assessment. While retrospective self-report data may underestimate the extent of screening conducted, the fact that screening is conducted at multiple time points is likely to make lack of recall less of a problem.

benefits, 48.4% reported being asked about their alcohol and drug use, and 34.7% reported being asked about their emotional health by someone at the welfare office.[20] Again, as with other aspects of clients' CalWORKs experience, respondents at elevated risk for problematic drug use were statistically neither more nor less likely than those at lower risk to be screened for behavioral problems. Thus, the DPSS processing procedures that linked study participants to the CalWORKs system and through that system potentially to health insurance and other health care services do not appear to affect those at highest risk of problematic drug use more adversely than others. We now examine the impact of risk of problematic drug use on receipt of health insurance, and access to and utilization of medical, mental health, and substance abuse treatment services among those approved for CalWORKs benefits.

Problematic Drug Use and Insurance, Health, and Health Services Utilization

Above, we presented findings from the baseline interview on the relationship between drug use and various aspects of health and healthcare among a broad cross-section of welfare participants, both new entrants and longer-term recipients. In this section, we examine the association between drug use and health care access and utilization for that cohort of respondents who were just entering the CalWORKs system at the baseline interview. The goal of this study component is to see if there are differential health-related effects over time that are directly associated with drug use and abuse. We begin with the relationship between drug use and health insurance, a key factor in promoting access to care.

Insurance

With respect to health insurance, CalWORKs participants at higher risk for problematic drug use were significantly more likely than those at lower risk to report having health insurance: 90.2% versus 77.7%, respectively, reported having some type of health insurance (Medi-Cal, private, or some other source), whereas 82.9% versus 71.8% reported specifically having Medi-Cal. The differential rates in favor of those with drug use problems with respect to Medi-Cal most likely reflect differences in the demographic composition of the two groups. Of respondents in the uninsured low-risk group (n = 19), about one-half were foreign born, non-citizens, who were receiving benefits only for their children.[21] Indeed, the percentage of respondents who reported that their children had health insurance benefits was extremely high for both the elevated and lower risk groups: 95.3% versus 95.1%. The finding underscores the important role of welfare in promoting access to health care, particularly for children, through linkage to public insurance.

Health and medical care

At baseline for this cohort, those at elevated risk tended to be more likely to have a medical problem (39.0% vs. 25.6%), and at follow-up the difference became even more pronounced (56.1% vs. 32.6%, $p < .0001$). As indicated, the percentage with medical problems increased for

[20] The percentages are even lower if we include responses from all follow-up interview participants (as opposed to just approved cases): 44.3% reported being asked about substance use and 32.7% about emotional problems.

[21] It is likely that some in this group were undocumented immigrants who had applied for aid on their children's behalf. Also, Weil & Holahan, J., *op. cit.* note that the 1996 welfare legislation made certain immigrants ineligible for Medicaid and that some eligible immigrants left the rolls due to confusion or to concerns that Medicaid receipt would affect their immigration status. Although an important issue, it is beyond the scope of this paper.

both groups. The increase may be partly attributable to respondents being better informed about their health as a result of greater access to medical care, which is noted below. At follow-up, approximately one-third of those approved for benefits, 34.2% of those at elevated risk and 30.2% of those at low risk, rated their overall health as fair or poor compared to other people their age.

Utilization of medical services increased in both substance use risk groups. At baseline, those at elevated risk were more likely than those at lower risk to have obtained outpatient medical care (51.2% vs. 36.1%, respectively). This difference was even greater at follow-up (80.5% vs. 44.2%, $p < .0001$). The percentage that visited an emergency room also increased: from 13.9% to 22.0% for the low-risk group and from 29.3% to 48.8% for the higher-risk group. At both baseline and follow-up, differences in utilization between the two groups were significant. Among respondents at elevated risk for problematic use, increases in the percentages reporting outpatient and ER services were accompanied by a decrease in the percentage who reported having a barrier to medical care. Among the low risk group, where insurance coverage was less pervasive, the percentage of respondents who reported being unable to obtain needed care increased relative to baseline for those approved for benefits.

Mental health and mental health care

For this cohort, the percentage of elevated and low risk respondents reporting at least one emotional problem at baseline was similar, with approximately two-thirds of respondents in both groups reporting having some problem: 68.3% for those at elevated risk for problematic use and 63.9% for those with limited drug use involvement. At follow-up, whereas the percentage reporting a problem in the low risk group declined to 50.0%, the percentage in the elevated risk group increased to 75.6%, a significantly larger percentage than that in the lower risk group. The percentage of respondents who classified their emotional problems as either fair or poor compared to others of their age was about one-third (31.4% vs. 31.7%).

Of those approved for benefits, the percentage of those in the lower risk categories who reported receiving any mental health care in the previous 6 months increased from 8.1% to 9.3% between baseline and follow-up. For those at elevated risk for problematic use, the proportion went from 12.2% to 17.1% between the two periods. These data reflect only a small increase from baseline rates, again a paradoxical finding, given the high rates of emotional problems in this cohort. Moreover, the percentage of cases that reported receiving any mental health care is substantially lower than the percentage that rated their emotional health as fair or poor, an indication that they regarded their problem as relatively serious. Those at elevated risk for drug use tended to be more likely than those at lower risk to report being unable to obtain mental health services when needed (15.0% vs. 5.8%, respectively).

Drug use and drug use treatment

As discussed above, high rates of drug use underreporting in this population make it difficult to assess rates of drug use or abuse without reliance on other corroborating data, such as urine tests. Thus, to estimate rates of drug use at follow-up, we restricted our analysis to respondents who provided a urine test ($n = 97$) at the follow-up interview.[22] Of those, 15.5% tested positive

[22] Because 26.8% of follow-up interviews were conducted by telephone, rates of urine testing at follow-up were lower than that at baseline.

and/or reported any use or a substance use-related problem. When viewed within the context of respondent's risk of problematic drug use, 66.6% of those classified as high risk at baseline were involved in substance use at follow-up, as were 38.9% of those classified as at moderate risk. Only 5.5% of those in the low- and presumed low-risk groups were involved in drug use at follow-up. Again, these estimates are conservative.

Study data show that among those at elevated risk for problematic drug use the percentage of CalWORKs cases in substance abuse treatment was low at both baseline and follow-up; only 7.3% reported having received substance abuse treatment in the previous 6 months at follow-up, a percentage unchanged from the initial interview, also at 7.3%. The percentage that reported receiving substance abuse treatment in the lower risk groups increased from 0.0% at baseline to 2.3% at follow-up. As will be seen below, administrative data on provision of supportive services corroborate the limited receipt of substance abuse treatment services by respondents in our CalWORKs study.

Records Data

Referral to and Utilization of Supportive Services

County CalWORKs program administrative data provide additional perspective on the relationship between drug use, welfare, and access to and utilization of assessment for, and receipt of, mental health, and substance abuse treatment services.

Data received from DPSS indicate that of the 347 respondents who signed releases, 15 study participants (11 recipients and 4 probably eligible applicants) were matched as having received assessment and mental health and/or substance abuse services through the CalWORKs program. Three appear to have been already receiving services prior to having their treatment costs picked up by the CalWORKs program. Twelve of the respondents were referred for mental health/substance abuse assessment through the CalWORKs program, of whom10 were assessed. Of those assessed, 7 were referred for mental health treatment and 2 for both mental health and substance abuse services.[23] None of the 158 probably eligible baseline applicants who signed releases (34 of whom were at elevated risk for problematic substance use) were referred to assessment or received substance abuse treatment through the CalWORKs system. (As noted above, survey data indicate that only 7.3% received any substance abuse treatment at all, regardless of the payment source.)

Problematic Drug Use and Time on Welfare

A second area in which available administrative data can provide additional perspective on self-report information is with respect to the relationship between the prevalence of problematic drug use and the length of time persons have been on welfare. Some argue that those who have been on welfare the longest are more likely to have substance abuse and mental health problems.

[23] All but one of the 15 cases who were identified as receiving services from the DPSS data file reported one or more emotional problems and/or was at elevated risk for problem drug use based on study survey data.

However, as reported above, comparison between baseline applicants and recipients (the latter of whom had been receiving welfare for at least 1 year) suggested little difference in rates of problematic drug use. However, as noted, a subgroup of applicants who were applying to regain lost benefits was significantly more likely to be at elevated risk of problematic use.

We examined the association between drug use risk and three patterns of welfare tenure among respondents who were recipients at baseline: persons who received benefits as part of an extended continuous spell (n=87), persons who received benefits over an extended period but cycled on-and-off the CalWORKs system at least once during that period (n = 27), and persons who did not have a record of having received cash aid during the extended period for which LEADER data were available (n = 49). The data indicate that the percentage of respondents at elevated risk who had extended periods of welfare receipt, 22.0%, was not significantly greater than the percentage of those at elevated risk who did not have extended benefits, 20.7%. However, there was a non-significant trend for those with multiple welfare episodes or spells to be more likely than other recipients to be at elevated risk for problematic use (27.3% vs. 20.6%, respectively). This pattern is consistent with our finding that at baseline, applicants who were applying to regain lost benefits (i.e., those with a history of multiple spells) were also more likely to be at elevated risk of problematic use. Though our findings are only suggestive, further exploration should be given to focusing screening efforts on individuals with multiple recurrent spells, perhaps as an indication of an erratic life course commensurate with substance abuse problems.

Finally, we use these data to examine the association between Medi-Cal retention and welfare tenure. Data indicate that among those who continue to be on welfare for extended terms, virtually all retain Medi-Cal insurance for one or more family members. However, among those who exit the welfare system, only 24.5% retain Medi-Cal support. While the county welfare system has initiated efforts to promote retention of health insurance benefits for former CalWORKs recipients who remain eligible for Medi-Cal, this finding suggests a need for further evaluation of program efforts in this area.[24]

Discussion

Based on statistical projection, we estimate that 22.2% of CalWORKs study participants were engaged in recent drug use and that 10.6% were current users of opiates and/or stimulants (cocaine or methamphetamine). Although as noted above, drug use alone is not an indicator of substance dependence, and hence, of treatment need, we would expect that those with the most severe drug problems are among the 10% who are using opiates and stimulants. Employing an alternative method that does not involve projection procedures but combines self-report, urine test, and arrest records data, our estimate of the percentage of respondents at high risk of problematic alcohol and drug use is also 10%. Another 15% of respondents were classified at moderate risk for problem use.

[24] Garrett Bowen and Holahan John. (2000). DATAWATCH: Health insurance coverage after welfare. *Health Affairs*, 19(1), 175-184.

Both of these estimates, which focus on different aspects of drug use—current use and problematic use--are conservative estimates. Nevertheless, there is little in either of these findings to suggest that substance abuse is epidemic within the CalWORKs population in Los Angeles County. That is not to say that substance misuse is not an important problem. Given the large size of the Los Angeles County CalWORKs caseload (about 200,000 cases at the time the study was conducted), even a small percentage of problematic users translates to large number of CalWORKs participants--about 20,000 individuals based on our estimate of 10%. For the state caseload as a whole, the absolute number of CalWORKs families affected would be even greater. Moreover, even casual drug use may be related to one of the major welfare reform goals, to increase the employment of recipients: Follow-up survey data indicate that among those who actively searched for work in this sample, approximately 30% of respondents reported being drug-tested by at least one of the businesses that they contacted. To the extent that passing a urine test is a condition of employment, any drug use may make it harder to obtain work.

Consistent with other research,[25] our study found that among persons at high risk for problematic alcohol and other drug use, substance use is likely to be only one among a constellation of serious personal problems. Bivariate comparisons presented above showed that those at high risk for problematic use are more likely to have been involved with the criminal justice system, to have been reported to the child welfare agency for alleged child neglect or abuse, to have a minor child who is not living primarily with them, and to have immediate family and close friends (including a partner or spouse) whose lives have been severely disrupted by alcohol or drug problems. They are also more likely to report having physical and emotional problems and to report difficulty accessing medical care. In short, they appear to have a constellation of serious needs and a dysfunctional social system, and therefore they require multiple interventions.

These findings suggest a relatively small but extremely troubled group of CalWORKs recipients who contribute disproportionately to social costs. More intensive multidisciplinary interventions targeted at this particular group, of which professional substance abuse assessment should be one, may be more beneficial than a program that calls for brief screening of all CalWORKs participants for possible substance abuse. High rates of drug use underreporting by users of the most addictive substances complicate the ability to assess treatment need and suggest that consideration be given to use of urine testing as an adjunct to substance abuse assessment for this group. However, as previously noted, because urine tests are not necessarily an indicator of addiction or dependence, welfare professionals should rely on substance abuse treatment professionals to review and interpret test results.

On a favorable note, problematic substance use was not associated with greater difficulties negotiating the CalWORKs system. Those at elevated risk of problematic use were not more likely than those at lower risk to be denied benefits, nor were they more likely to feel that their welfare worker had treated them unfairly. Neither were they more likely to have lost CalWORKs benefits by the time of follow-up interview. The absence of disparities in access to CalWORKs aid based on respondents' level of drug use was an important positive study finding. Changes in

[25] Chandler, D., and Meisel, J., 2002, op cit.; and Gutman, M.A., Ketterlinus, R.D., McClellan, A.T., 2003, Characteristics of substance-abusing women on welfare: Findings from the evaluation of CASAWORKS for families pilot demonstration. *Evaluation Review* 27(6):597-628.

welfare policy should try to preserve access to this social safety net for families in this vulnerable population.

At the same time, the role of CalWORKs as a link to health services broadly defined is mixed. Our data generally support the effectiveness of welfare as a pathway to Medi-Cal health insurance for low-income families, as reflected by the high percentage of respondents who reported health coverage for themselves and especially their children. Although about 20% reported being unable to see a doctor or nurse when needed at follow-up, the percentage of respondents who had one or more medical outpatient visits increased after approval for CalWORKs benefits.

However, with respect to substance abuse and mental health services, the impact of current CalWORKs policies to facilitate access to assessment and treatment appears more limited. CalWORKs administrators have adopted numerous formal policies and procedures intended to promote dissemination of information on the availability of specialized supportive services to clients, including distribution of pamphlets, posting of flyers, orientation modules, and verbal reports. The data indicate that some success has been achieved in this objective: Approximately 66% of respondents reported that they were informed about the availability of substance abuse and mental health treatment. However, by comparison, this percentage was lower than the percent of respondents who reported being informed about Medi-Cal (almost 90%), which suggests that further gains in dissemination are possible.

Implementation of substance abuse and mental health screening of CalWORKs participants by welfare workers appears to have been less successful than the implementation of information dissemination activities. Less than one-half of respondents reported being screened for substance abuse or emotional problems. It is possible that some participants may not have recalled being screened or may not have been aware that they were being screened by staff. However, DPSS policy calls for screening at intake and at multiple other points in the case-flow process, which is likely to minimize the problem of underreporting due to lack of recall. Uneven implementation of screening is consistent with the low percentage of respondents who received referrals to clinical assessment for substance abuse and mental health problems, despite the presence of a significant minority who were at elevated risk of problematic drug use and who characterized their mental health as fair or poor. However, limited utilization of specialized supportive services may, in part, also reflect the reluctance of participants to disclose emotional and substance use problems to welfare workers even when screening is conducted. Low rates of substance abuse and mental health services utilization are reflected both in respondent self-reports and in the administrative records data, thus lending more support for study findings.

Changes in the health status of CalWORKs participants at elevated risk for substance abuse indicate that the current system significantly mitigates neither substance use, emotional distress, or to a lesser degree medical problems, among problem users. The percentage of problematic users who report a mental health problem at follow-up increased significantly, as did the percentage reporting a medical problem. Moreover, a substantial percentage of respondents who were at high risk for problematic use at baseline continued to use substances at follow-up. Given the interconnectedness among drug use and mental and physical health, it is likely that increased stresses on physical health and mental health exacerbate substance involvement and vice versa.

To the extent that there is an association between addiction and injury-related, crisis-driven emergency room care, lack of access to and utilization of appropriate substance abuse treatment services may have contributed to the substantial increases in the percentage of problem drug users who reported obtaining emergency medical care after qualifying for CalWORKs benefits. Similarly, given that higher utilization of outpatient care is typically associated with mental health disorders, it is possible that lack of access to counseling through either the drug abuse or mental health treatment systems may have also contributed to increased utilization of outpatient care. However, such reasoning is conjectural. The extremely low rates of supportive services utilization among this group mean that the contributing impact of supportive services on other components of the health care system cannot be determined.

Our study has several limitations. Although geographically and ethnically representative of a large segment of the county welfare population, our sample was not randomly selected, which limits the generalizability of study findings. Further, the analyses presented here are bivariate associations and do not analyze the strength or direction of causal relationships between variables. Nevertheless, the corroboration between alternative approaches to research questions and the use of multiple data sources (e.g., self-report, records data, and biological tests) increase confidence in study results.

In summary, our findings indicate that the CalWORKs system is generally effective in linking recipients of cash aid to public health insurance and medical care, but that despite the concerted efforts of many CalWORKs professionals and the availability of public funding, access to and utilization of substance abuse and mental health services by persons with drug abuse problems is low. Accordingly, these unmet treatment needs have repercussions not only for the physical and mental health of affected individuals, but also for other, already overburdened components of the health care system. Particularly affected are emergency departments, which not only are cost intensive, but also are probably least fitted to address the complex and interrelated health and mental health problems of problematic substance users. The provision of welfare-based specialized supportive services, initially cast as an element of welfare employment policy, can be seen here also to be an integral component of public health policy. Our research demonstrates the critical need for substance abuse and other treatment services among this small but publicly costly segment of the CalWORKs population and suggests factors for policy makers to consider in formulating welfare/health policies with respect to this group.

Appendix

Table 1A

Comparison Between Respondents Interviewed at Follow-up and Respondents Lost to Follow-up

	Interviewed	**Missing***
	(n = 153)	(n = 99)
Gender		
Male	6.5%	5.1%
Female	93.5%	94.9%
Race/Ethnicity		
African-American	28.8%	30.3%
White	12.4%	12.1%
Hispanic	56.2%	55.5%
Other	2.6%	2.0%
Born in U.S.	54.3%	59.6%
Primary Language		
English	67.3%	72.7%
Spanish	32.7%	27.3%
Age (mean)	30.4%	29.4%
Substance Use		
Ever smoked cigarettes	57.5%	66.7%
Ever drank alcohol	79.7%	74.7%
Ever used marijuana [a]	37.9%	51.5%
Ever used cocaine	17.7%	13.1%
Provided urine test [b]	75.8%	65.7%
Recent drug use [a,c]	19.3%	33.3%
Mental Health		
Any emotional problems (% yes)	65.4%	63.6%
Two or more emotional problems (%yes)	50.3%	42.4%
Criminal Justice Involvement		
Self-reported arrest (% yes)	29.4%	27.3%
Record of prior AOD arrest (% yes)	26.3%	25.3%

*Missing cases consist of 21 refusals and 78 cases that were not located

[a] $p <= .05$

[b] $p <= .10$

[c] Based on subjects who were tested (n = 181) or reported recent use (n = 4)

Table 2A

Respondent Characteristics by Risk of Problematic Drug Use (n = 509)

	High Risk (n = 51)	Moderate Risk (n = 75)	Low Risk (n = 290)	Presumed Low Risk (n = 93)	
Characteristics					
Demographics					
Age					n.s.
18-25 years (31.2%)	25.5%	30.7%	28.6%	43.0%	
26-34 years (34.2%)	39.2%	32.0%	34.8%	31.2%	
35 + years (34.6%)	35.3%	37.3%	36.6%	25.8%	
	100.0%	100.0%	100.0%	100.0%	
Gender					n.s.
Female (95.9%)	92.2%	94.7%	95.9%	98.9%	
Male (4.1%)	7.8%	5.3%	4.1%	1.1%	
	100.0%	100.0%	100.0%	100.0%	
Birthplace					*p <= .0001*
U.S. Born (51.7%)	90.2%	89.3%	33.5%	57.0%	
Foreign Born (48.3%)	9.8%	10.7%	66.5%	43.0%	
	100.0%	100.0%	100.0%	100.0%	
Primary language					*p <= .0001*
Spanish (38.1%)	5.9%	6.7%	52.8%	35.5%	
English (61.9%)	94.1%	93.3%	47.6%	64.5%	
	100.0%	100.0%	100.0%	100.0%	
Ethnicity/Language					*p <= .0001*
Latino-Spanish (37.5%)	5.9%	6.7%	52.1%	34.4%	
Latino-English (23.8%)	25.5%	20.0%	22.4%	30.1%	
White (9.2%)	19.6%	16.0%	5.5%	9.7%	
African-Amer (26.9%)	47.1%	52.0%	17.2%	25.8%	
Other (2.6%)	1.9%	5.3%	2.8%	0.0%	
	100.0%	100.0%	100.0%	100.0%	
Marital status					n.s.
Married (16.9%)	9.8%	10.7%	19.7%	17.2%	
Not married (83.1%)	90.2%	89.3%	80.3%	82.8%	
	100.0%	100.0%	100.0%	100.0%	

Table 2A continued next page

Table 2A-continued

Respondent Characteristics by Risk of Problematic Drug Use (n = 509)

	High Risk (n = 51)	**Moderate Risk** (n = 75)	**Low Risk** (n = 290)	**Presumed Low Risk** (n = 93)	
Characteristics					
No. children on aid					n.s.
One (37.7%)	45.1%	37.3%	34.8%	43.0%	
Two (28.3%)	25.5%	33.3%	26.9%	30.1%	
Three or more (34.0%)	29.4%	29.4%	38.3%	26.9%	
	100.0%	100.0%	100.0%	100.0%	
Welfare status					*p <= .01*
Applicant (46.4%)	41.2%	46.7%	45.2%	52.7%	
Re-applicant (9.6%)	17.6%	17.3%	5.9%	10.7%	
Recipient (44.0%)	41.2%	36.0%	48.9%	36.6%	
	100.0%	100.0%	100.0%	100.0%	
Social Problems					
Parent has minor child not living at home					*p <= .0001*
Yes (12.8%)	31.4%	18.7%	8.6%	10.7%	
No (87.2%)	68.6%	81.3%	91.4%	89.3%	
	100.0%	100.0%	100.0%	100.0%	
Parent has ever had child welfare case					*p <= .0001*
Yes (12.0%)	31.4%	22.7%	6.9%	8.6%	
No (88.0%)	68.6%	77.3%	93.1%	91.4%	
	100.0%	100.0%	100.0%	100.0%	
Ever arrested					*p <= .0001*
Yes (24.7%)	64.7%	54.7%	12.1%	18.3%	
No (75.3%)	35.3%	45.3%	87.9%	81.7%	
	100.0%	100.0%	100.0%	100.0%	

Table 2A continued next page

Table 2A-continued

Respondent Characteristics by Risk of Problematic Drug Use (n = 509)

	High Risk (n = 51)	**Moderate Risk** (n = 75)	**Low Risk** (n = 290)	**Presumed Low Risk** (n =93)	**Sinificance[a]**
Characteristics					
Family have had serious drug problems					*p <= .0001*
Yes (34.4%)	56.9%	46.7%	27.2%	34.4%	
No (65.6%)	43.1%	53.3%	72.8%	65.6%	
	100.0%	100.0%	100.0%	100.0%	
Friends have had serious drug problems					*p <= .0001*
Yes (29.7%)	68.6%	41.3%	22.1%	22.6%	
No (70.3%)	31.4%	58.7%	77.9%	77.4%	
	100.0%	100.0%	100.0%	100.0%	
Health-Related					
Daily tobacco use					*p <= .0001*
Yes (19.0%)	56.9%	33.3%	8.3%	20.4%	
No (81.0%)	43.1%	66.7%	91.7%	79.6%	
	100.0%	100.0%	100.0%	100.0%	
Any medical problems last 30 days					n.s.
Yes (27.7%)	33.3%	33.3%	27.6%	20.4%	
No (72.3%)	66.7%	66.7%	72.4%	79.6%	
	100.0%	100.0%	100.0%	100.0%	
Ever hospitalized					*p <= .0001*
Yes (48.1%)	72.5%	69.3%	38.6%	47.3%	
No (51.9%)	27.5%	30.7%	61.4%	52.7%	
	100.0%	100.0%	100.0%	100.0%	
Used emergency room in previous 6 months					n.s.
Yes (17.3%)	21.6%	26.3%	15.2%	15.1%	
No (82.7%)	78.4%	74.7%	84.8%	84.9%	
	100.0%	100.0%	100.0%	100.0%	

[a] Significance level is based on chi square test statistic.

Table 2A continued next page

Table 2A-continued

Respondent Characteristics by Risk of Problematic Drug Use (n = 509)

	High Risk (n = 51)	**Moderate Risk** (n = 75)	**Low Risk** (n = 290)	**Presumed Low Risk** (n = 93)	
Characteristics					
Unmet medical needs in previous 6 months					*p <= .05*
Yes (16.0%)	27.5%	21.6%	13.1%	14.0%	
No (84.0%)	72.5%	78.4%	86.9%	86.0%	
	100.0%	100.0%	100.0%	100.0%	
Had emotional problems in previous 6 months					*p <= .05*
Yes (58.1%)	76.5%	62.7%	55.2%	53.8%	
No (41.9%	23.5%	37.3%	44.8%	46.2%	
	100.0%	100.0%	100.0%	100.0%	
Unmet mental health care needs in prior 6 months					n.s.
Yes (8.5%)	11.8%	10.8%	8.7%	4.3%	
No (91.5%)	88.2%	89.2%	91.3%	95.7%	
	100.0%	100.0%	100.0%	100.0%	

Table 3A

Welfare Experience by Risk of Problematic Drug Use for Follow-up Study Participants*

Aspects of Welfare Experience by Risk of Problematic Drug Use	All Follow-up Participants (n = 152)	Follow-up Participants Approved for CalWORKs benefits (n = 127)
Approved for benefits		
Low risk	78.9%	100.0%
Elevated risk	95.3%	100.0%
Had benefits reduced because of failure to follow rules		
Low Risk	--	32.6%
Elevated risk	--	39.0%
Still receiving benefits at time of follow-up		
Low risk		
Elevated risk	--	77.7%
	--	80.5%
Agreed welfare worker treated them fairly		
Low risk	--	70.9%
Elevated risk	--	87.8%
Felt welfare worker only cared about getting forms filled out		
Low risk	--	55.9%
Elevated risk	--	47.5%
Agreed welfare worker explained the rules		
Low risk	--	72.1%
Elevated risk	--	65.9%
Told about Medi-Cal		
Low risk	--	90.7%
Elevated risk	--	85.4%

Table 3A continued next page

Table 3A-continued

Welfare Experience by Risk of Problematic Drug Use for Follow-up Study Participants

Aspects of Welfare Experience by Risk of Problematic Drug Use	All Follow-up Participants (n = 152)	Follow-up Participants Approved for CalWORKs benefits (n = 127)
Told about mental health supportive services		
Low risk	--	53.0%
Elevated risk	--	67.5%
Told about substance abuse supportive services		
Low risk	--	63.1%
Elevated risk	--	70.7%
Told about supportive services for domestic violence		
Low risk	--	65.5%
Elevated risk	--	70.0%
Reported being asked about emotional health by someone in welfare office		
Low risk	31.1%	33.7%
Elevated risk	36.4%	36.6%
Reported being asked about substance use by someone at welfare office		
Low risk	46.2%	51.8%
Elevated risk	39.5%	41.5%

* The "low risk" group includes respondents whose risk of problematic drug use is rated low or presumed low; the "elevated risk" group includes those whose risk of problematic drug use is moderate or high. Among all follow-up participants (n=153), there were 109 cases in the low risk group and 44 cases in the elevated risk group. Among follow-up participants approved for CalWORKs aid (n=127), there were 86 participants in the low risk category and 41 in the elevated risk group.

Table 4A

Health and Health Services Utilization by Risk of Problematic Drug Use for Follow-up Study Participants* (n = 127)

Health and Health Services by Risk of Problematic Drug Use	Baseline	Follow-Up	Significance[a]
Health Insurance			
Have health insurance			
Low risk	--	77.7%	
Elevated risk	--	90.2%	
Have Medi-Cal health insurance			
Low risk	--	71.8%	
Elevated risk	--	82.9%	
Have health insurance for children			
Low risk	--	95.3%	
Elevated risk	--	95.1%	
Physical Health			
Had a medical problem in previous 30 days			
Low risk	25.6%	32.6%	n.s.
Elevated risk	39.0%	56.1%	n.s.
Rate health as fair or poor			
Low risk	--	30.2%	
Elevated risk	--	34.2%	
Had medical outpatient visit in prior 6 months			
Low risk	36.1%	44.2%	n.s.
Elevated risk	51.2%	80.5%	p <= .005

[a] Significance level is based on McNemar test statistic for change between baseline and follow-up within each group.

Table 4A continued next page

Table 4A-continued

Health and Health Services Utilization by Risk of Problematic Drug Use for Follow-up Study Participants (n=127)

Health and Health Services by Risk of Problematic Drug Use	Baseline	Follow-Up	Significance
Had ER visit in previous 6 months			
Low risk	13.9%	22.0%	n.s.
Elevated risk	29.3%	48.8%	p <= .05
Unable to see doctor or nurse for needed care in previous 6 months			
Low risk	10.5%	20.9%	p <= .05
Elevated risk	26.8%	19.5%	n.s.
Mental Health			
Had emotional problem in previous 6 months			
Low risk	63.9%	50.0%	p <= .05
Elevated risk	68.3%	75.6%	n.s.
Rate mental health as fair or poor			
Low risk	--	31.4%	
Elevated risk	--	31.7%	
Had mental health care previous 6 months			
Low risk	8.1%	9.3%	n.s.
Elevated risk	12.2%	17.1%	n.s.
Not able to get needed counseling in previous 6 months			
Low risk	9.3%	5.8%	n.s.
Elevated risk	10.0%	15.0%	n.s.

Table 4A continued next page

Table 4A-continued

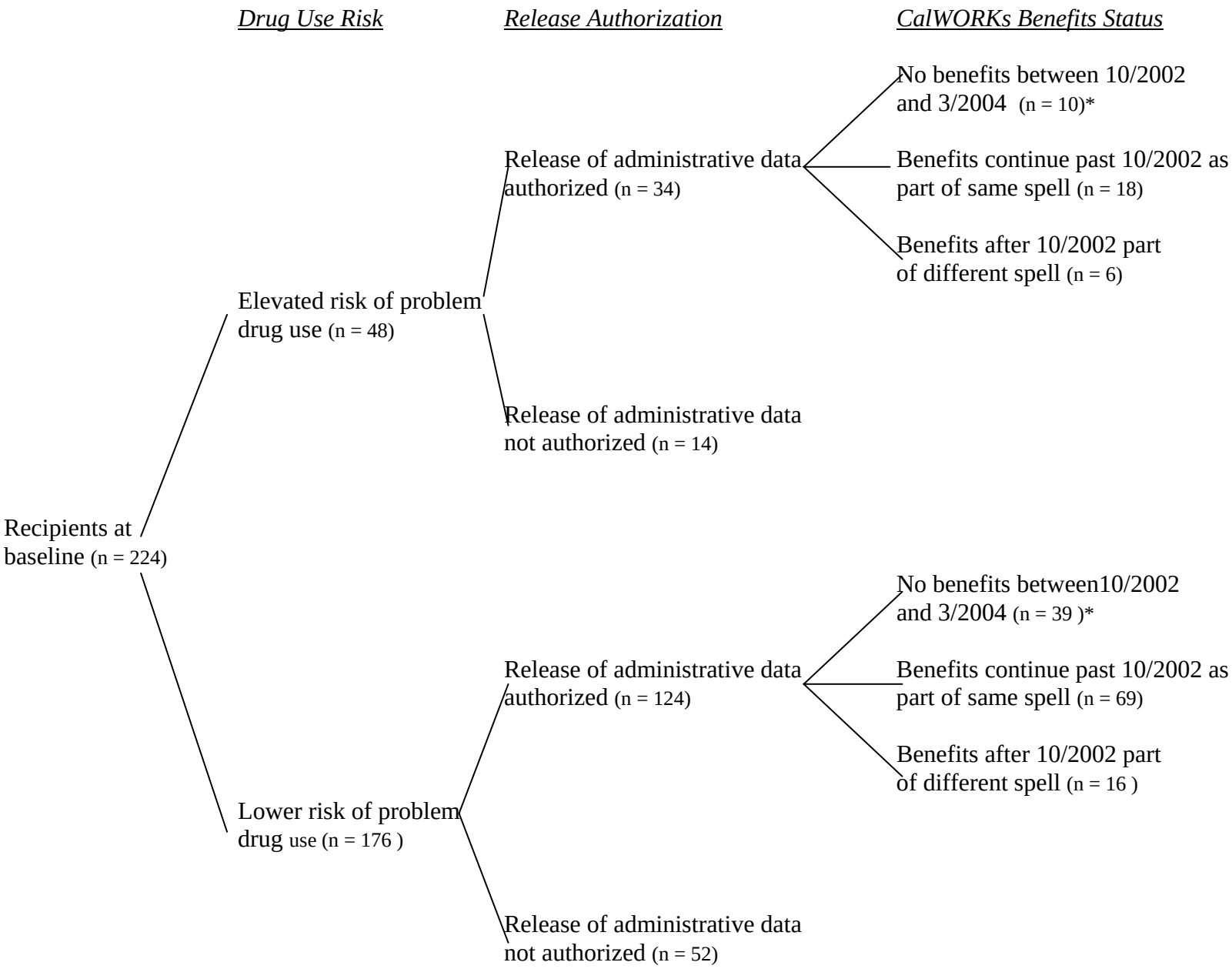
Health and Health Services Utilization by Risk of Problematic Drug Use for Follow-up Study Participants (n = 127)

Health and Health Services by Risk of Problematic Drug Use	Baseline	Follow-Up	
Substance Abuse			
Tested positive or self reported use or had drug problem—persons tested only (n=97)			
Low risk	--	5.5%	
Moderate risk	--	38.9%	
Elevated risk	--	66.7%	
Had substance abuse treatment in previous 6 months			
Low risk	0.0%	2.3%	n.s.
Elevated risk	7.3%	7.3%	n.s.

* The "low risk" group includes respondents whose risk of problematic drug use is rated low or presumed low; the "elevated risk" group includes those whose risk of problematic drug use is moderate or high. Among follow-up participants approved for CalWORKs aid (n=127), there were 86 participants in the low risk category and 41 in the elevated risk group.

Figure 1A

Tree Diagram of Drug Use Risk by Release Authorization by Benefit Status for Baseline Recipients



*Cases that were not matched on cash aid are presumed not to have received CalWORKs benefits between 10/2002 and 3/2004.